City of Turlock
Fiscal Impact Analysis Tool
User Manual

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Introduction to the Fiscal Impact Analysis (FIA) Tool

Purpose

Cities use fiscal impact analyses to evaluate the public costs and revenues that are likely to result from a proposed development project or land use plan or to compare land project or plan alternatives. The FIA land use alternative comparison tool is designed to provide a general idea of annual revenue generation as well as expenditures for service costs associated with different land use design. This desktop tool will allow the City of Turlock to:

- Evaluate comparative fiscal impact of different development scenarios;
- Compare potential revenue and expenditures of alternative development scenarios;
- Assess the potential tax revenues of property annexation through alternative scenarios;
- Examine various forms of compact development on expenditures related to alternative scenarios.

This impact analysis focuses exclusively on General Fund revenue and expenditure (operation and maintenance) categories that directly relate to development, as described in the below table. It does not evaluate impacts to other General Fund categories, to non-General Fund provided city services, or services provided by other entities (e.g., school districts and utilities). Other General Fund categories are assumed not to be affected by development or affected to a minimal degree.

General Fund Revenue and Expenditure Categories Utilized in Analysis	
Revenue Categories	**Expenditure Categories**

• Sales Tax
• Property Tax
• Real Property Transfer Tax
• Other Development-Related Annual Revenues
  – Transient Lodging Taxes
  – Franchise Fees
  – Business License Taxes
  – Other Fines, Forfeitures, and Penalties
  – State Motor Vehicle In-Lieu Tax
  – Fees and Charges per Service
	• Public Safety
	• Public Ways and Facilities/Transportation
	• Recreation, Parks, Culture
	• Community Development
	• General Government (Administrative)

Information provided can be used to:

- Help select projects or plans that improve a community's fiscal health and avoid those that erode community funds, and/or
- Allow decision-makers to understand the fiscal costs and benefits of one or more alternative courses of action relative to non-fiscal considerations.

General Assumptions:

- Baseline-year budget, population, and employment data, are used to develop per resident and per employee revenue and expenditure factors.
- The model does not account for inflation. All monetary values are in base-year dollars.

- This analysis assumes full build-out of land uses described within each land use scenario alternative. The City should take into account the probability that full build-out will be achieved.
- A large portion of the development proposed within the alternatives is located within the unincorporated County. A tax-sharing agreement will need to be negotiated between the City and County. Because property tax contributes a considerable portion of General Fund-related revenues, the actual fiscal performance of the alternative will depend on the outcome of the negotiation.
- Fiscal impact analyses often assume that employees create fewer impacts on the city General Fund than residents. This is based on the logic that employees spend less time in the city and utilize fewer services. An employment factor is used to discount the impact of each employee. Within this analysis, an employment factor defaults to 50%.

Components of FIA tool:

The three major components of the model are summarized below and described in greater detail in this document.

- **Step One: Define land use scenarios.** This module requires the user to input the alternative land use scenario descriptors with corresponding land use information including land use data (additional acres for each land use category), development parameters (e.g. land use density, mix), and development-related general fund expenditures. All possible data entry points are highlighted in blue.
- **Step Two:** M**odel assumptions.** This module allows the user to review, and if needed, in most cases refine the demand, cost, and revenue assumptions pertaining to various types of services evaluated in the model. Default numbers based on industry standards, assumptions, and calculations are provided but can be modified by the user. All possible data entry points are highlighted in blue.
- **Step Three: Impact analysis reports**. This module generates a series of reports that allow the user to evaluate the fiscal characteristics and performance of the project.

Step 1 – Define Development Scenarios

Site specifications and community design in proposed land use scenarios influence the cost of related infrastructure that will be needed to serve a new growth area. The first step in using the IMPACS model is to define the existing site conditions, the proposed land uses, and other integral development parameters. This is done under the "input-data" tab. Fields highlighted in blue can be modified by the user. This user will need to perform the following items:

1. Select a jurisdiction by clicking on the blue field and using the drop down menu.

2. Select a base-line year and planning horizon year.

3. Enter names of up to four land use scenarios that you wish to compare in the model.

3

Land Use Alternative Scenarios Names					
Year	2010	2030			
Scenario	NA	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Name	Existing	Alternative A	Alternative B	AlternativeC	Alternative D

4. Enter the existing number of residents and jobs in the City in the base-line year highlighted in blue. The additional residents and jobs projected for each land use scenario in the planning horizon (highlighted in light green) will automatically calculate based on acreage and residential and non-residential density factors entered later.

4

Demographics Baseline and Horizon Year					
	2010	2030			
	Existing	Alternative A	Alternative B	AlternativeC	Alternative D
Residents	71,100	32,211	35,602	31,979	36,412
Jobs	28,260	25,448	30,440	24,920	30,433
Service Population	99,360	57,659	66,041	56,898	66,845
		ADDITIONAL RESIDENTS AND JOBS			

5. Enter the amount (acres) of delineated land use (e.g. rural residential, high density residential, downtown) for the base-year and the additional acreage for each land use scenario at full build-out.

5

Land Use Data for Alternatives and Existing Conditions (Acres)					
	2010	2030			
Land Use	Existing	Alternative A	Alternative B	AlternativeC	Alternative D
Rural Residential	601.7	0.0	18.4	18.4	18.4
Very Low Density Residential	132.7	162.0	162.0	162.0	162.0
Low Density Residential	2,293.6	320.2	107.2	169.2	432.2
Low-Medium Density Residential	317.0	250.0	341.0	188.0	675.0
Medium Density Residential	686.5	570.0	681.0	632.0	280.0
High Density Residential	228.9	227.5	272.5	264.5	270.5
High Density Residential/Office	0.0	29.6	30.0	30.0	30.0

Only a portion of Table 5 is shown in the above illustration. It is possible that the categories listed will not exactly match the land use categories from your city's general plan. The user should select the land use category closest to the actual land uses being proposed.

Also, enter the density and intensity factors to each land use category:

i. Residential Density: Input residential use factors (dwelling units per acre, estimated vacancy rate, average number of people per household, and percentage of residential use); and,

ii. Non-Residential Intensity: Input non-residential use factors (floor area ratio, percentage of office and/or retail use).

	Residential Use Density Factors				Non-Residential Use Intensity Factors				
	DU/Acre	Vacancy Rate	People per Household	% Residential	Floor Area Ratio (FAR)	Sq.Ft./ Employee	% Non-Res	% of Non-Res that is Office	% of Non-Res that is Retail
Rural Residential	0.50	1.0%	2.80	100%		0	0%	0%	0%
Very Low Density Residential	1.60	1.0%	2.80	100%		0	0%	0%	0%
Low Density Residential	5.00	1.0%	2.80	100%		0	0%	0%	0%
Low-Medium Density Residential	7.50	1.0%	2.50	100%		0	0%	0%	0%
Medium Density Residential	11.00	1.0%	2.25	100%		0	0%	0%	0%
High Density Residential	22.50	1.0%	1.55	100%		0	0%	0%	0%
High Density Residential/Office	22.50	1.0%	1.55	50%	0.35	300	50%	100%	0%

As seen in the illustration above, high density residential/office is a mixed-use space with 50% residential and 50% non-residential (all office space), 22.5 residential dwelling units per acre, an estimated 1% vacancy rate and 1.55 people per household. The Floor Area Ratio (FAR) is 0.35, with an estimated 300 square feet of office space per employee. Note: the number of square feet per employee column contains numbers that are industry standards (discussed below) and the vacancy rate is assumed to be 1%, but again, can be modified by the user to improve accuracy.

6. Define the percentage of acreage for each land use designation for property that is expected to be annexed from the county (both for outside city limits and for unincorporated islands) under each scenario.

6

Percentage of Acreage to be Annexed from County (0utside City Limits)				
	2030			
Land Use	**Alternative A**	**Alternative B**	**AlternativeC**	**Alternative D**
Rural Residential	100%	100%	100%	100%
Very Low Density Residential	100%	100%	100%	100%
Low Density Residential	93%	75%	87%	95%
Low-Medium Density Residential	60%	70%	46.50%	85%

Percentage of Acreage to be Annexed from County (Unincorporated Islands)				
	2030			
Land Use	**Alternative A**	**Alternative B**	**AlternativeC**	**Alternative**
Rural Residential	0%	0%	0%	0%
Very Low Density Residential	0%	0%	0%	0%
Low Density Residential	2%	5%	4%	1.50%
Low-Medium Density Residential	1%	0.50%	1.50%	3.50%

7. Determine an estimated residential unit size (square feet) for each residential land use designation. The lot size and residential FAR factors are automatically calculated.

7

Residential Unit Square Footage Assumptions			
Land Use	**Unit Size**	**Lot Size**	**FAR**
Rural Residential	1,500	87,120	0.02
Very Low Density Residential	1,500	27,225	0.06
Low Density Residential	1,500	8,712	0.17
Low-Medium Density Residential	1,000	5,808	0.17
Medium Density Residential	1,000	3,960	0.25
High Density Residential	600	1,936	0.31
High Density Residential/Office	600	1,936	0.31
Community Commercial/High Density Residential	600	1,936	0.31
Downtown	600	1,936	0.31
Neighborhood Center	600	1,936	0.31

8. Enter development-related city general fund revenues for the base year. There are two options available to complete these tables:

8

Other Development-Related Recurring General Fund Revenues for 2010	
Item	***Amount***
Transient Lodging Taxes	$699,555
Franchises	$2,046,355
Business License Taxes	$1,038,069
Other Fines, Forfeitures, and Penalties	$273,263
State Motor Vehicle In-Lieu Tax	$323,820
Fees and Charges per Service	$3,143,817
Total General Fund Revenues	**$7,524,879**

9. Enter development-related city general fund expenditures for the base year. There are two options available to complete these tables:

9

Development-Related General Fund Expenditures for 2010	
Item	***Amount***
General Government	$3,458,270
Public Safety	$23,132,804
Public Ways and Facilities/Transportation	$8,126,569
Recreation, Parks, Culture	$2,829,782
Community Development	$6,464,170
Total Expenses	**$44,011,595**

Step 2 – Review Model Assumptions

In addition to in the Employee Density Factors, discussed in Step 1, the model uses default numbers that are development standards, assumptions, or in cases such as "Square Foot Value Factors," are calculated based on information in other tables. In this step, the user can utilize the defaults (shown in the below illustrations) or if necessary refine the model assumptions and calculations to improve the accuracy of the resulting cost/revenue analysis. These standards and assumptions include:

A. Expenditure Variability per Growth in Service Population – percentage increase in per capita cost for each additional resident.

A

Expenditure Variability per Growth in Service Population	
Expenditure Category	**% Variable**
General Government	50%
Public Safety	90%
Public Ways and Facilities/Transportation	90%
Recreation, Parks, Culture	90%
Community Development	50%

B. Revenue Variability per Growth in Service Population – percentage increase in per capita revenue for each additional resident.

B

Revenue Variability per Growth in Service Population	
Revenue Category	**% Variable**
Transient Lodging Taxes	90%
Franchises	66%
Business License Taxes	90%
Other Fines, Forfeitures, and Penalties	66%
State Motor Vehicle In-Lieu Tax	90%
Fees and Charges per Service	66%

C. Compact Development Service Provision Efficiency Factor – percentage reduction in total expenditure due to increased efficiency associated with compact development versus dispersed growth .

C

Compact Development Service Provision Efficiency Factor (Dispersed Growth vs Compact)	
Expenditure Category	**Efficiency Factor**
General Government	-10.0%
Public Safety	-10.0%
Public Ways and Facilities/Transportation	-17.4%
Recreation, Parks, Culture	-10.0%
Community Development	-10.0%

D. Compact Development Thresholds – maximum number of residents per additional acre of development .

D

Compact Development Threshold	
Land Use Type	Service Population per Acre
Residential	30
Mixed Use	40
Commercial	90

E. Employee Density Factors – amount of additional commercial, office and industrial square feet for each additional employee.

E

Employee Density Factors		
Small Office Square Feet Per Employee	sf/employee	300
Business Park Office Square Feet Per Employee	sf/employee	300
Small Commercial Retail Square Feet Per Employee	sf/employee	500
Heavy Commercial Retail Square Feet Per Employee	sf/employee	500
Highway Commercial Retail Square Feet Per Employee	sf/employee	500
Industrial Square Feet Per Employee	sf/employee	1,000

F. Square Foot Value Factors – increased value (and subsequently tax revenue) for each additional square foot per building type (Table F). The values are automatically calculated using information entered under the "Property Price" tab, which can be modified by the user.

F

Square Foot Value Factors		
Office / SF Value Factor	dollars	$ 90.00
Retail / SF Value Factor	dollars	$ 124.00
Warehouse / SF Value Factor	dollars	$ 49.00
Single Family Detached Residential / SF Value Factor	dollars	$ 122.20
Single Family Attached Residential / SF Value Factor	dollars	$ 114.77
Multi-Family Residential / SF Value Factor	dollars	$ 71.67
Taxable Retail Sales / SF	dollars	$ 160.00
Taxable Business to Business Sales/SF	dollars	$ 10.00

G. Average Pre-Annexation Land Value per Acre – value of land prior to annexation.

G

Average Pre-Annexation Land Value per Acre	
Land Value per Acre	$ 30,000

H. Property Tax Rate – base property tax rate and apportionment to the city (and county) General Fund based on a property typology (within city boundaries, new county land annexed, and county urban island annexed).

H

Property Tax Rates	
Base Property Tax Rate of the Total Value	1.00%
General Fund Share of Base Property Tax Rate of the Total Value	10.00%
County Share of Base Property Tax Rate of the Total Value	11.00%
General Fund Share of County Share of the Tax Increment for Annexed New Lands	30.00%
City General Fund Share of the Tax Increment for Annexed New Lands	3.30%
General Fund Share of County Share of the Total Value for Annexed Urban Islands	34.00%
City General Fund Share of the Total Value for Annexed Urban Islands	3.74%

Source: EPS 2010, AECOM 2013

The City General fund share of the tax increment for annexed new lands, and of the Total Values for annexed urban islands (un-highlighted fields), are based on the percentages the user inputs into the other fields and are automatically calculated.

I. Sales Tax Rate – the percentage of the sales tax allocated to the City's General Fund

I

Sales Tax Assumptions	
Sales Tax Rate	0.95%

Source: EPS 2010

J. Property Transfer Tax .

J

Transfer Tax Assumptions	
Transfer Tax Rate	0.11%

Source: AECOM 2013

Step 3 – Review Tool Outputs

The tool provides a variety of summary tables and charts that compare performance of the different land use scenarios.

Summary Report:

A quick comparison of the different land use scenarios performance can be found on the 'Summary Tab'. As can be seen in the example below, Alternative Scenarios B and D are generating a positive net revenue at full build-out.

Net General Fund Impact of Development Alternatives

Land Use	Alternative A	Alternative B	AlternativeC	Alternative D
Acreage (Urban Uses)	2,501	2,774	2,398	3,030
Housing Units	15,510	17,602	15,937	17,276
Service Population (residents + employees)	57,659	66,041	56,898	66,845
Service Population/Acre	23.1	23.8	23.7	22.1
Housing Units/Residential Acre	10.0	10.9	10.9	9.3

Revenue	Alternative A	Alternative B	AlternativeC	Alternative D
Property Tax	$ 1,909,100	$ 2,044,998	$ 1,889,642	$ 2,044,441
Transfer Tax	$ 266,676	$ 284,475	$ 251,839	$ 321,058
Sales Tax	$ 5,656,649	$ 9,114,485	$ 5,077,939	$ 9,112,022
Other Recurring Revenues	$ 2,161,980	$ 2,580,398	$ 2,122,337	$ 2,621,839
Subtotal	$ 9,994,405	$ 14,024,356	$ 9,341,758	$ 14,099,361
Per Acre	$ 3,996	$ 5,056	$ 3,896	$ 4,654
Per Housing Unit	$ 644	$ 797	$ 586	$ 816

Expenditure	Alternative A	Alternative B	AlternativeC	Alternative D
Expenditures	$ 13,230,941	$ 15,252,762	$ 12,999,442	$ 15,542,731
Per Acre	$ 5,291	$ 5,499	$ 5,421	$ 5,130
Per Housing Unit	$ 853	$ 867	$ 816	$ 900

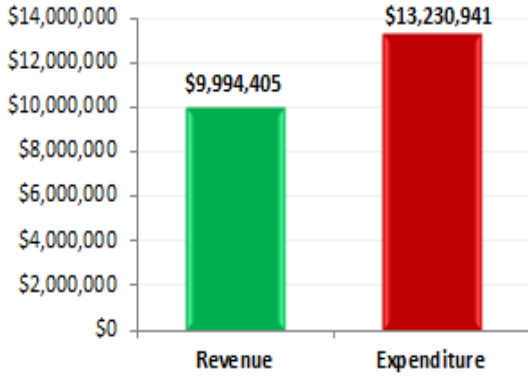
Net Revenue	Alternative A	Alternative B	AlternativeC	Alternative D
Net Revenue	$ (3,236,536)	$ (1,228,406)	$ (3,657,684)	$ (1,443,371)

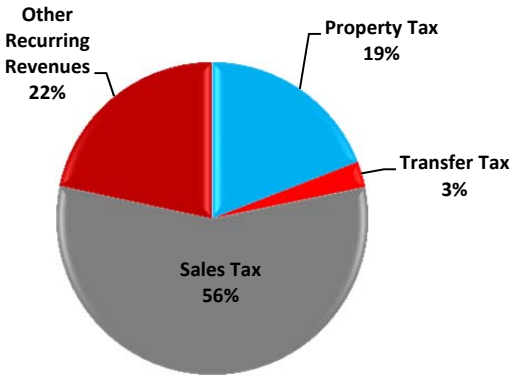
Performance Metrics	Alternative A	Alternative B	AlternativeC	Alternative D
Net Revenue per Acre	**$ (1,294.20)**	**$ (442.84)**	**$ (1,525.37)**	**$ (476.41)**
Net Revenue per Service Population	**$ (56.13)**	**$ (18.60)**	**$ (64.28)**	**$ (21.59)**
Net Revenue as Percentage of Total Revenue	**-32.4%**	**-8.8%**	**-39.2%**	**-10.2%**

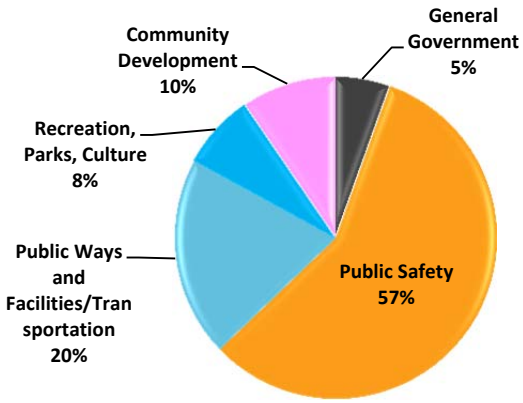
General Fund Impact Comparison Report:

The 'General Fund Impact' tabs displays land use details and fiscal performance for each alternative land use scenario through tables, charts and graphs. The illustration below shows the fiscal performance for Land Use Alternative One. The table shows the net revenue as a percentage of total revenue. In this scenario, annual expenditures are exceeding annual revenues, at full build-out. As seen in the pie charts, sales tax provides more than half of the General Fund revenue and the largest expenditure is for public safety services (police and fire).

Net General Fund Impact of Alternative	
Revenue	
Property Tax	$1,909,100
Transfer Tax	$266,676
Sales Tax	$5,656,649
Other Recurring Revenues	$2,161,980
TOTAL REVENUE	$9,994,405
Expenditure	
Expenditure	$13,230,941
TOTAL EXPENDITURE	$13,230,941
NET REVENUE	-$3,236,536
NET REVENUE AS % OF TOTAL REVENUE	**-32.4%**







The land use details under the these tabs summarizes the number of acres and percentage of each land use type, the amount of compact versus standard development, density metrics, and the portion of the land use alternative (acres and percentage) to be annexed from the county.

Revenue Details:

The 'Revenue Detail' tab displays a breakdown of each general fund revenue generator (e.g. property taxes, sales taxes, transfer taxes) by land use category, both per acre and as a total for each land use alternative.

General Fund Revenue per Development Alternative by Land Use Category

Property Taxes

Land Use Category	Property Tax per Acre (Non-	Property Tax per Acre (Annex	Property Tax per Acre (Annex	Alternative A	Alternative B	AlternativeC	Alternative D
Rural Residential	$ 92	$ 18	$ 31	$ -	$ 340	$ 340	$ 340

Expense Detail:

The 'Expense Detail' tab displays General Fund expenditures by land use category, both per acre and as a total for each land use alternative.

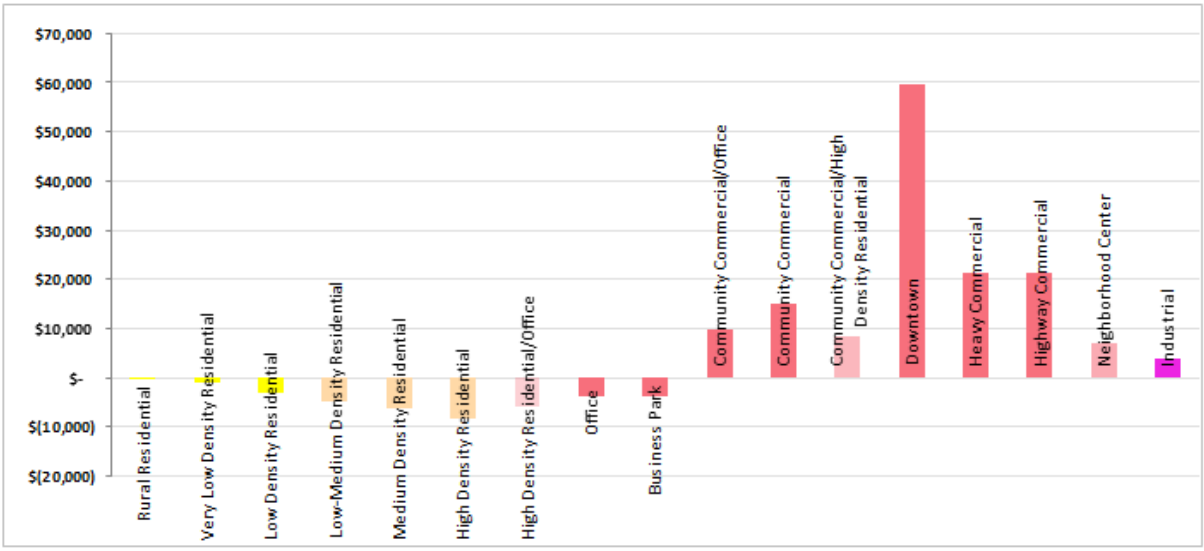
General Fund Expenditure per Development Alternative by Land Use Category						
Land Use Category	Expenditure per Acre	Existing	Alternative A	Alternative B	AlternativeC	Alternative D
Rural Residential	$ 497	$ 299,149	$ -	$ 9,148	$ 9,148	$ 9,148

Impact per Land Use:

The 'Impact' tab shows the fiscal performance of each land use type independent of a specific land use scenario. Metrics for total revenue per acre, total expense per acre, and net revenue per acre for each land use category is provided.

Net Revenue per Acre by Land Use			
Land Use Category	Total Revenue/Acre	Total Expenses/Acre	Net Revenue/Acre
Rural Residential	$ 173	$ 497	$ (324)
Very Low Density Residential	$ 555	$ 1,591	$ (1,036)
Low Density Residential	$ 1,733	$ 4,972	$ (3,238)
Low-Medium Density Residential	$ 1,976	$ 6,659	$ (4,682)
Medium Density Residential	$ 2,684	$ 8,789	$ (6,105)
High Density Residential	$ 3,524	$ 11,943	$ (8,418)
High Density Residential/Office	$ 4,575	$ 10,366	$ (5,791)
Office	$ 5,401	$ 9,115	$ (3,714)
Business Park	$ 5,401	$ 9,115	$ (3,714)
Community Commercial/Office	$ 16,760	$ 7,031	$ 9,729
Community Commercial	$ 19,051	$ 3,906	$ 15,145
Community Commercial/High Density Resident	$ 20,433	$ 12,017	$ 8,416
Downtown	$ 107,748	$ 48,188	$ 59,560
Heavy Commercial	$ 26,671	$ 5,469	$ 21,203
Highway Commercial	$ 26,671	$ 5,469	$ 21,203
Neighborhood Center	$ 12,519	$ 5,469	$ 7,050
Industrial	$ 4,244	$ 406	$ 3,838

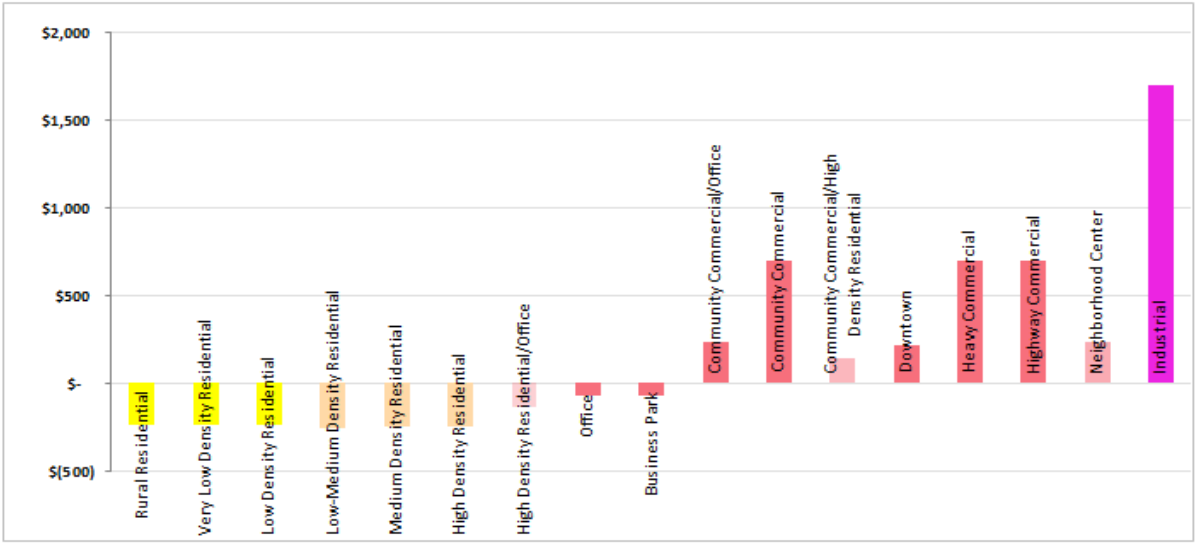
The table and graph below show the Downtown land use type is generating the highest net revenue per acre at full build-out.



The 'Impact' tab also shows metrics for total revenue per service population (employees and residents) per acre, total expense per service population (employees and residents) per acre, and net revenue per service population (employees and residents) per acre for each land use category is provided.

Net Revenue per Service Population by Land Use			
Land Use Category	Total Revenue per Service Population	Total Expenditure per Service Population	Net Revenue per Serivce Population
Rural Residential	$ 125.07	$ 358.71	$ (234)
Very Low Density Residential	$ 125.07	$ 358.71	$ (234)
Low Density Residential	$ 125.07	$ 358.71	$ (234)
Low-Medium Density Residential	$ 106.47	$ 358.71	$ (252)
Medium Density Residential	$ 109.54	$ 358.71	$ (249)
High Density Residential	$ 102.08	$ 345.90	$ (244)
High Density Residential/Office	$ 107.22	$ 242.92	$ (136)
Office	$ 106.28	$ 179.36	$ (73)
Business Park	$ 106.28	$ 179.36	$ (73)
Community Commercial/Office	$ 412.24	$ 172.95	$ 239
Community Commercial	$ 874.70	$ 179.36	$ 695
Community Commercial/High Density Resident	$ 351.76	$ 206.87	$ 145
Downtown	$ 399.08	$ 178.48	$ 221
Heavy Commercial	$ 874.70	$ 179.36	$ 695
Highway Commercial	$ 874.70	$ 179.36	$ 695
Neighborhood Center	$ 410.55	$ 179.36	$ 231
Industrial	$ 1,873.85	$ 179.36	$ 1,694

The table and graph below show the Industrial land use type is generating the highest net revenue per service population at full build-out.



Model Methods and Assumptions:

General:

- This analysis assumes full build-out of land uses described within each alternative. The City should take into account the probability that full build-out will be achieved.
- Fiscal impact analyses often assume that employees create fewer impacts on the city General Fund than residents. This is based on the logic that employees spend less time in the city and utilize fewer services. An employment factor is used to discount the impact of each employee. Within this analysis, an employment factor defaults to 50%.
- Baseline-year budget, population, and employment data, are used to develop per resident and per employee revenue and expenditure factors.
- To estimate the fiscal performance of the future land use alternatives, the analysis utilizes a modified "per capita multiplier" methodology.

Estimation of Revenues:

Property Tax:

- In California, the property tax rate is set at 1%.
- The tax revenue split, between the City and County, is dictated by the percentages input by the user in Table H.
- The per-acre property tax value for each land use type and topology (land within the city, new county land annexed and county urban island annexed), is calculated under the green "T8" tabs. Annual property tax revenues are then calculated by multiplying the per-acre values by the number of acres per land use type.

Sales Tax:

- The analysis estimates sales tax revenues using a per-acre allowance method.
- The per-acre sales tax value for each land use type is calculated under the green "T9 Est Sales Tax" tab and is based on the percentage allocated to the City's General Fund, input by the user in Table I.
- There are two taxable sales assumptions within this analysis. One assumption is relevant to retail sales and one relevant to business-to-business sales. As seen in Table F, the sales rate per square foot of retail area is assumed to be $160. The business-to-business sales rate per square foot of office area is assumed to be $10. While sales rates would be expected to be varied between different uses, no reliable data source was available to provide better differentiation. These numbers can be modified by the user in Table I.
- Annual sales tax revenues were calculated by multiplying the per-acre values by the number of acres per land use type.

Property Transfer Tax:

- The analysis estimated property transfer tax revenues using a per-acre allocation method.
- The analysis uses relatively conservative average turnover period assumptions including 10 years for lower-density residential land uses, and 20 years for higher density

residential and non-residential properties. The 20-year turnover rate reflects the fact that the rental multi-family and commercial properties are often owned by investors and do not transfer between owners very frequently (Economic & Planning systems Inc., 2010).

- The annual transfer tax rate per acre for each land use type is calculated under the green "T10 Est Prop Transfer" tab and is based on the transfer tax rate input by the user in Table J. Property transfer tax revenues for each alternative were then calculated by multiplying the per-acre values by the number of acres per land use type.

Other Annually Recurring Revenues:

- Rather than assuming that each recurring revenue source will increase at a one-to-one ratio with new population and employment growth, the analysis assumes that a portion of each source is fixed and independent. To reflect this assumption, the analysis estimates the degree of independence or dependence (expressed as percent variable) for each revenue source. The higher the percentage the more closely correlated the growth in revenue is to the growth in population and employment.
- The analysis estimated revenues from the other sources (e.g. transient lodging taxes) using a per-service population (per-resident and per-employee) allocation method. These per capita rates and the total annual revenue are calculated under the green "T7 Other Cty Revs" tab.

Estimation of Expenditures:

- The analysis estimated expenditures in these categories using a per-service population (per-resident and per-employee) allocation method.
- Instead of assuming that each expenditure source will increase at a one-to-one ratio with new population and employment growth, the analysis assumes that a portion of expenditures in each category is fixed and independent from growth. The analysis utilizes estimates the degree of independence or dependence (expressed as percent variable) for each expenditure source. The higher the percentage the more closely correlated the growth in expenditure is to the growth in population and employment.
- To reflect reduced costs associated with compact development, this analysis contains two alternative expenditure conditions, business as usual and high-density compact development. Literature supports a compact development adjustment of -17.4% for public ways and facilities/transportation related expenditures. The compact development rates were applied to land use categories with density at or greater than 30 residents per acre for residential, 90 employees per acre or greater for non-residential, and 40 residents and employees per acre or greater for mixed-use land uses. Expenditures per capita under each of these conditions are shown under the green "T12" tabs.