Chapter 8: Growth Analysis

Existing Capacity

Population and Housing Projections

Economic Development Projections

Overview

WHY GROWTH ANALYSIS IS IMPORTANT

To develop an overall vision of the future of Lake Saint Louis, it is important to have a logical framework for decision making for future land uses. With close to 900 acres of undeveloped land within the city limits of Lake Saint Louis, and hundreds more acres of undeveloped land near the City, determining the potential demand and type of growth is critical.

This chapter seeks to provide a logical basis for future land use decisions by forecasting potential population and housing and projections for economic development. Like the weather, forecasts for population, jobs, and housing are seldom precisely correct. But like weather forecasts, they are helpful in predicting general trends. A meteorogolist might forecast 3" of rain when the actual amount is 4" of rain a few days later. They were generally correct in predicting a "heavy" rain. This generality of trends should be kept mind in reviewing projections within this chapter.

EXISTING CAPACITY vs FUTURE GROWTH

This chapter also examines the existing capacity of undeveloped land in the City based on its current zoning. The existing capacity is then compared to projections for population, housing, and economic development to gauge whether the existing land use is feasibile with market demands. While market demand is not the only determination for future land use (community priorities, transportation, adjacent uses, environmental factors are just some of the considerations), it is an important consideration.

KEY TAKEAWAYS OF THE GROWTH ANALYSIS

There are several generalizations that can be made based on the projections and analysis of this Chapter. They include:

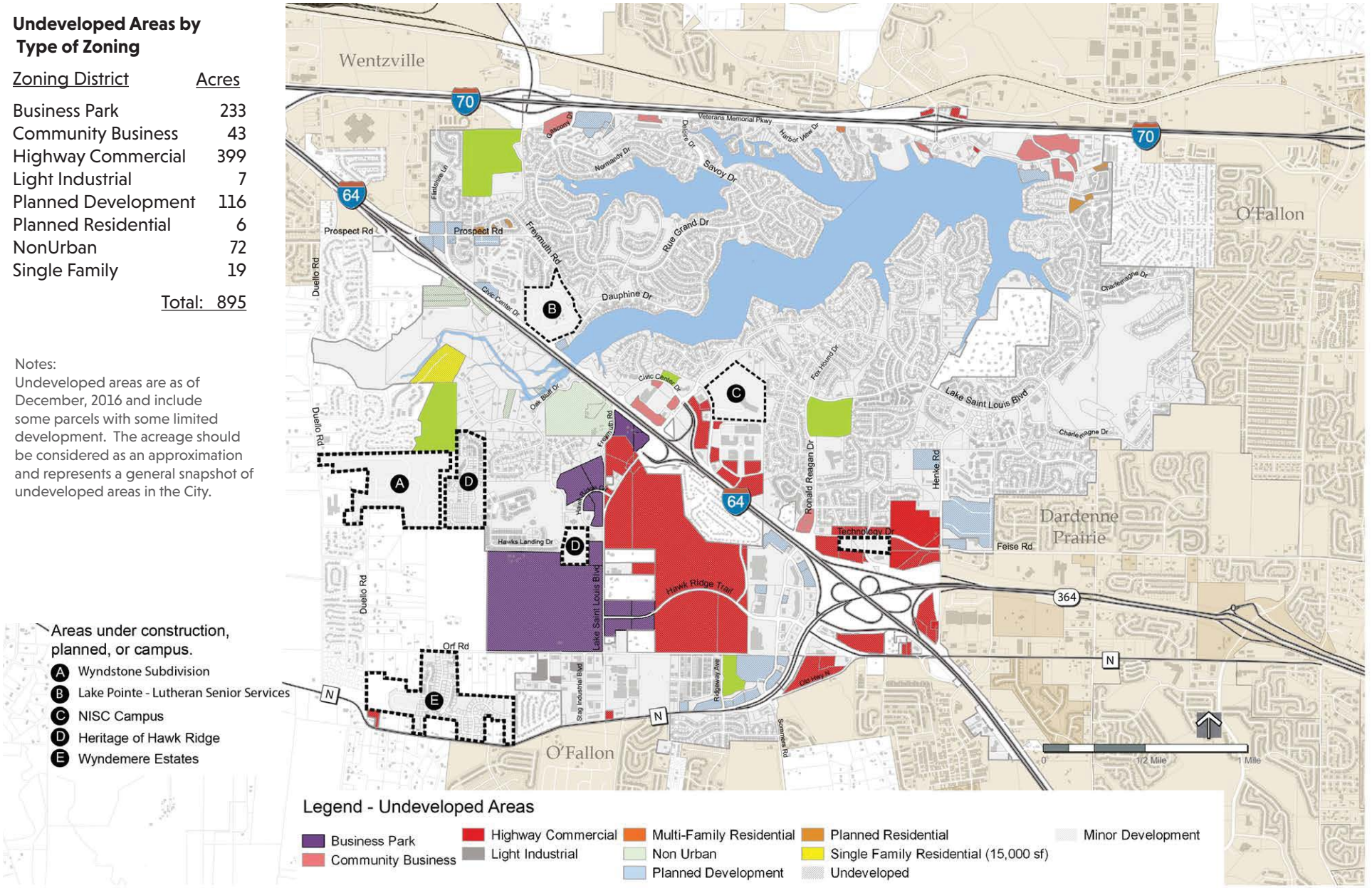
- Strong demand for residential housing will continue in Lake Saint Louis and St. Charles County.
- Lake Saint Louis does not have enough undeveloped land zoned residential to meet the demand.
- Lake Saint Louis has too much undeveloped land zoned commercial (which includes retail) and office.
- A stronger balance of residential compared to office and commercial as part of the future land use plan will help meet the demand for housing and help strenghthen existing commercial and office areas.
- The strong demand for development gives the City a strong position to require high quality development standards.

More dining options have been a frequent request by residents. More "rooftops" in Lake Saint Louis will help the likelihood of additional restaurants.

Undeveloped Areas by Type of Zoning

Zoning District	Acres
Business Park	233
Community Business	43
Highway Commercial	399
Light Industrial	7
Planned Development	116
Planned Residential	6
NonUrban	72
Single Family	19
Total:	895

Notes:
Undeveloped areas are as of December, 2016 and include some parcels with some limited development. The acreage should be considered as an approximation and represents a general snapshot of undeveloped areas in the City.



Map: Existing Undeveloped Areas (Existing Capacity)

Population and Housing Projections

INTRODUCTION

Lake Saint Louis has grown from 3,840 residents at the time of the 1980 Census to 15,380 as of Census Bureau estimates for 2015. This four-fold increase has effectively resulted in complete development around the lakes themselves, annexation of a substantial amount of additional land area into the city, and on-going development of the annexed areas.

St. Charles County continues to be a rapidly growing county in terms of population, although its rate of economic growth (jobs, employers, retail sales) has been slower than population and housing. For instance, many jobs held by county residents are in other locations, particularly St. Louis County, which adds to highway traffic and rush hour congestion within St. Charles County. As the county's growth continues westward, however, Lake Saint Louis is in high demand among developers, residents, retailers, and employers.

This report looks to future growth potentials and their implications for land development in the city. Growth projections are based primarily on population changes as estimated from several independent sources. That is, Development Strategies did not determine its own forecasts of population change in St. Charles County and Lake Saint Louis, but relied on the projections of Missouri state government, the U.S. Census Bureau, the U.S. Bureau of Economic Analysis, and two private vendors of socio-economic data: Esri and Proximity One. In the end, however, judgments of population growth for the city and county are those of Development Strategies.

Population Projections to 2040: Lake Saint Louis and St. Charles County

	Lake Saint Louis			St. Charles County		
	Slow	Medium	Fast	Slow	Medium	Fast
1980	3,800	3,800	3,800	93,600	93,600	93,600
1985	6,000	6,000	6,000	113,800	113,800	113,800
1990	7,400	7,400	7,400	145,300	145,300	145,300
1995	9,100	9,100	9,100	171,900	171,900	171,900
2000	10,200	10,200	10,200	214,400	214,400	214,400
2005	12,800	12,800	12,800	246,700	246,700	246,700
2010	14,500	14,500	14,500	286,200	286,200	286,200
2015	15,400	15,400	15,400	328,900	328,900	328,900
2020	16,200	17,600	17,600	358,800	361,800	375,000
2025	17,300	18,900	20,600	385,800	385,600	428,600
2030	18,500	20,400	23,300	407,900	423,400	470,600
2035	19,800	22,100	25,700	438,900	451,700	502,100
2040	20,900	23,500	27,500	464,800	482,500	536,300
	Changes from 2015 to 2040 (25 Years)					
Population	5,500	8,100	12,100	135,900	153,600	207,400
Percent	36%	53%	79%	41%	47%	63%

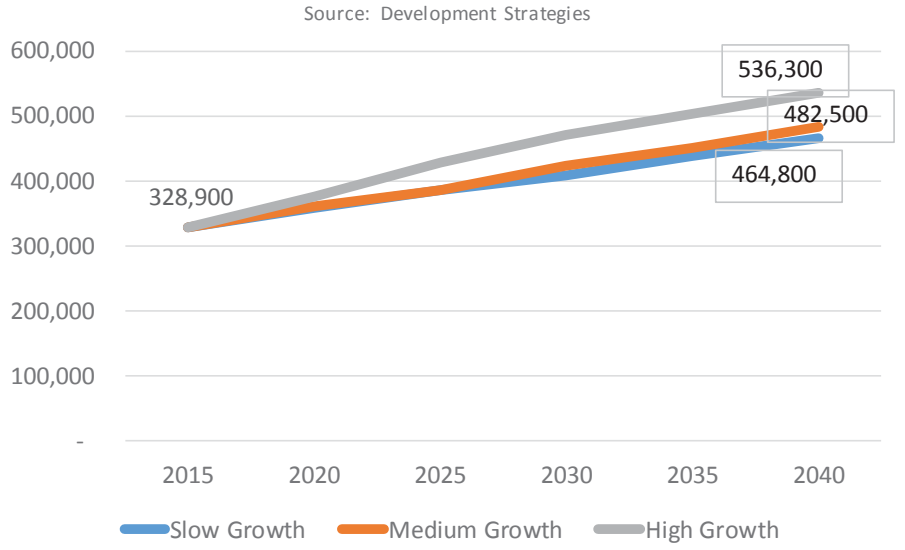
Source: Development Strategies using independent projections from the State of Missouri's Office of Administration, the U.S. Census Bureau and Bureau of Economic Analysis, and www.proximityone.com.

Population Projections to 2040:
Lake Saint Louis and St. Charles County

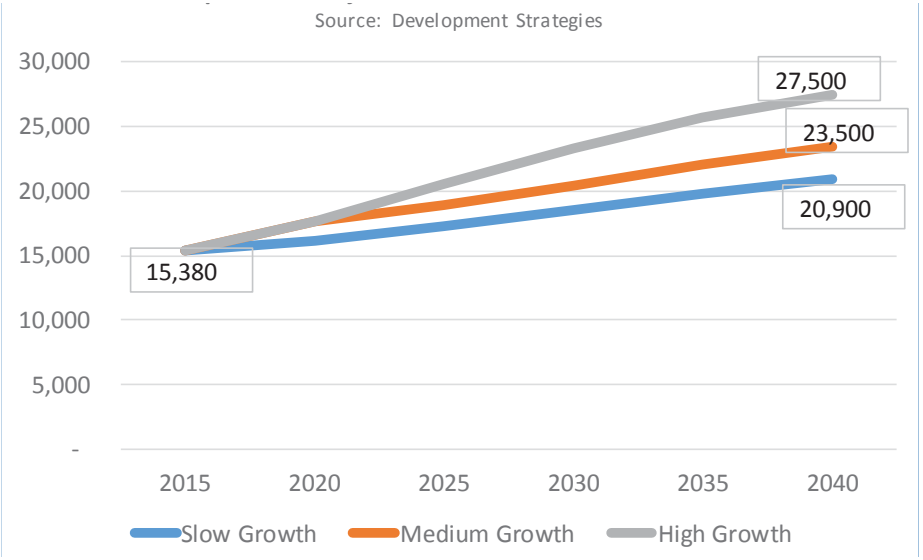
By combining these various outlooks from the national to the county level, and comparing Lake Saint Louis patterns since 1980 to those of the county and state, a set of high, medium, and slow growth sce-narios emerged for the city and county in five-year increments through 2040. In no case is population decline forecast, although declines will likely be experienced in isolated areas of the county (say, older parts of the City of St. Charles or even older neighborhoods in Lake Saint Louis), but the net effect continues to be rather robust growth expectations.

As shown, population growth in Lake Saint Louis could range from about one-third more than in 2015 (36%) to more than three-quarters more (79%) by 2040. St. Charles County could grow from 41% to 63% more than in 2015.

These projections would result in between 5,500 and 12,100 more people after 25 years in Lake Saint Louis, and between 135,900 and 207,400 more throughout the county.



Population Projections 2015-2040: St. Charles County



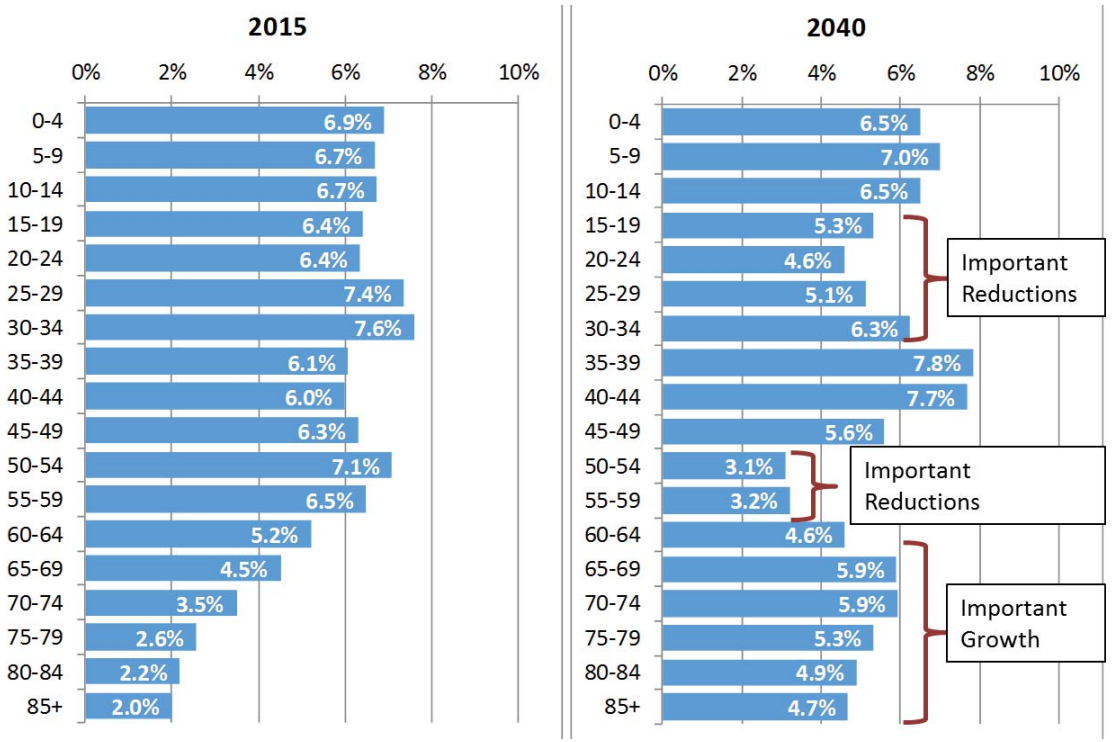
Population Projections 2015-2040: Lake Saint Louis

SHIFTING AGE GROUPS AND LIFESTYLE CHOICES

More important, perhaps, than overall population numbers is the distribution of those numbers by age group. Different ages create demand and needs for different kinds of housing, public services, job opportunities, and so forth. Projecting age changes for small geographic areas, however, is far too fraught with large margins of error, so the following graphs depict age groupings in five-year cohorts for all of St. Charles County between 2015 and 2040. By interpolation, it can be assumed that similar forces and changes could occur in Lake Saint Louis, although the age composition at present in Lake Saint Louis tends to average a little bit older than the county as a whole. Still, the projections are illustrative of changes that will affect socio-economics and land development changes in St. Charles County.

Of particular note is that the middle cohorts and the older cohorts will make up much larger shares of the county's population in 2040 than in 2015. Generally speaking, children from age 0 to 19 will command a slightly smaller share of the population while those over 65 will have a higher share. Young adults will decline as a share while early-middle age adults will generally increase their share.

Even more telling are the absolute numbers of these changes, as shown in the next graph. Between 2015 and 2040, projections indicate that there will be net losses in three age groups, two of them (50-54 and 55-59) with rather substantial losses throughout the county. But there will be major gains in the early middle-age groups (35-44) and in the senior population (over 65).



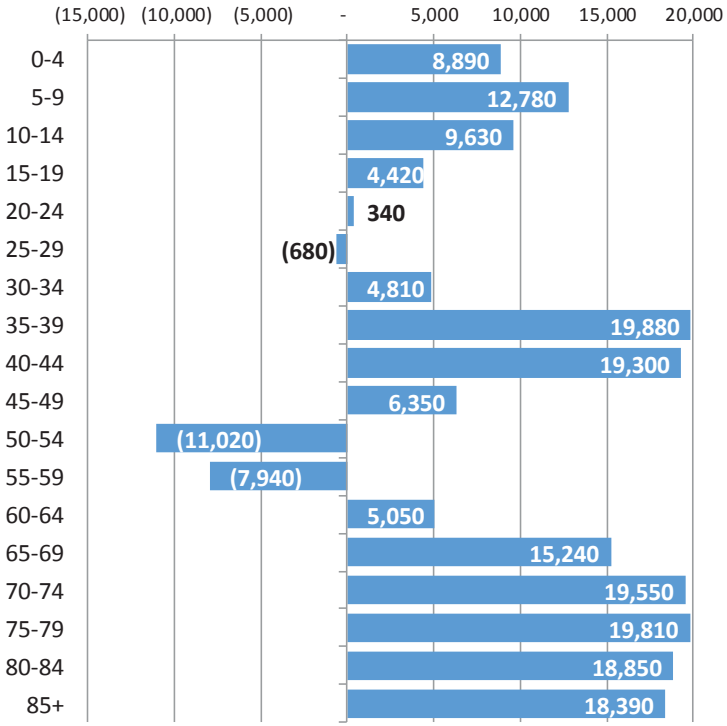
Distribution of Population by Age for 2015 and 2040:
St. Charles County

While these patterns may not be the same in Lake Saint Louis itself, the overall pattern suggests an important need for housing, services, shopping, and activities that cater to seniors. There are projected to be, for instance, almost 92,000 more people aged 65 or more in the county in 2040 than there are today.

There would also be almost 40,000 more adults aged 35 to 44, suggesting a sizeable labor force in peak productivity years, which could be very important given a net loss of about 19,000 in the 50-59 age groups, which are typically the highest income earnings groups. These latter groups also tend to be early empty-nesters, so demand for downsized housing could fall. On the other hand, even more demand for downsized, and perhaps higher density, housing will emerge from the seniors' population expansion.

There will still be growth in school-age children, most of them like found in households headed by the 35-49 age groups. This means more schools, more youth activities, and perhaps more family-sized housing. With the decline in those in their fifties, however, much of their family-sized housing might be transferable to the up-and-coming families.

Family aged population is expected to continue to grow in St. Charles County and Lake Saint Louis



Change in Age Groups between 2015 to 2040: St. Charles County

NUMBER OF HOUSING UNITS

This added population will require housing. Given prevailing trends in age groups and average persons per housing unit in St. Charles County and Lake Saint Louis, it is projected that the average housing unit in Lake Saint Louis will have 2.2 to 2.3 people. This accounts for an overall vacancy rate of eight percent, so the average household (which is defined as an occupied housing unit) will have 2.4 to 2.5 residents.

Using these projections, the population growth of Lake Saint Louis would require about 2,520 more housing units by 2040 for the low population growth scenario, 3,720 more units for the medium growth scenario, and 5,180 more units for the high growth scenario.

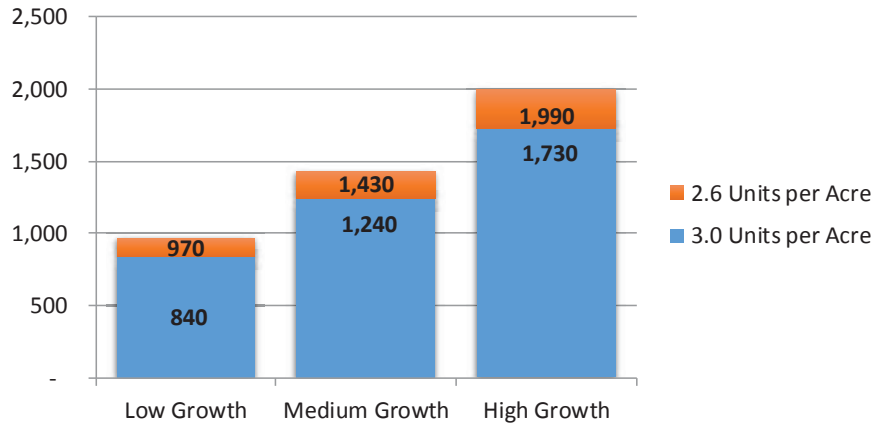
In fact, more than these numbers of units would likely be likely have to be constructed as some existing units are removed from the landscape for reasons ranging from being obsolete and replaced to land use conversions to non-residential purposes. The projections reflect "net additions" to the housing stock by 2040.

IMPLICATIONS FOR HOUSING LAND DEVELOPMENT

None of these projections, however, address whether Lake Saint Louis and St. Charles County can actually accommodate such growth or, indeed, if they truly want such growth. The projections are based solely on growth demand without regard as to whether the additional people would "fit" into either jurisdiction under current or future land development regulations. Of course, any jurisdiction is generally free to increase allowable densities (population and housing per square mile) to attract and accommodate growth. So these projections are offered as planning information for the community of Lake Saint Louis to determine if and how it may want to accommodate such growth.

The population projections are an indication of potential future housing needs and land development in Lake Saint Louis. The graph below illustrates a combination of scenarios. One is a series of possible growth rates, as shown on the line graphs above. The other is a range of housing densities which affect the demand for land.

Generally speaking, Lake Saint Louis is currently developed at an overall average of about 2.6 housing units per acre. This average includes large lot housing as well as smaller lots and even multifamily housing structures. As shown under all three growth scenarios, continuation of that overall density would require more land (shown in acres) for the additional housing than a density of, say, 3.0 units per acre. Demand for additional land for housing (of all types) could range from another 840 acres in Lake Saint Louis (slow growth but higher density) to more than double that amount at 1,990 acres (high growth, current average density).



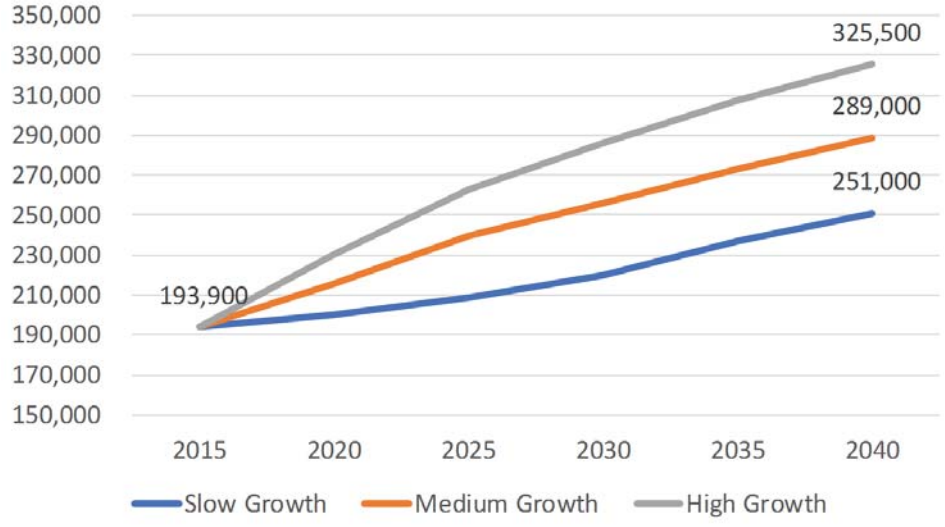
Additional Land Requirements (Acres) for Housing Growth Projections: Lake Saint Louis 2015 to 2040

Economic Development Projections

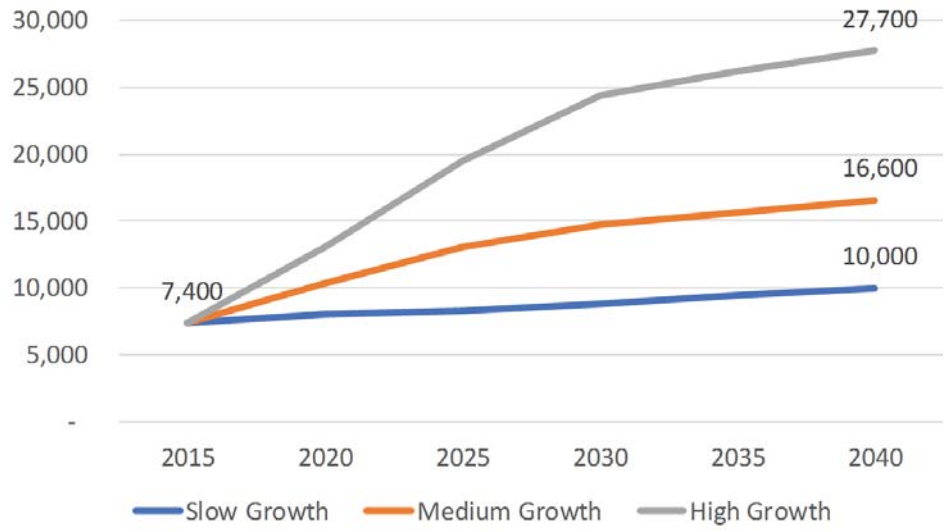
INTRODUCTION

With general economic growth and population growth come opportunities to attract more businesses and employment centers. By comparing employment projections for the Missouri side of the St. Louis metropolitan area obtained from the Missouri Department of Economic Development to population projections, Development Strategies projected three job growth scenarios for St. Charles County and, by interpolation, how this job growth could be partially accommodated in Lake Saint Louis itself. These projections are illustrated below and the numbers are shown on the table on this page.

Because of the job creation "power" of St. Louis County even in recent years, the level of uncertainty in projecting job growth in St. Charles County is relatively high. Even though population and household incomes have grown substantially in the past three decades in St. Charles County, concomitant job creation has not taken place. Instead, St. Louis County, in particular, has remained a major force for jobs and employers. St. Charles County residents, therefore, commute to jobs in St. Louis County in numbers and percentages exceeding what might otherwise be expected. St. Charles County, in short, remains a largely "bedroom community" when its size suggests that it should be either much less so or even that the county could be a net attractor of commuters.



Projections of Jobs 2015-2040:
St. Charles County



Projections of Jobs 2015-2040:
Lake Saint Louis

Thus, the projected numbers shown on this page assume a low rate of job growth in St. Charles County (and, thus, in Lake Saint Louis) but also assume higher rates of job creation in St. Charles County if it can overcome the "gravity" effect of the much larger economy in St. Louis County. Between 2015 and 2040, therefore, there is a wide range in potential outcomes from 57,100 more jobs in St. Charles County to as many as 131,600. On a smaller scale, Lake Saint Louis could absorb as few as 2,600 of those net new jobs or as many as 20,300. This wide dispersion in projected outcomes is of importance to planners and economic developers — the potential for growth is substantial, but recent history suggests that such potential is not being reached.

	Lake Saint Louis			St. Charles County		
	Slow	Medium	Fast	Slow	Medium	Fast
2015	7,400	7,400	7,400	193,900	193,900	193,900
2020	8,000	10,400	13,100	199,800	216,000	230,000
2025	8,300	13,100	19,500	208,400	239,400	262,500
2030	8,800	14,700	24,400	220,300	255,700	286,300
2035	9,500	15,700	26,200	237,100	273,300	307,900
2040	10,000	16,600	27,700	251,000	289,000	325,500
	Changes from 2015 to 2040 (25 Years)					
Population	2,600	9,200	20,300	57,100	95,100	131,600
Percent	35%	124%	274%	29%	49%	68%

Source: Development Strategies using independent projections from the State of Missouri's Department of Economic Development and the U.S. Bureau of Labor Statistics

Employment Projections to 2040: Lake Saint Louis and St. Charles County

IMPLICATIONS FOR LAND DEVELOPMENT

The graphs on this page convert the job growth projections into land requirements in Lake Saint Louis. The first graph shows the implications of economic growth based on employment but excluding the effects of retail stores and restaurants. The second graph shows just the implications of retailing and restaurants. The reason for the separation is that retailing and dining tend mostly to serve local markets while other economic development tends to have a larger, regional impact. As population in Lake Saint Louis grows, the demand for retailing and restaurant land will also grow, but not necessarily the demand for other economic development land. For instance, Lake Saint Louis might attract no additional jobs in non-retailing/dining economic sectors, but it will almost certainly attract jobs in retailing and dining, thus increasing the land demand for those uses alone.

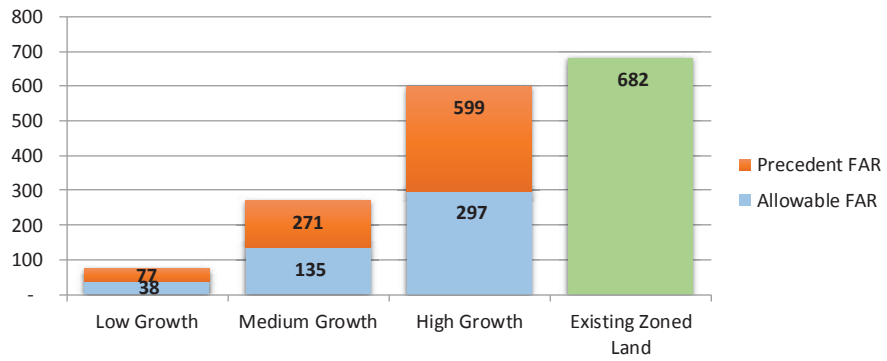
The graphs also show the amount of currently zoned, but undeveloped, land in the city for such uses.

The graphs again combine a range of scenarios, just like the housing projections described earlier. There could be low, medium, or high growth rates and that growth could be accommodated at different floor area densities.

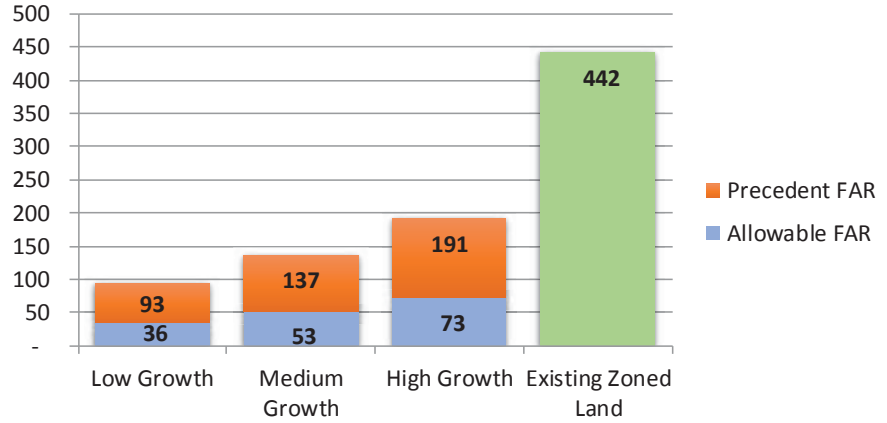
In this non-housing case, density options are defined as the "floor area ratio" (FAR), a common measure for non-residential development that indicates the ratio between the floor area of a building and the land area of its site.

Zoning ordinances and related land regulations imposed and managed by local government generally determine the "allowable FAR" for properties. But property owners are not required to fully meet the allowable FAR, though they cannot exceed the allowable FAR. In fact, most properties are developed at less than their allowable FAR. This is due to a variety of factors including, but not limited to, irregular parcel size, amenities, requirements for stormwater detention, and easements.

Thus, the graphs have scenarios showing "precedent FAR." In effect, this is the average non-residential FAR that has taken place over time in Lake Saint Louis. That is, it is the "precedent" in the city even though allowable FAR is higher. The market



Additional Land Requirements (Acres) for Employment Projections, Excluding Retail and Restaurants: Lake Saint Louis 2015 to 2040



Additional Land Requirements (Acres) for Retail and Dining Growth Projections: Lake Saint Louis 2015 to 2040

has simply chosen to develop at lesser densities than otherwise allowed.

Combining employment projections, above, with typical square feet per employee in a range of non-residential land uses, it is possible to determine the amount of floor area that the employment projections would require. If built at the precedent FAR level, this floor area would use more land—less density—than if built at the allowable FAR based on Lake Saint Louis' zoning code. For non-retail or dining uses, the slow growth scenario combined with the allowable FAR scenario would require only 38 more acres of land in the city between 2015 and 2040. At the other extreme, the high growth economic development scenario built out at the precedent FAR would require as many as 599 more acres of land. The range for retail and dining uses is from 36 acres to as many as 191 acres in addition to the amounts noted above.

If all of the projections become reality, therefore, demand for more non-residential land in Lake Saint Louis could range from a low of 74 more acres to 790 acres by the year 2040. This would be in addition to the 840 to 1,990 additional acres for residential development as discussed earlier.

Is this a big challenge to the city's growth potentials? Not necessarily. The right hand bars on the two graphs on the previous page show the estimate amount of acreage in the city that is already zoned for land uses that could accommodate the growth projections. For non-retail/dining uses, there are about 682 "available" acres in the city when the maximum demand projection is for 599 acres. For the retail and restaurant uses, there are about 442 available acres while the high demand projection is for 191 acres. Theoretically, Lake Saint Louis is already positioned to absorb its highest growth projections, whether the available land is precisely where developers, businesses, and the community want it to locate is another matter. In addition, the balance between the amount of land for residential and non-residential uses will be an important consideration.

FAR Explained - An Example

A 10,000 square foot building on a 10,000 square foot site would have an FAR ("floor area ratio") of 1.0. If that building is a single story, its footprint would occupy the entire site, leaving nothing for parking, landscaping, sidewalks, etc. But at two stories, that building would need only 5,000 square feet of land, leaving another 5,000 square feet for exterior uses. Still, the FAR is 1.0.