

The Economics of Land Use



Final Report

Morgan Ranch Master Plan Fee Nexus Study

Prepared for:

City of Turlock

Prepared by:

Economic & Planning Systems, Inc. (EPS)

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*Economic & Planning Systems, Inc.
2295 Gateway Oaks Drive, Suite 250
Sacramento, CA 95833-4210
916 649 8010 tel
916 649 2070 fax*

*Oakland
Sacramento
Denver
Los Angeles*

www.epsys.com

EPS #20423

Table of Contents

1.	EXECUTIVE SUMMARY	1
	Introduction	1
	Purpose	1
	Existing Citywide Fees	2
	Proposed Morgan Ranch Fees	2
	Report Organization	4
2.	FUTURE DEVELOPMENT AND FACILITY NEEDS	5
	Land Use	5
	Infrastructure Requirements.....	5
3.	COST ALLOCATION AND MORGAN RANCH FEES	13
	Introduction	13
	Transportation Facility Cost Allocation	13
	Sanitary Sewer Cost Allocation	15
	Water Cost Allocation	17
	Administration	17
4.	IMPLEMENTATION AND UPDATE.....	19
	Fee Adoption and Administration.....	19
	Annual Review, Accounting, and Updates.....	20
	Supplemental Funding	22
5.	AB 1600 NEXUS FINDINGS	23
	Authority	23
	Purpose of Fees	23
	Use of Fees	23
	Relationship between Use of Fees and Type of Development	24
	Relationship between Need for Facility and Type of Project.....	24
	Relationship between Amount of Fees and Cost of or Portion of Facility Attributed to Development on which Fee is Imposed	25

Appendix A: Fee Comparison

List of Tables and Map

Table 1	Morgan Ranch Fee Summary	3
Table 2	Land Use Summary	7
Table 3	Morgan Ranch Summary of Backbone Infrastructure Costs	8
Table 4	Estimated Transportation Facility Costs.....	9
Table 5	Estimated Sanitary Sewer Facility Costs	10
Table 6	Estimated Water Facility Costs	11
Table 7	Transportation Projects Cost Allocation	14
Table 8	Sanitary Sewer Cost Allocation	16
Table 9	Water Cost Allocation	18
Map 1	Morgan Ranch Master Plan Land Use Map.....	6

1. EXECUTIVE SUMMARY

Introduction

The City of Turlock (City) retained Economic & Planning Systems, Inc. (EPS) to prepare this Morgan Ranch Master Plan (Morgan Ranch or Master Plan) Development Impact Fee Nexus Study that will serve as the basis for establishing the Morgan Ranch development impact fees (Morgan Ranch fees or Master Plan fees). These fees are charged on new development in the Morgan Ranch area to fund the following backbone infrastructure improvements needed to serve the Master Plan area:

- Transportation facilities
- Sanitary sewer facilities
- Water facilities

A Master Plan was first proposed by property owners in 2004. In 2005, a number of development concepts were analyzed. One of the landowners intending to develop property in the Morgan Ranch area agreed to fund the preparation of the Master Plan. When demand for new housing dropped significantly in 2008, all efforts to prepare the Master Plan were halted.

In 2010, the City agreed to take over the responsibility of funding and completing the Master Plan. Quad Knopf, Inc. was selected as the prime consultant to prepare the Master Plan and its accompanying Environmental Impact Report. Preparation of the Master Plan commenced in 2011 as a coordinated effort between the City of Turlock, the Quad Knopf consulting team, and several technical subconsultants. Since, a draft Master Plan was completed in March 2015.

Purpose

The purpose of this study is to establish the nexus between new development in the Master Plan area and the transportation, sanitary sewer, and water facilities required to serve that development. This nexus will serve as the basis for establishing the Morgan Ranch fees under Assembly Bill (AB) 1600 legislation, as codified by California Government Code Section 66000 et. seq. This code section sets forth the procedural requirements for establishing and collecting development impact fees. These procedures require that “a reasonable relationship, or nexus, must exist between a governmental exaction and the purpose of the condition.” Specifically, each local agency imposing a fee must perform the following tasks:

- Identify the purpose of the fee.
- Identify how the fee is to be used.
- Determine how a reasonable relationship exists between the fee’s use and the type of development project on which the fee is imposed.

- Determine how a reasonable relationship exists between the need for the public facility and the type of development project on which the fee is imposed.
- Determine a reasonable relationship between the amount of the fee and the cost of public facility or portion of public facility attributable to development on which the fee is imposed.

Existing Citywide Fees

The City currently requires payment of citywide fees for all new development within the City boundaries. Thus, development in Morgan Ranch must pay the citywide fees in addition to the Master Plan fees. The following fees are included in the citywide fee program:

- **Capital Facility Fees (CFF)** fund capital facilities for roadways, police, fire, and general City government.
- **Wastewater Plant Capacity Fees** fund sewer treatment plant expansions needed to accommodate added sewer flow resulting from new development.
- **Sewer Trunk Capacity Fees** fund construction of citywide sewer trunk lines or the oversizing of normal-sized sewer lines to become sewer trunk lines.
- **Master Storm Drainage Fee** funds the improvement of citywide drainage facilities, including master storm drains and master detention basins.
- **Water Capital Facilities Fee (Water Grid Fee)** funds the improvement of major water supply, transmission, and storage facilities.
- **Additional Fees**—In addition to the major fees listed above, the City charges some additional fees on new development:
 - **Street Light Development Fees.**
 - **Sewer and Water Connection Fees.**
 - **Sewer and Water Frontage Fees.**
 - **Water Meter Fees.**

Proposed Morgan Ranch Fees

The Morgan Ranch fees are based on the estimated benefit received by future development in the Master Plan area for Morgan Ranch facilities to be constructed. The total proposed transportation, sanitary sewer, and water fees for each land use in the Master Plan area are shown in **Table 1**. Residential fees will be charged per dwelling unit; and nonresidential fees will be charged per 1,000 building square feet constructed.

**Table 1
Morgan Ranch Nexus Study
Fee Summary**

Land Use	Morgan Ranch Fee					
	Transportation	Sanitary Sewer	Water	Subtotal	Administration	Total
<i>Source</i>	<i>Table 7</i>	<i>Table 8</i>	<i>Table 9</i>		<i>3%</i>	
Residential	----- <i>per dwelling unit</i> -----					
Very Low Density Residential	\$8,593	\$1,306	\$8,523	\$18,422	\$553	\$18,975
Low Density Residential	\$8,593	\$1,306	\$5,114	\$15,013	\$450	\$15,463
Low-Medium Density Residential	\$8,593	\$1,306	\$3,409	\$13,308	\$399	\$13,707
Medium Density Residential	\$8,593	\$1,039	\$2,324	\$11,956	\$359	\$12,315
High Density Residential	\$6,002	\$877	\$2,779	\$9,658	\$290	\$9,948
Nonresidential	----- <i>per 1,000 bldg. sq. ft.</i> -----					
Community Commercial	\$10,833	\$375	\$1,123	\$12,331	\$370	\$12,701
Office	\$5,190	\$268	\$802	\$6,260	\$188	\$6,448

sum fee

3

Report Organization

This report is divided into five chapters and one appendix:

- **Chapter 1** includes this executive summary.
- **Chapter 2** describes the future development and facility needs.
- **Chapter 3** provides the fee calculation for the improvement of facilities.
- **Chapter 4** describes how the fees will be implemented and updated.
- **Chapter 5** provides the nexus findings for the improvement fees.
- **Appendix A** includes comparisons of the Morgan Ranch fees to similar fees in nearby jurisdictions.

2. FUTURE DEVELOPMENT AND FACILITY NEEDS

This chapter describes the amount of development planned to occur in the Master Plan area and the public facility improvements necessary to provide adequate services to this new development.

Land Use

In total, the Master Plan area encompasses approximately 171 acres of land located within the City of Turlock and described in the City's General Plan as the "roughly triangular area that is bounded by State Highway 99 to the south, Golf Road to the east, and Glenwood Avenue to the north." Approximately 112 acres remain to be developed for residential, commercial, and office uses. The other 49 acres are composed of existing commercial and residential development, and storm drainage basin, two future park sites, an additional future drainage basin, and a future elementary school. **Map 1** shows the location of Morgan Ranch, as well as the Master Plan land uses.

The developable land in Morgan Ranch consists of low-medium density residential, high density residential, community commercial, and office uses, as shown in **Table 2**. The land use designations and estimated acres and development projections are based on information provided by the City. This planned development also is discussed in the 2015 Draft Morgan Ranch Master Plan. The land use classifications are more specifically described in the City's General Plan.

Infrastructure Requirements

To ensure successful development of the Master Plan area, infrastructure upgrades are necessary. The Morgan Ranch fees cover the costs of improvements not covered by the existing citywide fee program. The Morgan Ranch fees include funding for transportation, sanitary sewer, and water facilities.

The City provided cost estimates for the transportation, sanitary sewer, and water infrastructure upgrades to be funded through Morgan Ranch fees. **Table 3** summarizes these costs. The estimates are reduced by the City share of the transportation costs for improvements needed to serve citywide development. Infrastructure requirements and estimated costs are detailed for the respective infrastructure items in **Tables 4** through **6**. The City has also indicated that any storm drainage facilities within the Master Plan area would be handled through the City Master Storm Drainage Fee. Thus, the required storm drainage facilities and associated costs are left out of this nexus study.

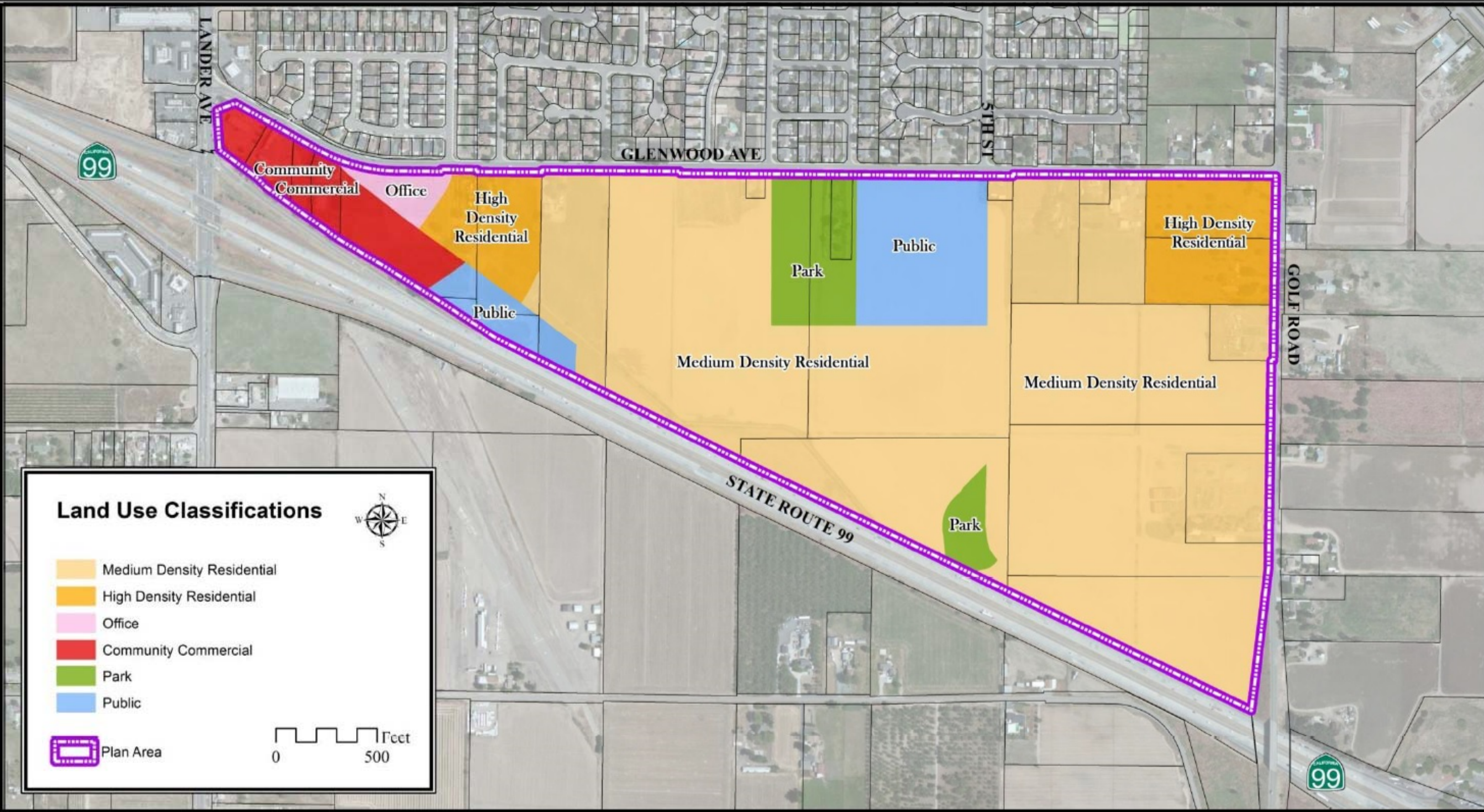


Table 2
Morgan Ranch Nexus Study
Morgan Ranch Land Use Assumptions

Land Use Category	Gross Acres [1]	Units per Acre/ FAR [2]	Dwelling Units/ Building Sq. Ft.
Residential			
		<i>units/ac.</i>	<i>dwelling units</i>
Very Low Density Residential	0.0	3.0	0
Low Density Residential	0.0	5.0	0
Low-Medium Density Residential	94.6	7.5	709
Medium Density Residential	0.0	11.0	0
High Density Residential	13.4	18.0	240
Subtotal Residential	107.9	-	949
Nonresidential			
		<i>FAR</i>	<i>bldg. sq. ft.</i>
Community Commercial	3.0	0.25	32,452
Office	1.3	0.35	19,058
Subtotal Nonresidential	4.2	-	51,510

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Source: City of Turlock; Carollo, 2013: Sewer System Master Plan and Storm Water Master Plan.

- [1] Gross acres were determined by identifying developable area excluding existing development.
- [2] Low-Medium Density Residential and High Density Residential densities provided by the City. Other residential land use densities based on assumptions used City of Turlock Sewer System Master Plan and Storm Water Master Plan.

Table 3
Morgan Ranch Nexus Study
Summary of Backbone Infrastructure Costs

Item	Estimated Costs			Total
	Transportation	Sanitary Sewer	Water	
<i>Source</i>	<i>Table 4</i>	<i>Table 5</i>	<i>Table 6</i>	-
Total Construction Cost	\$12,304,381	\$1,154,409	\$3,138,240	\$16,597,029
Less CFF [1]	(\$4,321,284)	\$0	\$0	(\$4,321,284)
Total Cost	\$7,983,097	\$1,154,409	\$3,138,240	\$12,275,745

cost sum

[1] Source: City of Turlock Capital Facilities Fee Nexus Study.

**Table 4
Morgan Ranch Nexus Study
Transportation Facilities Costs**

Costs - Transportation

Project	Construction Cost	Contingency	Subtotal w/ Contingency	Engineering, Bonding & Project Mngmt.	Plan Check & Inspection Costs [1]	Total	Less CFF Share	Amount for Fee	
<i>Formula</i>	<i>a</i>	<i>b = a * 10%</i>	<i>c = a + b</i>	<i>d = c * 10%</i>	<i>e = c * 8%</i>	<i>f = c + d + e</i>	<i>g</i>	<i>f + g</i>	
<i>Percent</i>		10.00%		10.00%	8.00%				
Transportation Project									
1	Traffic signal at GSB, Berkeley, Golf [1]	\$2,500,000	\$250,000	\$2,750,000	\$275,000	\$220,000	\$3,245,000	(\$1,460,000)	\$1,785,000
2	Construct new Morgan Ranch two lane divided arterial and RAB from Baywood to Golf Rd	\$3,119,478	\$311,948	\$3,431,425	\$343,143	\$274,514	\$4,049,082	(\$1,473,601)	\$2,575,481
3	Construct new Morgan Ranch four lane arterial from Baywood to Lander	\$538,623	\$53,862	\$592,485	\$59,249	\$47,399	\$699,133	(\$722,531)	(\$23,398)
4	Construct Golf Road as two lane divided arterial from Glenwood to 99	\$523,414	\$52,341	\$575,755	\$57,575	\$46,060	\$679,391	(\$465,152)	\$214,239
5	Provide safety and improvements to Golf Road from Linwood to Berkeley (County)	\$195,978	\$19,598	\$215,576	\$21,558	\$17,246	\$254,379	\$0	\$254,379
6	Block wall along Hwy 99	\$400,000	\$40,000	\$440,000	\$44,000	\$35,200	\$519,200	\$0	\$519,200
7	Irrigation Line (West)	\$826,000	\$82,600	\$908,600	\$90,860	\$72,688	\$1,072,148	\$0	\$1,072,148
8	Irrigation Line (East)	\$490,000	\$49,000	\$539,000	\$53,900	\$43,120	\$636,020	\$0	\$636,020
9	Right turn pocket at lander and E. Glenwood (Should this be here if in cff)	\$200,000	\$20,000	\$220,000	\$22,000	\$17,600	\$259,600	(\$200,000)	\$59,600
10	Underground Overhead Utilities on Glenwood	\$368,000	\$36,800	\$404,800	\$40,480	\$32,384	\$477,664	\$0	\$477,664
11	Underground Overhead Utilities on Golf	\$318,000	\$31,800	\$349,800	\$34,980	\$27,984	\$412,764	\$0	\$412,764
Total Transportation Facility Cost		\$9,479,492	\$947,949	\$10,427,441	\$1,042,744	\$834,195	\$12,304,381	(\$4,321,284)	\$7,983,097

trans cost

Source: Morgan Ranch Master Plan - Transportation Component.

[1] Stanislaus County estimates the improvements cost at \$5,000,000 of which 50% is allocated to the City of Turlock. The CFF share is \$1,460,000, so the remaining \$1,785,000 (\$1,040,000 construction cost, \$250,000 contingency, \$275,000 for engineering, bonding, and project management) will be from the Morgan Ranch Master Plan Fee.

**Table 5
Morgan Ranch Nexus Study
Sanitary Sewer Facilities Costs**

Costs - Sanitary Sewer

Project	Construction Cost	Contingency	Subtotal w/ Contingency	Engineering, Bonding & Project Mngmt.	Plan Check & Inspection Costs [1]	Total
<i>Formula</i>	<i>a</i>	<i>b = a * 10%</i>	<i>c = a + b</i>	<i>d = c * 10%</i>	<i>e = c * 8%</i>	<i>c + d + e</i>
<i>Percent</i>		10.00%		10.00%	8.00%	
Sanitary Sewer Project						
1 Sewer Line in Glenwood Ave from 5th St to Golf Rd	\$106,875	\$10,688	\$117,563	\$11,756	\$9,405	\$138,724
2 Sewer Line in Golf Rd from Glenwood Ave to New Arterial	\$97,500	\$9,750	\$107,250	\$10,725	\$8,580	\$126,555
3 Sewer Line in Golf Rd from Glenwood Ave to Linwood Ave	\$140,000	\$14,000	\$154,000	\$15,400	\$12,320	\$181,720
4 Sewer Line in Linwood Ave from Golf Rd to Existing 24" Line	\$80,000	\$8,000	\$88,000	\$8,800	\$7,040	\$103,840
5 Sewer Lift Station Property Acquisition	\$65,000	\$6,500	\$71,500	\$7,150	\$5,720	\$84,370
6 Sewer Lift Station on Glenwood Ave at Golf Rd	\$400,000	\$40,000	\$440,000	\$44,000	\$35,200	\$519,200
Total Sanitary Sewer Facility Cost	\$889,375	\$88,938	\$978,313	\$97,831	\$78,265	\$1,154,409

sewer cost

Source: Morgan Ranch Master Plan - Sewer Component.

10

**Table 6
Morgan Ranch Nexus Study
Water Facilities Costs**

Costs - Water

Project	Construction Cost	Contingency	Subtotal w/ Contingency	Engineering, Bonding & Project Mngmt.	Plan Check & Inspection Costs [1]	Total
<i>Formula</i>	<i>a</i>	<i>b = a * 10%</i>	<i>c = a + b</i>	<i>d = c * 10%</i>	<i>e = c * 8%</i>	<i>c + d + e</i>
<i>Percent</i>		<i>10.00%</i>		<i>10.00%</i>	<i>8.00%</i>	
Water Project						
1 Water Line in Glenwood Ave from East of 5th St to Golf Rd	\$66,000	\$6,600	\$72,600	\$7,260	\$5,808	\$85,668
2 Water Line in 5th St from Glenwood Ave to New Arterial	\$78,000	\$7,800	\$85,800	\$8,580	\$6,864	\$101,244
3 Water Line in 5th St from New Arterial to Well Site	\$123,000	\$12,300	\$135,300	\$13,530	\$10,824	\$159,654
4 Water Line in Golf Road from Linwood Ave to Glenwood Ave	\$98,000	\$9,800	\$107,800	\$10,780	\$8,624	\$127,204
5 Water Line in Golf Road from Glenwood Ave to New Arterial	\$105,000	\$10,500	\$115,500	\$11,550	\$9,240	\$136,290
6 Water Line in Golf Road from New Arterial to Well Site	\$77,000	\$7,700	\$84,700	\$8,470	\$6,776	\$99,946
7 Water Line in New Arterial From Glenwood Ave to 5th Street	\$260,750	\$26,075	\$286,825	\$28,683	\$22,946	\$338,454
8 Water Line in New Arterial From 5th Street to Golf Rd	\$105,000	\$10,500	\$115,500	\$11,550	\$9,240	\$136,290
9 Water Well Property Acquisition	\$130,000	\$13,000	\$143,000	\$14,300	\$11,440	\$168,740
10 Water Well	\$750,000	\$75,000	\$825,000	\$82,500	\$66,000	\$973,500
11 Irrigation Well at Storm Pond and Park	\$300,000	\$30,000	\$330,000	\$33,000	\$26,400	\$389,400
12 Purple Pipe System in Street to serve storm basin, park and median	\$325,000	\$32,500	\$357,500	\$35,750	\$28,600	\$421,850
Total Water Facility Cost	\$2,417,750	\$241,775	\$2,659,525	\$265,953	\$212,762	\$3,138,240

water cost

Source: Morgan Ranch Master Plan - Water Component.

11

Transportation Improvements

The Morgan Ranch fees will fund transportation improvements needed by the Master Plan area. These improvements include road improvements, a new traffic signal, irrigation improvements, a sound wall, and underground electrical improvements. The transportation facilities cost to be funded by the Morgan Ranch fee totals approximately \$8.0 million.

Note: Proposed Morgan Ranch transportation facilities exclude any facilities included in the citywide transportation fee program.

Sanitary Sewer Improvements

The Morgan Ranch fees will fund sanitary sewer improvements needed by the Master Plan area. These improvements include a series of sewer mains and a lift station, as well as the required land acquisition for the lift station. The sanitary sewer facilities cost to be funded by the Morgan Ranch fees totals approximately \$1.2 million.

Note: Proposed Morgan Ranch sanitary sewer facilities exclude any facilities included in the citywide sanitary sewer fee program.

Water Improvements

The Morgan Ranch fees will fund water improvements needed by the Master Plan area, as well as land acquisition for the improvements. The required land acquisition and improvements include the following items:

- Property purchase for a water well.
- A water well.
- Water lines.
- An irrigation well.
- Purple pipe system.

The net water facilities cost to be funded by the Morgan Ranch fee totals approximately \$3.1 million.

Note: Proposed Morgan Ranch water facilities exclude any facilities included in the citywide water fee program.

3. COST ALLOCATION AND MORGAN RANCH FEES

Introduction

For each facility type, the Morgan Ranch fees are estimated by allocating the improvement costs (detailed in the previous chapter) to the various land uses, based on each land use's relative demand for the facility type. The Morgan Ranch fees are calculated on a per-dwelling-unit basis for residential uses and per 1,000 building square feet for nonresidential uses. The City charges an additional 3 percent to administer the fee program. The Morgan Ranch fees were summarized in **Table 1** in the first chapter.

The specific steps in allocating the costs and estimating the fees for each facility type are outlined below:

1. Determine the improvement costs benefiting the Master Plan area. These improvement costs were detailed in the previous chapter.
2. Determine the use factor, or level of demand, for each land use. This use factor is either expressed per dwelling unit, per 1,000 building square feet, or per acre.
3. Multiply the use factor by the projected amount of development (dwelling units, per 1,000 building square feet, or acres, depending on whether the use factor is expressed per dwelling unit, per 1,000 building square feet, or per acre) to derive the facility demand for each land use category. Use these demand estimates to calculate the percentage distribution of total demand across land uses.
4. Allocate the net improvement costs from step 1 to the various land uses based on each land use's percentage of total facility demand.
5. For each Morgan Ranch land use, divide the allocated cost by the number of dwelling units for residential uses, or per 1,000 building square feet for nonresidential uses to determine the fee per dwelling unit, or per 1,000 building square feet.

Although only Low-Medium Density Residential (LMDR) and High Density Residential development is included in Morgan Ranch for residential uses, a fee also is established for the other City General Plan residential uses to address the possibility of zoning changes. Each of these fees is calculated as the use factor for the particular land use divided by the LMDR use factor multiplied by the LMDR fee. In other words, the fee is estimated as the relative facility demand for the particular land use as a percentage of the LMDR demand multiplied by the LMDR fee.

Transportation Facility Cost Allocation

Table 7 details the transportation facility cost allocation and fee estimates. Transportation facility costs are allocated to the various land uses based on the estimated daily trips per dwelling unit for residential land uses, or per 1,000 building square feet for nonresidential uses.

**Table 7
Morgan Ranch Nexus Study
Transportation Projects Cost Allocation**

Transportation Allocation

Land Use	Dwelling Units/ Bldg. Sq. Ft.	Cost Allocation Basis					DUE Factor	New Trip Miles Generated	Distribution of Trip Miles Generated	Cost Allocation	
		Daily Trips per DU/ 1,000 Bldg. Sq. Ft.	Average Trip Length	Trip End-to-End Reduction Factor	VMT per DU/ 1,000 Bldg. Sq. Ft.	LMDR e				Assigned Cost	Per DU/ 1,000 Bldg. Sq. Ft. [1]
<i>Formula</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e = b*c*d</i>	<i>f = e / LMDR e</i>	<i>g = a * e</i>	<i>h = g / total g</i>	<i>i = h * total cost</i>	<i>i / a</i>	
Residential	<u>units</u>	<u>per unit</u>			<u>per unit</u>					<u>per unit</u>	
Very Low Density Residential	0	9.52	9.7	70%	65	1.00	0	0.0%	\$0	\$8,593	
Low Density Residential	0	9.52	9.7	70%	65	1.00	0	0.0%	\$0	\$8,593	
Low-Medium Density Residential (LMDR)	709	9.52	9.7	70%	65	1.00	45,830	76.3%	\$6,092,125	\$8,593	
Medium Density Residential	0	9.52	9.7	70%	65	1.00	0	0.0%	\$0	\$8,593	
High Density Residential (HDR)	240	6.65	9.7	70%	45	0.70	10,837	18.0%	\$1,440,517	\$6,002	
Subtotal Residential	949						56,667	94.4%	\$7,532,642		
<i>Formula</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e = b*c*d</i>	<i>f = e / LDR e</i>	<i>g = a * e / 1,000</i>	<i>h = g / total g</i>	<i>i = h * total h</i>	<i>i / a * 1,000</i>	
Nonresidential	<u>bldg. sq. ft.</u>	<u>per 1,000 bldg. sq. ft.</u>			<u>per 1,000 bldg. sq. ft.</u>					<u>per 1,000 bldg. sq. ft.</u>	
Community Commercial	32,452	67.91	4.0	30%	81	1.26	2,645	4.4%	\$351,540	\$10,833	
Office	19,058	11.03	11.8	30%	39	0.60	744	1.2%	\$98,915	\$5,190	
Subtotal Nonresidential	51,510						3,389	5.6%	\$450,455		
Total Plan Area							60,056	100.0%	\$7,983,097		

trans alloc

Source: Institute of Transportation Engineers, Trip Generation Handbook, 9th Edition; City of Turlock; EPS.

[1] A cost per DU is estimated for all residential land uses to account for the possibility of a zoning change. For land uses that are not proposed for the Morgan Ranch Master Plan, cost per DU = DUE factor * LMDR cost per DU.

The estimated daily trips per dwelling unit or per 1,000 building square feet were obtained from the Institute of Transportation Engineers' Trip Generation Handbook, 9th Edition. These factors are used to estimate the number of new trip miles generated for each land use. The transportation facility costs are allocated to the Morgan Ranch land uses based on the distribution of new trip miles generated by future development. For each residential land use, the fee per dwelling unit is estimated as the allocated cost divided by the number of dwelling units for that land use. For each nonresidential land use, the fee per 1,000 building square feet is estimated as the allocated cost divided by the building square footage times 1,000 for that land use.

*Note that a fee per dwelling unit also is calculated for residential uses that are not planned for Morgan Ranch to address the possibility of zoning changes. The methodology for calculating these fees was described previously in this chapter and is further detailed in **Table 7**.*

Sanitary Sewer Cost Allocation

Table 8 details the sanitary sewer cost allocation and fee estimate. Sanitary sewer costs are allocated to the Morgan Ranch land uses based on the estimated wastewater treatment flow by land use, expressed in gallons per day (GPD) per acre. The estimated GPD per acre factors were obtained from the City Sewer System Master Plan (Carollo, 2013). These factors are used to estimate each land use's relative sanitary sewer facility demand. The sanitary sewer costs are allocated to the Morgan Ranch land uses based on the demand distribution among the land uses. The fee per dwelling unit for each residential land use is estimated as the allocated cost divided by the number of dwelling units for that land use. The fee per 1,000 building square feet for each nonresidential land use is estimated as the allocated cost divided by the total building square feet, times 1,000 for that land use.

*Note that a fee per dwelling unit also is calculated for residential uses that are not planned for Morgan Ranch to address the possibility of zoning changes. The methodology for calculating these fees was described previously in this chapter and is further detailed in **Table 8**.*

**Table 8
Morgan Ranch Nexus Study
Sanitary Sewer Cost Allocation**

Sanitary Sewer Allocation

Land Use	Development			Cost Allocation Basis				Cost Allocation		
	Acres	Dwelling Units per Acre/FAR	Bldg. Sq. Ft. per Acre	GPD per Acre [1] [2] [3] [4]	DUE Factor per Acre	Sewer Demand (GPD)	Distribution of Sewer Demand	Assigned Cost	Per Acre [5]	Per Dwelling Unit/1,000 Bldg. Sq. Ft.
<i>Formula</i>	<i>a</i>	<i>b</i>	-	<i>c</i>	$d = c / \text{LMDR } c$	$e = a * c$	$f = e / \text{total } e$	$g = f * \text{total cost}$	$h = g / a$	h / b
Residential		<u>units/acre</u>								<u>per unit</u>
Very Low Density Residential (VLDR)	0.0	3.0	-	720	0.40	0	0.0%	\$0	\$3,918	\$1,306
Low Density Residential (LDR)	0.0	5.0	-	1,200	0.67	0	0.0%	\$0	\$6,530	\$1,306
Low-Medium Density Residential (LMDR)	94.6	7.5	-	1,800	1.00	170,237	80.2%	\$926,325	\$9,795	\$1,306
Medium Density Residential	0.0	11.0	-	2,100	1.17	0	0.0%	\$0	\$11,427	\$1,039
High Density Residential (HDR)	13.4	18.0	-	2,900	1.61	38,744	18.3%	\$210,821	\$15,780	\$877
Subtotal Residential	107.9					208,981	98.5%	\$1,137,146		
<i>Formula</i>	<i>a</i>	<i>b</i>	$c = b * 43,560$	<i>d</i>	$e = d / \text{LDR } c$	$f = a * d$	$g = f / \text{total demand}$	$h = g * \text{total cost}$	$i = h / a$	$i / c * 1,000$
Nonresidential		<u>FAR</u>	<u>bldg. sq. ft.</u>							<u>per 1,000 bldg. sq. ft.</u>
Community Commercial	3.0	0.25	10,890	750	0.42	2,235	1.1%	\$12,162	\$4,081	\$375
Office	1.3	0.35	15,246	750	0.42	938	0.4%	\$5,101	\$4,081	\$268
Subtotal Nonresidential	4.2					3,173	1.5%	\$17,263		
Total	112.2					212,153	100.0%	\$1,154,409		

sewer alloc

Source: City of Turlock; Turlock Sewer System Master Plan (Carollo, Oct. 2013); EPS.

- [1] Gallons per Day (GPD) per Acre assumptions based on Turlock Sewer System Master Plan (Carollo, Oct. 2013).
- [2] The Sanitary Sewer Master Plan includes a VLDR factor of 384 GPD per Acre. This factor is based on an average density of 1.6 VLDR units per acre. Since the analysis assumes an average density of 3.0 units per acre for potential VLDR use, the VLDR GPD per Acre factor is adjusted as follows:
 $384 * 3 / 1.6 = 720$ GPD per Acre.
- [3] The Sanitary Sewer Master Plan includes a LDR factor of 1,350 GPD per Acre. This factor is adjusted to 1,200 GPD per Acre per City direction.
- [4] The Sanitary Sewer Master Plan includes a HDR factor of 4,300 GPD per Acre. This factor is based on an average density of 27 HDR units per acre. Since the Morgan Ranch Master Plan has an average density of 18 units per acre for HDR use, the HDR GPD per Acre factor is adjusted as follows:
 $4,300 * 18 / 27$ (Rounded) = 2,900 GPD per Acre.
- [5] A cost per acre is estimated for additional residential land uses to account for the possibility of a zoning change. For land uses that are not proposed for the Morgan Ranch Master Plan, cost per acre = DUE factor * LMDR cost per acre.

Water Cost Allocation

Table 9 details the water cost allocation and fee estimate. Water costs are allocated to the various Morgan Ranch land uses based on the estimated water demand by land use, expressed in gallons per minute (GPM) per acre. The estimated GPM per acre factors were obtained from the City Water Master Plan Update (May 2009). These factors are used to estimate each land uses relative water facility demand. The water costs are allocated to the Morgan Ranch land uses based on the water demand distribution along the land uses. The fee per dwelling unit for each residential land use is estimated as the allocated cost divided by the number of dwelling units for that land use. The fee per 1,000 building square feet for each nonresidential land use is estimated as the allocated cost divided by the total building square feet, times 1,000 for that land use.

*Note that a fee per dwelling unit also is calculated for residential uses that are not planned for Morgan Ranch to address the possibility of zoning changes. The methodology for calculating these fees was described previously in this chapter and is further detailed in **Table 9**.*

Administration

In addition to the transportation, sanitary sewer and water fees, the City charges a fee to administer the Morgan Ranch fee program. As with the facilities fees, the administration fee is charged per dwelling unit for residential uses and per 1,000 building square feet for nonresidential uses. For each land use, it is calculated as 3 percent of the sum of the facilities fees.

**Table 9
Morgan Ranch Nexus Study
Water Cost Allocation**

Water Allocation

Land Use	Development			Cost Allocation Basis					Cost Allocation		
	Acres	Dwelling Units per Acre/FAR	Bldg. Sq. Ft. per Acre	GPM per Acre [1] [2]	GPD per Acre	DUE Factor per Acre	Water Demand (GPD)	Distribution of Water Demand	Assigned Cost	Per Acre [3]	Per Dwelling Unit/1,000 Bldg. Sq. Ft.
<i>Formula</i>	<i>a</i>	<i>b</i>	-	<i>c</i>	$d = c * \frac{60 \text{ min/hour}}{24 \text{ hour/day}}$	$e = d / \text{LMDR}$	$f = a * d$	$g = f / \text{total demand}$	$h = g * \text{total cost}$	$i = h / a$	i / b
Residential		<i>units per acre</i>									<i>per unit</i>
Very Low Density Residential	0.0	3.0	-	2.3	3,312	1.00	0	0.0%	\$0	\$25,569	\$8,523
Low Density Residential	0.0	5.0	-	2.3	3,312	1.00	0	0.0%	\$0	\$25,569	\$5,114
Low-Medium Density Residential (LMDR)	94.6	7.5	-	2.3	3,312	1.00	313,236	77.1%	\$2,418,173	\$25,569	\$3,409
Medium Density Residential	0.0	11.0	-	2.3	3,312	1.00	0	0.0%	\$0	\$25,569	\$2,324
High Density Residential (HDR)	13.4	18.0	-	4.5	6,480	1.96	86,573	21.3%	\$668,340	\$50,025	\$2,779
Subtotal Residential	107.9						399,809	98.4%	\$3,086,513		
<i>Formula</i>	<i>a</i>	<i>b</i>	$c = b * 43,560$	<i>d</i>	$e = d * \frac{60 \text{ min/hour}}{24 \text{ hour/day}}$	$f = e / \text{LDR}$	$g = a * e$	$h = g / \text{total demand}$	$i = h * \text{total cost}$	$j = i / a$	$j / c * 1,000$
Nonresidential		<i>FAR</i>	<i>bldg. sq. ft.</i>								<i>per 1,000 bldg. sq. ft.</i>
Community Commercial	3.0	0.25	10,890	1.1	1,584	0.48	4,720	1.2%	\$36,441	\$12,228	\$1,123
Office	1.3	0.35	15,246	1.1	1,584	0.48	1,980	0.5%	\$15,286	\$12,228	\$802
Subtotal Nonresidential	4.2						6,700	1.6%	\$51,726		
Total	112.2						406,509	100.0%	\$3,138,240		

water alloc

Source: City of Turlock; EPS.

[1] GPM per acre assumptions based on City of Turlock Water Master Plan Update, May 2009.

[2] The Water Master Plan Update includes a HDR factor of 6.8 GPM per Acre. EPS assumes this factor is based on an average density of 27 HDR units per acre, based on the density assumptions of the Master Storm Master Plan and the Sewer System Master Plan. Since the Morgan Ranch Master Plan has an average density of 18 units per acre for HDR use, the HDR GPM per Acre factor is adjusted as follows:
 $6.8 * 18 / 27 = 4.5$ GPM per Acre.

[3] A cost per acre is estimated for additional residential land uses to account for the possibility of a zoning change. For land uses that are not proposed for the Morgan Ranch Master Plan, cost per acre = DUE factor * LMDR cost per acre.

4. IMPLEMENTATION AND UPDATE

Fee Adoption and Administration

The proposed Morgan Ranch fees will need to be adopted by City Resolution as enabled by the current City code, which is articulated in Chapter 8-11 of the City's municipal code. This chapter was updated in 2013 and is referred to as the Capital Facilities Fees Law of the City of Turlock (CFF Law). The CFF Law allows the City Council to adopt, by resolution, a fee schedule consistent with supporting technical analysis and findings provided in this report. The resolution approach to setting the fee allows periodic adjustments of the fee amount that may be necessary over time, without amending the enabling ordinance.

The CFF Law includes a section (8-11-11) stating that the specifications of this law shall apply not only to the CFF, but also to Master Plan fee programs. The CFF Law addresses the primary implementation and administrative issues and procedures associated with the CFF and Master Plan fees. A brief summary of the key implementation and administrative elements is provided below.

Applicable Land Uses

All new development that occurs in Morgan Ranch, except as specifically exempted by the CFF Law, will pay the Master Plan fee. While the maximum fee amount will be determined by this Nexus Study, the City may elect to charge less for a variety of reasons and under certain circumstances, as described in the CFF Law. In any case, the applicable fees will be published in a Fee Schedule made available by the City and updated periodically. The amount will vary by land use, as summarized in **Table 1** of this report.

It is possible that certain projects may not fit neatly into the categories defined in **Table 1**. In cases where such ambiguity exists, the City Engineer and City Manager will need to make a determination as to the applicable fees. The CFF Law articulates guidelines for resolving discrepancies or disputes.

Fee Escalation

The CFF Law allows for an automatic adjustment of the Morgan Ranch fees to keep pace with inflation-adjusted increases in construction costs. This allows the fee level to keep pace with inflation without requiring an annual approval process. This adjustment is based on cost indices published by the Engineering News Record (ENR), a source widely used in the construction industry and by many jurisdictions as a basis for making annual inflation adjustments to development impact fees. ENR's Construction Cost Index (CCI) has been published consistently every month since 1913 for 20 U.S. cities and for a national average of these 20 cities. As such, it is one of the most reliable and consistent indices that track trends in construction costs.

Timing and Manner of Payment

The CFF Law addresses issues related to the timing and manner of payment for the Morgan Ranch fees, including the potential for fee deferrals, payment plans, credits and reimbursements, exemptions, and related adjustments.

Annual Review, Accounting, and Updates

Annual Review

This report and the technical information it contains should be maintained and reviewed periodically by the City as necessary to ensure the accuracy of the estimated Morgan Ranch fees and to enable the adequate programming of funding sources. To the extent that improvement requirements, costs, or development potential changes over time, the Morgan Ranch fee program will need to be updated. Specifically, AB 1600 (at Gov. C. §§ 66001(c), 66006(b)(1)) stipulates each local agency that requires payment of a fee make specific information available to the public annually, within 180 days of the last day of the fiscal year, including the following information:

- A description of the type of fee in the account.
- The amount of the fee.
- The beginning and ending balance of the fund.
- The amount of fees collected and interest earned.
- Identification of the improvements constructed.
- The total cost of the improvements constructed.
- The fees expended to construct the improvement.
- The percentage of total costs funded by the fee.

If sufficient fees have been collected to fund construction of an improvement, the agency must specify the approximate date for construction of that improvement. Because of the dynamic nature of growth and infrastructure requirements, the City should monitor development activity, the need for infrastructure improvements, and the adequacy of the fee revenues and other available funding. Formal annual review of the Morgan Ranch fee program should occur, at which time, necessary adjustments should be made to the fee program. The fee program includes an administrative component that funds the costs associated with this monitoring and updating effort.

Surplus Funds

AB 1600 also requires that if any portion of a fee remains unexpended or uncommitted in an account for 5 years or more after deposit of the fee, the City Council shall make these findings once each year: (1) identify the purpose to which the fee is to be put, (2) demonstrate a reasonable relationship between the fee and the purpose for which it was charged, (3) identify all sources and amounts of funding anticipated to complete financing of incomplete improvements, and (4) designate the approximate dates on which the funding identified in (3) is expected to be deposited into the appropriate fund.

If adequate funding has been collected for a certain improvement, an approximate date must be specified as to when construction on the improvement will begin. If the findings show no need for the unspent funds or if the conditions discussed above are not met, and the administrative costs of the refund do not exceed the refund itself, the local agency that has collected the funds must refund them.

Internal Loaning of Funds

Loans between the Morgan Ranch fee funds may be used from time to time to facilitate construction of Morgan Ranch facilities and assure adequate cash flow. Any such loan shall be made in accordance with applicable law, as interpreted by the City Attorney, and all funds shall be placed in separate accounts on either a facility or geographic basis. The additional following requirements also are placed on loans between Morgan Ranch fee funds:

1. Funds may be transferred between accounts to expedite construction of critical projects and facilities.
2. A mechanism to repay accounts shall be established.
3. Interest charged on each loan shall be based on the Local Agency Investment Fund rate in effect at the time of the loan and shall be deposited into the account providing the loan.
4. Inter-fund loan repayments shall take precedence over reimbursements to developers.

Five-Year Update

Fees will be collected from new development in the City immediately; however, use of these funds may need to wait until a sufficient fund balance can be accrued. According to Government Code Section 66006, the City is required to deposit, invest, account for, and expend the fees in a prescribed manner. The fifth fiscal year following the first deposit into the fee account or fund, and every 5 years thereafter, the City is required to make all of the following findings with respect to that portion of the account or fund remaining unexpended:

- Identify the purpose for which the fee is to be put.
- Demonstrate a reasonable relationship between the fee and the purpose for which it is charged.
- Identify all sources and amounts of funding anticipated to complete financing in incomplete improvements.
- Designate the approximate dates the funding referred to in the above paragraph is expected to be deposited in the appropriate account or fund.

Once sufficient funds have been collected to complete the specified projects, the City must commence construction within 180 days. If it fails to do this, the City is required to refund the unexpended portion of the fee and any accrued interest to the then-current owners.

Supplemental Funding

Although the Morgan Ranch fees are intended to fully fund the identified Morgan Ranch facilities, it is possible the City may use supplemental funds for future facilities. Supplemental funding may include the following sources:

- **General Fund Revenues**—In any given year, the City could allocate a portion of its General Fund revenues for discretionary expenditures. Depending on the revenues generated relative to costs and City priorities, the City may allocate General Fund revenues to fund Morgan Ranch facilities costs not covered by the Morgan Ranch fee program or other funding sources.
- **Assessments and Special Taxes**—The City could fund a portion of facilities costs using assessments and special taxes. For example, establishing a Mello-Roos Community Facilities District would allow the City to levy a special tax to pay debt service on bonds sold to fund construction of capital facilities or to fund capital facilities directly.
- **State or Federal Funds**—The City might seek and obtain grants of matching funds from State and Federal sources to help offset the costs of required facilities and improvements. As part of its funding effort, the City should research and monitor these outside revenue sources and apply for funds as appropriate.

It should be noted that during the past few decades, there has been an increasing shift of infrastructure financing responsibilities from state and federal government to the local level. This shift, combined with the effects of the Great Recession (i.e., reduced property values), has left cities with very limited resources, and competition for general fund revenues is high. In addition, many grant programs that once funded major highway improvements and water and sewer infrastructure improvements were long-ago abandoned. As the economy improves, assessments and special districts, which require voter approval, may become more feasible, but at this time, development impact fees are one of the few funding sources that Turlock's City Council can control.

5. AB 1600 NEXUS FINDINGS

Authority

This report has been prepared to establish development impact fees for Morgan Ranch in the City in accordance with the procedural guidelines established in AB 1600, which are codified in California Government Code Section 66000 et. seq. These code sections set forth the procedural requirements for establishing and collecting development impact fees. These procedures require that “a reasonable relationship or nexus must exist between a governmental exaction and the purpose of the condition.”¹

Specifically, each local agency imposing a fee must perform the following tasks:

- Identify the purpose of the fee.
- Identify how the fee is to be used.
- Determine how a reasonable relationship exists between the fee’s use and the type of development project on which the fee is imposed.
- Determine how a reasonable relationship exists between the need for the public facility and the type of development project on which the fee is imposed.
- Demonstrate a reasonable relationship between the amount of the fee and the cost of public facility or portion of public facility attributable to development on which the fee is imposed.

Purpose of Fees

New development in Morgan Ranch will increase the demand for transportation, sanitary sewer and water facilities. Funding by the Morgan Ranch fees will provide for these needed infrastructure improvements. The transportation, sanitary sewer and water improvements are described in more detail in **Chapter 2**.

Use of Fees

Morgan Ranch fees from new development will be used to fund the following improvements:

- **Transportation Improvements**—Morgan Ranch fees will fund new transportation infrastructure needed to serve the Master Plan area. Required new transportation facilities include road improvements, a new traffic signal, irrigation improvements, a sound wall, and underground electrical improvements.
- **Sanitary Sewer Improvements**—Morgan Ranch fees will fund new sanitary sewer infrastructure needed to convey sewage from planned new development into the citywide

¹ *Public Needs & Private Dollars*; William Abbott, Marian E. Moe, and Marilee Hanson, page 109.

sewer system. Required new sanitary sewer facilities include a new lift station and associated land acquisition for the lift station, and a series of sewer mains.

- **Water Improvements**—Morgan Ranch fees will fund water facilities needed to accommodate increased water usage by new development. Required new water facilities include a water well and associated property purchase, an irrigation well, a series of purple pipe lines, and a series of water lines throughout the Master Plan area.

Relationship between Use of Fees and Type of Development

The Morgan Ranch fees will fund transportation, sanitary sewer, and water facilities needed to serve new development in the Master Plan area, as summarized below:

- **Transportation Improvements**—New development will generate new vehicular trips in the Master Plan area. Roadway improvements will accommodate the demands of future development.
- **Sanitary Sewer Improvements**—New development will create sewer flow in the Master Plan area. An additional lift station and new sewer mains will create capacity for the sewage system to accommodate the demands of future development.
- **Water Improvements**—New development will create demand for additional water in the Morgan Ranch area. Construction of a new water and irrigation well, a series of water lines, and a purple pipe system in the Master Plan area will create capacity for the water system to accommodate the demands of future development.

Relationship between Need for Facility and Type of Project

- **Transportation Improvements**—Infrastructure upgrades are necessary to ensure adequate transportation facilities to serve future development in the Master Plan area. For new development to occur, road improvements, a new traffic signal, irrigation improvements, a sound wall, and underground electrical improvements are needed to accommodate future use of roads within and bordering the Master Plan area.
- **Sanitary Sewer Improvements**—Infrastructure upgrades are necessary to ensure adequate sanitary sewer facilities to serve future development in the Master Plan area. For new development to occur in the Master Plan area, a new lift station and new sewer mains are needed.
- **Water Improvements**—Water improvements are necessary to ensure adequate water capacity to serve future residential development in the Master Plan area. For new development to occur, a new water and irrigation well, a purple pipe system, and additional water lines in the Master Plan area are needed.

Relationship between Amount of Fees and Cost of or Portion of Facility Attributed to Development on which Fee is Imposed

All costs of the local Morgan Ranch infrastructure improvements are allocated to new development in the Master Plan area, which will receive benefit from the Master Plan area infrastructure. As a result, development impact fees will support all costs associated with these infrastructure improvements. The infrastructure costs are allocated to the land uses based on each land use's relative demand for the improvements, as described below:

- **Transportation Improvements**—Costs are allocated to the land uses based on each land use's estimated demand for transportation facilities, as measured by daily new vehicle trip miles generated. The cost allocation is the basis for the fee estimates by land use.
- **Sanitary Sewer Improvements**—Costs are allocated to the land uses based on each land use's estimated demand for sanitary sewer facilities, as measured by wastewater treatment flow factors by land use, expressed in GPD per acre. The cost allocation is the basis for the fee estimates by land use.
- **Water Improvements**—Costs are allocated to the land uses based on each land use's estimated demand for water facilities, as measured by water demand by land use factors, expressed in GPM per acre. The cost allocation is the basis for the fee estimates by land use.



APPENDIX A: Fee Comparison

Table A-1	Single-Family Residential Transportation Fee Comparison
Table A-2	Multifamily Residential Transportation Fee Comparison
Table A-3	Community Commercial/Retail Transportation Fee Comparison
Table A-4	Office Transportation Fee Comparison
Table A-5	Single-Family Residential Sanitary Sewer Fee Comparison
Table A-6	Multifamily Residential Sanitary Sewer Fee Comparison
Table A-7	Community Commercial/Retail Sanitary Sewer Fee Comparison
Table A-8	Office Sanitary Sewer Fee Comparison
Table A-9	Single-Family Residential Water Fee Comparison
Table A-10	Multifamily Residential Water Fee Comparison
Table A-11	Community Commercial/Retail Water Fee Comparison
Table A-12	Office Water Fee Comparison

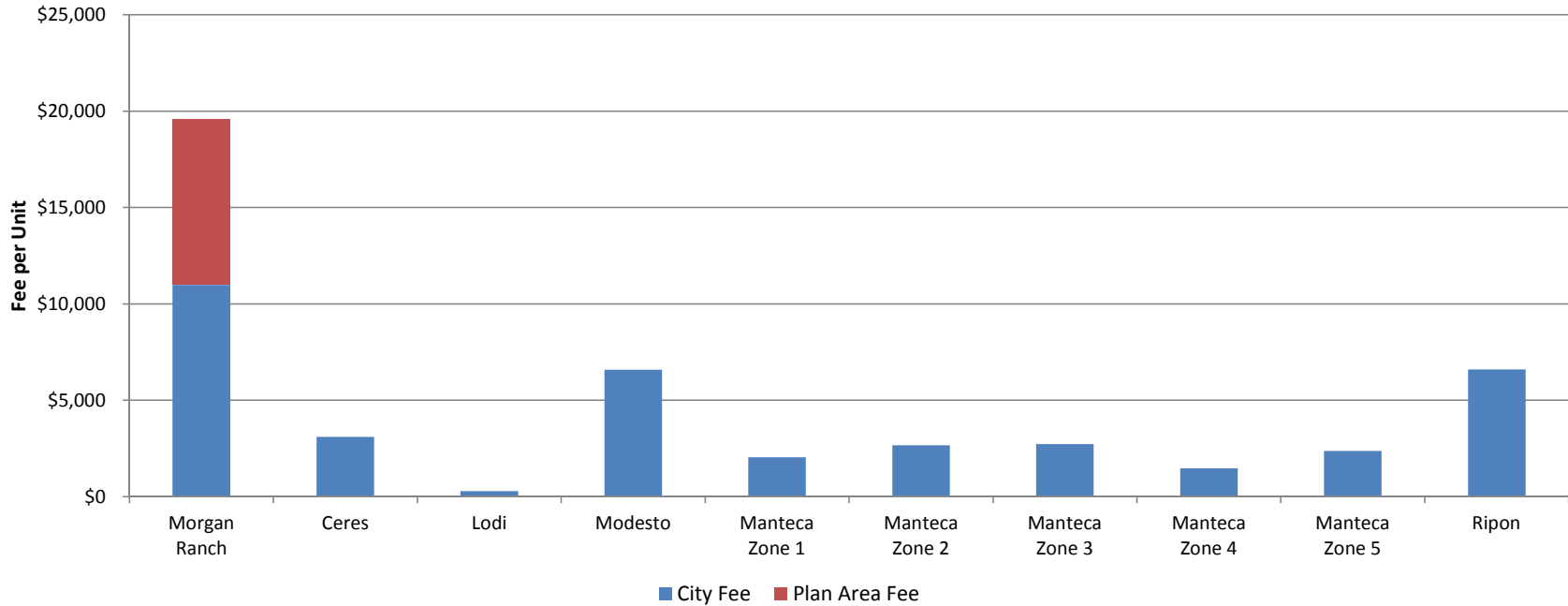
**Table A-1
Morgan Ranch Nexus Study
Single-Family Residential Transportation Fee Comparison**

**Transportation Comparison -
Single Family Residential**

Item	Morgan Ranch (LMR) [1]	Ceres	Lodi [2]	Modesto	Manteca					Ripon
					Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Plan Area Fee	\$8,593	-	-	-	-	-	-	-	-	-
City Fee	\$10,985	\$3,096	\$289	\$6,592	\$2,038	\$2,665	\$2,723	\$1,468	\$2,366	\$6,597

Source: City of Turlock; City of Ceres; City of Lodi; City of Modesto; City of Manteca; City of Ripon; EPS.

- [1] The City of Turlock transportation fee was calculated using the proportion of the transportation component of the CFF (81 percent) and multiplying that percentage by the 2015 Q2 CFF fee for Master Plan Areas single family residential development (\$13,510.11 per DU).
- [2] City of Lodi reduced fee by approximately 60% in August, 2012. This reduced fee is effective until December 31, 2019.



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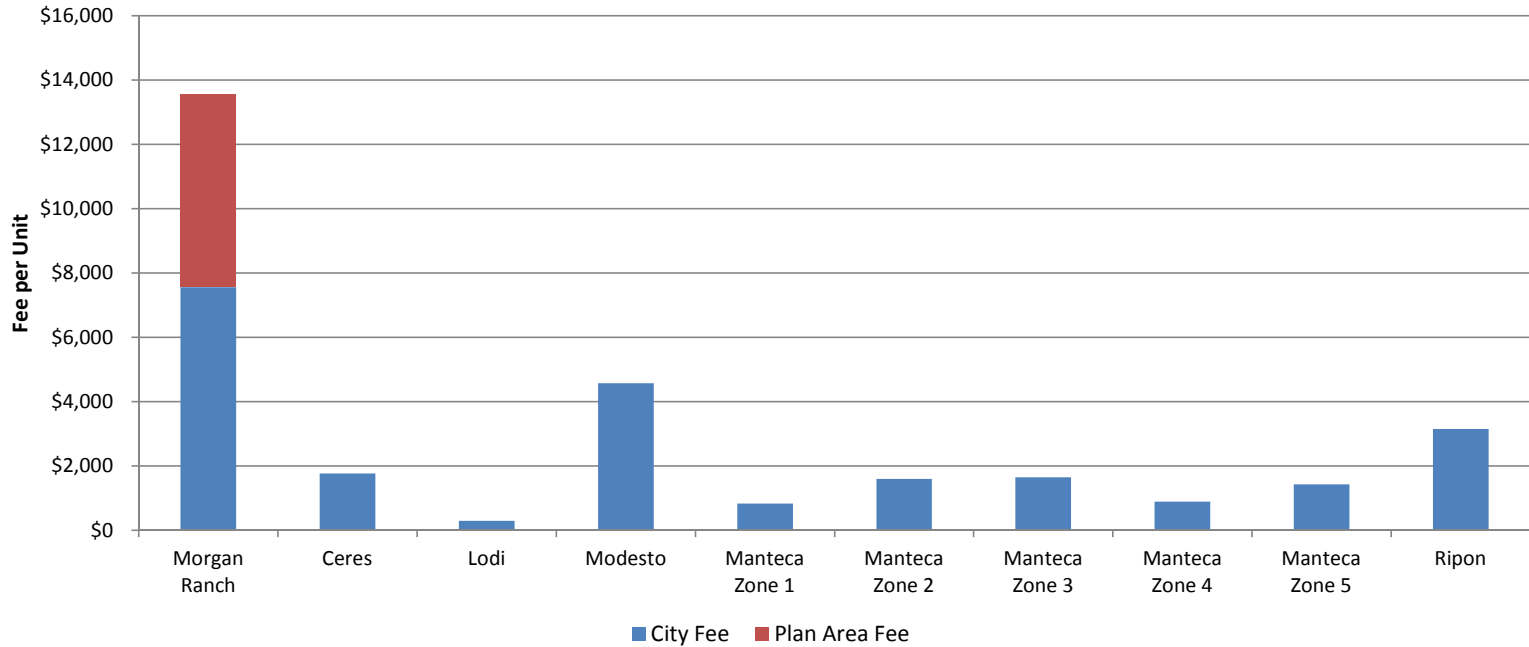
**Table A-2
Morgan Ranch Nexus Study
Multifamily Residential Transportation Fee Comparison**

**Transportation Comparison -
Multifamily Residential**

Item	Morgan Ranch (HDR) [1]	Ceres	Lodi [2]	Modesto	Manteca					Ripon
					Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Plan Area Fee	\$6,002	-	-	-	-----per unit-----					-
City Fee	\$7,557	\$1,765	\$289	\$4,567	\$826	\$1,597	\$1,639	\$884	\$1,425	\$3,147

Source: City of Turlock; City of Ceres; City of Lodi; City of Modesto; City of Manteca; City of Ripon; EPS.

- [1] The City of Turlock transportation fee was calculated using the proportion of the transportation component of the CFF (78 percent) and multiplying that percentage by the 2015 Q2 CFF fee for Master Plan Areas multifamily residential development (\$9,741.99 per DU).
- [2] City of Lodi reduced fee by approximately 60% in August, 2012. This reduced fee is effective until December 31, 2019.



trans comp mfr

Table A-3
Morgan Ranch Nexus Study
Community Commercial/Retail Transportation Fee Comparison

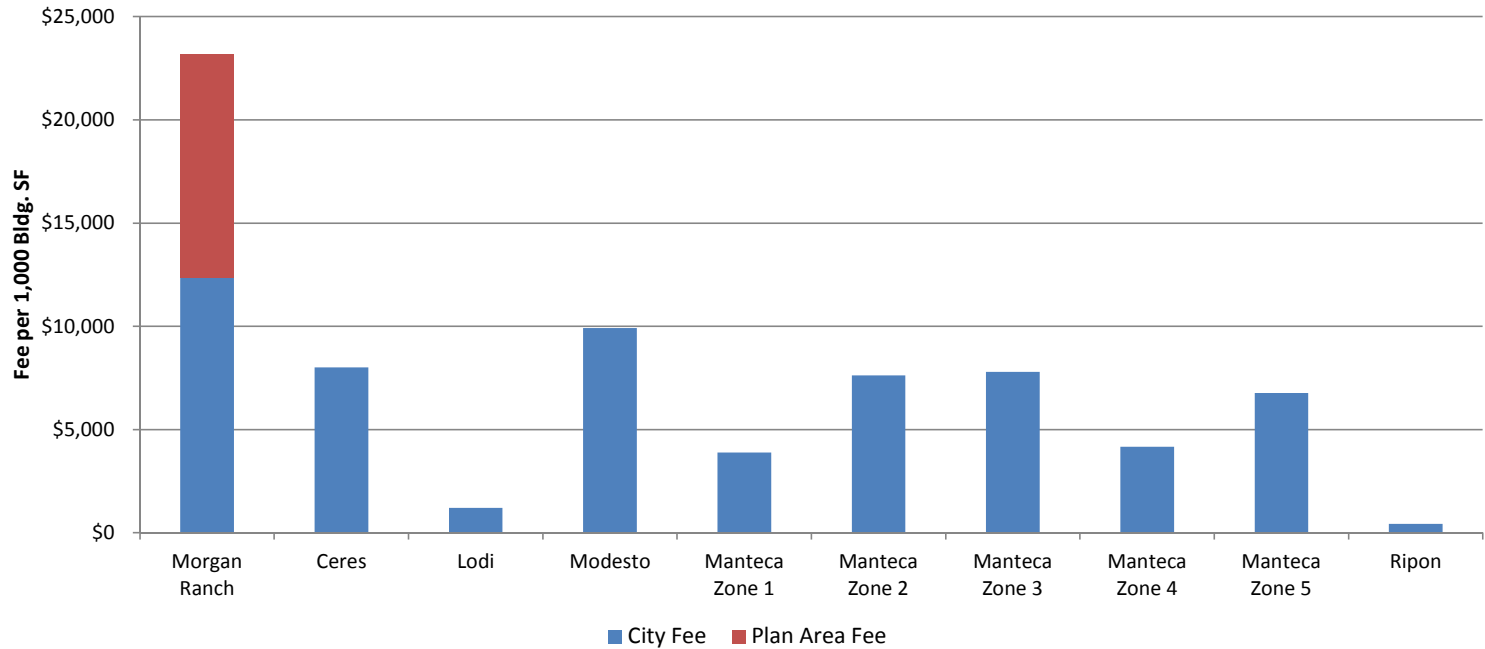
Transportation Comparison - Commercial/Retail
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Item	Morgan Ranch [1]	Ceres	Lodi [2]	Modesto	Manteca					Ripon
					Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
-----per 1,000 bldg. sq. ft.-----										
Plan Area Fee	\$10,833	-	-	-	-	-	-	-	-	-
City Fee	\$12,350	\$8,017	\$1,199	\$9,910	\$3,891	\$7,625	\$7,796	\$4,162	\$6,770	\$438

Source: City of Turlock; City of Ceres; City of Lodi; City of Modesto; City of Manteca; City of Ripon; EPS.

[1] The City of Turlock transportation fee was calculated using the proportion of the transportation component of the CFF (93 percent) and multiplying that percentage by the 2015 Q2 CFF fee for Master Plan Areas commercial/retail development (\$14,369.37 per 1,000 Bldg. SF).

[2] City of Lodi reduced fee by approximately 60% in August, 2012. This reduced fee is effective until December 31, 2019.



trans comp ret

**Table A-4
Morgan Ranch Nexus Study
Office Transportation Fee Comparison**

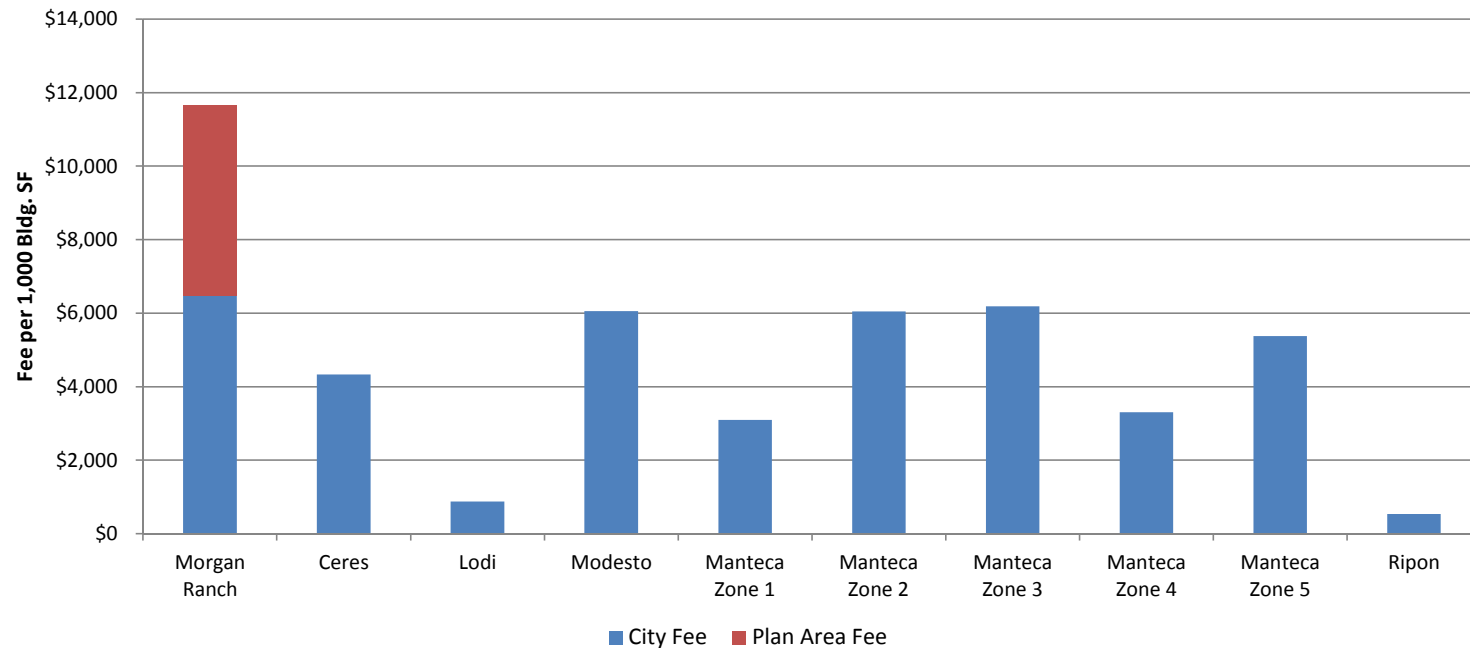
**Transportation Comparison -
Office**

Item	Morgan Ranch [1]	Ceres	Lodi [2]	Modesto	Manteca					Ripon
					Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
-----per 1,000 bldg. sq. ft.-----										
Plan Area Fee	\$5,190	-	-	-	-	-	-	-	-	-
City Fee	\$6,470	\$4,333	\$872	\$6,058	\$3,093	\$6,043	\$6,186	\$3,307	\$5,373	\$532

Source: City of Turlock; City of Ceres; City of Lodi; City of Modesto; City of Manteca; City of Ripon; EPS.

[1] The City of Turlock transportation fee was calculated using the proportion of the transportation component of the CFF (85 percent) and multiplying that percentage by the 2015 Q2 CFF fee for Master Plan Areas office development (\$7,592.73 per 1,000 Bldg. SF).

[2] City of Lodi reduced fee by approximately 60% in August, 2012. This reduced fee is effective until December 31, 2019.



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**Table A-5
Morgan Ranch Nexus Study
Single-Family Residential Sanitary Sewer Fee Comparison**

**Sewer Comparison -
Single Family Residential**

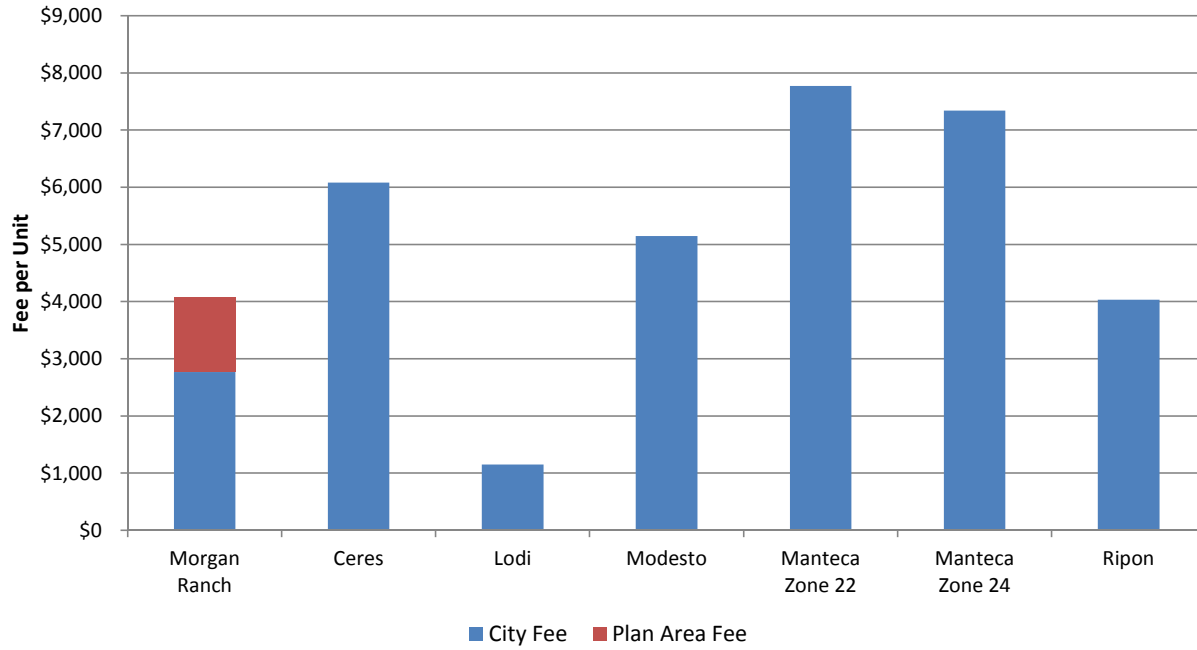
Item	Morgan Ranch (LMDR) [1]	Ceres	Lodi [2]	Modesto	Manteca [3]		Ripon
					Zone 22	Zone 24	
-----per unit-----							
Plan Area Fee	\$1,306	-	-	-	-	-	-
City Fee	\$2,766	\$6,079	\$1,152	\$5,146	\$7,772	\$7,342	\$4,031

Source: City of Turlock; City of Ceres; City of Lodi; City of Modesto; City of Manteca; City of Ripon; EPS.

[1] Morgan Ranch City of Turlock fees include sewer connection fee and sewer trunk capacity fee.

[2] City of Lodi reduced fee by approximately 60% in August, 2012. This reduced fee is effective until December 31, 2019.

[3] Includes sewer connection charge, WQCF completion charge, and sewer PFIP fee.



sewer comp sfr

**Table A-6
Morgan Ranch Nexus Study
Multifamily Residential Sanitary Sewer Fee Comparison**

**Sewer Comparison -
Multifamily Residential**

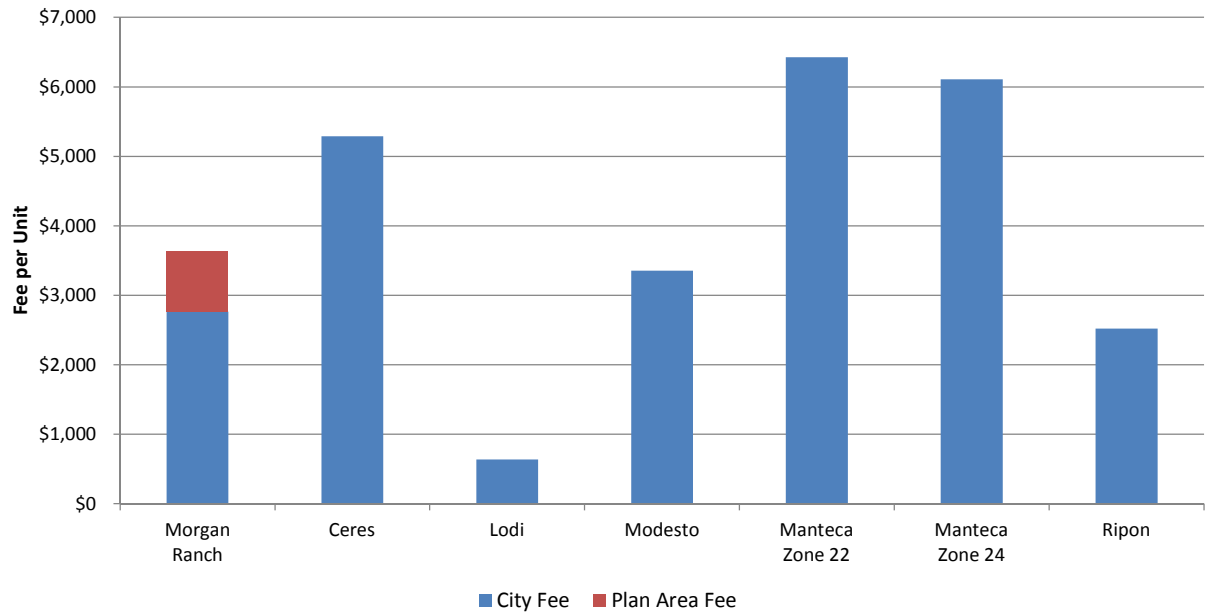
Item	Morgan Ranch (HDR) [1]	Ceres	Lodi [2]	Modesto	Manteca [3]		Ripon
					Zone 22	Zone 24	
Assumptions							
Units	90						
Meter Size	4"						
Number of Meters	2						
-----per unit-----							
Plan Area Fee	\$877	-	-	-	-	-	-
City Fee	\$2,766	\$5,289	\$637	\$3,354	\$6,426	\$6,110	\$2,519

Source: City of Turlock; City of Ceres; City of Lodi; City of Modesto; City of Manteca; City of Ripon; EPS.

[1] Morgan Ranch City of Turlock fees include sewer connection fee and sewer trunk capacity fee.

[2] City of Lodi reduced fee by approximately 60% in August, 2012. This reduced fee is effective until December 31, 2019.

[3] Includes sewer connection charge, WQCF completion charge, and sewer PFIP fee.



sewer comp mfr

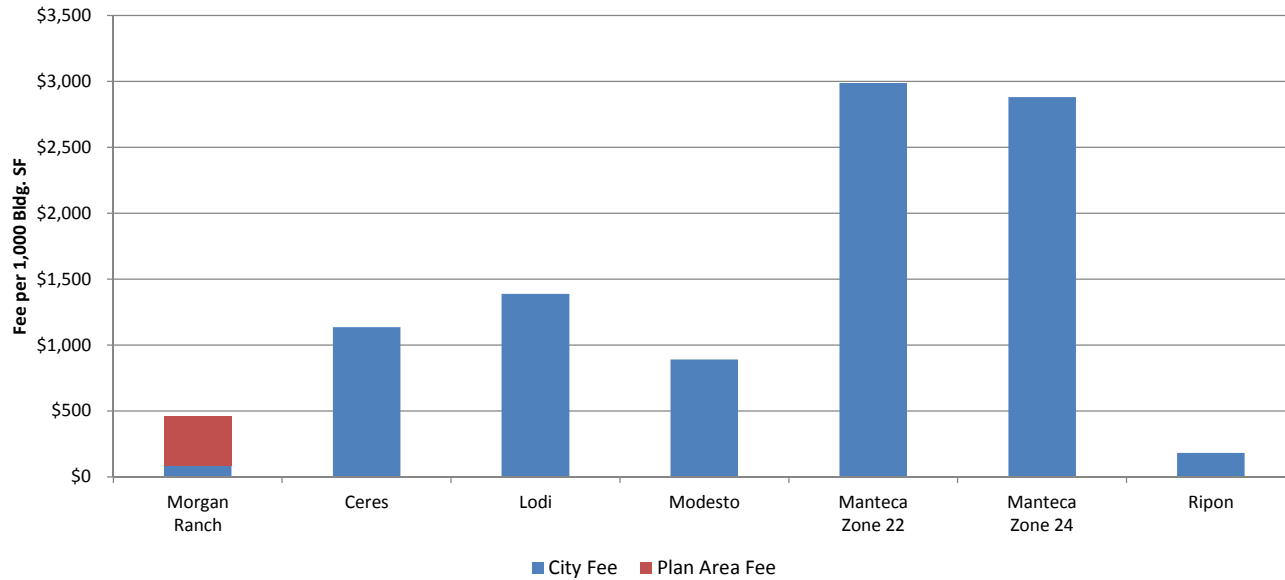
**Table A-7
Morgan Ranch Nexus Study
Community Commercial/Retail Sanitary Sewer Fee Comparison**

**Sewer Comparison -
Commercial/Retail**

Item	Morgan Ranch [1] [2]	Ceres	Lodi [2]	Modesto	Manteca [3]		Ripon
					Zone 22	Zone 24	
Assumptions							
Building Square Footage (Rounded)	32,500						
Acres	3.0						
FAR	0.25						
-----per 1,000 bldg. sq. ft.-----							
Plan Area Fee	\$375	-	-	-	-	-	-
City Fee	\$83	\$1,134	\$1,388	\$890	\$2,987	\$2,879	\$180

Source: City of Turlock; City of Ceres; City of Lodi; City of Modesto; City of Manteca; City of Ripon; EPS.

- [1] Morgan Ranch City of Turlock fees include sewer connection fee and sewer trunk capacity fee.
- [2] City of Turlock sewer trunk capacity fee assumes installation of 65 fixtures for a 32,500 square foot retail building based on recent City building permit activity in the City of Turlock.
- [3] City of Lodi reduced fee by approximately 60% in August, 2012. This reduced fee is effective until December 31, 2019.
- [4] Includes sewer connection charge, WQCF completion charge, and sewer PFIP fee.



sewer comp ret

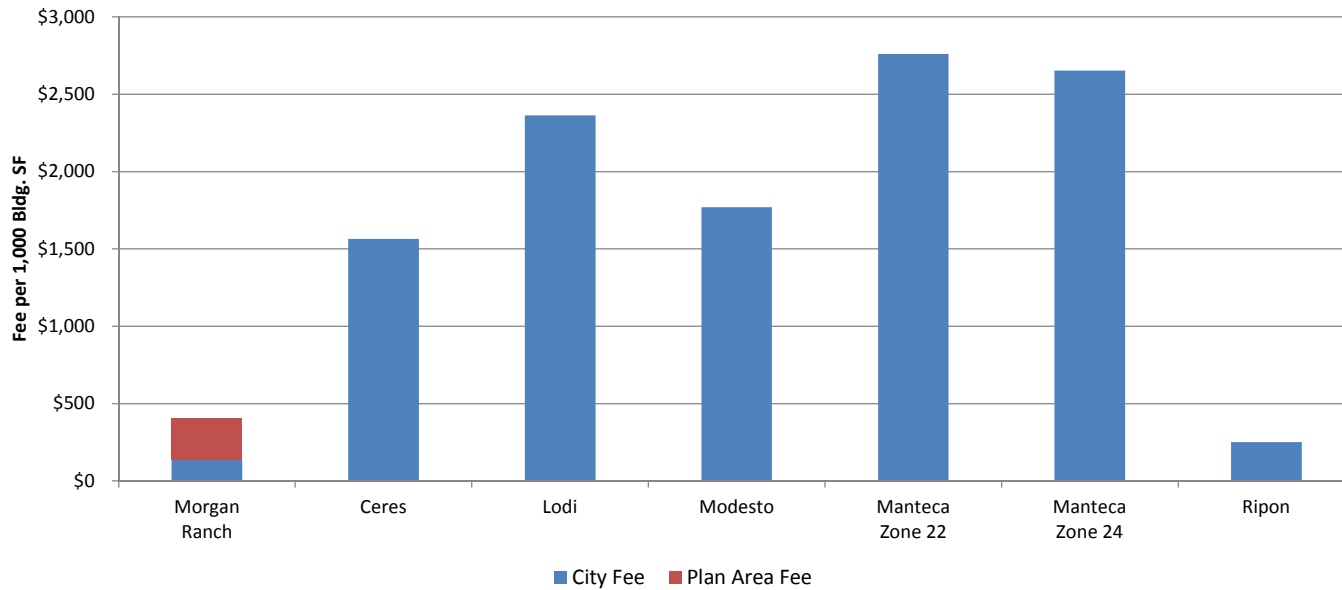
**Table A-8
Morgan Ranch Nexus Study
Office Sanitary Sewer Fee Comparison**

Sewer Comparison - Office

Item	Morgan Ranch [1] [2]	Ceres	Lodi [3]	Modesto	Manteca [4]		Ripon
					Zone 22	Zone 24	
Assumptions							
Building Square Footage (Rounded)	20,000						
Acres	1.3						
FAR	0.35						
-----per 1,000 bldg. sq. ft.-----							
Plan Area Fee	\$268	-	-	-	-	-	-
City Fee	\$136	\$1,565	\$2,363	\$1,770	\$2,760	\$2,652	\$252

Source: City of Turlock; City of Ceres; City of Lodi; City of Modesto; City of Manteca; City of Ripon; EPS.

- [1] Morgan Ranch City of Turlock fees include sewer connection fee and sewer trunk capacity fee.
- [2] City of Turlock sewer trunk capacity fee assumes installation of 40 fixtures for a 20,000 square foot office building based on recent City building permit activity in the City of Turlock.
- [3] City of Lodi reduced fee by approximately 60% in August, 2012. This reduced fee is effective until December 31, 2019.
- [4] Includes sewer connection charge, WQCF completion charge, and sewer PFIP fee.



sewer comp off

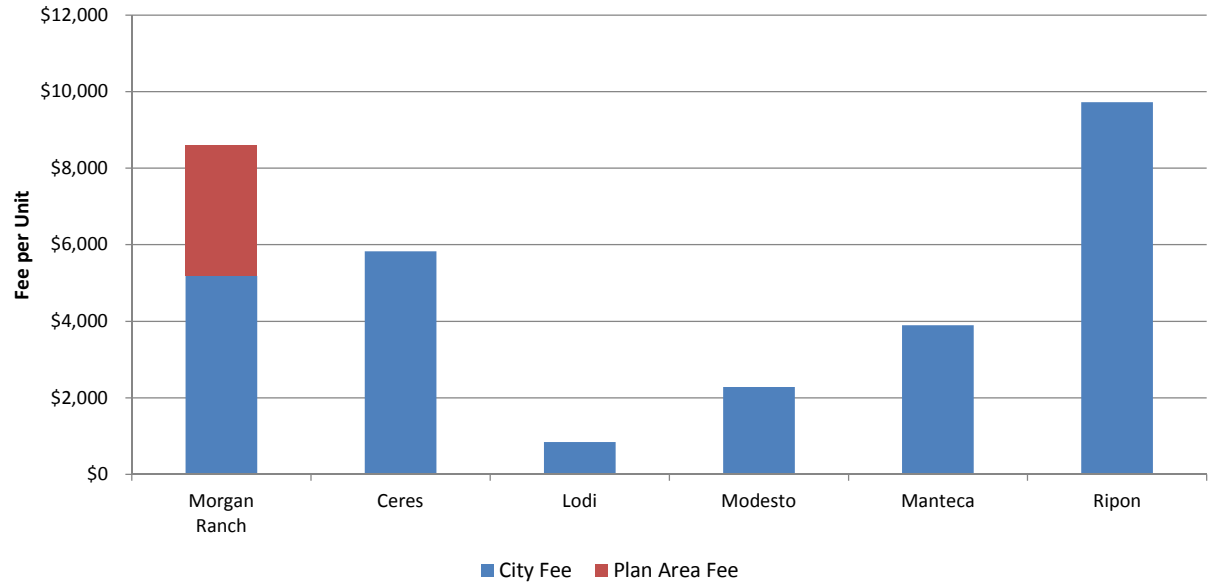
**Table A-9
Morgan Ranch Nexus Study
Single-Family Residential Water Fee Comparison**

**Water Comparison -
Single Family Residential**

Item	Morgan Ranch (LMDR) [1]	Ceres	Lodi [2]	Modesto [3]	Manteca [4]	Ripon
Plan Area Fee	\$3,409	-	-	-	-	-
City Fee [5]	\$5,187	\$5,831	\$846	\$2,282	\$3,899	\$9,724

Source: City of Turlock; City of Ceres; City of Lodi; City of Modesto; City of Manteca; City of Ripon; EPS.

- [1] City water fees calculated by adding the 2015 Q2 1" Water Grid Fee (\$2,936.91) and the 2015 Q2 Local Street 1" Water Connection Charge (\$2250.00) for a total of \$5,187.91.
- [2] City of Lodi reduced fee by approximately 60% in August, 2012. This reduced fee is effective until December 31, 2019.
- [3] Includes water connection and water service installation fee.
- [4] Includes surface water debt service fee, and surface water capital fee.
- [5] Unless otherwise noted, analysis compares water connection/development charge only.



water comp sfr

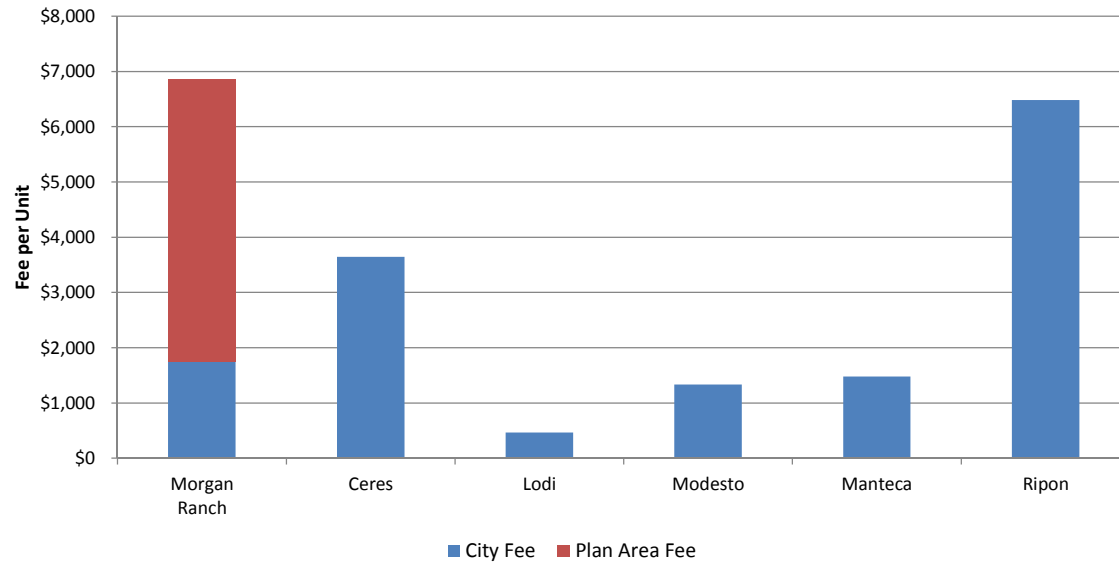
**Table A-10
Morgan Ranch Nexus Study
Multifamily Residential Water Fee Comparison**

**Water Comparison -
Multifamily Residential**

Item	Morgan Ranch (HDR) [1]	Ceres	Lodi [2]	Modesto	Manteca [3]	Ripon
Assumptions						
Dwelling Units	90					
Water Meter Size	4"					
Number of Water Meters	2					
-----per unit-----						
Plan Area Fee	\$5,114	-	-	-	-	-
City Fee [4]	\$1,743	\$3,648	\$468	\$1,332	\$1,479	\$6,483

Source: City of Turlock; City of Ceres; City of Lodi; City of Modesto; City of Manteca; City of Ripon; EPS.

- [1] City water fees calculated by adding the 2015 Q2 4" Water Grid Fee (\$73,429.95) and the 2015 Q2 Local Street 4" Water Connection Charge (estimated at \$5,000 per connection).
- [2] City of Lodi reduced fee by approximately 60% in August, 2012. This reduced fee is effective until December 31, 2019.
- [3] Includes surface water debt service fee and surface water capital fee.
- [4] Unless otherwise noted, analysis compares water connection/development charge only.



water comp mfr

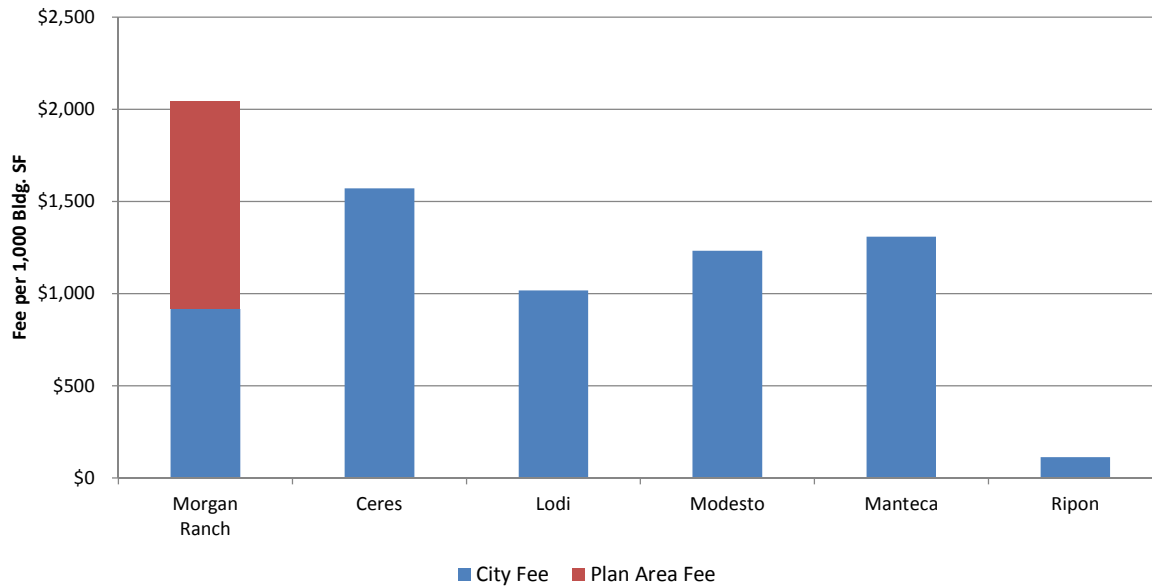
**Table A-11
Morgan Ranch Nexus Study
Community Commercial/Retail Water Fee Comparison**

**Water Comparison -
Commercial/Retail**

Item	Morgan Ranch [1]	Ceres	Lodi [2]	Modesto	Manteca [3]	Ripon
Assumptions						
Building Square Footage	32,500					
Water Meter Size	2"					
Number of Water Meters	2					
-----per 1,000 bldg. sq. ft.-----						
Plan Area Fee	\$1,123	-	-	-	-	-
City Fee [4]	\$917	\$1,571	\$1,018	\$1,232	\$1,309	\$113

Source: City of Turlock; City of Ceres; City of Lodi; City of Modesto; City of Manteca; City of Ripon; EPS.

- [1] City water fees calculated by adding the 2015 Q2 2" Water Grid Fee (\$11,749.08) and the 2015 Q2 Local Street 2" Water Connection Charge (\$3,150 per connection).
- [2] City of Lodi reduced fee by approximately 60% in August, 2012. This reduced fee is effective until December 31, 2019.
- [3] Includes surface water debt service fee and surface water capital fee.
- [4] Unless otherwise noted, analysis compares water connection/development charge only.



water comp ret

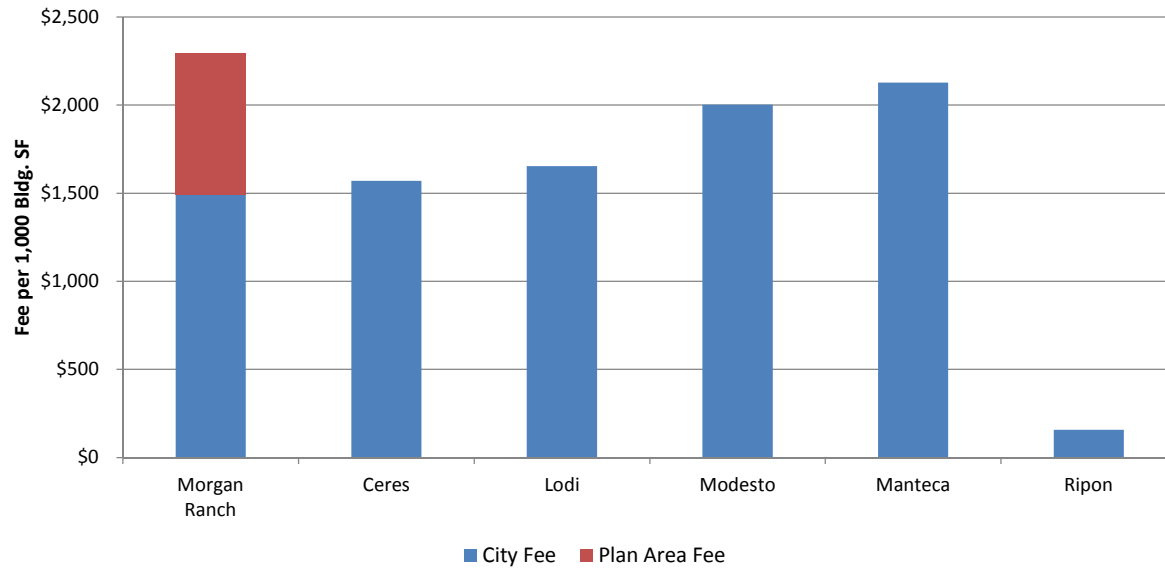
**Table A-12
Morgan Ranch Nexus Study
Office Water Fee Comparison**

Water Comparison - Office

Item	Morgan Ranch [1]	Ceres	Lodi [2]	Modesto	Manteca [3]	Ripon
Assumptions						
Building Square Footage	20,000					
Water Meter Size	2"					
Number of Water Meters	2					
-----per 1,000 bldg. sq. ft.-----						
Plan Area Fee	\$802	-	-	-	-	-
City Fee [4]	\$1,490	\$1,571	\$1,654	\$2,002	\$2,128	\$158

Source: City of Turlock; City of Ceres; City of Lodi; City of Modesto; City of Manteca; City of Ripon; EPS.

- [1] City water fees calculated by adding the 2015 Q2 2" Water Grid Fee (\$11,749.08) and the 2015 Q2 Local Street 2" Water Connection Charge (\$3,150 per connection).
- [2] City of Lodi reduced fee by approximately 60% in August, 2012. This reduced fee is effective until December 31, 2019.
- [3] Includes surface water debt service fee and surface water capital fee.
- [4] Unless otherwise noted, analysis compares water connection/development charge only.



water comp off