



## 2.0 Executive Summary

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## 2.0 EXECUTIVE SUMMARY

### 2.1 PROJECT LOCATION

The proposed Serrano Summit Area Plan 2009-01 and Tentative Tract Map No. 17331 (the project) is located in the City of Lake Forest, California. The City of Lake Forest is located in southern Orange County, between Los Angeles and San Diego Counties, east of Interstate 5 (I-5); refer to Exhibit 2-1, *Regional Vicinity*. The 98.9-acre project site is located to the north of the Serrano Highlands residential neighborhood, south of Commercentre Drive, east of Bake Parkway, and west of Serrano Creek; refer to Exhibit 2-2, *Site Vicinity*. Vehicular access to the site is currently available via gated and pre-authorized access points at Biscayne Bay Drive and Wisteria Lane.

### 2.2 PROJECT SETTING (EXISTING CONDITIONS)

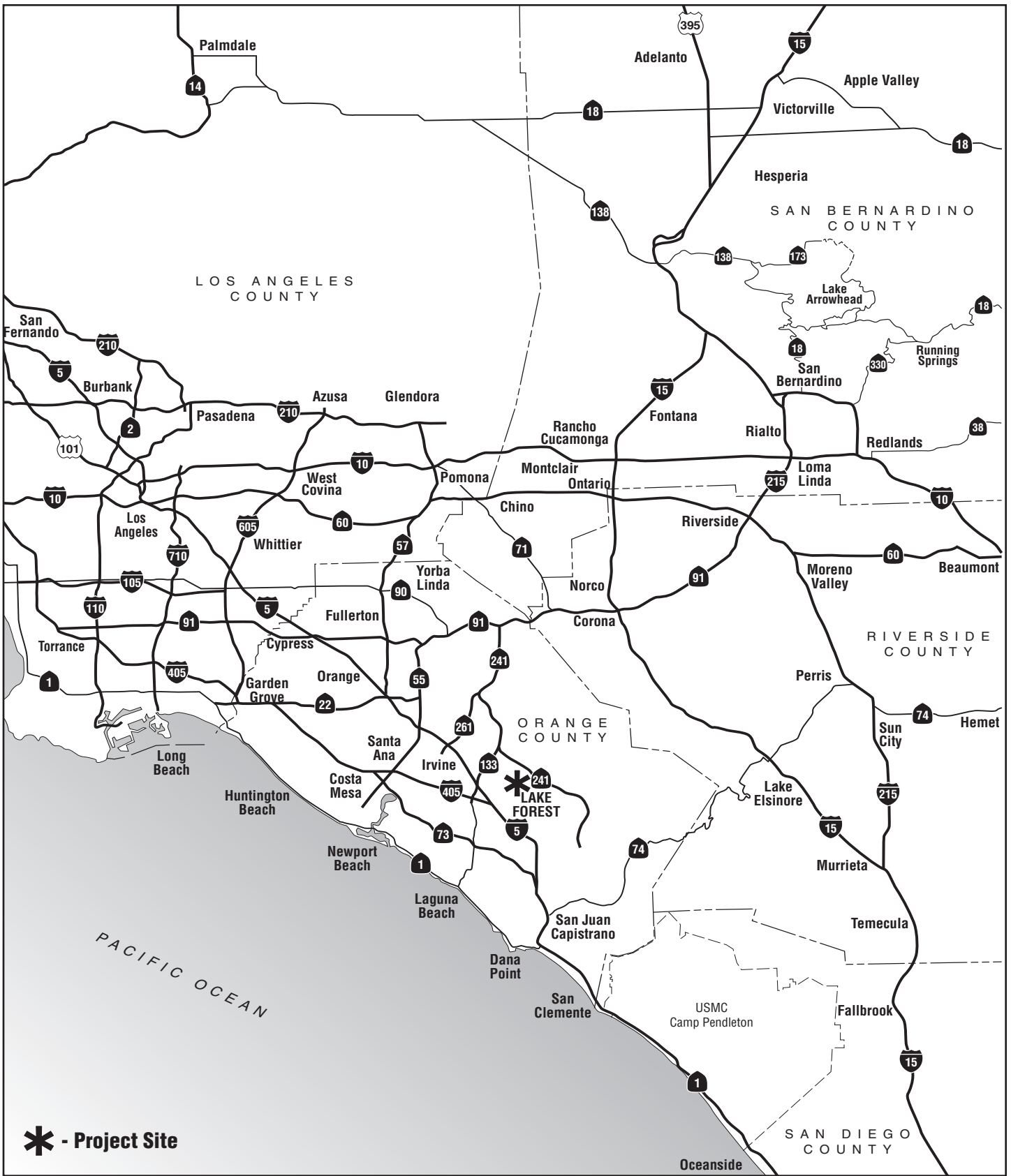
#### EXISTING ON-SITE CONDITIONS

The project site has historically been used for both agricultural purposes and water storage and treatment uses. The property was owned by the Los Alisos Water District (LAWD) until 2001, when it was acquired by the Irvine Ranch Water District (IRWD). Currently, the project site is largely undeveloped with the exception of the on-going water utility uses at the southern end of the property; refer to Exhibit 2-3, *Aerial Photograph*. The project site slopes downward in a southern direction, toward Serrano Creek, and ranges in elevation from approximately 709 to 540 feet above mean sea level (msl).

The existing on-site structures include several administrative and water storage/treatment facilities previously operated by the LAWD; refer to Exhibit 2-4, *Existing Land Uses*. The facilities include the former Baker Filter Treatment Building, two storage buildings, an administrative/office building, two above ground steel water tanks, and two below ground concrete water reservoirs. While the administrative/office building is no longer in use, all of the water storage tanks/reservoirs are currently operated by IRWD to serve domestic or recycled water to the Lake Forest area. There are multiple paved maintenance paths located on-site in association with these uses. These existing paths provide access to the site via Biscayne Bay Drive to the north and Wisteria/Marin to the south.

There has been on-site vacant land disturbance as a result of past agricultural activities. There is on-site riparian vegetation located along the site's eastern boundary, along Serrano Creek. Also, the Serrano Creek Trail trends in a north/south orientation along Serrano Creek and the site's eastern boundary.

Pursuant to the City's General Plan Land Use Map, the project site is designated "Medium Density Residential" (approximately 82 acres) and "Public Facility" (approximately 17 acres). According to the City's Zoning Map, the project site is zoned "Multi-Family Dwelling with a Planned Development Combining District" (R2-PD) (approximately 82 acres) and "Public Facilities" (approximately 17 acres).



\* - Project Site

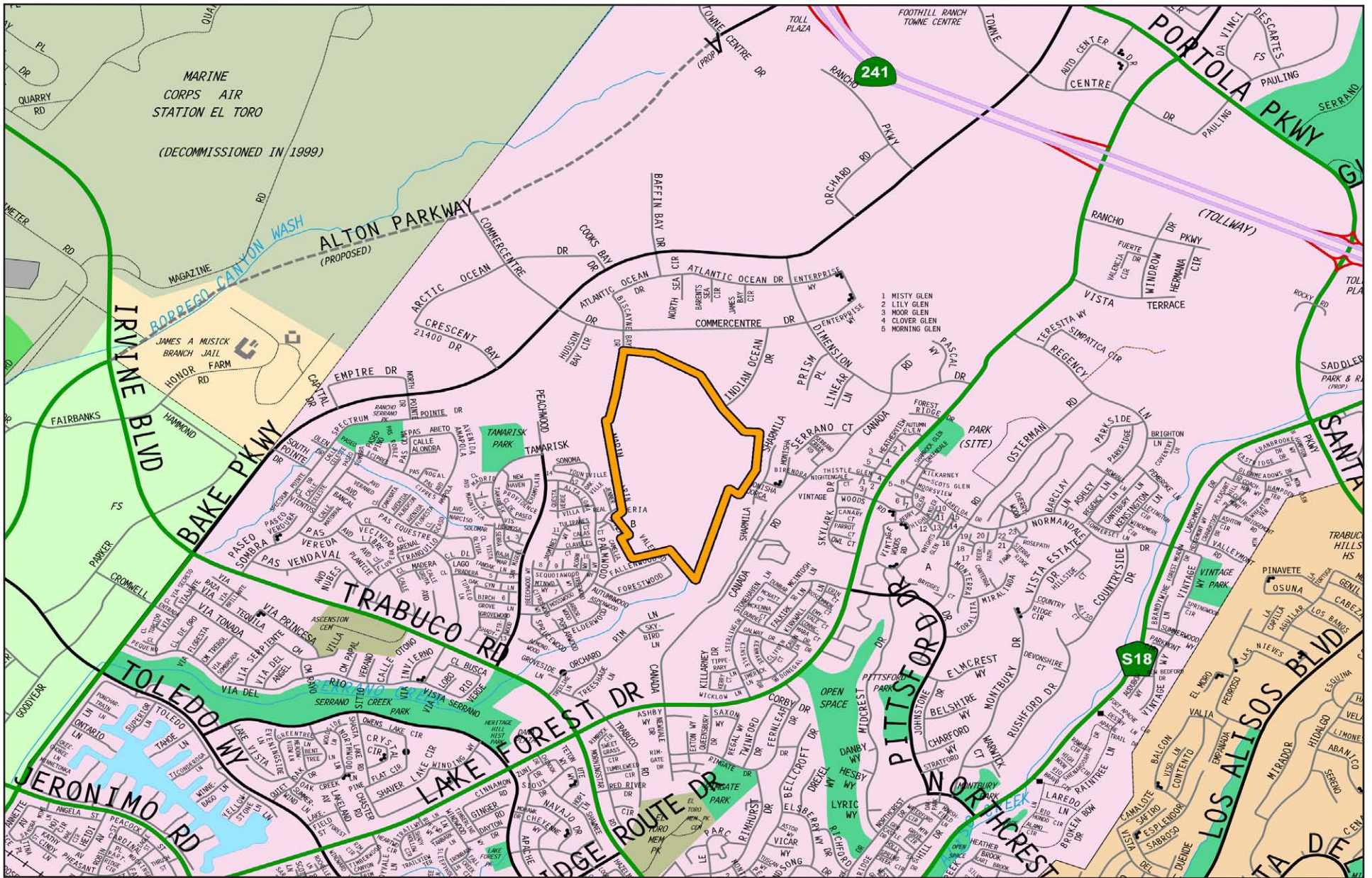
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**Regional Vicinity**



Source: Thomas Brothers Maps, 2009.

— Project Site Boundary

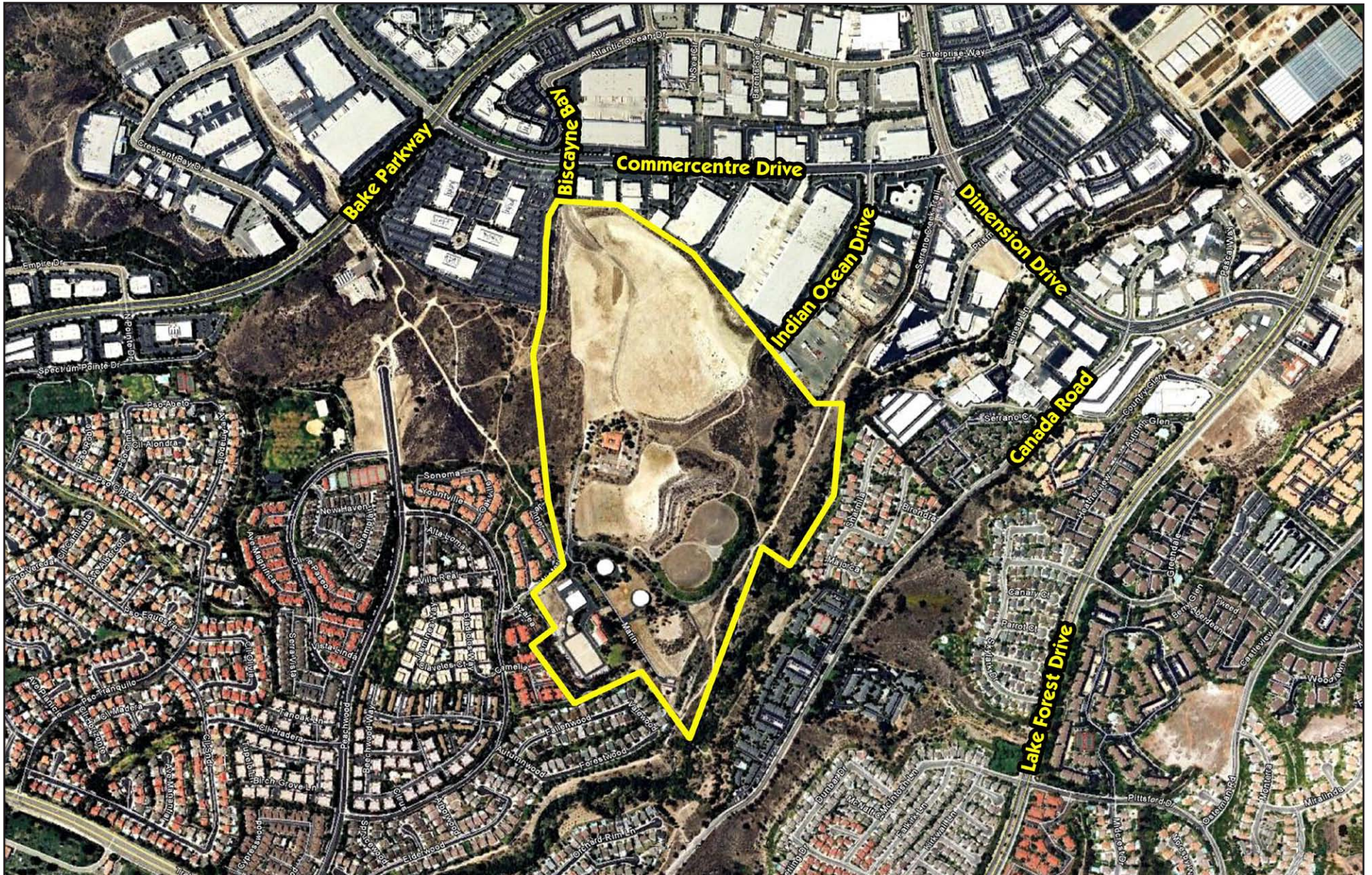
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**Site Vicinity**

**Exhibit 2-2**



Source: Google Maps, 2009.

— Project Site Boundary

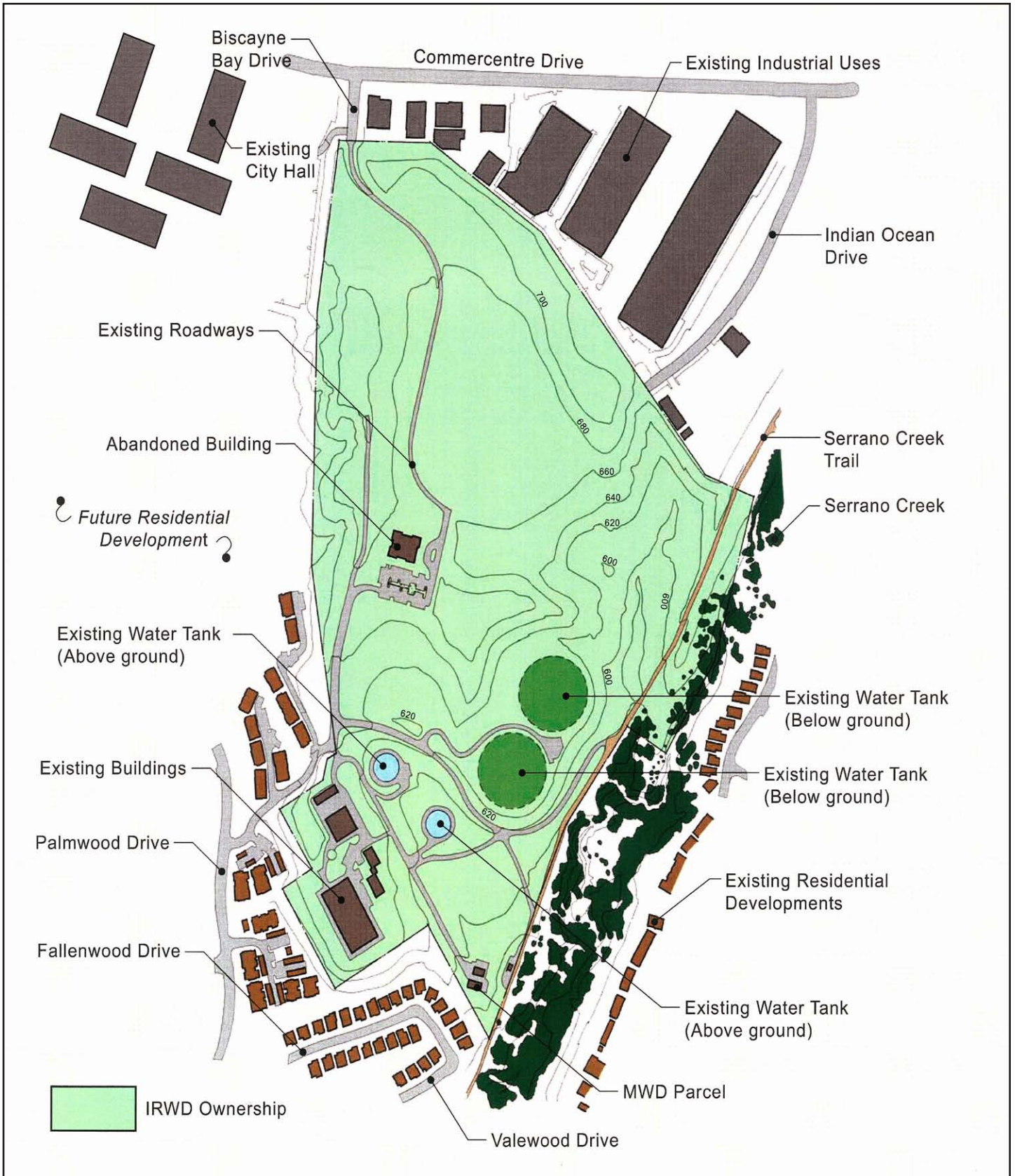
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**Aerial Photograph**

**Exhibit 2-3**



Source: Serrano Summit Area Plan by KTG Group, Inc., October 2009.

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# Existing Land Uses



## SURROUNDING LAND USES

Land uses surrounding the project site include the following:

- North: Light industrial uses are located to the north of the project site. Commercentre Drive trends in an east/west orientation to the north. The General Plan land use designations to the north are Light Industrial. The zoning to the north includes Pacific Commercentre Planned Community-Light Industrial (LI) and Light Industrial (M1).
- East: Serrano Creek is located east of the project site and trends in a north/south orientation east of the Serrano Creek Trail. Serrano Creek, a single-family residential neighborhood, and two condominium neighborhoods are located further to the east, beyond Serrano Creek. The General Plan designations to the east include Regional Park/Open Space, Low Density Residential (2 to 7 du/net acre), and Low-Medium Density Residential (7 to 15 du/net acre). The zoning includes General Agriculture (A1), Group Dwelling Planned Development (R2-PD), Residential Single-Family (RS), and Heavy Density Residential (HEDR).
- South: The Serrano Highlands residential neighborhood and Serrano Creek are situated to the south of the project site. The General Plan designations to the south include Low Density Residential (2 to 7 du/net acre), Low-Medium Density Residential (7 to 15 du/net acre), and Regional Park/Open Space. The zoning is Open Space (OS), Medium Density Residential (MDR), and Serrano Highlands Planned Community-High Density 1 Residential (HDR-1) and Serrano Highlands Planned Community-High Density 2 Residential (HDR-2).
- West: Condominium residential uses, vacant lands, and office/commercial uses (including the existing Lake Forest City Hall) are situated to the west of the project site. The General Plan designations to the west include Low Density Residential (2 to 7 du/net acre), Low-Medium Density Residential (7 to 15 du/net acre), Open Space, and Light Industrial. The zoning to the west include HDR-1 and HDR-2, Open Space, and Pacific Commercentre Planned Community-High Technology (HT).

## 2.3 BACKGROUND AND HISTORY

Due to aircraft flight patterns from the former El Toro Marine Corps Air Station (El Toro MCAS) and resultant noise from aircraft, restrictions were placed on a large swath of land located in the central portion of the City (which includes the project site). This area was formerly contained within the 65 Community Noise Equivalent Level (CNEL) contours and airport crash zones, which restricted development in this portion of the City. As the City developed in the southern and northern portions with residential and commercial development, along with areas of park, trail, and other recreational uses, this land use restricted area was developed with industrial, office, and commercial uses devoid of the open space and trail linkages found in the remainder of the City. Consequently, the land use restrictions effectively segregated the northern and southern portions of the City.



With the decision to utilize the former El Toro MCAS property for non-aviation uses, the restriction on development in the central portion of the City is no longer necessary. The City initiated a series of studies, collectively dubbed the “*Opportunities Study*.” The overall purpose of the *Opportunities Study* was to examine the impacts and benefits of changes to the allowed land uses in this land use restricted area. At the outset of the *Opportunities Study*, the City Council developed study objectives. Utilizing the established study objectives as the basis for analysis of the potential land use changes, the City Council approved a phased approach to the *Opportunities Study*. The City accepted conceptual plans from six landowners in the restricted land use area, cumulatively called the “Landowner Concept Plan,” which included residential and mixed uses. The land use changes proposed by the landowners were evaluated from planning, traffic, and fiscal perspectives and compared against the industrial and commercial land uses previously allowed under the City’s General Plan. Through the *Opportunities Study* process, a “Recommended Plan” was developed for further study. The Recommended Plan for development included seven parcels, with a public facilities overlay applied to a portion of the seventh parcel.

The *City of Lake Forest Opportunities Study Final Program Environmental Impact Report* (OSA PEIR), dated May 23, 2008, was prepared in order to consider potential environmental impacts that would result from implementation of General Plan Amendment 2008-02C and Zone Change 2008-03, among other entitlements, proposed as a result of the Recommended Plan. The OSA PEIR included an analysis of Site 3, which generally comprises the proposed Serrano Summit Area Plan 2009-01 and Tentative Tract Map No. 17331 (the subject of this EIR). The proposed project was also analyzed as a development concept proposed by Alternative 7 (presented in the Final OSA PEIR Chapter 7.4, *Alternative 7 – Hybrid Alternative*).

## 2.4 PROJECT CHARACTERISTICS

### 2.4.1 PROJECT DESCRIPTION

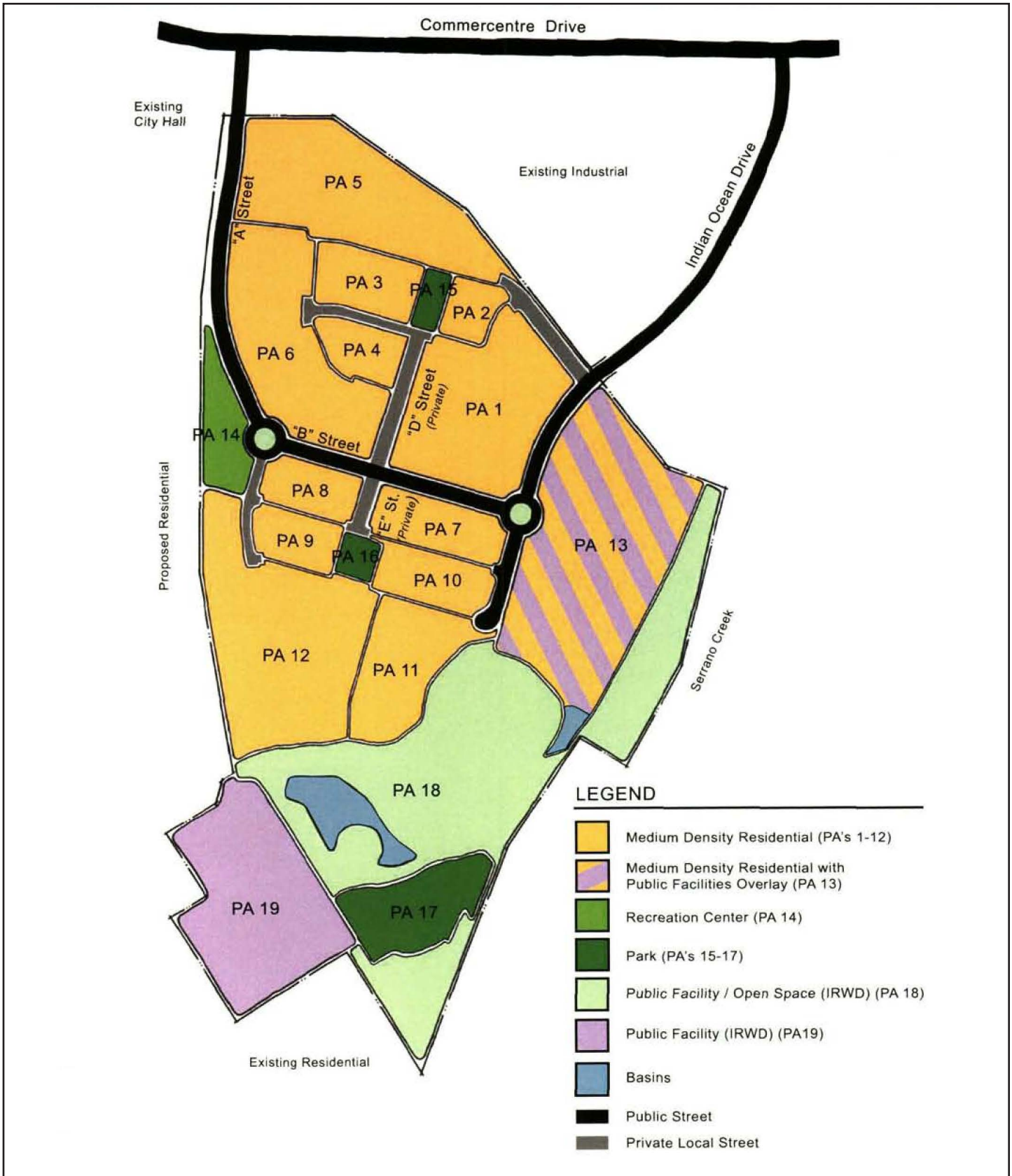
The project proposes the adoption of the Serrano Summit Area Plan 2009-01 (Area Plan<sup>1</sup>) and Tentative Tract Map No. 17731 (Tentative Tract Map). The proposed Area Plan provides for the development of residential neighborhoods, a Civic Center, parks and recreation facilities, and existing and future public facilities. The Area Plan would establish both regulations and guidelines, which would govern development of the project site. The Area Plan is designed to serve as a “blueprint” for development within the project area by establishing the distribution of land use and the criteria for development of each land use. The Area Plan would also establish the development requirements and guidelines to be applied to each phase of development within the project area.

Exhibit 2-5, *Proposed Master Land Use Plan*, illustrates the land uses planned for the project site. As depicted on Exhibit 2-5, the planned land uses are presented according to Planning Areas (PA). PAs 1 through 13 are planned for residential uses, PAs 14 through 17 are planned for parks and recreation, and PAs 18 and 19 are planned for existing and future IRWD facilities. PAs 1 through 13, which comprise approximately 56.8 acres, have a land use designation of Medium Density Residential. PA 13 (approximately 11.9 acres) is also subject to a Public Facilities Overlay, which

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<sup>1</sup> An Area Plan is a broadly focused planning document that takes a long-term view of a particular area and takes into account the local community's preferences on how it should or should not be developed.





Source: Serrano Summit Area Plan by KTG Y Group, Inc., July 2010.

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# Proposed Master Land Use Plan



permits development of a Civic Center. For the purposes of this EIR, the “proposed project” assumes development of a Civic Center in PA 13, as permitted by the Public Facilities Overlay. The “project alternative” assumes development of residential uses in PA 13, as permitted by the underlying Medium Density Residential designation. The Development Agreement includes a provision for the construction of residential units in PA 13, in the event the Civic Center is not constructed within a certain time. Given the possibility of this scenario occurring, the “project alternative” has been included in this environmental documentation. As to the remaining Planning Areas, there is no variation between the proposed project and the project alternative. Therefore, unless otherwise noted, the project alternative’s characteristics and potential impacts with respect to the Area Plan are assumed to be the same as that of the proposed project.

Exhibit 2-6, *Tentative Tract Map No. 17331*, illustrates the Tentative Tract Map, which proposes to divide the project site into 37 lots and provide additional improvements. The Tentative Tract Map proposes Lots 1 through 13 for residential, and 14 through 19 for parks/recreation and existing IRWD facilities. The remainder of the lots consists of private streets and landscaped lots that will be commonly owned and maintained. It is noted, the Tentative Tract Map Lot numbers 1 through 13 coincide with the Planning Areas in the proposed Area Plan. Lot 13 is also subject to a Public Facilities Overlay, which permits development of a Civic Center. For purposes of this EIR, the “proposed project” assumes development of a Civic Center on Lot 13, while the “project alternative” assumes development of residential uses on Lot 13. As to the remaining Tentative Tract Map Lots, there is no variation between the proposed project and the project alternative. Therefore, unless otherwise noted, the project alternative’s characteristics and potential impacts with respect to the Tentative Tract Map are assumed to be the same as the proposed project.

## **SERRANO SUMMIT AREA PLAN**

As depicted on Exhibit 2-5 and outlined in Table 2-1, *Area Plan Planning Areas*, the project proposes 19 Planning Areas for future development. The Area Plan would allow the development of Medium Density Residential land uses in PAs 1 through 13), public facility uses (i.e., a Civic Center) in PA 13, recreational uses in PA 14, parks in PAs 15 through 17, IRWD public facilities and open space in PAs 18 and 19. Planning Areas 1 through 13 provide for residential development through future Tract Maps for fee simple lots or condominium subdivisions for a maximum of up to 833 dwelling units. Planning Area 13, an approximately 11.9-acre site, also includes a Public Facilities Overlay for the development of a Civic Center (proposed project). It is IRWD’s intent to retain ownership and continue the use of Planning Areas 18 and 19 for existing and future water utility operations.

## **TENTATIVE TRACT MAP NO. 17731**

As depicted on Exhibit 2-6 and outlined in Table 2-2, *Proposed Tentative Tract Map No. 17731*, the proposed Tentative Tract Map No. 17731 would subdivide the 98.9-acre site into 37 Lots (19 lots for residential, public facilities, and parks and recreation) and associated streets and slopes for three purposes: 1) development of residential uses at a maximum number permitted by the Development Agreement (a maximum of 608 dwelling units for the proposed project and a maximum of 833 dwelling units for the project alternative); 2) dedication of a site for the development of a civic center (for the proposed project); and 3) retention of the existing IRWD operations.



**Table 2-1  
Area Plan Planning Areas**

Planning Area	Land Use	Proposed Project		Project Alternative	
		Gross Acres	Maximum Allowed DU/PA <sup>1</sup>	Gross Acres	Maximum Allowed DU/PA <sup>1</sup>
1	Medium Density Residential (MDR)	6.9	173	6.9	173
2		1.0	25	1.0	25
3		2.0	50	2.0	50
4		1.4	35	1.4	35
5		7.1	178	7.1	178
6		6.6	165	6.6	165
7		1.8	45	1.8	45
8		1.5	37	1.5	37
9		1.5	38	1.5	38
10		2.2	55	2.2	55
11		3.5	88	3.5	88
12		8.8	220	8.8	220
13	Medium Density Residential – Project Alternative Only			11.9	298
	<i>Subtotal Residential Acreage</i>	<i>44.3</i>		<i>56.2</i>	
13	Public Facility Overlay – Proposed Project Only <sup>2</sup>	11.9	--		
14	Recreation Center	1.9	--	1.9	--
15	Park	0.5	--	0.5	--
16		0.5	--	0.5	--
17		3.2	--	3.2	--
18	Public Facility/Open Space (IRWD)	20.3	--	20.3	--
19	Public Facility (IRWD)	8.1	--	8.1	--
-	Roadway Rights-of-way	8.2	--	8.2	--
	<b>TOTAL ACREAGE</b>	<b>98.9</b>		<b>98.9</b>	
	<b>MAXIMUM ALLOWABLE RESIDENTIAL<sup>5</sup></b>		<b>608</b>		<b>833</b>

Notes:

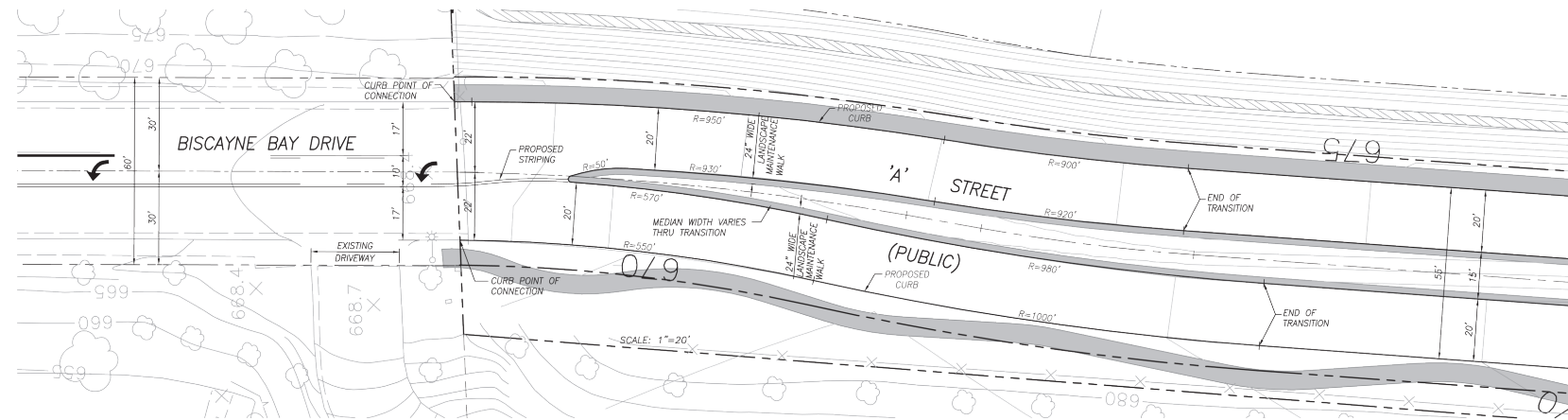
1. The maximum permitted residential density per planning area shall not exceed 25 dwelling units per acre (DU/AC).
2. The Public Facility Overlay allows the development of a Civic Center in PA 13.
3. Per the Development Agreement, if a Civic Center is developed in PA 13, it will be on a minimum of 9.0 usable net acres.
4. Per the Development Agreement, a neighborhood park will be provided in PA 17 on a minimum of 2.95 usable net acres.
5. Per the Development Agreement, the total number of units is not permitted to exceed 608 (with a Civic Center site) or 833 (without a Civic Center site).

**PROPOSED EASEMENTS:**

- (A) EASEMENT FOR PIPELINES AND ACCESS FOR I.R.W.D.
- (B) EASEMENT FOR EMERGENCY ACCESS & PUBLIC SERVICE FOR THE CITY



**TRANSITION DETAIL  
BISCAYNE BAY DRIVE TO 'A' STREET**



Source: Fuscoe Engineering, July 9, 2010.

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**Tentative Tract Map No. 17331**

Exhibit 2-6



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**Table 2-2**  
**Proposed Development for Tentative Tract Map No. 17731**

Lot	Land Use	Proposed Project <sup>1</sup>			Project Alternative <sup>1</sup>		
		Pad Acreage	Landscape Lot Acreage	Total Acreage	Pad Acreage	Landscape Lot Acreage	Total Acreage
1	Residential	6.0	0.9 <sup>Lot G</sup>	6.9	6.0	0.9 <sup>Lot G</sup>	6.9
2	Residential	1.0	--	1.0	1.0	--	1.0
3	Residential	2.0	--	2.0	2.0	--	2.0
4	Residential	1.4	--	1.4	1.4	--	1.4
5	Residential	7.1	--	7.1	7.1	--	7.1
6	Residential	5.3	1.3 <sup>Lot I</sup>	6.6	5.3	1.3 <sup>Lot I</sup>	6.6
7	Residential	1.7	0.1 <sup>Lot R</sup>	1.8	1.7	0.1 <sup>Lot R</sup>	1.8
8	Residential	1.5	0.1 <sup>Lot Q</sup>	1.6	1.5	0.1 <sup>Lot Q</sup>	1.6
9	Residential	1.5	--	1.5	1.5	--	1.5
10	Residential	2.1	0.1 <sup>Lot S</sup>	2.2	2.1	0.1 <sup>Lot S</sup>	2.2
11	Residential	3.5	--	3.5	3.5	--	3.5
12	Residential	8.5	0.3 <sup>Lot F</sup>	8.8	8.5	0.3 <sup>Lot F</sup>	8.8
13	Residential – Project Alternative Only				9.3	2.6 <sup>Lot H</sup>	11.9
<i>Subtotal Residential</i>		41.6	2.7	44.3	50.9	5.3	56.2
132.3	Civic Center – Proposed Project Only <sup>4</sup>	9.3	2.6 <sup>Lot H</sup>	11.9			
14	Private Recreation Center	1.6	0.3 <sup>Lot N</sup>	1.9	1.6	0.3 <sup>Lot N</sup>	1.9
15	Public Park	0.5	--	0.5	0.5	--	0.5
16	Public Park	0.5	--	0.5	0.5	--	0.5
17 <sup>5</sup>	Public Park	3.2	--	3.2	3.2	--	3.2
<i>Subtotal Parks/Recreation</i>		5.8	0.3	6.1	5.8	0.3	6.1
18	Existing Water Tanks	11.0	9.3 <sup>Lots K,L,M,O</sup>	20.3	11.0	9.3 <sup>Lots K,L,M,O</sup>	20.3
19	Existing IRWD Facility	8.1	--	8.1	8.1	--	8.1
<i>Subtotal Existing Facilities</i>		19.1	9.3	28.4	19.1	9.3	28.4
A	Private Drive A	0.5	--	0.5	0.5	--	0.5
B	Private Drive B	0.5	--	0.5	0.5	--	0.5
C	Private Drive C	0.6	0.2 <sup>Lot J</sup>	0.8	0.6	0.2 <sup>Lot J</sup>	0.8
D	Private Drive D	0.8	--	0.8	0.8	--	0.8
E	Private Drive E	0.3	--	0.3	0.3	--	0.3
<i>Subtotal Public Streets</i>		2.7	0.2	2.9	2.7	0.2	2.9
--	"A" Street	2.2	0.3 <sup>Lot P</sup>	2.5	2.2	0.3 <sup>Lot P</sup>	2.5
--	"B" Street	1.1	--	1.1	1.1	--	1.1
--	Indian Ocean Drive	1.7	--	1.7	1.7	--	1.7
<i>Subtotal Public Streets</i>		5.0	0.3	5.3	5.0	0.3	5.3
F	Landscape Lot	--	0.3	--	--	0.3	--
G	Landscape Lot	--	0.9	--	--	0.9	--
H <sup>2</sup>	Landscape Lot	--	2.6	--	--	2.6	--
I	Landscape Lot	--	1.3	--	--	1.3	--
J	Landscape Lot	--	0.2	--	--	0.2	--
K	Landscape Lot	--	1.7	--	--	1.7	--
L	Landscape Lot	--	3.0	--	--	3.0	--
M	Landscape Lot	--	0.7	--	--	0.7	--



**Table 2-2 [continued]  
Proposed Development for Tentative Tract Map No. 17731**

Lot	Land Use	Proposed Project <sup>1</sup>			Project Alternative <sup>1</sup>		
		Pad Acreage	Landscape Lot Acreage	Total Acreage	Pad Acreage	Landscape Lot Acreage	Total Acreage
N	Landscape Lot	--	0.3	--	--	0.3	--
O	Open Space	--	3.9	--	--	3.9	--
P	Landscape Lot	--	0.3	--	--	0.3	--
Q	Landscape Lot	--	0.1	--	--	0.1	--
R	Landscape Lot	--	0.1	--	--	0.1	--
	<i>Subtotal Landscape Lots</i>	--	<i>15.4</i>	--	--	<i>15.4</i>	--
	<i>TOTAL ACREAGE</i>			<i>98.9</i>			<i>98.9</i>

Notes:

1. Lots 13 and H would be offered as an "irrevocable offer of dedication" to the City for the development of a Civic Center (proposed project).
2. Minimum of 9.0 usable net acres are required for the Civic Center, pursuant to the Development Agreement.
3. The Public Facility Overlay allows the development of a Civic Center in PA 13.
4. Minimum of 2.95 usable net acres are required for the Passive Park, pursuant to the Development Agreement.

Tentative Tract Map Lots 1 through 13 are proposed for future residential development. Lot 13 (and the associated landscape Lot H) would be offered to the City for the development of a Civic Center (proposed project). Lots 14 through 17 are proposed as park and recreation uses for the project's residential uses and surrounding areas. Lots 18 and 19 would continue to be used for IRWD operations. Lots A through E would be used for private streets, and "A" Street, "B" Street, and Indian Ocean Drive are proposed as public streets. Lots F through R are proposed for landscape lots.

## Residential Uses

### Area Plan – Proposed Project

Under the proposed project, the Area Plan designates 12 residential planning areas comprising approximately 44.3 acres. The maximum permitted residential density per Planning Area is 25 dwelling units per acre; however, the total housing unit cap for the development has been established by the Development Agreement as 833 units. A maximum of 608 residential dwelling units in a variety of density ranges and housing types are allowed in Planning Areas 1 through 12. The appropriate product mix would be decided upon in the future, as dictated by the marketplace and within the provisions of the proposed Area Plan. One or more of the following proposed housing types are anticipated:

- Single-Family Detached Residential;
- Single-Family Detached Enclave Residential;
- Single-Family Attached Residential; and
- Multi-Family Attached Residential.



Planning Area 13 is designated Medium Density Residential with a Public Facility Overlay. As allowed by the Public Facility Overlay, Planning Area 13 proposes development of a Civic Center; refer to the *Civic Center* Section below.

#### Area Plan – Project Alternative

Under the project alternative, the Area Plan designates 13 residential planning areas comprising approximately 56.8 acres. A maximum of 833 residential dwelling units in a variety of density ranges and housing types are allowed in Planning Areas 1 through 13.

#### Tentative Tract Map – Proposed Project

Under the proposed project, the Tentative Tract Map involves 12 residential lots (Lots 1 through 12) that correspond with the boundaries of the Area Plan's 12 Planning Areas. The proposed lots range from 1.0 to 8.5 acres, and 5 of the 12 lots involve associated landscape lots (Lots F, G, I, R, and Q). The proposed lots would support a variety of future residential housing types (consistent with those permitted by the Area Plan); the specific housing types are unknown at this time. However, residential development would not exceed 25 du/ac per lot or 608 dwelling units, in accordance with the Area Plan.

#### Tentative Tract Map – Project Alternative

Under the project alternative, the Tentative Tract Map involves 13 residential lots (Lots 1 through 13) that correspond with the boundaries of the Area Plan's 13 Planning Areas. The proposed lots range from 1.0 to 9.13 acres, and 7 of the 12 lots involve associated landscape lots (Lots F, G, H, I, R, and Q). Residential development would not exceed 25 du/ac per lot or 833 dwelling units.

### **Civic Center (Public Facility)**

#### Area Plan – Proposed Project (Planning Area 13)

Under the proposed project, the Area Plan designates Planning Area 13 (approximately 11.9 gross acres) as Medium Density Residential with a Public Facility Overlay. In accordance with the Overlay, Planning Area 13 is planned for a Civic Center that would be designed to serve as governmental offices for the City of Lake Forest. The Civic Center is anticipated to contain a City Hall, a Community Center, sheriff/police facilities, and parking.

#### Area Plan – Project Alternative

The project alternative does not involve a Public Facility (i.e., Civic Center) in Planning Area 13. Medium Density Residential uses are proposed; refer to the *Residential Uses [Area Plan – Project Alternative]* Section above.





### Tentative Tract Map – Proposed Project

As permitted by the Area Plan’s Public Facility Overlay, the Tentative Tract Map proposes a Civic Center on Lot 13, which would be offered as an “irrevocable offer of dedication” to the City for the development of a Civic Center. Pursuant to the Development Agreement, a 9.3-acre development pad plus approximately 2.6 acres of landscaping (Lot H) would be provided. The future Civic Center would include an approximately 44,000-square foot City Hall and approximately 20,000 square feet of community center space located in one or two buildings, with a possible future 50,000-square-foot government facility.

### Tentative Tract Map –Project Alternative

The project alternative does not involve a Civic Center on Lot 13. Residential uses as permitted by the Medium Density Residential designation are proposed; refer to the *Residential Uses [Tentative Tract Map – Project Alternative]* Section above.

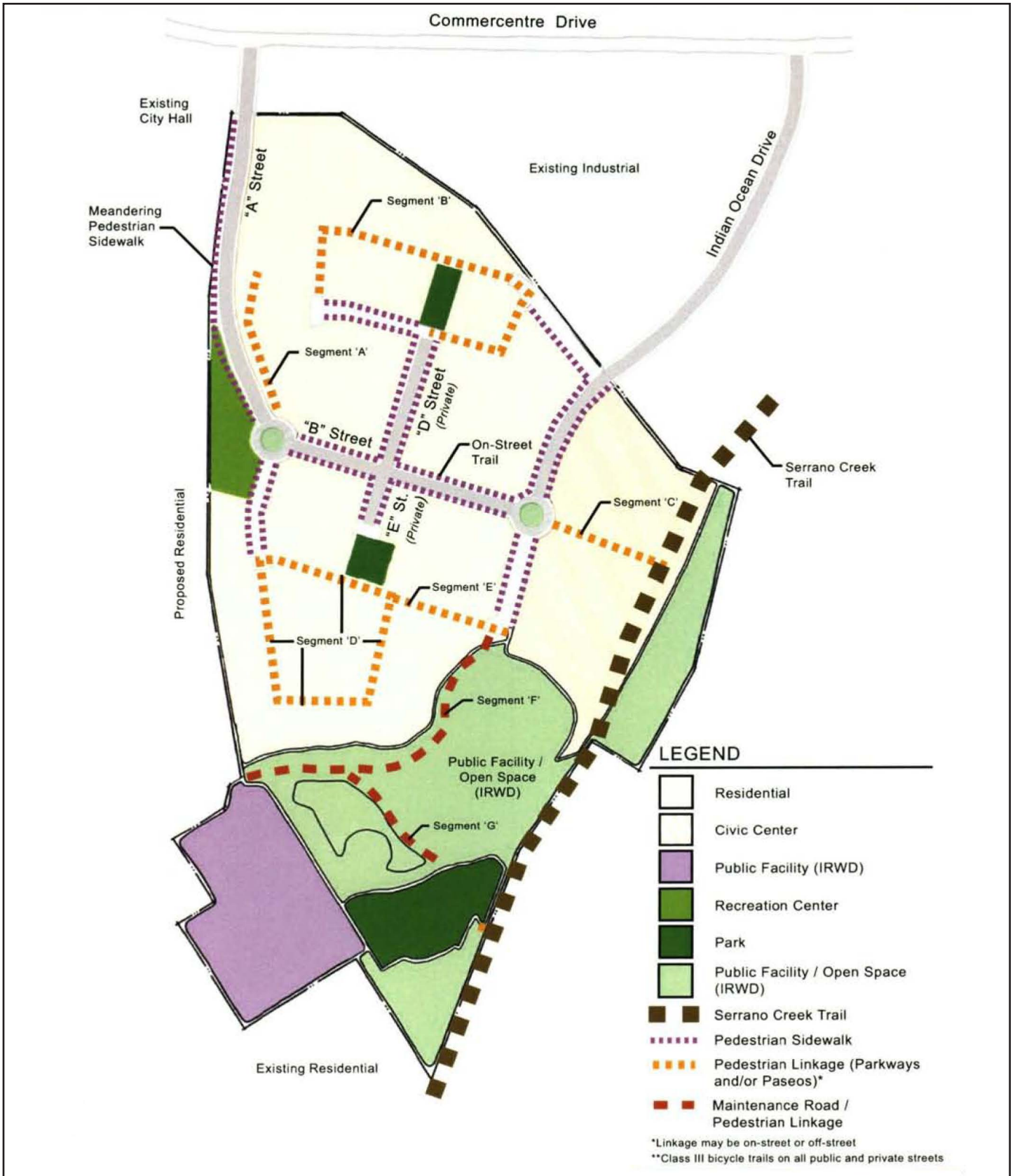
## **Parks and Trails**

### Area Plan

The Area Plan designates approximately 1.9 acres to be utilized for a 1,500-square foot private recreation center (Planning Area 14), and two neighborhood parks, and a passive/nature park, (Planning Areas 15 through 17); refer to Exhibit 2-7, *Proposed Master Plan of Parks, Trails, and Open Space*. The Area Plan identifies Planning Area 14 for the development of a private recreation center. This recreation center would be available for use by residents within the Serrano Summit community and their guests. The facility would include a clubhouse building, restrooms and showers, a swimming pool, tot lot, open play area, and a surface parking lot. The recreation center has been specifically sited to offer views and vistas of the surrounding areas. There would be two 0.5-acre on-site neighborhood parks (Planning Areas 15 and 16). According to the Development Agreement, neighborhood parks must be a minimum of 0.5 acres in size in order to be considered for public park credit. Amenities supporting the neighborhood parks would include one or more of the following: seating areas; volleyball court or basketball court (1/2 court); tables; benches; trash cans; drinking fountains; and barbecues, shade structure for group recreation purposes, play area/tot lot, and/or informal gathering areas. In addition to the neighborhood parks, the Area Plan identifies a 3.2-acre passive/nature park located adjacent to Serrano Creek (Planning Area 17).

### Tentative Tract Map

As depicted in Table 2-2, the Tentative Tract Map creates four lots (Lots 14 through 17) for parks and recreation uses: a private recreation center; two public parks; and one public passive park. The proposed private recreation center would be located on a 1.6-acre pad with 0.3 acres of landscaping (Lot N) for a total of 1.9 acres (Lot 14). This center would be situated along the site’s western boundary. The two proposed public parks would each total 0.5 acres, and would be situated at the northern terminus of Private Street “D” (Lot 15) and the southern terminus of Private Street “E” (Lot 16). The 3.2-acre passive public park is proposed on Lot 17, at the southernmost portion of the project site.



Source: Serrano Summit Area Plan by KTG Group, Inc., July 2010.

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# Proposed Master Plan of Parks, Trails, and Open Space

SERRANO SUMMIT AREA PLAN 2009-01 AND  
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## **Infrastructure (Public Facilities and Services)**

### Area Plan

The Area Plan's proposed infrastructure includes wet and dry utilities to serve the project site. Wet utilities include domestic water, reclaimed water, sewer service, and storm drainage. Domestic water, reclaimed water, and sewer service to the property would be supplied by the Irvine Ranch Water District, as under present conditions. The Area Plan includes master plans for domestic and reclaimed water systems, the sewer system, and storm drains to serve the project site. The Area Plan also identifies dry utilities, such as cable, electric, telephone, and gas service.

### Tentative Tract Map

The TTM anticipates the construction of all backbone infrastructure necessary to provide wet and dry utilities to the project site, pursuant to the infrastructure plans described in the Area Plan and referenced in the above paragraph. These services and facilities would be designed and installed pursuant to development standards of each respective agency, including, but not limited to, the Irvine Ranch Water District, the City of Lake Forest, Southern California Edison, Southern California Gas, COX Communications, and AT&T.

## **Open Space and Existing Public Facilities**

### Area Plan

The Area Plan identifies Planning Areas 18 and 19 as Public Facility/Open Space uses. These areas contain existing IRWD facilities, as described in the *Existing On-Site Conditions* Section above, which are proposed to be retained on-site. The Serrano Creek regional trail provides recreational pedestrian and bicycle amenities from the northeastern portion of the City along Serrano Creek and adjacent to the project area. A shared pedestrian access and service road is proposed to provide connections between the project site, regional trail system (i.e., the Serrano Creek Trail), and passive/nature park.

### Tentative Tract Map

As identified on Tentative Tract Map Lots 18 and 19, the project would maintain the existing water tanks (on 20.3 acres) as well as the existing IRWD facility (8.1 acres). Also, the project would include a proposed trail easement at the northwestern portion of the site, which would connect the existing Serrano Creek Trail with Lot 13. Lot 13 would be connected to the proposed passive public park (located at the southern portion of the site at Lot 17) through a shared roadway that would serve both pedestrian and utility access along Lot K and the southern portion of Lot 18.

## **Circulation System**

### Area Plan

The project area is accessible regionally from Commercentre Drive, Bake Parkway, and Lake Forest Drive/Dimension Drive. Locally, access to the project area is proposed via Commercentre Drive, which would connect to the project site via Indian Ocean Drive on the east and Biscayne Bay Drive on the west. The project site would be served internally by a network of public collector roadways



and private local streets. The proposed collector streets are: Indian Ocean Drive; “A” Street (currently Biscayne Bay Drive); and “B” Street (which connects Indian Ocean Drive and “A” Street at two roundabouts), with private access streets to various Planning Areas.

The Area Plan indicates vehicle access and connectivity for all proposed Planning Areas. Each Planning Area would then have internal roadways, to be reviewed in greater detail at the site plan review stage. The Area Plan also indicates connectivity between the development and the existing water treatment plant area. It is anticipated that service or delivery vehicles may utilize these connections to travel from Indian Ocean Drive to the water treatment facility.

### Tentative Tract Map

The Tentative Tract Map proposes three public streets (an extension of Indian Ocean Drive, “A” Street, and “B” Street) and five private streets (Private Drive A through Private Drive E, located at Lots A through E, respectively). Indian Ocean Drive proposes a right-of-way width ranging from 47.5 to 51.5 feet. “A” Street proposes a right-of-way width of 71 feet. “B” Street proposes a right-of-way width of 56 feet. Right-of-way associated with private streets would range from 46 to 68 feet in width. All streets would include sidewalks for pedestrian connectivity.

### **General Design Guidelines**

The Area Plan establishes design guidelines for all new development within the project site. Individual development projects would be required to substantially comply with all applicable design guidelines, as they define the minimum or baseline standards. The design guidelines further define the desired character and image of development for the project site. Design guidelines for residential uses address a variety of areas including, but not limited to, site plan design, building form and massing, roof design, building materials, roof materials, building color, garage design, outdoor living space, architectural detailing, and functional elements. The proposed Area Plan also includes a Green Builder Program that includes energy conservation measures, reduction of non-renewable resources, and California-appropriate landscaping practices.

Civic Center design guidelines include elements such as site design, general guidelines for buildings, civic center buildings, and a parking structure, as well as civic center plaza design, landscaping, signage, bus shelters, walls and fences, and lighting standards. As the designs for the Civic Center have not been initiated yet, these design guidelines are intended to be generic in nature and do not mandate the construction of any of the elements.

### **Landscape Design Guidelines**

Specific landscape design principles are enforced through the Area Plan’s design guidelines. These design guidelines include, but are not limited to, specific landscape theme requirements, irrigation practices and design requirements, designated tree districts, a tiered landscape program, and specific streetscape design guidelines. The designated tree districts include Riparian Zone, Coniferous Forest Zone, California Hillside Friendly Zone, and Fuel Modification Overlay. Exhibit 2-8, Proposed Conceptual Landscape Master Plan, depicts on-site tree and shrub requirements as well as required plant species for the Riparian Fuel Modification Zone. The proposed Landscape Design Guidelines also include specific guidelines for community and neighborhood entries and monumentation. Key entries are proposed in order to enhance community identity and establish a unique character and theme for the project site through the use of specific plant groupings.



Source: Serrano Summit Area Plan by KTG Group, Inc., October 2009.

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# Proposed Conceptual Landscape Master Plan

Exhibit 2-8



The proposed Landscape Design Guidelines include specific standards for proposed community trails, neighborhood parks, and the recreation center. Also, a themed community wall program and overall wall guidelines would be implemented. Wall design, materials, color, and finishes would be required to complement adjacent architecture. Lighting design and practices are included to be consistent in style, color, and materials for the project. Lighting fixtures would be required to provide sufficient illumination for the safety and well being of the community as well as prevent glare from impacting adjacent residents.

### **Development Regulations**

The Area Plan's Development Regulations, along with the Zoning Ordinance and the Development Agreement, regulate design and development within the project area. The Regulations include general provisions, which apply to all proposed land development within the project site and sustainability development regulations, which address structures and site development, and landscape sustainability. The Development Regulations provided in the Area Plan also address the following issues: signage; lighting; site furnishings; bus turnouts and shelters; mail boxes, and model homes.

### **Grading**

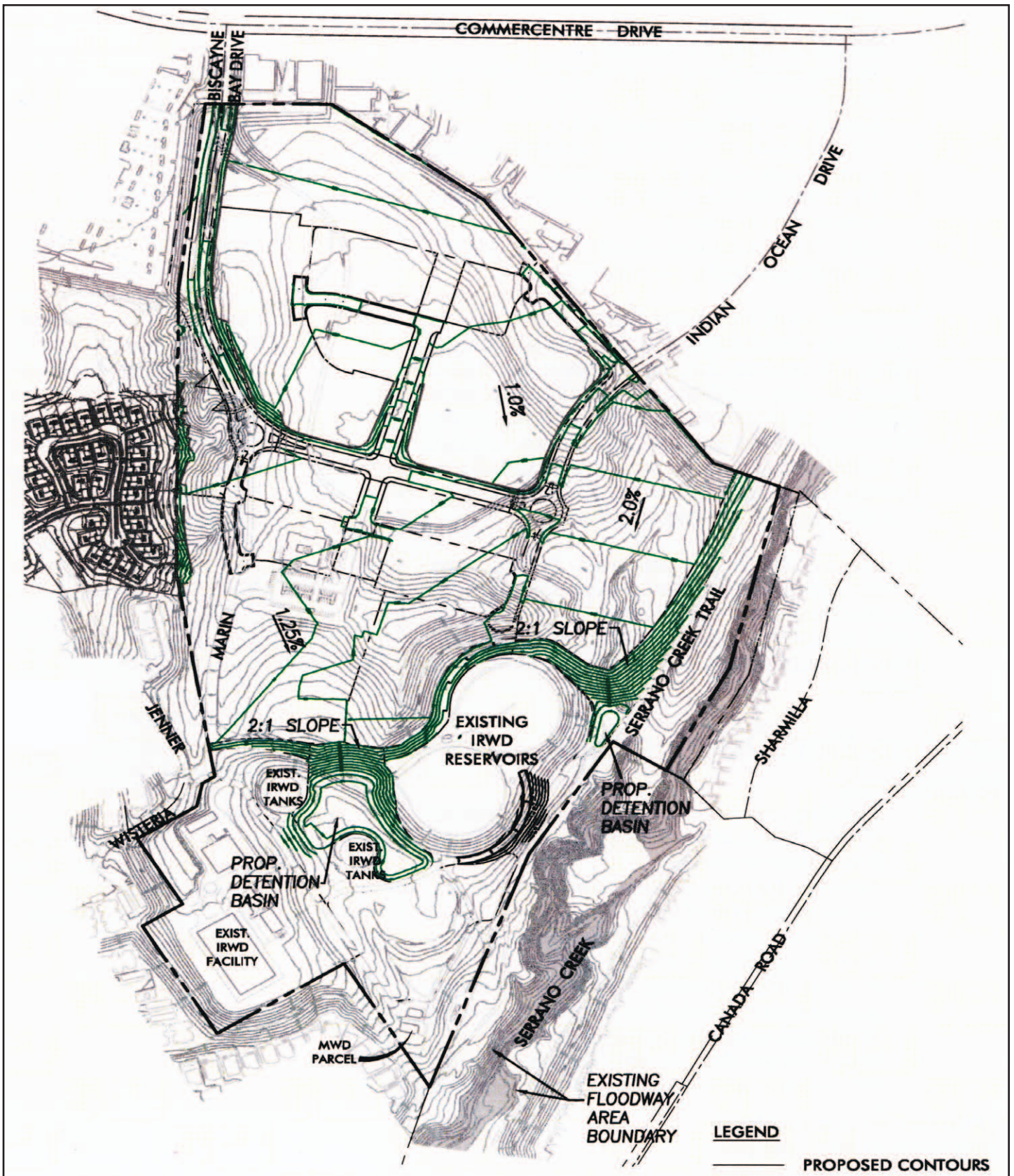
#### Area Plan

The proposed Area Plan includes a conceptual grading approach that is consistent with the requirements of the City and proposes mass graded pads at a minimum of one percent slope; refer to Exhibit 2-9, Proposed Grading Concept Plan. Generally, the proposed Conceptual Grading Plan includes the retention of the general slope of the site relative to its surroundings as well as existing edge conditions. The Area Plan proposes grading work to be balanced on-site, to minimize export or import of earth. The grading concept proposes terracing of the site into several mass-graded pads, to accommodate for Planning Areas 1 through 16, while the remainder of the site would slope downward toward the south, essentially retaining its current slope.

Based on the Grading Concept Plan, there is no off-site grading proposed. The portion of the project site east of the Serrano Creek is not proposed to be graded.

#### Tentative Tract Map

The proposed grading shown on the Tentative Tract Map reflects the conceptual grading approach in the Area Plan. The estimated earthwork, which would be balanced on-site, would involve approximately 860,000 cubic yards (CY) of cut and approximately 860,000 CY of fill. All slopes would be constructed at a maximum slope ratio of 2:1 and would be terraced. All lot and pad gradients would be a minimum of two percent slope.



Source: Serrano Summit Area Plan by KTG Group, Inc., October 2009.

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# Proposed Grading Concept Plan

Exhibit 2-9



Several mass-graded pads are proposed. The mass graded pads would have a one percent minimum grades. The first mass-graded pad is proposed at the northern portion of the site and would accommodate for Planning Areas 1 through 6 and 16. The pad elevation is proposed to be approximately 685 above mean sea level (msl), which would be achieved by lowering portions of the site and raising other portions. The current elevation of this area ranges from 660 to 700 feet above msl. To achieve a flat area for development, slopes and retaining walls are proposed around the Planning Area perimeters. As these walls would be located at the back of the street and visible from lower grades, landscaped buffers with trees, shrubs, and ground cover are planned. Substantial retaining walls are proposed to be mechanically stabilized earth (MSE) walls, while other walls would be vertical concrete masonry. Wall heights identified on the Tentative Tract Map within Planning areas 1 through 6 and 16 are up to 16.5 feet tall.

The second mass-graded pad is proposed south of “B” Street and would accommodate for Planning Areas 7 through 12, and 14 and 15. The pad elevation is proposed to be approximately 655 feet above msl, which is about 10.0 feet lower than the existing elevation. The southern boundary of this pad would be lower in elevation and therefore would require retaining walls and slopes to accommodate the grade difference. The retaining walls would likely be visible from the IRWD water treatment facility, with a maximum height of 21 feet.

The third and last graded pad is proposed in Planning Area 13, which must be graded and compacted to a two percent slope and dedicated to the City (under the proposed project), per the Development Agreement. The existing elevation of this area ranges from 580 to 670 feet above msl.

The proposed elevation is approximately 665 feet above msl and would require a significant amount of fill from other parts of the site.

Retaining walls located adjacent to streets would be decorative. The City recently adopted the Retaining Wall Design Guidelines and the proposed retaining walls must be consistent with the Guidelines.

## 2.5 GOALS AND OBJECTIVES

Pursuant to Section 15124(b) of the *CEQA Guidelines*, the EIR project description must include “[a] statement of objectives sought by the proposed project....The statement of objectives should include the underlying purpose of the project.”

The following are the project’s goals and objectives, which were developed by the project Applicant team, in consultation with community feedback, and the City of Lake Forest.

- Develop in accordance with the Medium Density Residential land use designation (between 15-25 units per acre), as stated by the General Plan.
- Benefit the entire community by developing a minimum of 500 units to ensure that fees paid as required by the Development Agreement are adequate to fund public facilities.
- Benefit the entire community by providing adequate public open space (public parks and trail connections to existing regional trails) as well as the dedication of a site for a future civic center.





- Provide a diversity of housing types, to ensure that housing is available to residents with a range of incomes.
- Locate access points to facilitate access to both the Civic Center and future residential neighborhoods, while minimizing traffic impacts on existing residential neighborhoods.
- Ensure adequate internal circulation through street designs consistent with City standards.
- Allow the existing Irvine Ranch Water District water treatment facility operations to be retained and ensure that adequate separation between the facility and residential neighborhoods is maintained for purposes of security and aesthetics.

## 2.6 PHASING/CONSTRUCTION

The proposed phasing for the project provides a conceptual framework to facilitate development of the Area Plan, while assuring the provision of infrastructure necessary to support the planned development; refer to Exhibit 2-10, *Development Phasing Plan*. Development is assumed to occur in four phases:

- Phase I: Includes “A” Street, “B” Street, and the extension of Indian Ocean Drive, as well as Lots 7 through 12 (residential), and 16 and 17 (public parks);
- Phase II: Includes Lot 14, the private recreation center; and
- Phase III: Includes Lots 1 through 6 (residential) and Lot 15 (public park).

### Proposed Project

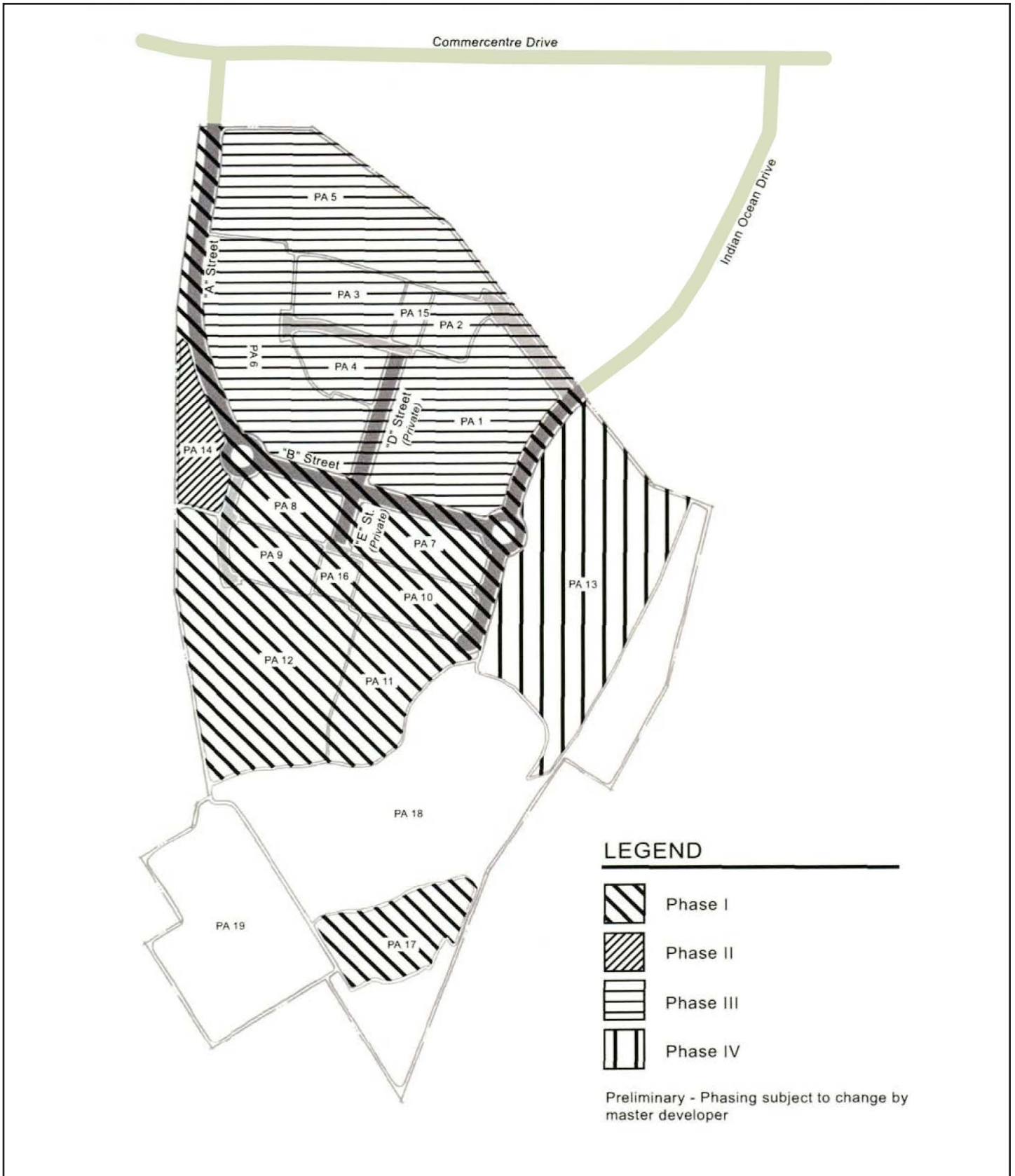
- Phase IV: Includes Lot 13, the proposed Civic Center.

### Project Alternative

- Phase IV: Includes Lot 13 (residential).

Following the City’s certification of the environmental document and approval of the Area Plan, the phased development of the Area Plan would commence in a manner designed to address the following objectives:

- Orderly build-out of the community based upon market and economic conditions.
- Implementation of financing mechanisms without creating a financial or administrative burden on the City.
- Provision of adequate infrastructure and public facilities concurrent with development of each phase.
- Protection of public health, safety, and welfare.



Source: Serrano Summit Area Plan by KTG Y Group, Inc., July 2010.

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## Development Phasing Plan

Exhibit 2-10



The exact timing, location, and extent of individual phases is largely dependent on the independent decisions of the private developers and landowners who are, in turn, influenced by market conditions. Phasing would also likely be influenced by relative capital costs associated with extending infrastructure and services to different phases.

## **2.7 AGREEMENTS, PERMITS, AND APPROVALS**

The City, as Lead Agency for the project, has discretionary authority over the proposed Area Plan. In order to implement this project, future developers would need to obtain, at a minimum, the following discretionary permits/approvals:

- Environmental Review;
- Subsequent tentative maps, site plans, and/or condominium maps;
- Final Development Plan(s);
- Use Permit(s), if applicable;
- Grading Permit(s);
- Building Permit(s);
- Permit(s) from the South Coast Air Quality Management District;
- Permit(s) from the Irvine Ranch Water District;
- Permit(s) from the Army Corps of Engineers;
- Notice of Intent, Water Quality Management Plan, and Permit(s) from the Santa Ana Regional Water Quality Control Board; and
- An Agreement from the California Department of Fish and Game.

## **2.8 SUMMARY OF PROJECT ALTERNATIVES**

In accordance with *CEQA Guidelines* Section 15126.6, this section describes a range of reasonable alternatives to the proposed project, which could feasibly attain most of the proposed project's basic objectives, but would avoid or substantially lessen significant effects of the proposed project. The evaluation considers the comparative merits of each alternative. The analysis focuses on alternatives capable of avoiding or substantially lessening the project's significant environmental effects, even if the alternative would impede, to some degree, the attainment of the proposed project objectives. Potential environmental impacts associated with the following alternatives are compared to impacts of the proposed project:

- Alternative 1.1 - "No Project/No Build" Alternative;
- Alternative 1.2 - "No Project/Reasonably Foreseeable Development - Development Agreement" Alternative;
- Alternative 2 - Reduced Residential and Civic Center Alternative; and
- Alternative 3 - Reduced Residential Alternative.



The following is a description of each of the alternatives evaluated in Section 7.0, *Alternatives to the Proposed Project*.

## **“NO PROJECT/NO BUILD” ALTERNATIVE**

The project site is largely undeveloped with the exception of the on-going Irvine Ranch Water District (IRWD) water utility uses at the southern portion of the property. The undeveloped northern portion was historically used for agricultural purposes. The existing on-site structures include the former Baker Filter Treatment Building, two storage buildings, an administrative/office building, two above ground steel water tanks, and two below ground concrete water reservoirs. Additionally, multiple paved maintenance paths associated with these onsite uses traverse the property.

The No Project/No Build Alternative would retain the project site in its current condition. With this Alternative, the northern portion of the project site would remain vacant and unimproved. The current IRWD facilities located in the southern portion of the project site would continue to operate as under existing conditions. As with the proposed project, the Baker Building, two storage buildings, two above ground steel water tanks, and two below ground concrete water reservoirs would be retained under this Alternative. Under this Alternative, the administrative/office building and associated parking lot would not be demolished or removed, rather would remain as they exist.

None of the buildings or improvements proposed as part of the project would be constructed. A new community of residential neighborhoods, a Civic Center, and parks and recreation facilities would not be developed. Under this Alternative, 608 dwelling units, a 114,000-square foot Civic Center containing a Community Center, City Hall, and sheriff/police facilities, 4.7 acres of new parks, and a 1,500-square foot recreation center would not be constructed. A new network of public collector roadways and private local streets, and the proposed drainage and water quality improvements would not be constructed. Additionally, the proposed hardscape (i.e., perimeter walls, walkways, and entrance driveways) and landscape improvements would not be installed. The project’s proposed grading, which would involve approximately 860,000 cubic yards of cut and approximately 860,000 cubic yards of fill would not occur. The project site would continue to slope south, toward Serrano Creek, and the onsite elevations, which range from approximately 540 to 709 feet above mean sea level, would not be modified.

## **“NO PROJECT/REASONABLY FORESEEABLE DEVELOPMENT – DEVELOPMENT AGREEMENT” ALTERNATIVE**

The “No Project/Reasonably Foreseeable Development – Development Agreement” Alternative proposes development of what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on the current General Plan designation, the *Development Agreement Between City of Lake Forest and Irvine Ranch Water District* (Development Agreement) and consistent with available infrastructure and community services. The Development Agreement, which was recorded on October 22, 2008, entitles the property owner to develop a maximum of 833 residential units, including appurtenant facilities, and a Civic Center, on approximately 82 acres of land, as permitted by the Development Plan; refer to Development Agreement Section 8.1, *Owner’s Vested Right*. Accordingly, this Alternative assumes development of 833 dwelling units on the 82



acres, including 150 single-family detached units 458 condominium units, and 225 apartment units. The non-residential land uses (i.e., private recreation center and Civic Center) are also proposed under this Alternative. Additionally, the current IRWD facilities located in the southern portion of the project site (17 acres) would continue to operate as under existing conditions.

*Table 2-3, Comparison of Proposed Project and Reasonably Foreseeable Development – Development Agreement Alternative*, compares the proposed project and Reasonably Foreseeable Development – Development Agreement Alternative. This Alternative proposes an approximately 37 percent increase in dwelling units, with 225 additional apartment units, as compared to the proposed project. The proposed project’s non-residential land uses (115,500-SF) are also proposed under this Alternative, including a 1,500-SF private recreation center and 114,000-SF Civic Center. As to the remaining project components (i.e., parks and trails, open space and existing public facilities, circulation system, and grading), there would be no variation between the proposed project and the Reasonably Foreseeable Development – Development Agreement Alternative.

**Table 2-3  
 Comparison of Proposed Project and  
 Reasonably Foreseeable Development – Development Agreement Alternative**

Land Use	Trip Generation Rate	Project			Alternative 1.2: No Project/Reasonably Foreseeable Development - Development Agreement Alternative			Difference			Average Daily Trips	
		Dwelling Units	Square Feet	Average Daily Trips	Dwelling Units	Square Feet	Average Daily Trips	Dwelling Units	Square Feet	% Difference	Difference	% Difference
<b>Residential Uses</b>												
Single-Family Detached	9.57	150		1,436	150		1,436	0		0%	0	0%
Condominium	8.15	458		3,733	458		3,733	0		0%	0	0%
Apartment	6.72	0		0	225		1,512	+225		100%	+1,512	+100%
<i>Total Residential</i>		<i>608</i>		<i>5,168</i>	<i>833</i>		<i>6,680</i>	<i>+225</i>		<i>37%</i>	<i>+1,512</i>	<i>+29%</i>
<b>Private Recreation Center</b>												
Community Facility (SF)	45.5		1,500	68		1,500	68		0	0%	0	0%
<i>Total Priv. Rec. Center</i>			<i>1,500</i>	<i>68</i>		<i>1,500</i>	<i>68</i>		<i>0</i>	<i>0%</i>	<i>0</i>	<i>0%</i>
<b>Civic Center</b>												
Community Facility (SF)	45.5		20,000	910		20,000	910		0	0%	0	0%
Government Facility (SF)	27.92		94,000	2,624		94,000	2,624		0	0%	0	0%
<i>Total Civic Center</i>			<i>114,000</i>	<i>3,534</i>		<i>114,000</i>	<i>3,534</i>		<i>0</i>	<i>0%</i>	<i>0</i>	<i>0%</i>
<i>Total</i>		<i>608</i>	<i>115,500</i>	<i>8,770</i>	<i>+833</i>	<i>115,500</i>	<i>10,283</i>	<i>+225</i>	<i>0</i>		<i>+1,512</i>	<i>+17%</i>

## “REDUCED RESIDENTIAL AND CIVIC CENTER” ALTERNATIVE

As with the proposed project, the Reduced Residential and Civic Center Alternative provides for the development of a new community of residential neighborhoods, a Civic Center, parks and recreation facilities, and existing and future public facilities. Under this Alternative, a maximum of 486 dwelling units is proposed including 120 single-family detached units and 366 condominium units. In accordance with the Public Facilities Overlay, this Alternative proposes a 91,200-square foot Civic Center that is anticipated to contain a Community Center (16,000 square feet), City Hall and sheriff/police facilities (75,200 square feet), and parking. Additionally, approximately 4.2 acres of parks and a 1,200-square foot recreation center are proposed. The current IRWD facilities located in the southern portion of the project site would continue to operate as under existing conditions. Overall, this Alternative would result in a total building floor space of 92,400 square feet.



Table 2-4, *Comparison of Proposed Project and Reduced Residential and Civic Center Alternative*, compares the proposed project and Reduced Residential and Civic Center Alternative. Comparatively, this Alternative proposes a 20 percent decrease in dwelling units overall, with 30 fewer single-family detached units and 92 fewer condominium units than the proposed project. This Alternative also proposes a 20 percent decrease in overall non-residential floor space. The private recreation center would be reduced by 300 square feet and the Civic Center by 22,800 square feet. As to the remaining project components (i.e., parks and trails, open space and existing public facilities, circulation system, and grading), there would be no variation between the proposed project and the Reduced Residential and Civic Center Alternative.

**Table 2-4  
Comparison of Proposed Project and Reduced Residential and Civic Center Alternative**

Land Use	Trip Generation Rate	Project			Alternative 2: Reduced Residential and Civic Center Alternative			Difference		Average Daily Trips		
		Dwelling Units	Square Feet	Average Daily Trips	Dwelling Units	Square Feet	Average Daily Trips	Dwelling Units	Square Feet	% Difference	Difference	% Difference
<b>Residential Uses</b>												
Single-Family Detached	9.57	150		1,436	120		1,148	-30		-20%	-287	-20%
Condominium	8.15	458		3,733	366		2,983	-92		-20%	-750	-20%
<i>Total Residential</i>		<i>608</i>		<i>5,168</i>	<i>486</i>		<i>4,131</i>	<i>-122</i>		<i>-20%</i>	<i>-1,037</i>	<i>-20%</i>
<b>Private Recreation Center</b>												
Community Facility (square feet)	45.5		1,500	68		1,200	55		-300	-20%	-14	-20%
<i>Total Priv. Rec. Center</i>			<i>1,500</i>	<i>68</i>		<i>1,200</i>	<i>55</i>		<i>-300</i>	<i>-20%</i>	<i>-14</i>	<i>-20%</i>
<b>Civic Center</b>												
Community Facility (square feet)	45.5		20,000	910		16,000	728		-4,000	-20%	-182	-20%
Government Facility (square feet)	27.92		94,000	2,624		75,200	2,100		-18,800	-20%	-525	-20%
<i>Total Civic Center</i>			<i>114,000</i>	<i>3,534</i>		<i>91,200</i>	<i>2,828</i>		<i>-22,800</i>	<i>-20%</i>	<i>-707</i>	<i>-20%</i>
<i>Total</i>		<i>608</i>	<i>115,500</i>	<i>8,770</i>	<i>486</i>	<i>92,400</i>	<i>7,013</i>	<i>-122</i>	<i>-23,100</i>	<i>-20%</i>	<i>-1,757</i>	<i>-20%</i>

## “REDUCED RESIDENTIAL” ALTERNATIVE

As discussed in Section 3.0, *Project Description*, this EIR analyzes a “Project Alternative” that would exclude the Civic Center, allowing in its place the development of additional residential uses. As to the remaining project components, there is no variation between the proposed project and the Project Alternative.

As with the Project Alternative, the Reduced Residential Alternative provides for the development of a new community of residential neighborhoods, parks and recreation facilities, and existing and future public facilities. Under this Alternative, a maximum of 749 dwelling units are proposed including 135 single-family detached units, 412 condominium units, and 202 apartment units. Additionally, approximately 4.2 acres of parks and a 1,350-square foot recreation center are proposed. The current IRWD facilities located in the southern portion of the project site would continue to operate as under existing conditions. Overall, this Alternative would result in a total building floor space of 1,350 square feet.



Table 2-5, *Comparison of Project Alternative and Reduced Residential Alternative*, compares the Project Alternative and Reduced Residential Alternative. Comparatively, this Alternative proposes a ten percent decrease in dwelling units overall, with 15 fewer single-family detached units, 46 fewer condominium units, and 23 fewer apartment units than the Project Alternative. This Alternative also proposes a 10 percent decrease in overall non-residential floor space. The private recreation center would be reduced by 150 square feet. As to the remaining project components (i.e., parks and trails, open space and existing public facilities, circulation system, and grading), there would be no variation between the Project Alternative and the Reduced Residential Alternative.

**Table 2-5  
 Comparison of Project Alternative and Reduced Residential Alternative**

Land Use	Trip Generation Rate	Project			Alternative 3: Reduced Residential Alternative			Difference		Average Daily Trips		
		Dwelling Units	Square Feet	Average Daily Trips	Dwelling Units	Square Feet	Average Daily Trips	Dwelling Units	Square Feet	% Difference	Difference	% Difference
<b>Residential Uses</b>												
Single-Family Detached	9.57	150		1,436	135		1,292	-15		-10%	-144	-10%
Condominium	8.15	458		3,733	412		3,358	-46		-10%	-375	-10%
Apartments	6.72	225		1,512	202		1,357	-23		-10%	-155	-10%
<i>Total Residential</i>		<i>833</i>		<i>6,680</i>	<i>749</i>		<i>6,007</i>	<i>-84</i>		<i>-10%</i>	<i>-673</i>	<i>-10%</i>
<b>Private Recreation Center</b>												
Community Facility (square feet)	45.5		1,500	68		1,350	61		-150	-10%	-7	-10%
<i>Total Priv. Rec. Center</i>			<i>1,500</i>	<i>68</i>		<i>1,350</i>	<i>61</i>		<i>-150</i>	<i>-10%</i>	<i>-7</i>	<i>-10%</i>
<i>Total</i>		<i>833</i>	<i>1,500</i>	<i>6,748</i>	<i>749</i>	<i>1,350</i>	<i>6,069</i>	<i>-84</i>	<i>-150</i>	<i>-10%</i>	<i>-680</i>	<i>-10%</i>

## “ENVIRONMENTALLY SUPERIOR” ALTERNATIVE

Review of Table 2-6, *Comparison of Alternatives*, indicates the No Project/No Build Alternative is the environmentally superior alternative, because it would avoid the air quality, greenhouse gas, and biological resource impacts associated with development of the proposed project. According to *CEQA Guidelines* Section 15126.6(e), “No Project” Alternative, “if the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.” Accordingly, an environmentally superior alternative among the other alternatives is identified below. It is noted, the No Project/Reasonably Foreseeable Development – Development Agreement Alternative would be environmentally inferior to the proposed project regarding air quality and greenhouse gas impacts due to increased short- and long-term emissions.



**Table 2-6  
 Comparison of Alternatives**

Impact Issue Areas	Alternative 1.1: No Project/ No Build Alternative	Alternative 1.2: No Project/ Reasonably Foreseeable Development – Development Agreement Alternative	Alternative 2: Reduced Residential and Civic Center Alternative	Alternative 3: Reduced Residential Alternative
Air Quality	▼	▲	▼	▼
Greenhouse Gas Emissions	▼	▲	▼	▼
Biological Resources	▼	=	=	=
▲ Indicates an impact that is greater than the proposed project (environmentally inferior). ▼ Indicates an impact that is less than the proposed project (environmentally superior). = Indicates an impact that is equal to the proposed project (neither environmentally superior nor inferior). * Indicates a significant and unavoidable impact.				

Among the other alternatives, the environmentally superior alternative is the Reduced Residential and Civic Center Alternative, given it would achieve the greatest impact reductions in air quality and greenhouse gas emissions. Biological resource impacts would be similar to those of the proposed project under the Reduced Residential and Civic Center Alternative. As concluded in the analysis presented above, the Reduced Residential and Civic Center Alternative would lessen the impacts associated with development of the proposed project, because it would involve an approximately 20 percent decrease in both residential and non-residential uses, with corresponding decreases in construction activities, building footprints, and traffic volumes. These decreases would result in proportionate decreases in air quality and greenhouse gas emissions. It is noted, while the Reduced Residential Alternative would also lessen the impacts associated with development of the Project Alternative, because it would involve an approximately ten percent decrease in both residential and non-residential uses, with corresponding decreases in construction activities, building footprints, and traffic volumes, its impact reductions would be to a lesser degree than the Reduced Residential and Civic Center Alternative. Namely, the Reduced Residential and Civic Center Alternative would achieve a 1,757 ADT reduction, whereas, the Reduced Residential Alternative would achieve a 680 ADT reduction. Moreover, the Reduced Residential and Civic Center Alternative’s 7,013 ADT would not be significantly greater than the Reduced Residential Alternative’s 6,069 ADT.

The Reduced Residential and Civic Center Alternative is considered environmentally superior to the proposed project, since it would avoid the significant and unavoidable project impacts involving air quality and greenhouse gas emissions. Additionally, this Alternative would partially attain the project’s objectives. However, this Alternative would not attain the project’s basic objectives to develop the property in accordance with the General Plan Medium Density Residential (between 15-25 units per acre) or to develop a minimum of 500 units, in order to ensure that fees paid as required by the Development Agreement are adequate to fund public facilities.





## ALTERNATIVES CONSIDERED BUT REJECTED FOR FURTHER ANALYSIS

The project site is part of the larger Opportunities Study Area (OSA) and is one of the City's seven remaining vacant properties. The Lake Forest Opportunities Study (OS) involved a systematic analysis of the project site and an additional six properties (838 acres), in order to amend their General Plan (and Zoning) designations from industrial and commercial uses to residential and commercial uses. The overall purpose of the OS was to examine the impacts and benefits of changes to the allowed land uses in the Opportunities Study Area (OSA). A phased approach to completion of the OS was conducted, which included consideration of conceptual plans from six OSA landowners (i.e., Landowner Concept Plan) involving residential and mixed uses. The land use changes proposed by the landowners were evaluated from planning, traffic, and fiscal perspectives and compared against the industrial and commercial land uses currently allowed under the General Plan. Ultimately, a "Recommended Plan" was developed for further study, which consisted of development on six parcels and approval of a public facilities overlay on a portion of a seventh parcel. Collectively, the systematic analyses that were conducted as part of the OSA and *Opportunities Study Final Program Environmental Impact Report* discussed below encompass the alternative development scenarios for the project site (subject of this EIR) that were considered by the City of Lake Forest but were rejected as infeasible. The following summarizes the development scenarios that were considered, and presents the findings of the environmental impact analyses that were conducted.

The *City of Lake Forest Opportunities Study Final Program Environmental Impact Report* (OSA PEIR) was prepared to consider the potential environmental impacts that would result from implementation of the City's proposed land use changes pursuant to the Recommended Plan. The project site, subject of this EIR, is one of the seven properties analyzed in the OSA PEIR. OSA PEIR Chapter 2.5, *Proposed Project*, details the proposed GPA and ZC of the seven properties involving 838 acres of vacant lands. The GPA and ZC involved development of 5,415 dwelling units on Sites 1 through 6 and a public facilities overlay on Site 7. Approximately 50 acres of neighborhood parks, up to 45 acres of public facilities (sports park and Community Center/Civic Center), and 648,720 square feet of commercial development were proposed. The proposed land uses are summarized in OSA PEIR Table 2-5, *Project Summary*, and illustrated on OSA PEIR Figure 2-4, *Proposed Project Land Use Map*. The project site, subject of this EIR, is analyzed as Site 3 (IRWD/Lewis) in the PEIR.

Pursuant to OSA PEIR Table 2-5, the OSA PEIR analyzed the development of a maximum of 833 dwelling units and a neighborhood park (conceptual) on Site 3 (the project site). The OSA PEIR concluded that the following significant and unavoidable impacts for Site 3 would occur with implementation of General Plan Amendment 2008-02C and Zone Change 2008-03:

- Aesthetics (Light and glare);
- Agricultural (Existing zoning for agricultural use);
- Air Quality (Threshold exceedances established by the SCAQMD and cumulative conditions);
- Hydrology (Water quality of receiving waterbodies for pesticides only);
- Noise (Cumulative long-term (2030 General Plan buildout) conditions; and
- Population and Housing (Inducing substantial population growth).



All other impacts for Site 3 were found to be less than significant through the existing standards, regulations, and/or mitigation measures imposed under the OSA PEIR. Comparatively, the Site 3 development analyzed in the OSA PEIR is similar to the Project Alternative analyzed in this EIR, which involves 833 dwelling units and a 1,500 square foot community facility.

OSA PEIR Chapter 4, *Alternatives to the Proposed Project*, analyzed the following alternatives to the project (i.e., the Recommended Plan) or to the location of the project:

- Alternative 1: No Project/Reasonably Foreseeable Development General Plan Alternative;
- Alternative 2: Development on Sites 1 through 6 and Public Facilities Overlay on Site 1;
- Alternative 3: Development on Sites 1 through 6 and Public Facilities Overlay on Sites 1, 3, and 4;
- Alternative 4: Development on Sites 1 through 6 and Public Facilities Overlay on Sites 4 and 9;
- Alternative 5: Landowner Concept Plan; and
- Alternative 6: Proposed Project Plus Public Facilities/Land Use Overlay on Site 7.

The land uses proposed under each alternative are summarized in OSA PEIR Tables 4-20, 4-23, 4-26, 4-29, and 4-52, respectively. The following alternatives were also considered infeasible and rejected from further consideration:

- General Plan Amendment and Zone Change for All-Commercial Development;
- General Plan Amendment and Zone Change for All-Residential Development;
- General Plan Amendment and Zone Change for All-Industrial/Business Park Development;
- General Plan Amendment and Zone Change for Industrial-Residential Alternative;
- Reduced Density Alternative; and
- Public Facilities Overlay on Sites 4 and 8.

Subsequent to the OSA PEIR public comment period, the City identified a new alternative for locating the public facilities. This new alternative (Alternative 7), which is a combination of several of the alternatives discussed in the OSA PEIR, is referred to as the “Hybrid Alternative.” The new Chapter 7, which was circulated for public review and analysis, describes the Alternative 7 (Hybrid Alternative) and provides additional information on significant changes or new information that occurred subsequent to circulation of the prior Draft OSA PEIR. The land uses proposed under Alternative 7 are summarized in Recirculated OSA PEIR Table 7.4-1.

From among the seven development alternatives analyzed in the OSA PEIR and Recirculated OSA PEIR, the environmentally superior alternative was concluded to be Alternative 7 (Hybrid Alternative), since it would reduce impacts to the greatest extent by reducing project trip generation and overall development. Pursuant to Recirculated OSA PEIR Table 7.4-1, Alternative 7 involves a maximum of 833 dwelling units, 3.0 acres of parks, and 7.0 acres of public facilities on Site 3 (the subject site of this EIR). The OSA PEIR, which analyzed the environmental impacts associated with implementation of General Plan Amendment 2008-02C and Zone Changes 2008-01 through 2008-05, was certified in June 2008.



Overall, six alternatives to the Recommended Plan were analyzed in OSA PEIR Chapter 4. These involved development of the proposed project components (i.e., residential, parks/recreational, and public facilities [including a Civic Center]), or a combination thereof, on the project site and six additional sites. Alternative 7 analyzed in Recirculated OSA PEIR Chapter 7 was identified as environmentally superior and is the “project” subject of this EIR. Therefore, the six alternatives analyzed in the OSA PEIR have been considered but rejected from further consideration.

## 2.9 ENVIRONMENTAL ISSUES/MITIGATION SUMMARY

The following is a brief summary of the impacts, mitigation measures, and unavoidable significant impacts identified and analyzed in Section 5.0, *Environmental Analysis* of this EIR. Refer to the appropriate EIR Section for additional information.



EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
5.1	AIR QUALITY		
AQ-1	<p><b>Short-Term (Construction) Air Emissions</b></p> <p><i>Short-term construction activities associated with the proposed project would result in air pollutant emission impacts or expose sensitive receptors to substantial pollutant concentrations.</i></p>	<p>AQ-1 Prior to issuance of any Grading Permit, the City Engineer and the Chief Building Official shall confirm that the Grading Plan, Building Plans and specifications stipulate that, in compliance with South Coast Air Quality Management District Rule 403, excessive fugitive dust emissions shall be controlled by regular watering or other dust prevention measures, as specified in the South Coast Air Quality Management District's Rules and Regulations. In addition, South Coast Air Quality Management District Rule 402 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site. The following measures shall be implemented to reduce short-term fugitive dust impacts on nearby sensitive receptors:</p> <ul style="list-style-type: none"> <li>• All material excavated or graded shall be sufficiently watered to prevent excessive amounts of dust; watering, with complete coverage, shall occur at least twice daily, preferably in the late morning and after work is done for the day;</li> <li>• Water trucks shall be utilized on the site and shall be available to be used throughout the day during site grading to keep the soil damp enough to minimize dust being raised by the construction operations;</li> <li>• Replace ground cover in disturbed areas as quickly as possible;</li> <li>• On-site vehicle speed shall be limited to 15 miles per hour;</li> <li>• All on-site roads shall be paved as soon as feasible or watered periodically or chemically stabilized;</li> <li>• All material transported off-site shall be sufficiently watered and securely covered to prevent excessive amounts of dust prior to departing the job site. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two</li> </ul>	<p>A less than significant impact would result from construction particulate matter; however, significant and unavoidable impacts would result with regard to short-term (construction) related NO<sub>x</sub> emissions.</p>



EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
		<p>feet of freeboard (i.e., minimum vertical distance between top of the load and the top of the trailer), in accordance with Section 23114 of the California Vehicle Code;</p> <ul style="list-style-type: none"> <li>• Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip on a gravel surface to prevent dirt and dust from impacting the surrounding areas;</li> <li>• All delivery truck tires shall be watered down and scraped down prior to departing the job site;</li> <li>• Visible dust beyond the property line which emanates from the project shall be minimized to the extent feasible;</li> <li>• Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hour over a 30-minute period; and</li> <li>• Sweep streets at the end of the day.</li> </ul> <p>AQ-2 The following measures shall be implemented during construction to substantially reduce NOX related emissions. They shall be included in the Grading Plan, Building Plans, and contract specifications. Contract specification language shall be reviewed by the City prior to issuance of a grading permit. Reductions in particulate emissions shall also be realized from the implementation of these measures as well as Mitigation Measure AQ-1.</p> <ul style="list-style-type: none"> <li>• Off-road diesel equipment operators shall be required to shut down their engines rather than idle for more than five minutes, and shall ensure that all off-road equipment is compliant with the CARB in-use off-road diesel vehicle regulation and SCAQMD Rule 2449.</li> <li>• The following note shall be included on all grading plans: "During construction activity, the contractor shall utilize California Air</li> </ul>	



EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
		<p>Resources Board (CARB) Tier III certified equipment or better for all on-site construction equipment according to the following:</p> <ul style="list-style-type: none"> <li>- January 1, 2012 to December 31, 2014: All off-road diesel powered construction equipment greater than 50 hp shall meet Tier 3 off-road emissions standards. In addition, all construction equipment shall be outfitted with the BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.</li> <li>- Post-January 1, 2015: If applicable, all off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards where available and commercially feasible.</li> <li>- A copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be provided to the City at the time of mobilization of each applicable unit of equipment.</li> </ul> <ul style="list-style-type: none"> <li>• The contractor and applicant, if the applicant's equipment is used, shall maintain construction equipment engines by keeping them tuned and regularly serviced to minimize exhaust emissions.</li> <li>• Use low sulfur fuel for stationary construction equipment. This is required by SCAQMD Rules 431.1 and 431.2.</li> <li>• Utilize existing power sources (i.e., power poles) when available. This measure would minimize the use of higher polluting gas or diesel generators.</li> <li>• Configure construction parking to minimize traffic interference.</li> <li>• Minimize obstruction of through-traffic lanes and provide temporary traffic controls such as a flag person during all phases of</li> </ul>	



EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
		<p>construction when needed to maintain smooth traffic flow. Construction shall be planned so that lane closures on existing streets are kept to a minimum.</p> <ul style="list-style-type: none"> <li>• Schedule construction operations affecting traffic for off-peak hours to the best extent when possible.</li> <li>• Develop a traffic plan to minimize traffic flow interference from construction activities (the plan may include advance public notice of routing, use of public transportation and satellite parking areas with a shuttle service.)</li> <li>• Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than five minutes.</li> </ul>	
AQ-2	<p><b>Long-Term (Operational) Air Emissions</b></p> <p><i>Development associated with the proposed project would result in significant and unavoidable impacts pertaining to operational air emissions.</i></p>	Refer to Mitigation Measure GHG-1.	Significant and unavoidable impacts would result with regard to long-term (operational) air emissions.
AQ-4	<p><b>Localized Hot-Spot Emissions</b></p> <p><i>Development associated with the project would not result in localized CO or particulate matter emissions impacts or expose sensitive receptors to substantial pollutant concentrations.</i></p>	Refer to Mitigation Measures AQ-1, AQ-2, and GHG-1.	A less than significant impact would result with regard to localized hot-spot emissions.
AQ-5	<p><b>Consistency With Regional Plans</b></p> <p><i>Development associated with the proposed project would be consistent with regional plans.</i></p>	No mitigation measures are required.	A less than significant impact would result with regard to consistency with regional plans.
	<p><b>CUMULATIVE IMPACTS</b></p> <p><i>Development associated with the proposed project and related cumulative projects would result in significant air quality impacts and may expose sensitive receptors to substantial pollutant concentrations.</i></p>		



EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
	<p><b>Cumulative Construction Impacts</b></p> <p><i>Threshold: Conflict with or obstruct implementation of the applicable air quality plan.</i></p>	No mitigation measures are required.	A less than significant impact would result with regard to a conflict with or obstruction of implementation of the applicable air quality plan.
	<p><i>Threshold: Violate any air quality standard or contribute substantially to an existing or projected air quality violation.</i></p> <p><i>Threshold: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).</i></p> <p><i>Threshold: Exposes sensitive receptors to substantial pollutant concentrations.</i></p>	Refer to Mitigation Measures AQ-1 and AQ-2.	Significant and unavoidable cumulative impacts would result with regard to the violation of an air quality standard or the substantial contribution to an existing or projected air quality violation.
	<p><b>Cumulative Operational Impacts</b></p> <p><i>Threshold: Violate any air quality standard or contribute substantially to an existing or projected air quality violation.</i></p> <p><i>Threshold: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).</i></p> <p><i>Threshold: Exposes sensitive receptors to substantial pollutant concentrations.</i></p>	Refer to Mitigation Measure GHG-1.	Significant and unavoidable cumulative impacts would result with regard to long-term operations.





EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
5.2	GREENHOUSE GAS EMISSIONS		
GHG -1	<p><b>Greenhouse Gas Emissions</b></p> <p><i>Greenhouse gas emissions generated by the project would not have a significant impact on global climate change.</i></p>	<p>GHG-1</p> <p>The proposed project shall include, but not be limited to, the following list of potential design features. These features shall be incorporated into the project design to ensure consistency with adopted statewide plans and programs. The project applicant shall demonstrate the incorporation of the following project design features prior to the issuance of building or occupancy permits as applicable.</p> <p style="text-align: center;"><i>Transportation</i></p> <ul style="list-style-type: none"> <li>• Provide pedestrian connections to the off-site circulation network (building permit).</li> <li>• Implement a trip reduction program, for which all employees shall be eligible to participate (occupancy permit). This measure is not applicable to residential uses.</li> <li>• Provide a ride sharing program, for which all employees shall be eligible to participate (occupancy permit). This measure is not applicable to residential uses.</li> </ul> <p style="text-align: center;"><i>Energy Efficiency</i></p> <ul style="list-style-type: none"> <li>• Design buildings to be energy efficient, 15 percent above Title 24 requirements (building permit).</li> <li>• The landscape plan shall utilize strategically placed trees that shall shade building walls, particularly those containing the most windows (building permit).</li> <li>• Install high efficiency lighting, and energy efficient heating and cooling systems (building permit).</li> <li>• Reduce unnecessary outdoor lighting (building permit).</li> </ul>	<p>A less than significant impact would result with regard to greenhouse gas emissions.</p>



EIR SECTION	<u>IMPACTS</u>	<u>MITIGATION MEASURES</u>	<u>SIGNIFICANCE AFTER MITIGATION</u>
		<p style="text-align: center;"><i>Water Conservation and Efficiency</i></p> <ul style="list-style-type: none"> <li>• Install water-efficient irrigation systems (building permit).</li> <li>• Comply with the landscape sustainability measures in the Sustainability Development Regulations of the <i>Serrano Summit Area Plan</i> (building permit).</li> <li>• Install low-flow faucets and toilets (building permit).</li> </ul> <p style="text-align: center;"><i>Solid Waste</i></p> <ul style="list-style-type: none"> <li>• Reuse and recycle construction waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard) (building permit).</li> <li>• Provide interior and exterior storage areas for recyclables and adequate recycling containers located in public areas (occupancy permit).</li> </ul>	
GHG -2	<p><b>Consistency With Applicable GHG Plans, Policies, or Regulations</b></p> <p><i>Implementation of the proposed project would not conflict with an applicable greenhouse gas reduction plan, policy, or regulation.</i></p>	Refer to Mitigation Measure GHG-1.	A less than significant impact would result with regard to consistency with applicable GHG plans, policies, or regulations.
	<p><b>CUMULATIVE IMPACTS</b></p> <p><i>Greenhouse gas emissions resulting from development associated with implementation of the proposed project would not impact greenhouse gas levels on a cumulatively considerable basis.</i></p>		



EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
	<i>Threshold: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.</i>	Refer to Mitigation Measure GHG-1. No additional mitigation measures are required.	A less than significant cumulative impact would result with regard to greenhouse gas emissions.
	<i>Threshold: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.</i>	No mitigation measures are required.	A less than significant cumulative impact would result with regard to a conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.
5.3	<b>BIOLOGICAL RESOURCES</b>		
BIO-1	<p><b>Special Status Species</b></p> <p><i>Project implementation could have an adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special status.</i></p>	<p>BIO-1 Prior to the issuance of a grading permit, the Applicant shall conduct biological field surveys of the IRWD study area for Rayless raywort (<i>Senecio aphanactis</i>), a special status wildlife species that was not surveyed in the <i>Biological Reports</i>. Surveys shall be conducted in accordance with current California Department of Fish and Game (CDFG) or United States Fish and Wildlife Services (USFWS) survey protocols for the target species by a qualified biologist or botanist, in order to determine their presence or absence at the project site. (Source: OSA PEIR Mitigation Measure MM 3.4-1)</p> <p>BIO-2 Prior to the issuance of a grading permit, the Applicant shall, in an area where a species or habitat is not covered by the Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP) has been identified, comply with the requirements of the Federal Endangered Species Act (FESA) or California Endangered Species Act (CESA), if applicable. If the species or habitat is not protected under FESA or CESA, but is otherwise protected through the Migratory Bird Treaty Act or other similar regulatory act requirement, the Applicant shall provide suitable replacement habitat at a minimum of 1:1, and shall prepare and submit a mitigation plan for City approval that demonstrates that the replacement habitat is protected in perpetuity and that appropriate long-term habitat management is provided. The mitigation plan shall be prepared in consultation with and receive the approval of the agency regulating the species or habitat (i.e., USFWS, CDFG, and the NCCP Non-Profit Corporation (i.e., the City)). The mitigation plan shall include the following, at minimum: detailed habitat impacts; mitigation acreage (1:1 ratio); mitigation location (i.e., where the proposed conservation</p>	A less than significant impact would result with regard to special status species.



EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
		<p>or restoration will occur); the acreage of conservation or restoration that will be conducted; and how many trees/plants will be planted or translocated (when mitigating impacts to trees or rare plants); a planting plan and seed mixes; five-year maintenance and monitoring plans; source(s) of long-term site funding; conservation easements (if any); biological monitoring during grading activities; and fencing of any habitat area that would not be disturbed by construction. (Source: OSA PEIR Mitigation Measure MM 3.4-3)</p> <p>BIO-3 Prior to the issuance of a grading permit, the Applicant shall conform and comply with the applicable requirements of the Natural Community Conservation Plan and Habitat Conservation Plan (NCCP/HCP) for the County of Orange Central and Coastal Subregion, including the payment of the appropriate in-lieu fee, or existing IRWD non-reserve banked acreage as applicable, to mitigate for the loss of coastal sage scrub and any other NCCP/HCP covered habitat and species observed on the project site.</p> <p>For impacts to a Conditionally Covered Species (i.e., Southwestern willow flycatcher (<i>Empidonas traillii extimus</i>)), the Applicant shall prepare a mitigation plan. The mitigation plan shall be developed in coordination with USFWS, CDFG, and the NCCP Non-Profit Corporation (i.e., the City), and approved by the USFWS. The mitigation plan shall, at minimum:</p> <ul style="list-style-type: none"> <li>• Address design modifications and other onsite measures that are consistent with the project's purposes, minimize impacts, and provide appropriate feasible protections;</li> <li>• Provide for compensatory habitat restoration/enhancement activities at an appropriate location (which may include land in the Reserve system or other open space) and which may include planting of riparian trees and shrubs and/or cowbird trapping;</li> <li>• Provide for monitoring and Adaptive Management of habitat, within the Reserve system including cowbird trapping, consistent with Chapter 5 of the NCCP/HCP.</li> </ul>	



EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
		<p>The Applicant shall also demonstrate to the satisfaction of the Director of Development Service compliance with the following NCCP/HCP construction impact avoidance measures or such measure in effect at the time of construction:</p> <ol style="list-style-type: none"> <li>1. To the maximum extent practicable, no grading of coastal sage scrub habitat that is occupied by nesting gnatcatchers shall occur during the breeding season (February 15 through July 15). It is expressly understood that this provision and the remaining provisions of these "construction-related minimization measures," are subject to public health and safety considerations. These considerations include unexpected slope stabilization, erosion control measures, and emergency facility repairs. In the event of such public health and safety circumstances, landowners or public agencies/utilities will provide United States Fish and Wildlife Services/California Department of Fish and Game (USFWS/CDFG) with the maximum practicable notice (or such notice as is specified in the NCCP/HCP) to allow for capture of gnatcatchers, and any other coastal sage scrub Identified Species that are not otherwise flushed and shall carry out the following measures, to the extent practicable, in the context of the public health and safety considerations.</li> <li>2. Prior to the commencement of grading operations or other activities involving significant soil disturbance, all areas of coastal sage scrub habitat to be avoided under the provisions of the NCCP/HCP, shall be identified with temporary fencing or other markers clearly visible to construction personnel. Additionally, prior to the commencement of grading operations or shall be conducted to locate gnatcatchers within 100 feet of the outer extent of projected soil disturbance activities and the locations of any such species shall be clearly marked and identified on the construction/grading plans.</li> <li>3. A monitoring biologist, acceptable to USFWS/CDFG will be on site during any clearing of coastal sage scrub. The landowner or relevant public agency/utility will advise</li> </ol>	



EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
		<p>USFWS/CDFG at least seven (7) calendar days (and preferably 14 calendar days) prior to the clearing of any habitat occupied by Identified Species to allow USFWS/CDFG to work with the monitoring biologist in connection with bird flushing/capture activities. The monitoring biologist shall flush identified Species (avian or other mobile Identified Species) from occupied habitat areas immediately prior to brush-clearing and earth-moving activities. If birds cannot be flushed, they shall be captured in mist nets, if feasible, and relocated to areas of the site to be protected or to the NCCP/HCP Reserve System. It shall be the responsibility of the monitoring biologist to assure that Identified bird species will not be directly impacted by brush-clearing and earth-moving equipment in a manner that also allows for construction activities on a timely basis.</p> <p>4. Following the completion of initial grading/earth movement activities, all areas of coastal sage scrub habitat to be avoided by construction equipment and personnel shall be marked with temporary fencing or other appropriate markers clearly visible to construction personnel. No construction access, parking, or storage of equipment or materials shall be permitted within such marked areas.</p> <p>5. Coastal sage scrub identified in the NCCP/HCP for protection and located within the likely dust drift radius of construction areas shall be periodically sprayed with water to reduce accumulated dust on the leaves as recommended by the monitoring biologist. (Source: OSA PEIR Mitigation Measure MM 3.4-2)</p>	
<p>BIO-2</p>	<p><b>Sensitive Vegetation Communities</b></p> <p><i>Implementation of the proposed project could have an adverse effect on a sensitive vegetation community, including riparian habitat.</i></p>	<p>Refer to Mitigation Measures BIO-2 and BIO-3.</p>	<p>A less than significant would result with regard to sensitive vegetation communities.</p>
<p>BIO-3</p>	<p><b>Wetlands and Jurisdictional Waters</b></p> <p><i>Project implementation could have an adverse effect on federally protected wetlands.</i></p>	<p>BIO-4 Prior to the approval of grading plans, the Applicant would be required to prepare an application for fill of waters subject to the Army Corps of Engineers (ACOE) jurisdiction. If appropriate, a streambed alteration agreement shall be obtained from California Department of Fish and</p>	<p>A less than significant would result with regard to wetlands and jurisdictional waters.</p>



EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
		Game (CDFG). The Applicant shall submit an application to the Regional Water Quality Control Board (RWQCB) for a waste discharge requirement or waiver of waste discharge requirement. The Applicant shall also consider any other permits from the ACOE, CDFG, RWQCB, or any other applicable regulatory agency that may be necessary. (Source: OSA PEIR Mitigation Measure MM 3.4-4)	
BIO-4	<p><b>Wildlife Movement Corridors and Migratory Birds</b></p> <p><i>Implementation of the proposed project could interfere with the movement of a native resident or migratory species or disturb an established wildlife corridor.</i></p>	BIO-5 To the extent feasible, all vegetation removal activities shall be scheduled outside the nesting season (typically February 15 to August 15) to avoid potential impacts to nesting birds. However, if initial vegetation removal occurs during the nesting season, all suitable habitat shall be thoroughly surveyed for the presence of nesting birds by a qualified biologist prior to commencement of clearing. If any active nests are detected, a buffer of at least 100 feet (300 feet for raptors) shall be delineated, flagged, and avoided until the nesting cycle is complete as determined by the biological monitor to minimize impacts. (Source: OSA PEIR Mitigation Measure MM 3.4.2)	A less than significant would result with regard to wildlife movement corridors and migratory birds.
BIO-5	<p><b>Local Policy/Ordinance Consistency</b></p> <p><i>Implementation of the proposed project could conflict with a local policy or ordinance protecting biological resources.</i></p>	No mitigation measures are required.	Not applicable.
BIO-6	<p><b>County of Orange Central and Coastal Subregion Natural Community Conservation Plan and Habitat Conservation Plan (NCCP/HCP)</b></p> <p><i>Implementation of the proposed project could conflict with the provisions of the County of Orange Central and Coastal Subregion NCCP/HCP.</i></p>	Refer to Mitigation Measure BIO-3.	Not applicable.
	<p><b>CUMULATIVE IMPACTS</b></p> <p><i>Implementation of the proposed project and cumulative development could result in cumulatively considerable impacts to biological resources.</i></p>	No mitigation measures are required.	A less than significant cumulative impact would result with regard to biological resources.