

Draft Final Report

Long-Term Fiscal Health Analysis

The Economics of Land Use



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City of Sparks

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1. Introduction and Summary of Findings

Introduction

The fiscal health of large Nevada cities is tenuous. Cities have limited power and control over revenue generation due to Nevada law. State taxation laws have created a situation where cities must rely on new development to sustain fiscal health. Sparks is experiencing significant amounts of new development as the region rebounds from the Great Recession. Increased development demand in recent years has resulted in owners/developers seeking to annex into the city of Sparks or seek Comprehensive Plan land use amendments for large parcels. Comprehensive Plan land use amendments are often requested for parcels currently designated for employment and commercial land uses. The City considers employment and commercial uses to be important for maintaining the long-term fiscal health of the City. As a result, the City requires applicants to prepare a fiscal impact analysis for some land use project approvals (e.g., large annexations or Comprehensive Plan land use amendments). The purpose of this analysis is to document the associated costs and revenues and to understand the overall impact of the proposed development on the City.

Fiscal balance and health cannot be achieved on a project by project basis. Thus, approving development projects based solely on the evaluation of the fiscal impact can be problematic in some cases. The reality is, some projects will generate a net negative impact while others a positive one. The City of Sparks wants to understand how different uses impact its long-term fiscal health, providing a basis to determine the fiscal implications of the current land use plan and to help the City review proposed changes to Planned Developments (PDs), land use plan amendments, and annexations.

This report is a summary of the analysis of the long-term fiscal impact of the City's approved Comprehensive Plan land use plan and how changes to this land use plan may impact the City. The report contains three sections:

- **Estimate of Future Development Demand:** This chapter summarizes the estimated future development demand in the City over the next 20 years.
- **Estimate of Development Capacity:** This chapter summarizes estimated land capacity for new development in the City, which is compared to the estimated demand.
- **Long-Term Fiscal Impacts:** The last chapter compares the fiscal impact of the growth forecasts and associated development demand on the City of Sparks over a 20-year planning horizon. Alternative growth scenarios are also evaluated to illustrate how land use decisions impact long term fiscal health.

This report is a part of a larger effort undertaken by the City of Sparks related to the fiscal impact of new development and land use decisions. The City hired Economic & Planning Systems (EPS) to develop a fiscal impact model to analyze proposed development within the City. EPS developed guidelines for applicants to follow when submitting a fiscal impact analysis for a development proposal. The fiscal impact guidelines, as well as the methodology and factors used in that model, are summarized in a separate memorandums.

Summary of Findings

The major findings developed through the analysis are summarized below.

1. *The region (defined as Washoe and Storey Counties) was hit hard by the economic recession in 2008 and 2009. However, it has recovered and is growing at an increasing rate.*

Employment growth has returned and now exceeds rates of growth experienced in the 1990's and early 2000's. Industrial oriented industries (transportation and warehousing, manufacturing, administrative services) and service-oriented industries (health care, retail, accommodations and food service) have led the economic rebound. Industrial uses have generated the most development activity. The region added over 15 million square feet of new industrial space, of which only 1.8 million square feet was built in the City of Sparks. Storey County has emerged as an employment growth center with the addition of the Tesla "Gigafactory" and the Truckee-Reno Industrial Center. Retail development activity has been slower to rebound and only started increasing in the past three to four years as housing inventory has been added. New office development has been minimal since the recession.

2. *Employment in the region and Sparks is forecast to steadily continue over the next 20 years with growth in industrial, service, and tourism-oriented industries.*

The region is forecast to add more than 94,000 jobs over the next 20 years at an annual rate of 1.4 percent. The forecast employment growth will generate demand for over 51 million square feet of commercial and industrial development. The city of Sparks is estimated to capture approximately 25 percent of non-residential development, which equates to 9.1 million square feet of new commercial and industrial space. The estimated development will generate demand for 961 acres of land.

3. *The region has been adding new residents at a slower rate since 2010 than experienced in the 1990's and early 2000's, but has increased at a greater rate in recent years as employment growth has steadily increased.*

Annual population growth in the region and Sparks has been significantly lower since 2007, as compared to the rates experienced prior to the economic recession. The city of Sparks has grown in population at an annual rate of 1.4 percent since 2010, but grew by over 3 percent a year in the 17 years prior to 2007. New housing development has begun to pick up due to employment growth but still lags pre-recession levels. The City of Sparks has permitted an average of 586 residential units since 2010, and has permitted over 1,122 units per year since 2015; with a peak of activity in 2017 (1,664 permitted units).

4. *City of Sparks and Washoe County population is forecast to grow at a slower rate than employment over the next 20 years.*

Washoe County and Sparks are expected to increase in population at an annual rate of 1.0 percent adding 23,180 residents to Sparks and 106,000 residents to the County in total. (As noted previously, employment growth through 2040 is forecast at 1.4 percent, which is 40 percent higher than the 1.0 rate estimated for residential). The forecast population growth will generate demand for approximately 12,200 new housing units in Sparks, which will require approximately 1,800 acres of land.

5. *Sparks has an adequate amount of vacant, developable land in aggregate to accommodate forecast growth over the next 20 years; however, there is lack of capacity for some uses.*

With an estimated 3,847 acres of vacant land, the City has land capacity for most uses based on its Comprehensive Plan land use designations. Industrial and moderate density single family uses will account for the majority of the estimated demand for these uses. Based on the current Comprehensive Plan land use plan, there is insufficient land designated for these two types of uses. However, the moderate density single family development can also be accommodated on parcels designated for low-density single family and/or high-density single family/low-density multifamily as there is excess capacity designated for these uses. Industrial lands, especially development-ready sites, are more limited in the Sparks and the region as a whole. However, the City has an excess of land for office and retail uses, which allows for flexibility for conversion to other uses, especially other employment-generating uses.

- 6. *The baseline forecast and Comprehensive Land Use Plan are estimated to generate a positive fiscal impact to the City's General Fund over the next 20-years. This surplus will likely be off-set by deficits created in the Road Fund. The net fiscal condition of the City will be negative, although the two funds are distinct.***

The new development generated by the baseline forecast for the City of Sparks will generate an *annual* net positive fiscal impact of \$3.3 million. However, the Road Fund is estimated to have an annual net negative fiscal impact of \$4 million.

- 7. *A denser development pattern and increased development of employment-oriented uses were found to create better fiscal conditions with lower impacts to the City's finances.***

Four alternative growth scenarios were tested to understand the impacts of varied growth patterns. Alternatives with density factors 10 percent greater than the baseline forecast and with increased industrial or office development were found to generate more revenue and lower expenditures. A balanced growth pattern between residential and employment uses is needed to maintain fiscal health.

2. Future Development Demand

This section provides an estimate of development demand for Sparks over the next 20 years. EPS analyzed recent growth and development trends for housing, retail, office and industrial space in the region to understand Spark's historic rate and capture of new development. Forecasts by the State Demographer, the Truckee Meadows Regional Planning Agency Consensus Forecast, and as part of EDAWN's EPIC Study are used to estimate population and employment growth in the region. Forecast growth is translated into demand for new housing units and non-residential space (in square feet). Lastly, EPS used capture rates to forecast demand for new buildings and land within the city of Sparks.

Recent Growth Trends

Population and Households

Sparks and Washoe County have increased in population at a steady rate over the past two decades. Sparks has added 10,946 new residents since 2010, as shown in

Table 1. This represents 26 percent of population growth in the county since 2010. Sparks outpaced the rate of growth in Washoe County from 2000 to 2018, but since 2010 has matched the county’s overall rate of 1.4 percent annually.

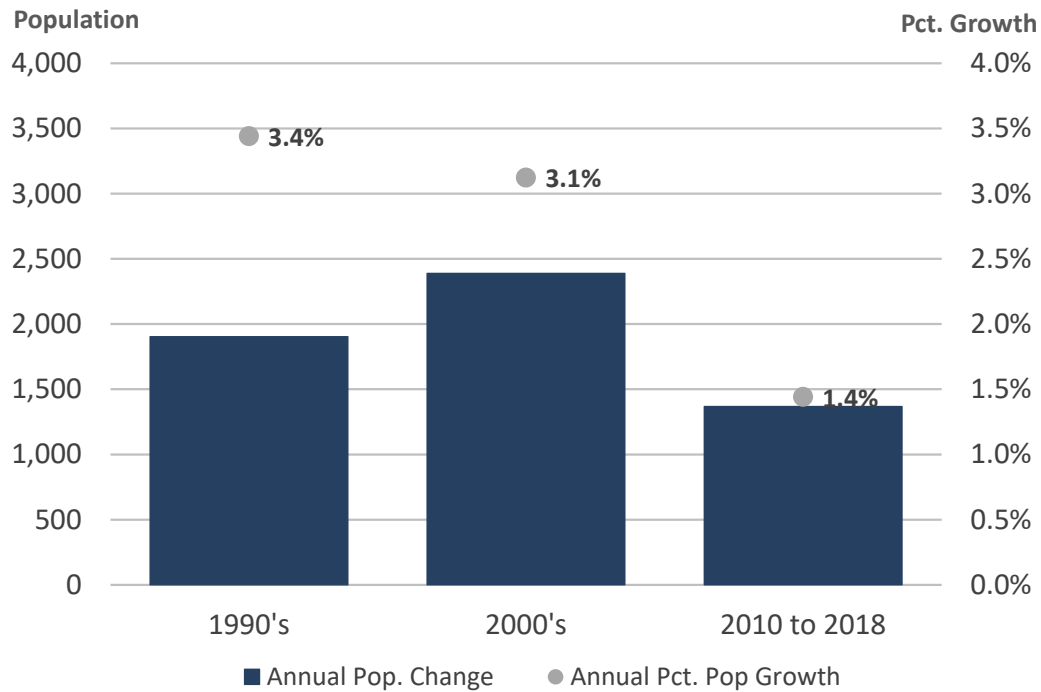
Table 1. City of Sparks Population and Households, 2000 to 2018

	2000	2010	2018	Change 2000-2018			Change 2010-2018		
				Total	Ann.#	Ann. %	Total	Ann.#	Ann. %
Population									
City of Sparks	66,346	90,236	101,182	34,836	1,935	2.4%	10,946	1,368	1.4%
Washoe County	339,486	421,407	471,546	132,060	7,337	1.8%	50,139	6,267	1.4%
Households									
City of Sparks	24,601	33,501	37,012	12,411	690	2.3%	3,511	439	1.3%
Washoe County	132,084	163,445	180,355	48,271	2,682	1.7%	16,910	2,114	1.2%

Source: US Census; ESRI; Economic & Planning Systems

The rate of population growth in Sparks has decreased since 2010 from rates experienced in the 1990's and 2000's. Sparks increased in population at an annual rate of over 3.0 percent in the 1990's and 2000's, as shown in **Figure 1**, falling to 1.4 percent in the recent past.

Figure 1. Change in Population, Sparks, 1990 to 2018



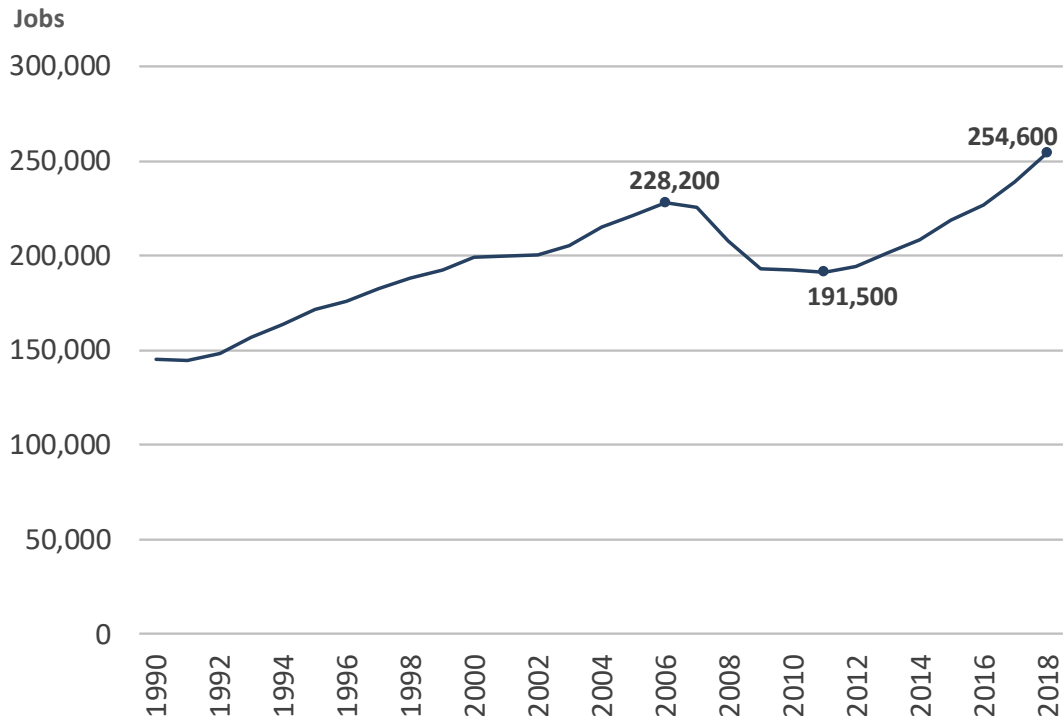
Source: US Census; ESRI; Economic & Planning Systems

Employment

The Reno-Sparks Metropolitan Statistical Area (MSA) is comprised of Washoe and Storey Counties. Washoe County has the major economic centers in the MSA and accounts for 95 percent of employment in the MSA. Economic growth in Washoe County is supported by four main economic drivers. The region has been a major tourism center anchored by casino gaming and proximity to Lake Tahoe and the associated outdoor recreational activities. Washoe County is also a regional health services and retail hub serving the greater northern Nevada area and the mountain communities to the west in California. The Reno-Sparks MSA is a major distribution and logistics center due to its proximity to several major metro areas and access to I-80. Lastly, the University of Nevada-Reno and other educational institutions also serve as economic anchors.

Total 2018 employment in the Reno-Sparks MSA was 254,600, as shown in **Figure 2**. The Great Recession had a tremendous adverse impact on the economy of the MSA. Employment in the MSA was growing steadily from 1990 to 2006; however employment declined by 16 percent from 2006 to 2011. Not until 2015 did total employment in the MSA exceed 2005 totals.

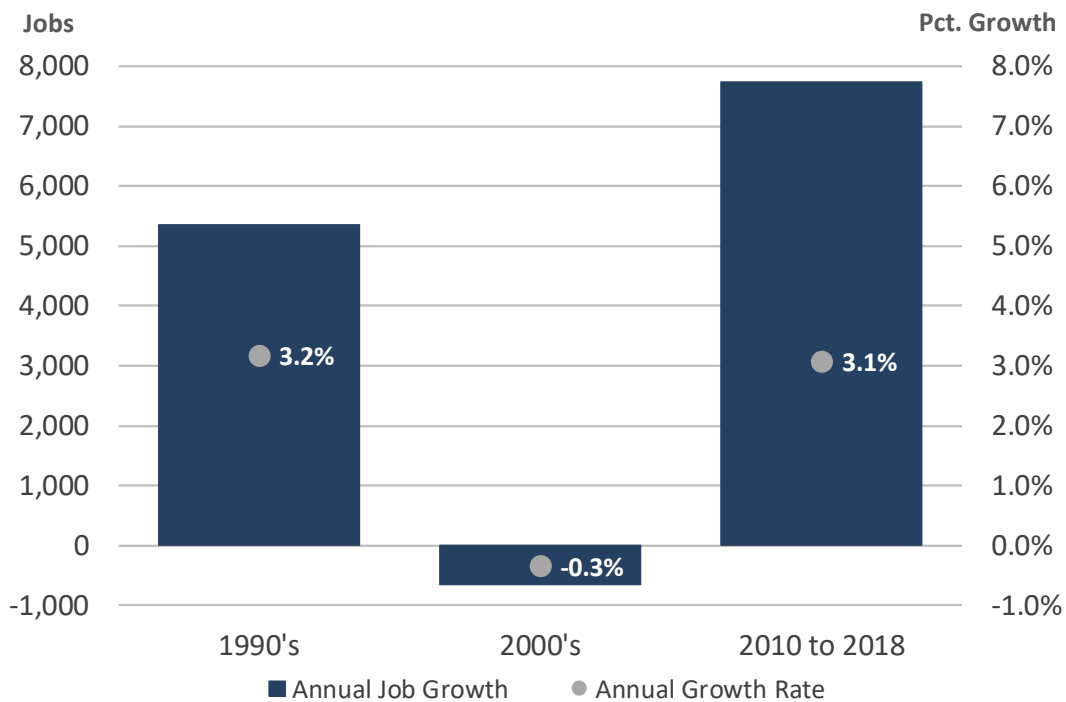
Figure 2. Reno-Sparks MSA Employment, 1990 to 2018



Source: Bureau of Labor Statistics; Economic & Planning Systems

Employment grew by 3.2 percent annually with 5,360 jobs added per year in the 1990's. Employment declined by an average of 650 jobs per year from 2000 to 2010 despite strong employment growth in the first five years of the decade. Since 2010, employment has rebounded and is outpacing the amount of new jobs annually added in the 1990's as show in **Figure 3**, with nearly 7,800 jobs per year.

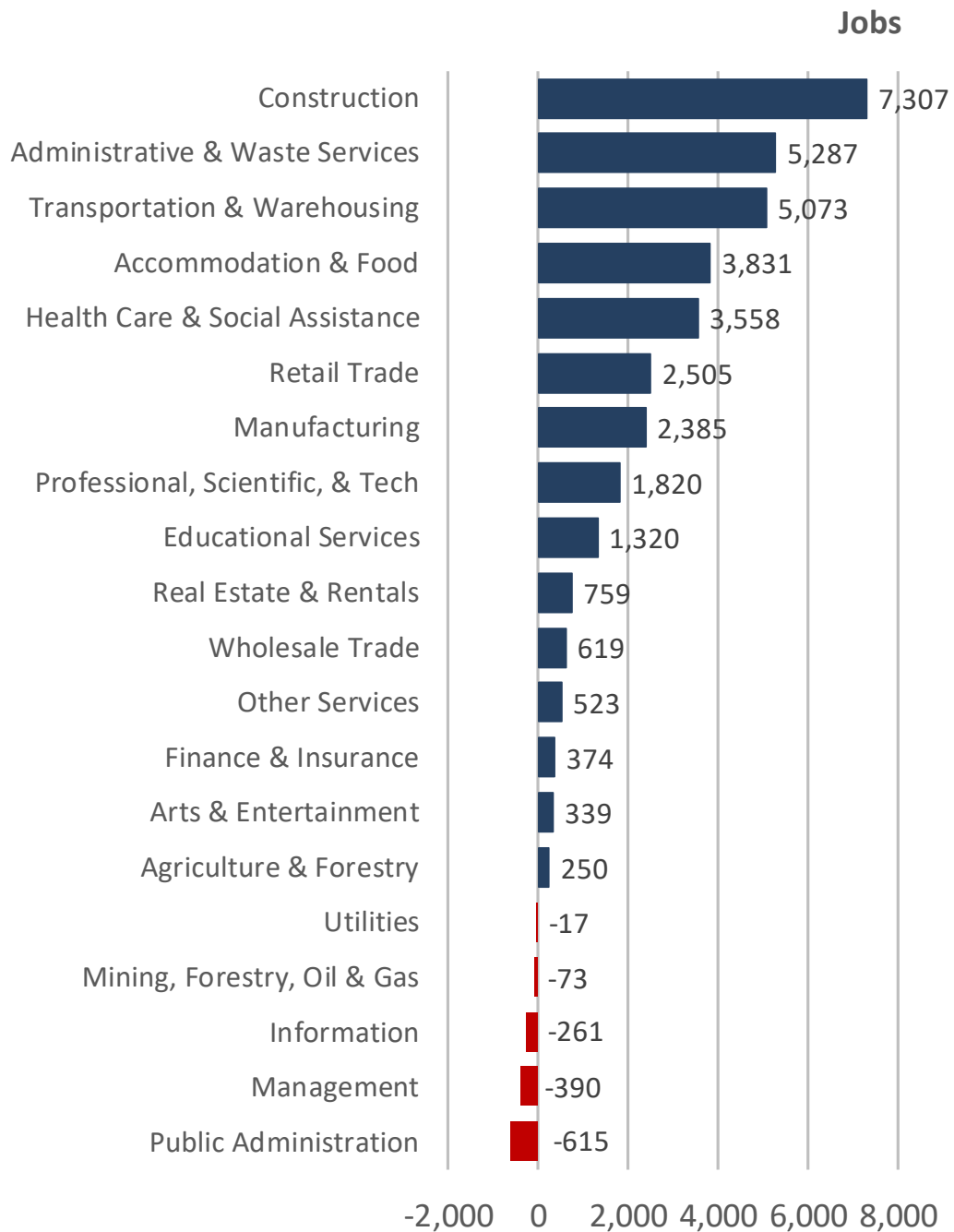
Figure 3. Reno-Sparks MSA Employment, 1990 to 2018



Source: Bureau of Labor Statistics; Economic & Planning Systems

As reflected in **Figure 4**, employment growth in Washoe County has been driven by growth in the construction, distribution and warehousing, and administrative sectors. The construction industry has grown the most in employment since 2010, adding 7,307 jobs after losing over 14,700 jobs from 2006 to 2010. The transportation and warehousing and administrative services industries collectively added over 10,000 jobs since 2017—accounting for a third of the county’s total employment growth. The administrative services industry includes back office uses, call centers, and temporary worker providers. A significant portion of the administrative services jobs in Washoe County are related to temporary jobs supporting the distribution-oriented companies, such as Amazon, located in the county. The tourism and service industries (accommodations and food service, retail trade, and health care) also experienced strong employment growth, adding nearly 10,000 jobs since 2010 and accounting for another third of employment growth. Manufacturing and professional services also grew significantly, adding 2,385 and 1,820 jobs respectively, since 2010

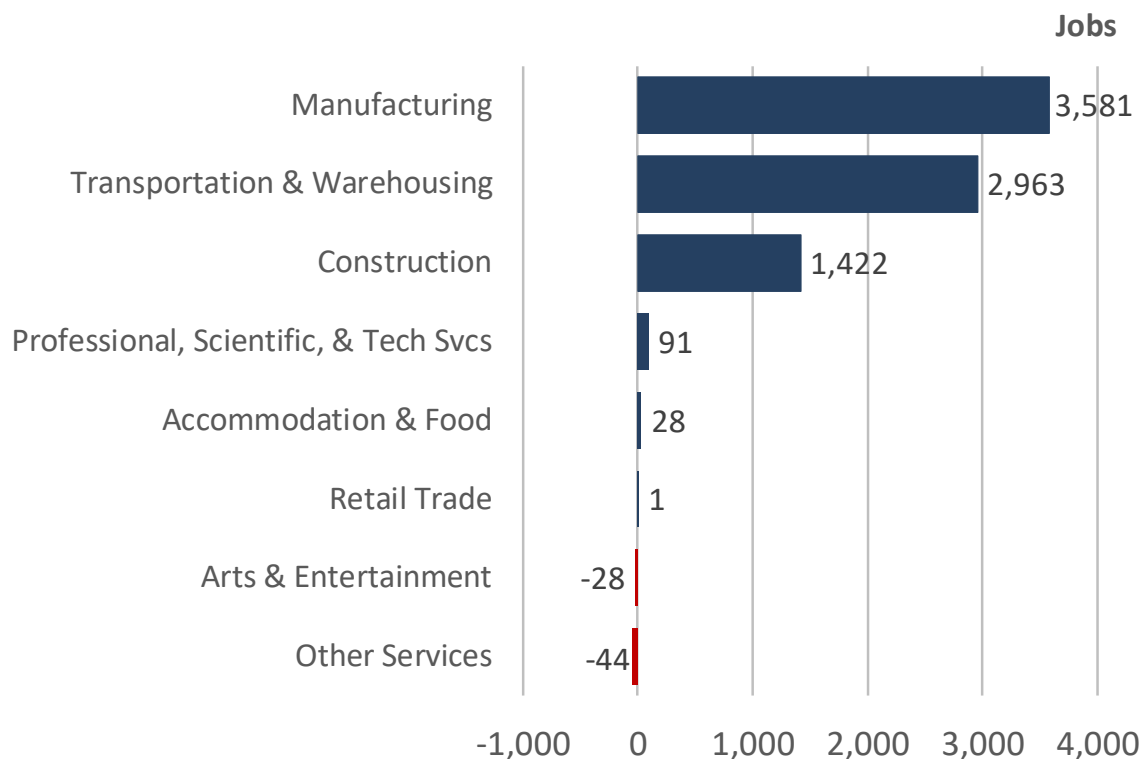
Figure 4. Washoe County Employment Change by Industry, 2010 to 2017



Source: Bureau of Labor Statistics; Economic & Planning Systems

Storey County had a small employment base until recent years. This changed with the emergence of the Tahoe-Reno Industrial Center (TRI Center), a large logistics and manufacturing industrial center. Electric car maker Tesla built its “Gigafactory” lithium ion battery manufacturing center at the TRI Center, just west of the Washoe County border. The factory, which opened in 2016, has a total potential size of up to 10 million square feet. According to the State of Nevada’s Governor’s Office of Economic Development (GOED) impact analysis completed in 2014, the factory will be home to 6,500 jobs. Storey County grew by 3,581 manufacturing jobs and 2,963 transportation and warehousing jobs from 2010 to 2017. The county has also had a large increase in construction jobs (1,422) to support the growth at the TRI Center.

Figure 5. Storey County Employment Change by Industry, 2010 to 2017



Source: Bureau of Labor Statistics; Economic & Planning Systems

Housing Demand

This section contains a summary of the estimated demand for housing and land for housing over the next 20 years. EPS used the Truckee Meadows Regional Planning Agency's (TMRPA) Consensus Forecast to develop estimated demand for housing. Recent development trends were used to estimate the demand by housing type.

Development Trends

The City of Sparks permitted 5,270 residential units from 2010 to 2018, as shown in **Table 2**. The City issued an average of 586 residential building permits per year during this period. Single family detached homes accounted for 60 percent of the units permitted, with an average of 352 units per year. Multifamily units—defined as units with five units or more in a structure—accounted for 39 percent, and attached single family units accounted for 1 percent of units. Permit activity increased significantly in 2015 with 851 units permitted that year. In 2017, Sparks permitted 1,664 units, which is three times the average number permitted annually over the nine-year span from 2010 through 2018. Nearly all of this increase is attributable to the development of multi-family housing, including new apartment communities located in the city's Victorian Square and Sparks Marina redevelopment areas.

Table 2. City of Sparks Residential Permitted Units, 2010 to 2018

Residential Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2010-2018	
										Total	Ann. Avg.
Single Family Detached	88	129	209	331	368	672	489	524	359	3,169	352
Two Family Buildings	0	0	1	6	8	0	0	4	2	21	2
Five or More Family Buildings	<u>0</u>	<u>0</u>	<u>0</u>	<u>43</u>	<u>0</u>	<u>179</u>	<u>417</u>	<u>1,136</u>	<u>305</u>	<u>2,080</u>	<u>231</u>
Total	88	129	210	380	376	851	906	1,664	666	5,270	586

Source: City of Sparks

Population Growth Forecast

TMRPA is required to develop a Consensus Forecast every two years for Washoe County. The forecast is based on projections from the Nevada State Demographer, Truckee Meadows Water Authority (TMWA), and secondary data providers. The 2018 Consensus Forecast estimates that the county will grow by 106,823 people by 2038, as shown in

Table 3. Sparks is forecast to grow by 23,180 residents from 2018 to 2038, an annual rate of 1.0 percent, the same growth rate as the county as a whole.

EPS used the population forecast for Sparks to estimate demand for new housing units. To do so, EPS used the changes in population and households in the city from 2000 to 2018 to estimate the average number of new residents per new household and, in turn, to estimate an increase in households. Specifically, the conservative number of 2.0 people per household was used (by comparison, TMRPA uses 2.57 persons per household) to translate the forecasted increase in population of 23,180 persons to an estimated increase of 11,590 households, as shown in **Table 4**. EPS applied a 5 percent vacancy factor to the household demand estimate to develop a forecast demand for housing units. EPS thus estimates demand for approximately 12,200 new housing units between 2018 and 2038, an average of 581 new units per year.

Table 3. Washoe County Consensus Population Forecast, 2017 to 2038

Jurisdiction	2017 Certified Estimates	Centers, Corridors & EEC Increment	Remaining Increment	2038 Jurisdiction Forecast	Change 2017 to 2038	
					Total	Ann. %
Reno	244,612	22,754	40,059	307,425	62,813	1.1%
Sparks	96,928	3,952	19,228	120,108	23,180	1.0%
Unincorporated Washoe County	<u>110,383</u>	<u>N/A</u>	<u>20,830</u>	<u>131,213</u>	<u>20,830</u>	<u>0.8%</u>
Total County	451,923	26,706	80,117	558,746	106,823	1.0%

Source: TMRPA

Table 4. City of Sparks Population and Household Forecast, 2017 to 2038

Description	Factor	2017	2028	2038	Change 2017-2038		
					Total #	Ann. #	Ann. %
Forecast							
Population		96,928	108,450	120,108	23,180	1,104	1.0%
Pop per HH		2.77	2.66	2.58	2.00		
Households		35,051	40,709	46,641	11,590	552	1.4%
Housing Units	5% Vacancy	36,896	42,851	49,096	12,200	581	1.4%

Source: TMRPA, Economic & Planning Systems

Housing Development Demand

EPS used the recent development trends and information from the Housing Study completed by TMRPA in 2016 to estimate housing unit demand by housing type. The TMRPA developed five housing types based on density, which are shown in **Table 5**. The allocation of units by housing type followed permitted residential unit trends in Sparks and the allocations TMRPA used for Washoe County in the Housing Study.

Table 5. City of Sparks New Housing Demand, 2017 to 2038

Housing Types	Factor	2017-2028	2029-2038	Change 2017-2038	
				Total #	Ann. #
New Housing Demand					
New Housing Units		5,956	6,244	12,200	581
<u>Units by Density</u>					
Low-Density Single Family	2%	119	125	244	12
Moderate Density Single Family	45%	2,680	2,810	5,490	261
High Density Single Family/Low Density Multifamily	25%	1,489	1,561	3,050	145
Moderate Density Multifamily	20%	1,191	1,249	2,440	116
High-Density Multifamily	8%	476	500	976	46
Total	100%	5,956	6,244	12,200	581

Source: TMRPA; Economic & Planning Systems

The density ranges for each housing type developed for the TMRPA Housing Study were used by EPS to translate housing unit demand to land demand for each housing type. EPS estimates that the forecast 12,200 units will generate demand for 1,805 acres of land from 2018 to 2038, which is an average of 82 acres per year as shown in **Table 6**.

Table 6. City of Sparks Residential Land Demand, 2017 to 2038

Housing Types	Factor	2017-2028	2029-2038	Change 2017-2038	
				Total #	Ann. #
New Housing Demand					
New Housing Units		5,956	6,244	12,200	581
Low-Density Single Family	2%	119	125	244	12
Moderate Density Single Family	45%	2,680	2,810	5,490	261
High Density Single Family/Low Density Multifamily	25%	1,489	1,561	3,050	145
Moderate Density Multifamily	20%	1,191	1,249	2,440	116
High-Density Multifamily	8%	476	500	976	46
Total		5,956	6,244	12,200	581
Land Absorption (Acres)					
<u>Housing Type</u>	<u>Gross Density</u>				
Low-Density Single Family	1.5 DU/Acre	79	83	163	7
Moderate Density Single Family	4.5 DU/Acre	596	624	1,220	55
High Density Single Family/Low Density Multifamily	10.0 DU/Acre	149	156	305	14
Moderate Density Multifamily	25.0 DU/Acre	48	50	98	4
High-Density Multifamily	50.0 DU/Acre	10	10	20	1
Total		881	924	1,805	82

Source: Economic & Planning Systems

Non-Residential Demand

This section contains a summary of the estimated demand for employment and commercial land over the next 20 years. To estimate demand for non-residential development, EPS used the following methodology.

- The Truckee Meadows Regional Planning Agency's (TMRPA) consensus forecast for Washoe County and the State Demographer's forecasts were used to develop control totals for employment growth in both counties in the MSA.
- Historic employment trends and forecasts by industry from the U.S. Bureau of Labor Statistics and the private forecasting firm Woods and Poole were used to estimate employment growth of individual industries.
- EPS forecast the growth in employment by industry. The forecast jobs by industry were allocated to non-residential uses and the density factors (employee per square feet and floor area ratio) were used to estimate demand for new buildings and land in the region.
- Historic and recent development trends were used to define capture rates (i.e., the portion of total development or of a particular type of development, occurring in Sparks) and estimate demand for non-residential development in Sparks.

Development Trends

Recent development trends for office, retail (including general commercial), and industrial uses are summarized below.

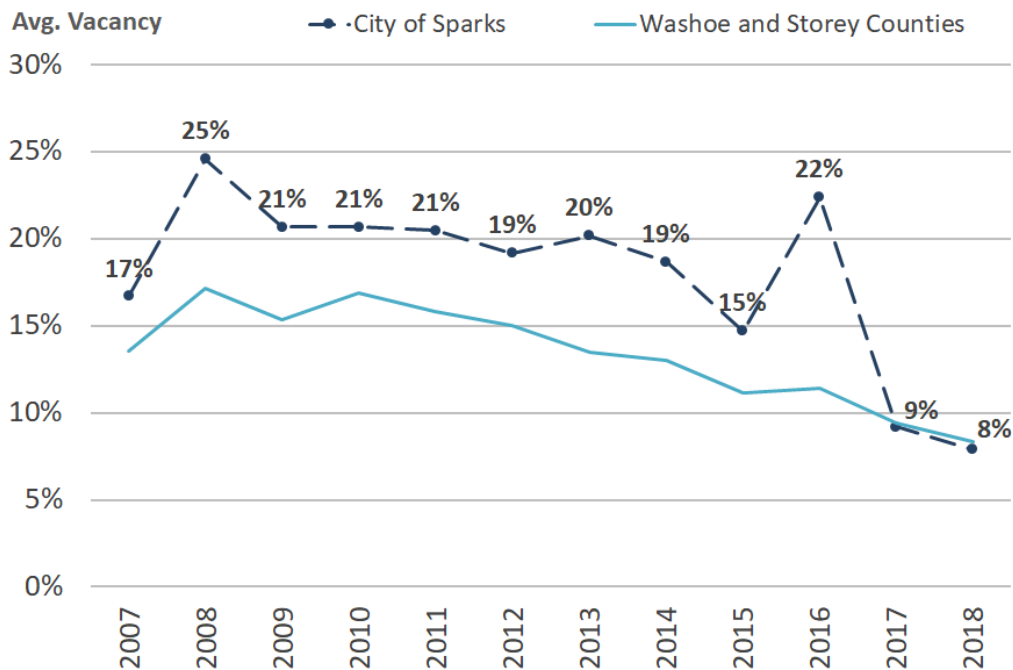
Office Development

Sparks has an office inventory of 1.32 million square feet, which accounts for 8 percent of the region's inventory. New office development in the region has been minimal since 2010. Washoe County added only 214,057 square feet to the office inventory in the last nine years, as shown in **Table 7**. Sparks only added 3,000 square feet to the city's total office inventory, which was 1 percent of the regional increase. Employment losses from 2007 to 2010 led to large vacancies in office space in the region. The regional office vacancy rate grew to 17 percent and vacancy in Sparks was as high as 24.6 percent, as shown in **Figure 6**. Vacancy rates have declined since the start of the decade and have dipped below 10 percent in both the region and Sparks, indicating there may be demand for new space.

Table 7. Regional Office Inventory, 2010 to 2018

Description	2010	2018	2010-2018		
			Total	Ann. #	Ann. %
Inventory					
City of Sparks	1,316,583	1,319,583	3,000	375	0.0%
Washoe and Storey Counties	16,063,673	16,277,730	214,057	26,757	0.2%
% of Washoe and Storey	8%	8%	1%		
Vacancy					
City of Sparks	20.7%	7.9%			
Washoe and Storey Counties	16.9%	8.3%			

Source: CoStar; Economic & Planning Systems

Figure 6. Regional Office Vacancy Rate, 2007 to 2018

Source: CoStar; Economic & Planning Systems

Industrial Development

A large amount of new industrial space has been developed since 2010 in the region. However, much of the new space was developed outside of Sparks. Sparks has an inventory of 28.5 million square feet of industrial space, representing 31 percent of the regional total. The city added 1.7 million square feet since 2010, accounting for only 11 percent of the regional increase as shown in **Table 8**.

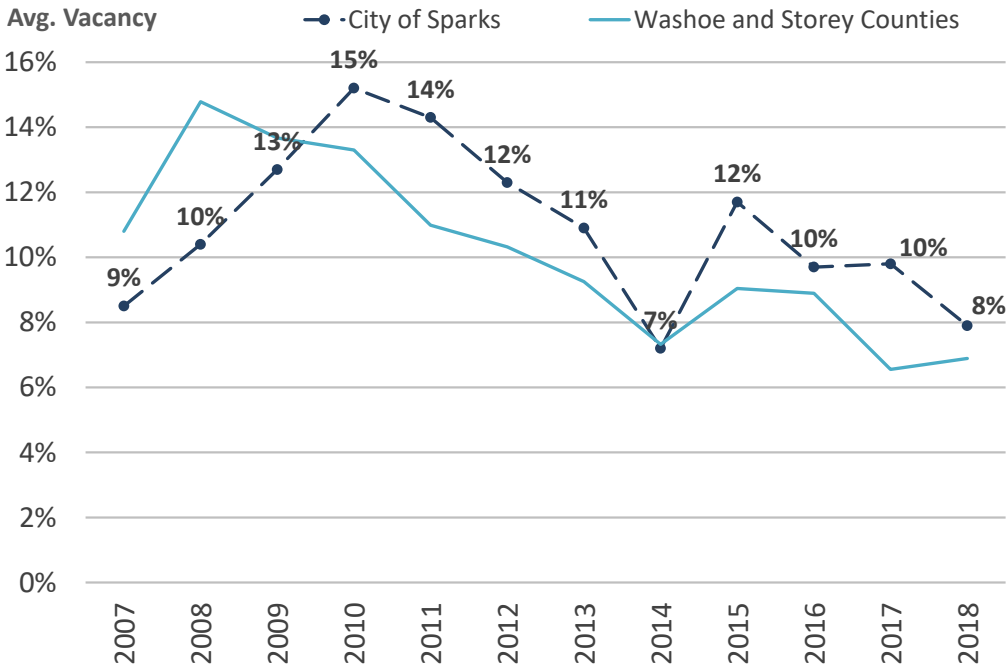
Vacancy rates for industrial space in Sparks have mirrored regional vacancy rates over the past 12 years. Vacancy rates increased from 2007 to 2010 due to the Great Recession and job losses in the region, as shown in **Figure 7**. Vacancy rates fell steadily from 2010 to 2014, reaching a low of 7.2 percent in Sparks. A large amount of new industrial space (approximately 4 million square feet) was added to the region from 2015 to 2017 but only a small amount was added in Sparks, as shown in **Figure 8**. Vacancy rates increased as the new buildings were completed but have decreased to below 10 percent at this time. The impact of the recession on the industrial market was less severe than on the office market. Vacated space was quickly leased as demand for new industrial development returned and continues to grow.

Table 8 Regional Industrial Inventory, 2010 to 2018

Description	2010	2018	2010-2018		
			Total	Ann. #	Ann. %
Inventory					
City of Sparks	26,835,848	28,507,860	1,672,012	209,002	0.76%
Washoe and Storey Counties	75,880,838	91,569,707	15,688,869	1,961,109	2.38%
<i>% of Washoe and Storey County</i>	35%	31%	11%		
Vacancy					
City of Sparks	15.2%	7.9%			
Washoe and Storey Counties	13.3%	5.7%			

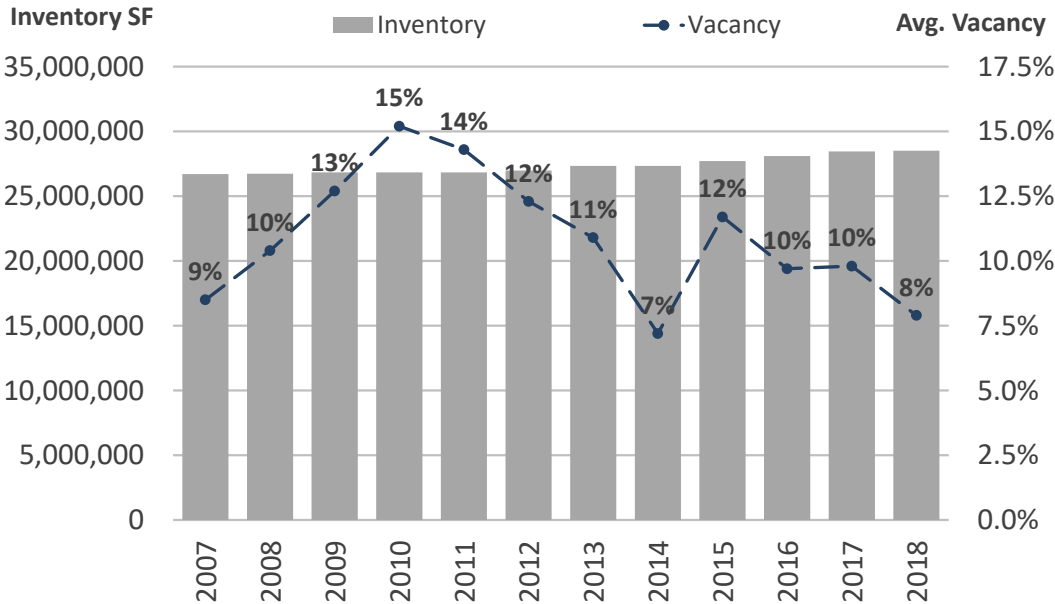
Source: CoStar; Economic & Planning Systems

Figure 7 Regional Industrial Vacancy Rates, 2007 to 2018



Source: CoStar; Economic & Planning Systems

Figure 8 City of Sparks Industrial Inventory, 2007 to 2018



Source: Economic & Planning Systems

Retail Development

As of 2018 Sparks had a total retail space inventory of 6.09 million square feet, as shown in **Table 9**. The retail inventory accounts for 24 percent of the regional total. The region added 546,979 square feet of new retail space to its inventory from 2010 to 2018. Sparks added 103,802 square feet to its retail inventory during the same period, which accounted for 19 percent of inventory growth.

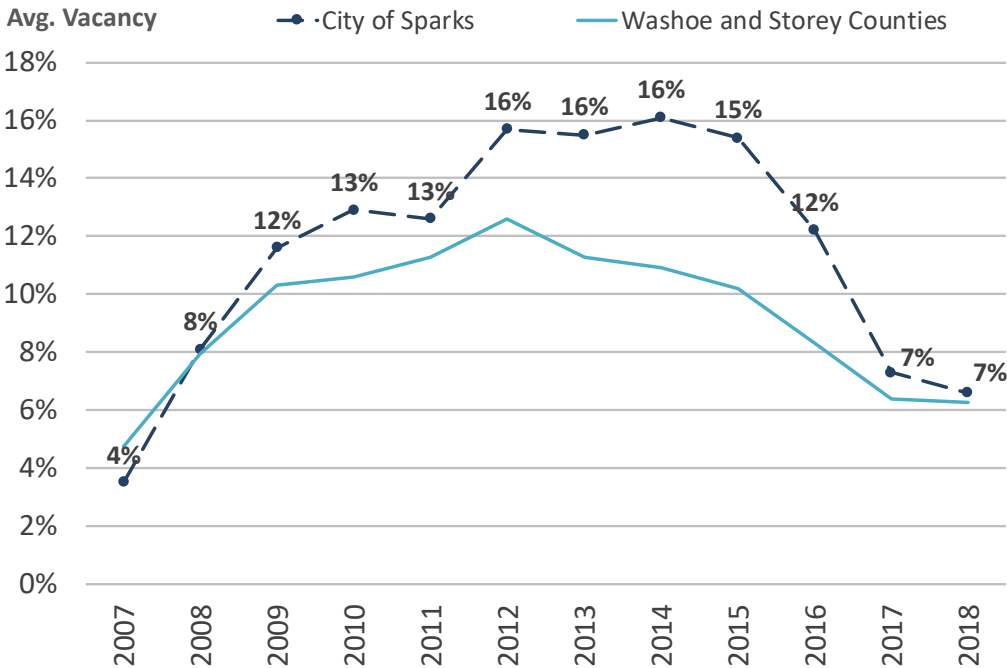
Table 9. Regional Retail Inventory, 2010 to 2018

Description	2010	2018	2010-2018		
			Total	Ann. #	Ann. %
Inventory					
City of Sparks	5,989,596	6,093,398	103,802	12,975	0.2%
Washoe and Storey Counties	25,338,201	25,885,180	546,979	68,372	0.3%
<i>% of Washoe and Storey</i>	24%	24%	19%		
Vacancy					
City of Sparks	12.9%	6.6%			
Washoe and Storey Counties	10.6%	6.3%			

Source: CoStar; Economic & Planning Systems

Vacancy rates for retail space in the region and Sparks were above 10 percent for most of the past decade, illustrating the lack of demand for retail space. Sparks retail vacancy rates have been consistently higher than the region and peaked at 16.1 percent in 2014. However, the vacancy rate decreased significantly in the city from 2016 to 2018 as vacant space was refilled or redeveloped, as reflected in **Figure 9**. The decrease in vacancy rates to 6.6 percent now indicates new demand for space as continued employment and population growth in the region should spur new retail development in the region.

Figure 9. Regional Retail Vacancy Rates, 2007 to 2018



Source: CoStar; Economic & Planning Systems

Employment Growth Forecasts

The TMPRA Consensus Forecast (2018) estimates the county will grow in total employment by 94,333 jobs from 2018 to 2038. The county's employment base is estimated to grow an annual rate of 1.4 percent during the forecast period as shown in **Table 10**.

Table 10. Washoe County Consensus Employment Forecast, 2018 to 2038

Description	2018	2038	2018-2038		
			Total	Ann. #	Ann. %
Washoe County Establishment Based Employment	288,377	382,710	94,333	4,717	1.4%
Natural Resources	2,276	3,064	788	39	1.5%
Construction	17,703	24,491	6,788	339	1.6%
Manufacturing	14,193	15,886	1,693	85	0.6%
Transportation, Communication and Public, Utilities	17,438	21,692	4,254	213	1.1%
Wholesale Trade	11,254	14,521	3,267	163	1.3%
Retail Trade	30,135	40,870	10,735	537	1.5%
Finance, Insurance, & Real Estate	35,940	51,595	15,655	783	1.8%
Services	128,648	167,373	38,725	1,936	1.3%
Government	<u>31,420</u>	<u>43,218</u>	<u>11,798</u>	<u>590</u>	<u>1.6%</u>
Totals	289,007	382,710	93,703	4,685	1.4%

Source: TTPRA; Economic & Planning Systems

Wage and salary employment, which excludes sole proprietors, is used to estimate demand for development space. EPS applied the forecast Washoe County employment growth rate to the regional employment base to estimate demand for employment by industry from 2018 to 2038. Wage and salary employment in Washoe and Storey County are forecast by EPS to grow by 75,000 jobs over this period, as shown in **Table 11**. EPS developed estimates for annual growth rates for each industry using historic growth rates and forecasts from multiple sources (as described previously).

Table 11. Washoe and Storey County Employment Forecast, 2018 to 2038

Description	2018	2028	2038	2018-2038		
				Total	Ann. #	Ann. %
Washoe and Storey County						
Agriculture, Forestry, Fishing and Hunting	408	434	458	50	3	0.6%
Mining, Quarrying, and Oil and Gas Extraction	256	256	260	4	0	0.1%
Utilities	890	932	958	68	3	0.4%
Construction	18,578	26,108	31,577	13,000	650	2.7%
Manufacturing	18,075	28,279	32,063	13,988	699	2.9%
Wholesale Trade	9,755	11,315	12,657	2,902	145	1.3%
Retail Trade	24,298	27,264	28,564	4,266	213	0.8%
Transportation and Warehousing	20,494	25,809	30,696	10,202	510	2.0%
Information	2,158	2,278	2,325	168	8	0.4%
Finance and Insurance	5,965	6,671	7,153	1,188	59	0.9%
Real Estate and Rental and Leasing	4,133	4,539	4,962	829	41	0.9%
Professional, Scientific and Technical Services	11,545	14,287	16,634	5,089	254	1.8%
Management of Companies and Enterprises	2,930	3,084	3,215	285	14	0.5%
Admin. and Support and Waste Mgmt. and Rem.	16,904	16,922	16,940	36	2	0.0%
Educational Services	17,113	19,520	21,512	4,398	220	1.2%
Health Care and Social Assistance	25,412	30,128	33,253	7,840	392	1.4%
Arts, Entertainment, and Recreation	6,085	7,054	7,909	1,824	91	1.3%
Accommodation and Food Services	32,735	37,097	39,821	7,086	354	1.0%
Other Services, except Public Administration	<u>5,944</u>	<u>6,778</u>	<u>7,666</u>	<u>1,722</u>	<u>86</u>	<u>1.3%</u>
Total	232,684	277,761	307,628	74,944	3,747	1.4%

Source: Economic & Planning Systems

Employment Development Demand

EPS developed square feet per employee and floor area ratio (defined as the ratio of a building's gross floor area to the size of the site or parcel upon which it is built) factors to convert forecast employment into demand for new building space and demand for land. The factors developed for this analysis are shown in **Table 12**.

Table 12. Non-Residential Uses Development Factors

Description	Building Sq. Ft. per Employee	Floor Area Ratio (FAR)
Office	250	0.30
Industrial	750	0.20
Retail Trade	400	0.25
Accom. and Food Services	600	0.50

Source: Economic & Planning Systems

EPS allocated jobs by industry to office, industrial or retail uses. Note that employment that generates demand for private development was estimated. Public entity employment growth was not translated into development demand. EPS estimates that the forecast 75,000 new jobs in the region by 2038 will equate to demand of 51.78 million square feet of commercial and industrial space as shown in **Table 13**.

Table 13. Forecast Regional New Development Demand, 2018 to 2038

Use Type	CoStar 2018 4Q	New Development Demand		
		2018-2028	2028-2038	2018-2038
Region				
Office	16,277,730	2,438,309	1,584,301	4,022,610
Industrial	90,996,937	14,343,098	22,471,308	36,814,406
Retail Trade	25,885,180	4,255,449	6,684,053	10,939,502
Total	133,159,847	21,036,855	30,739,662	51,776,517

Source: Economic & Planning Systems

EPS used capture rates for office, industrial, and retail space to estimate demand for new development in Sparks. The estimated capture rate for Sparks of new office space in the region is 10 percent, 30 percent for industrial space, and 25 percent of retail space as shown in **Table 14**.

Table 14. Sparks Development Capture Rates

Use Type	CoStar 2018 4Q Washoe and Storey	Existing Space Sparks	Sparks Capture Rates	
			2018-2028	2028-2038
Office	16,277,730	1,319,583	10%	10%
Industrial	90,996,937	28,507,860	30%	30%
Retail Trade	<u>25,885,180</u>	<u>6,093,398</u>	<u>25%</u>	<u>25%</u>
Total	133,159,847	35,920,841	26%	25%

Source:: CoStar; Economic & Planning Systems

Sparks is estimated to capture 9.0 million square feet of new office, industrial and retail space from 2018 to 2038 as shown in **Table 15**. The estimated capture of office space is 400,000 square feet, 7.1 million square feet of industrial space, and 1.6 million square feet of retail space. The new building space is estimated to require 961 acres of land to accommodate new development.

Table 15. Sparks Development and Land Demand, 2018 to 2038

Use Type	CoStar 2018 4Q	New Development Demand		
		2018-2028	2028-2038	2018-2038

City of Sparks

Development Sq Ft

Office	1,319,583	243,831	158,506	402,337
Industrial	28,507,860	4,302,929	2,809,549	7,112,479
Retail Trade	<u>6,093,398</u>	<u>965,733</u>	<u>590,703</u>	<u>1,556,436</u>
Total	35,920,841	5,512,493	3,558,759	9,071,252

City of Sparks

Land Acres

Office	18.7	12.1	30.8
Industrial	493.9	322.5	816.4
Retail Trade	<u>70.7</u>	<u>43.0</u>	<u>113.6</u>
Total	583.2	377.6	960.8

Source: Economic & Planning Systems

3. Development Capacity

This chapter provides a summary of Sparks' land capacity for future development. The land capacity is documented by land use and future land use designation. The estimated capacity is compared to estimated demand to determine the number of years of capacity, based on forecasts, the City currently has designated by land use type.

Land Capacity

EPS utilized Washoe County parcel records to estimate vacant land capacity for development in the Sparks. The total vacant acres in the City's sphere of influence, per Comprehensive Plan land use designation, were calculated. This serves as the estimate of land capacity for development. The number of vacant acres by land use category is shown in **Table 16**. The City has an estimated 3,847 acres of vacant land for development within its corporate boundary and sphere of influence. Note that land designated for open space and rural reserve is not included. EPS estimated the allocation of land by residential and non-residential uses based on the uses allowed within each land use designation within the City of Sparks Comprehensive Plan.

EPS used dwelling units per acre (DU/acre) and average floor area ratio (FAR) factors to estimate capacity for housing units and non-residential building square feet. The factors are based on the densities allowed within each land use category and typical development densities for each use type. Sparks is estimated to have capacity for 22,354 new housing units and 18.3 million square feet of non-residential buildings based on the factors used (**Table 17**).

Table 16. Sparks Vacant Acres by Land Use Designation

Land Use	Code	Total Acres	Resi.	Non-Resi.	Pct. by Use	
					Resi.	Non-Resi.
Large Lot Residential	LLR	470.6	470.6	0.0	100%	0%
Low Density Residential	LDR	938.6	938.6	0.0	100%	0%
Intermediate Density Residential	IDR	468.1	468.1	0.0	100%	0%
Multifamily Residential 14	MF14	220.3	220.3	0.0	100%	0%
Multifamily Residential 24	MF24	128.8	128.8	0.0	100%	0%
High Density Residential	HDR	47.5	47.5	0.0	100%	0%
Mixed-Use	MU	234.5	117.2	117.2	50%	50%
Commercial	C	312.8	0.0	312.8	0%	100%
Tourist Commercial	TC	66.0	16.5	49.5	25%	75%
Employment Center	EC	646.0	0.0	646.0	0%	100%
Industrial	I	167.7	0.0	167.7	0%	100%
Mixed-Use District - Residential Neighborhood	MUD-RN	25.9	25.9	0.0	100%	0%
Mixed-Use District - Mixed-Residential	MUD-MR	33.4	25.1	8.4	75%	25%
Mixed-Use District - Downtown/Victoria Square	MUD-DVS	17.3	8.7	8.7	50%	50%
Mixed-Use District - Mixed-Use Commercial	MUD-MUC	69.2	34.6	34.6	50%	50%
Mixed-Use District - Employment	MUD-E	<u>0.0</u>	<u>0.0</u>	0.0	<u>0%</u>	<u>100%</u>
Total		3,847.0	2,502.0	1,345.0	65%	35%

Source: Economic & Planning Systems

Table 17. Housing and Employment Use Capacity by Land Use Category

Land Use	Factors			Land Capacity		
	FAR	DU per Acre	Sq. Ft. per Job	DU	Bldg. Area	Jobs
Large Lot Residential	0	3.0	0	1,412	0	0
Low Density Residential	0	4.5	0	4,224	0	0
Intermediate Density Residential	0	8.0	0	3,745	0	0
Multifamily Residential 14	0	12.0	0	2,644	0	0
Multifamily Residential 24	0	19.0	0	2,447	0	0
High Density Residential	0	35.0	0	1,664	0	0
Mixed-Use	0.5	35.0	300	4,103	2,553,410	8,511
Commercial	0.3	0.0	500	0	4,087,780	8,176
Tourist Commercial	0.2	35.0	500	578	431,555	863
Employment Center	0.3	0.0	500	0	8,442,231	16,884
Industrial	0.2	0.0	1,000	0	1,461,394	1,461
Mixed-Use District - Residential Neighborhood	0	12.0	0	311	0	0
Mixed-Use District - Mixed-Residential	0.5	12.0	300	301	182,124	607
Mixed-Use District - Downtown/Victoria Square	1	35.0	300	303	377,172	1,257
Mixed-Use District - Mixed-Use Commercial	0.5	18.0	300	623	753,866	2,513
Mixed-Use District - Employment	0.35	0.0	500	0	0	0
Total				22,354	18,289,532	40,273

Source: Economic & Planning Systems

The City of Sparks land use designations were matched to the housing categories used in the TMRPA housing study and the use types used for employment uses by EPS. The corresponding categories and use types are shown below in **Table 18**.

Table 18. Sparks Comprehensive Plan Land Use Translations

City of Sparks Land Use	TMRPA Housing Categories	EPS Employment Categories
Large Lot Residential	Low-Density Single Family	---
Low Density Residential	Moderate Density Single Family	---
Intermediate Density Residential	High Density Single Family/Low Density Multifamily	---
Multifamily Residential 14	High Density Single Family/Low Density Multifamily	---
Multifamily Residential 24	Moderate Density Multifamily	---
High Density Residential	High-Density Multifamily	---
Mixed-Use	High-Density Multifamily	Office/Retail
Commercial	---	Retail
Tourist Commercial	High-Density Multifamily	Retail
Employment Center	---	Industrial/Office
Industrial	---	Industrial
Mixed-Use District - Residential Neighborhood	Moderate Density Multifamily	---
Mixed-Use District - Mixed-Residential	Moderate Density Multifamily	---
Mixed-Use District - Downtown/Victoria Square	High-Density Multifamily	Office/Retail
Mixed-Use District - Mixed-Use Commercial	Moderate Density Multifamily	Office/Retail
Mixed-Use District - Employment	---	Industrial/Office/Retail

Source: Economic & Planning Systems

For many of the non-residential and mixed-use land use categories, different non-residential uses are allowed. EPS allocated the amount of office, industrial and retail uses likely in each land use category to estimate capacity for non-residential uses. EPS estimates land capacity for office uses to be 540 acres, 426 acres for industrial uses, and 379 acres for retail uses, as shown in

Table 19.

Table 19. Land Capacity for Non-residential Uses

Land Use	Office	Indust.	Retail	Building Area			Acres		
				Office	Industrial	Retail	Office	Industrial	Retail
Mixed-Use	50%		50%	1,276,705	0	1,276,705	59	0	59
Commercial	25%		75%	1,021,945	0	3,065,835	78	0	235
Tourist Commercial			100%	0	0	431,555	0	0	50
Employment Center	60%	40%		5,065,339	3,376,892	0	388	258	0
Industrial		100%		0	1,461,394	0	0	168	0
Mixed-Use District - Mixed-Residential	25%		75%	45,531	0	136,593	2	0	6
Mixed-Use District - Downtown/Victoria Square	50%		50%	188,586	0	188,586	4	0	4
Mixed-Use District - Mixed-Use Commercial	25%		75%	188,466	0	565,399	9	0	26
Mixed-Use District - Employment	33%	33%	33%	0	0	0	0	0	0
Total				7,786,572	4,838,286	5,664,673	540	426	379

Source: Economic & Planning Systems

Comparison of Demand to Land Supply

EPS estimates the demand for residential land in Sparks over the next 20 years is 1,805 acres as shown in **Table 20**. The demand for non-residential (employment) land is 961 acres over the next 20 years.

Table 20. Summary of Estimated Land Demand, 2018 to 2038

Forecast, 2018-2038	Sq. Ft./Units	Acres
Residential		
Low-Density Single Family	244	163
Moderate Density Single Family	5,490	1,220
High Density Single Family/Low Density Multifamily	3,050	305
Moderate Density Multifamily	2,440	98
High-Density Multifamily	<u>976</u>	<u>20</u>
Total	12,200	1,805
Employment		
Office	402,337	31
Industrial	7,112,479	816
Retail	<u>1,556,436</u>	<u>114</u>
Total	9,071,252	961

Source: Economic & Planning Systems

Sparks has ample land to accommodate forecast growth in aggregate. The estimated demand for land in the city from 2018 to 2038 is 2,766 acres (1,805 residential acres and 961 employment acres) while the city's capacity is estimated to be 3,847 acres (2,502 residential acres and 1,345 employment acres), as shown in

Table 21.

Two land use types have demand that account for over half of total capacity. Moderate density single family demand would need 1,220 acres while capacity is 939 acres (130 percent of supply). Various housing products could likely fit into more than one of the residential housing types; therefore, lack of capacity in one given type may not be a major concern. There is land capacity of 1,412 acres of low-density single family land and only demand for 163 acres.

The second category with a lack of capacity is industrial. Sparks has estimated demand for approximately 7.1 million square feet of industrial space and capacity for only 4.8 million square feet (192 percent of supply). However, the capacity for retail and office uses is more than sufficient and could potentially be considered for other uses with limited capacity.

The employment land use category in the Comprehensive Plan having the most capacity is Employment Center, with 646 acres of capacity. However, the majority (64%) of land designated Employment Center is within four Planned Developments (PDs). The four PDs are Stonebrook, Kiley Ranch, Copper Canyon, and Pioneer Meadows. The development handbooks for these four projects specify the types of employment uses allowed in the Employment Center Areas. The handbooks all designated these lands for Business Park uses, which allow only a limited amount of uses and building types that are considered to be within the industrial demand estimate. EPS conservatively estimates 50 percent of the Employment Center designated lands is for industrial uses; however, the true amount may be less. The analysis did not assess how “development ready” the industrial sites are.

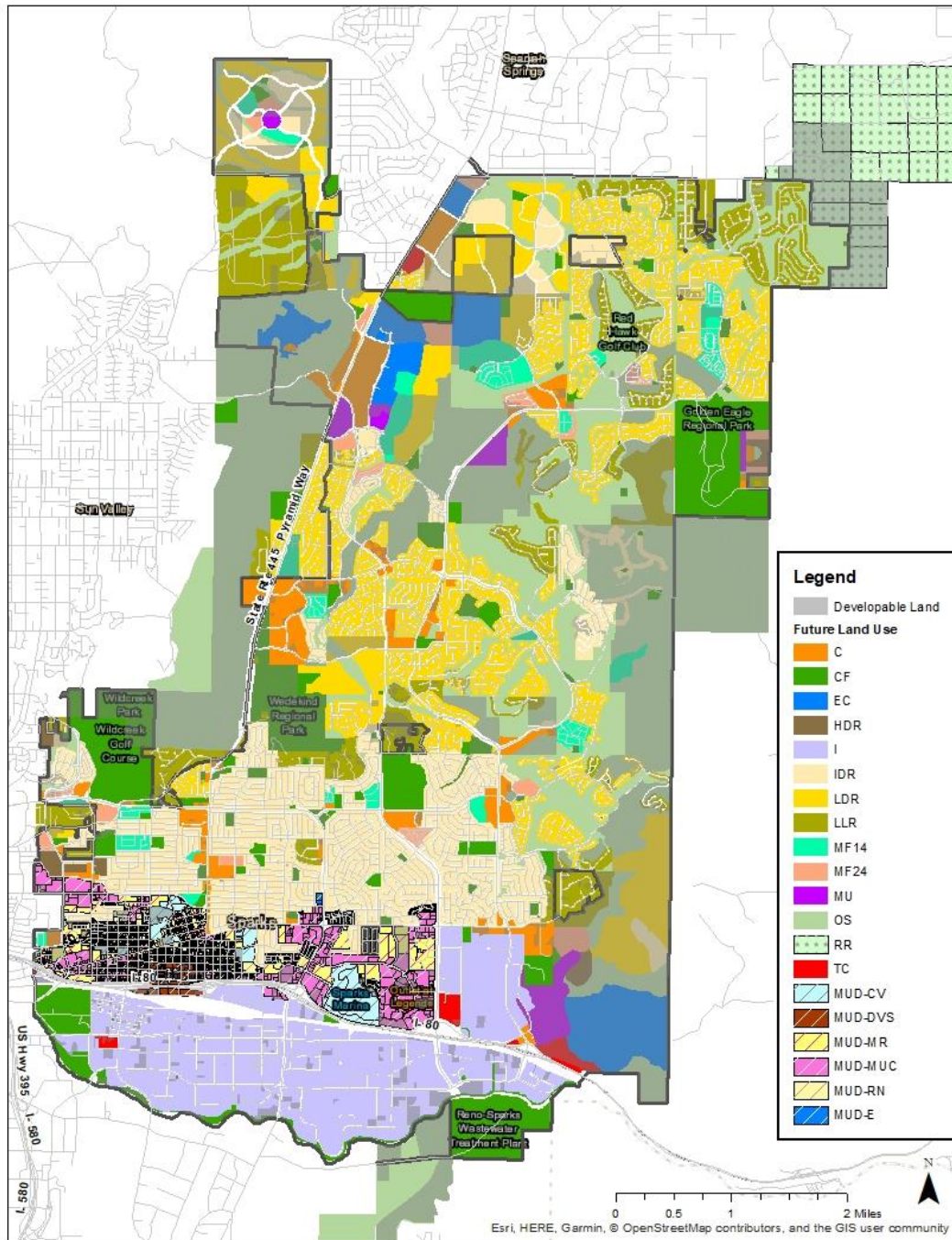
For Washoe County as a whole, TMRPA completed an Industrial Land Needs Analysis in 2013. The study found the region lacked development ready industrial sites to accommodate demand. The study contained a more in-depth analysis of capacity and suitability of industrial lands.

Table 21 Comparison Land Demand to Capacity

	Demand		Capacity		Net (Capacity - Demand)		
	Sq. Ft./Units	Acres	Sq. Ft./Units	Acres	Sq. Ft./Units	Acres	% Demand Of Capacity
Residential							
Low-Density Single Family	244	163	1,412	471	1,168	308	35%
Moderate Density Single Family	5,490	1,220	4,224	939	-1,266	-281	130%
High Density Single Family/Low Density Multifamily	3,050	305	6,388	688	3,338	383	44%
Moderate Density Multifamily	2,440	98	3,682	214	1,242	117	46%
High-Density Multifamily	<u>976</u>	<u>20</u>	<u>6,648</u>	<u>190</u>	<u>5,672</u>	<u>170</u>	<u>10%</u>
Total	12,200	1,805	22,354	2,502	10,154	697	72%
Employment							
Office	402,337	31	7,786,572	540	7,384,235	509	6%
Industrial	7,112,479	816	4,838,286	426	-2,274,192	-390	192%
Retail	<u>1,556,436</u>	<u>114</u>	<u>5,664,673</u>	<u>379</u>	<u>4,108,237</u>	<u>266</u>	<u>30%</u>
Total	9,071,252	961	18,289,532	1,345	9,218,279	384	71%

Source: Economic & Planning Systems

Figure 10 Sparks Developable Land Capacity



4. Long-Term Fiscal Impacts

The long-term fiscal impacts of the forecast development demand in Sparks over the next 20 years are summarized in this chapter. The growth forecasts and development demand estimates were used to assess the impact on the City's General and Road Funds using the fiscal model developed for this project. Forecast new development was phased over the 20-year period according to annual demand estimates. This draft report provides the assessment of a baseline growth forecast and development scenarios. The model can be used to test alternative scenarios based on input from City staff.

The fiscal impact model used to test the fiscal impacts of the forecast growth was developed by EPS in the initial phase of this effort. A summary of the model approach and methodology is provided in a separate memorandum (Fiscal Impact Methodology). A second memorandum details recommended guidelines for applicants to use when preparing a fiscal impact analysis for submittal to the City with certain land use applications such as annexations and Comprehensive Plan land use amendments (Fiscal Impact Guidelines).

Baseline Forecast Fiscal Impact

EPS used the estimated demand for residential and non-residential uses summarized in Chapter 2 to estimate the future fiscal impact of the City's land use plan. The estimated 12,200 residential units to be added to the city by 2038 were entered into the model by housing product type (single family, attached/townhome, mixed-use residential, and multifamily residential). The estimated demand for 9.07 million square feet of non-residential development demand was entered into the model using the categories of Retail/Restaurant (1.56 million square feet), Office (402,237 square feet), and Industrial (7.1 million square feet). Average market values for new development for each type were used to estimate property tax. New development is estimated to be built proportionally over 20 years. Lastly, the densities used to estimate demand and capacity are applied to the forecast new development and the model followed the approach and factors provided in the Fiscal Impact Guidelines.

The fiscal impact of the baseline forecast on the General and Road Funds are shown in **Table 22**. The baseline forecast is estimated to generate an average annual net fiscal positive impact on the General fund of \$3.3 million. The average annual impact equates to a net positive impact of \$66.7 million over 20 years.

The fiscal impact of the baseline forecast on the Road Fund is estimated to be negative by \$4.0 million annually over 20 years. The total net fiscal impact is a negative \$80.4 million. It should be noted that the factors used to estimate costs to maintain roads (which is paid for through the Road Fund) reflect the estimate

total cost per square foot of roadway for on-going maintenance and roadway capital repairs for the estimated life of the pavement. The costs do not reflect what the City currently spends on roadway maintenance and capital repair.

The annual net fiscal impact on the General Fund and Road Fund is illustrated in

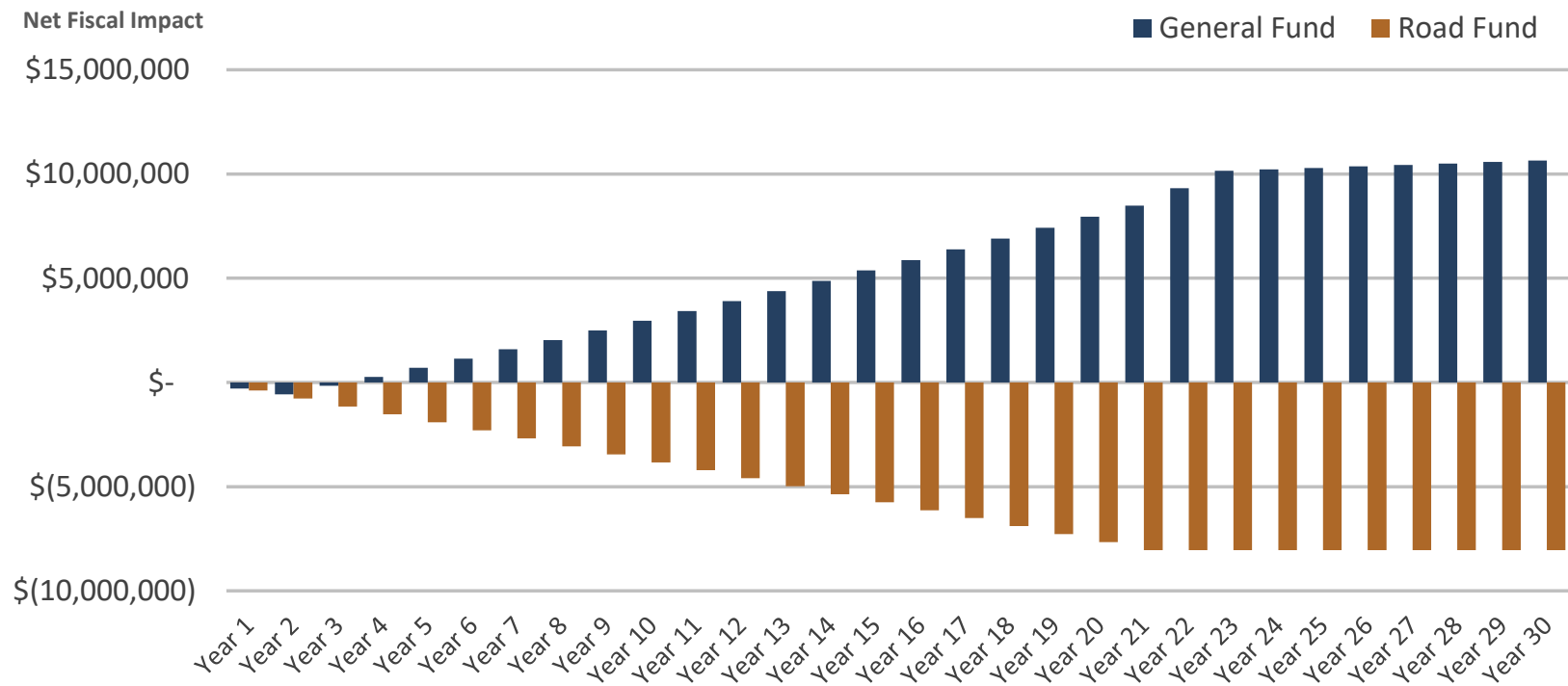
Figure 11 over a 30-year period to illustrate the impacts after stabilization and results in a net positive fiscal impact.

Table 22. 20-Year Fiscal Impact of Baseline Forecast

Description	Baseline
GENERAL FUND	
Average Annual (20 years)	
Revenue	\$8,287,907
Costs	<u>-\$4,954,285</u>
Net Revenue	\$3,333,623
Total (20 years)	
Revenue	\$165,758,146
Costs	<u>-\$99,085,693</u>
Net Revenue	\$66,672,453
ROAD FUND	
Average Annual (20 years)	
Revenue	\$439,207
Costs	<u>-\$4,461,368</u>
Net Revenue	-\$4,022,160
Total (20 years)	
Revenue	\$8,784,147
Costs	<u>-\$89,227,353</u>
Net Revenue	-\$80,443,206

Source: City of Sparks; Economic Consultants; Economic & Planning Systems

Figure 11 Baseline Forecast Annual Net Fiscal Impact (30 years)



Source: City of Sparks; Economic & Planning Systems
[\[link to source\]](#)

Fiscal Impact Alternative Scenarios

EPS tested four alternative scenarios within the fiscal model to illustrate how differences in growth patterns and the balance of residential and non-residential uses impacts fiscal health. These scenarios reflect current pressures and growth patterns the City of Sparks is experiencing or of the intended land use pattern defined in the larger undeveloped PDs within the city. The fiscal impact of each scenario, compared to the baseline, is provided in **Table 23**. The four alternatives are described below.

- Industrial Constrained** –The baseline assumption assumes the estimated demand for industrial space in Sparks of 7.1 million square feet will be accommodated through redefinition of allowed uses in PD handbooks and/or through changes in land use designations to accommodate demand despite the lack of land capacity for this specific use. The Industrial Constrained scenario assumes that the lands designated for employment center remain as planned and only 4.8 million square feet of industrial area accommodated.
- Increase in Residential Uses** – The City of Sparks has been receiving requests for conversion of employment lands to residential uses. This scenario assumes the total capacity for single family homes is increased through conversion of excess employment lands to allow for 14,640 units (a 20% increase in each residential type) and is absorbed over 20 years.
- Increase in Business Park** – As mentioned previously, a large portion of the City’s land designated for Employment Center is in four PDs that designated these lands in their development handbooks for “Business Park” or “Employment Center” uses that more closely align with more office-oriented uses than industrial. This scenario assumes that these developments are successful in capturing a greater share of regional office development than estimated. The capture of office uses is estimated at 1.2 million over 20 years. As a result, industrial space in Sparks is constrained to 4.8 million square feet based on existing capacity for industrial uses.
- 10% Increase in Density** –The average density of all uses is 10 percent greater. The average floor area ratio for non-residential uses is increased 10 percent and the average unit per acre is increased as well. The increase in density reduces the roadway needs per housing unit or non-residential building.

Table 23 Fiscal Impact of Alternative Scenarios

Description	Baseline	Industrial Constrained	Increased Residential	Increased Business Park	Increased Density
GENERAL FUND					
Average Annual (20 years)					
Revenue	\$8,287,907	\$7,755,213	\$9,443,573	\$8,152,548	\$8,287,907
Costs	<u>-\$4,954,285</u>	<u>-\$4,801,119</u>	<u>-\$5,596,387</u>	<u>-\$4,893,656</u>	<u>-\$4,954,285</u>
Net Revenue	\$3,333,623	\$2,954,095	\$3,847,186	\$3,258,891	\$3,333,623
Total (20 years)					
Revenue	\$165,758,146	\$155,104,264	\$188,871,463	\$163,050,951	\$165,758,146
Costs	<u>-\$99,085,693</u>	<u>-\$96,022,372</u>	<u>-\$111,927,740</u>	<u>-\$97,873,128</u>	<u>-\$99,085,693</u>
Net Revenue	\$66,672,453	\$59,081,893	\$76,943,723	\$65,177,823	\$66,672,453
%Diff from Baseline		-11%	15%	-2%	0%
ROAD FUND					
Average Annual (20 years)					
Revenue	\$439,207	\$424,382	\$510,772	\$444,610	\$439,207
Costs	<u>-\$4,461,368</u>	<u>-\$4,222,661</u>	<u>-\$5,132,167</u>	<u>-\$4,420,928</u>	<u>-\$4,052,957</u>
Net Revenue	-\$4,022,160	-\$3,798,279	-\$4,621,395	-\$3,976,318	-\$3,613,750
Total (20 years)					
Revenue	\$8,784,147	\$8,487,631	\$10,215,432	\$8,892,202	\$8,784,147
Costs	<u>-\$89,227,353</u>	<u>-\$84,453,217</u>	<u>-\$102,643,339</u>	<u>-\$88,418,552</u>	<u>-\$81,059,150</u>
Net Revenue	-\$80,443,206	-\$75,965,586	-\$92,427,907	-\$79,526,351	-\$72,275,003
%Diff from Baseline		-6%	15%	-1%	-10%
Net Impact	-\$13,770,753	-\$16,883,693	-\$15,484,184	-\$14,348,528	-\$5,602,550
%Diff from Baseline		23%	12%	4%	-59%

Source: City of Sparks; Economic Consultants; Economic & Planning Systems

The alternatives have a mixture of impacts on both the General and Road Funds. The analysis identifies that there is no one land use that if increased or decreased in a significant amount will greatly change fiscal conditions. EPS identified two primary findings related to the alternative analysis.

- The first finding is that increased density of development and/or developing a greater proportion of denser uses (e.g., multifamily vs. single family) reduces the negative fiscal impact of development. There are two reasons for this. First, the cost to provide service is less slightly less for services provided in the General Fund. Second—and most impactful—is that denser uses generate less roadway for the City to maintain. The net impact (General Fund Impact plus Road Fund Impact) of the **10% Increase in Density** alternative reduces (i.e., improves) the net negative impact by 59 percent.
- The second finding is that a balance between employment and residential growth is needed to support fiscal health. Each use has varying impacts on the General and Road Funds; however, employment uses (office and industrial) generally generate a positive impact to the City that can offset negative impacts from other uses. The **Industrial Constrained** alternative exacerbates the net negative fiscal impact by 23 percent and the **Increased Residential** alternative increases the net negative impact by 12 percent. These two scenarios illustrate that if housing and employment growth are not balanced, there are greater negative fiscal impacts. The **Increased Business Park** alternative illustrates two findings. First, the increased capture of office uses in this scenario offsets the impacts of the limited industrial growth in the **Constrained Industrial** alternative. Second, the swapping of more office-oriented employment uses for industrial-oriented uses results in a relatively neutral impact on the City overall, assuming traditional suburban level density for the office development. This means that employment growth, either office-oriented or industrial-oriented, generates relatively the same benefits. It should be noted, however, that retail uses generally have a more negative impact on the General Fund than office or industrial uses due the increase of traffic and police calls these uses generate.

The analysis of fiscal impacts of the growth alternatives illustrate that a balanced land use plan is needed to maintain fiscal health. The City's current land use plan adequately balances growth but efforts are needed to ensure employment uses are attracted to planned sites at the same rate as residential uses. As well, the analysis illustrates that the City lacks industrial lands which can have an impact on future fiscal health if either increased capacity is not created or alternative employment uses are not attracted. Lastly, the cost and impact of maintaining local roadways significantly impacts fiscal health. Development that generates more roadways for the City to maintain is more impactful if the density and intensity of development along those roadways is relatively limited.