City Plan Monitoring Project

Biennial Indicator Report 1997-2007

City of Fort Collins
Advance Planning

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Biennial Indicator Report
1997 - 2007

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Assessing the Indicators

The City Plan Monitoring Project is intended to report on progress made towards achieving the goals of *City Plan*. It is a tool the City will use to evaluate *City Plan* approximately every two years. This is the third Indicator Report following reports in 1999 and 2001 and the *City Plan* update in 2004.

The primary conclusion that can be drawn from this year's indicator results is that many *City Plan* assumptions and goals are on track. Population growth rate, job creation, housing density, housing split, and vehicle miles traveled are all within monitoring project thresholds. Other positive indicators include employment balance, business creation, compact urban form, infill and redevelopment, mixed use activity, and open lands management. Areas in need of continued work include housing affordability, air quality, and transportation mode split.

The trigger review process is a method of follow-up action on indicators inconsistent with *City Plan* goals. Data results for the 1997-2007 Biennial Indicator Report show that one indicator has triggered the process -Transportation Mode Split. In lieu of preparing a special report on the indicator, staff is planning to analyze this indicator, and its trigger threshold, as part of the *City Plan/Transportation Master Plan* update, scheduled to begin in fall 2009.

Indicator Results At A Glance

Population Indicator

1. Population Growth

Trigger:	Compounded annual growth rate equal to or greater than 3.0%.
Data:	Compounded annual growth rate of 2.5% (34,443 people) between 1995 and 2007.
Observations:	Growth rate falls within indicator threshold. Growth rate has been dropping since 2000.

Employment Indicators

2. Job Creation

Trigger:	Compounded annual growth rate less than 1.8% or greater than 3.0%.
Data:	Compounded annual growth rate of 2.9% (21,253 jobs) between 1997 and 2007.
Observations:	Growth rate falls within indicator threshold.

3. Employment Balance

a) Jobs – Housing Balance

Trigger:	Does not apply.
Data:	A ratio of 1.5 employees (84,312) to 1 housing unit (57,772) existed in 2007.

Observations: The ratio was has been stable since 1997. This ratio is considered to be healthy.

b) Basic – Nonbasic Jobs Balance

Trigger: Does not apply.

Data: A ratio of 3.28 nonbasic jobs (61,446) to 1 basic job (18,773) existed in 2007.

Observations: An ideal ratio is considered to be 1 basic job per 2.5 – 3 nonbasic jobs. The ratio is slightly skewed towards a greater percentage of nonbasic jobs.

4. Business Creation

Trigger: Does not apply.

Data: Active sales/use tax accounts have been growing steadily between 1995 and 2007.

Observations: Fort Collins continues to experience healthy growth of new businesses.

Land Use Indicators

5. Housing Density

Trigger: Low Density Mixed-Use Neighborhood Density of less than 5 units per acre or Medium Density Mixed-Use Neighborhood Density of less than 12 units per acre for non-infill projects.

Data: Land Use Code projects in LMN Neighborhoods averaged 6.6 dwelling units per acre. Land Use Code projects in MMN Neighborhoods averaged 18.6 dwelling units per acre.

Observations: All Code projects met required *City Plan* densities. There were slight variations in density due to project phasing. This indicator falls within target thresholds.

6. Compact Urban Form

Trigger: Does not apply.

Data: In 2007, 22.4% of all new housing construction and 14.6% of all new commercial construction occurred in Structure Plan activity centers. Population density is at about 2,500 persons per square mile.

Observations: It is difficult to assess the compactness of the Fort Collins urbanized area. While development activity in activity centers will increase progress on achieving this goal, continued low-density development on the fringes of the urban area will lessen the area's compactness.

7. Infill and Redevelopment

Trigger: Does not apply.

Data: 4.8% of the all new dwelling units and 13.1% of all new non-residential square feet were constructed in targeted redevelopment areas between 2000 - 2007.

Observations: Since 2003, the percentage of all new construction that occurred within targeted redevelopment areas has grown. This is a positive direction for meeting *City Plan's* goals for redevelopment.

8. Mixed-Use Activity

Trigger: Does not apply.

Data: A greater percentage of residents lived near selected destinations in 2007 than in 2000.

Observations: More people were within ¼ mile of supermarkets, parks, schools and transit stops, providing better opportunities for walking and biking or short vehicle trips.

9. Land Absorption

Trigger: Does not apply.

Data: The Growth Management Area has the potential to accommodate 30,000 additional housing units (69,736 people) and 50,919 additional jobs on vacant, approved, and redevelopment land.

Observations: Buildout is projected to occur around 2027 for housing units and 2023 for jobs at growth rates assumed in *City Plan.*

Housing Indicators

10. Single Family – Multifamily Housing Split

Trigger: Single family percentage greater than 65% or less than 55% of total housing units.

Data: 58.4% of units are single family and 41.6% of units are multifamily units.

Observations: Housing units split is still within acceptable range. *City Plan* continues to increase the percentage of multifamily housing units, though the effect on the overall housing split is minor.

10. Housing Affordability

Trigger: Does not apply.

Data: The rate of increase in median household income was lower than the rate of increase in the average single family home price and but higher than the rate of increase in rent between 1995 and 2007. The Housing Opportunity Index showed that about 60% of homes in the market were affordable to a family earning the median income compared to 45% nationally in 2007. The average home sales price (new and used) was affordable to just 79% families earning the area median income in 2007.

Observations: The affordability of homes is slightly lower in 2007 than in the previous 5 years; however, Fort Collins rates better than the nation as a whole for affordability for families earning the area median income.

Transportation Indicators

11. Vehicle Miles Traveled (VMT)

Trigger: Growth rate of VMT higher than population growth rate.

Data: VMTs increased by a compounded annual growth rate of 2.9% between 1995 and 2005, compared with 2.6% for population growth.

Observations: Vehicle Miles Traveled is increasing at about the same rate as population. This indicator is within the indicator threshold.

12. Transportation Mode Split

Trigger: Single occupant vehicle (SOV) trips will trigger a special review if they are not reduced by at least 1% compounded annually between 1995 and 2007.

Data: The mode share for single occupant vehicle trips remained about the same between 1990 and 2007. However, there is a significant margin of error for the data which may obscure important trends.

Observations: Mode shares for non-single occupant vehicle trips does not appear to meet the indicator threshold. This indicator has triggered the special review process, which will be conducted as part of the City Plan/Transportation Master Plan update process in fall 2009.

Environment Indicators

16. Air Quality

Trigger: Does not apply.

Data: Vehicle carbon monoxide emissions and particulate matter concentrations are below federal standards. Ozone concentrations are near the federal standard. Visibility violates the Colorado standard 24% of the time on average. Greenhouse gas emissions have been rising, with slight variations in emissions per capita.

Observations: Results are mixed.

17. Open Lands Management

Trigger: Does not apply.

Data: The City has protected approximately 70% of the total area identified as a natural habitat or feature on the city's Natural Habitats and Features Inventory Map, as compared to 55% in 2001.

Observations: The amount of natural features protected shows good progress towards achieving *City Plan* goals.

INTRODUCTION

Background

This report is the second in a series of biennial reports to monitor *City Plan*, the City of Fort Collins' comprehensive plan. It sets a baseline for a number of indicators that citizens and elected officials can use to measure progress toward the changes expected or encouraged by *City Plan*.

City Plan was prepared in order to update outdated goals and policies and to better respond to growth pressures. The Plan describes ways to accommodate growth while protecting and enhancing the existing quality of life. *City Plan* was meant to be a flexible document, with the ability to respond to changing needs and conditions.

To evaluate the implementation of *City Plan* and to ensure that the City could make course corrections to help achieve the Plan's vision, a goal was incorporated into the document laying out a system for Plan monitoring and evaluation. The goal states:

Regular Monitoring and Evaluation of actual experience and trends in meeting the goals of the Plan will lead to both *City Plan* amendments and improved ability to project future conditions.

Monitoring was to include a data collection and processing system which would enable "decision makers and the public to assess the City's progress towards achieving the goals of *City Plan*, provide justification for amending the Plan, and to assess the need for changes in implementation measures." Further, there was a need to monitor changes in total population, which would serve as a trigger for appropriate action in regard to infrastructure and land use needs. Growth projections, including population and employment, were to be "reviewed, adjusted and compared periodically to reflect actual conditions."

City Plan Principle GM-9 further describes the system of monitoring. Policies GM-10.1 through GM-10.4 list possible indicators and describe a special review process if indicators demonstrate a trend which is inconsistent with *City Plan*.

The City Plan Monitoring System

This section describes how the Monitoring System works.

1. Advance Planning staff, with the assistance of other department staff, collects data on each indicator.

2. Staff produces a biennial report for the City Council. This year's report evaluates 15 indicators, including population, employment, land use, housing, transportation, and environment indicators. Staff compares the data from five special indicators against a "trigger" threshold. If the trend for one or more of these special indicators shows that the metric was exceeded, a special review process is triggered.

3. The special review process includes a more thorough examination of the issue and review by staff, relevant City boards, and the City Council. Advance Planning staff, with the assistance of other department staff and outside experts, begins the process by identifying and analyzing issues. The analysis includes a determination of whether or not the condition needs to be addressed with changes to City policy, regulations or programs. The length of time for the analysis will vary from 30 days to 6 months, depending on the complexity and urgency of the issue. Alternatives for addressing issues will also be developed and analyzed during this step. The final product is a report containing the analysis.

4. Staff presents the indicator report and any special review process reports to City boards and Council for review and response.

Changes from the 2001 Indicator Report

A number of significant changes were made in the 1997-2007 Biennial Indicator Report to better measure progress towards achieving certain *City Plan* goals. The following is a list of major changes included in this report:

Employment Balance: The indicator includes new data for tracking the balance between basic and nonbasic jobs to better correspond to the *City Plan* goal.

Compact Urban Form: New data on overall population density replaces 2001 data on population density for various areas within and immediately outside the Growth Management Area. This new data is easier to understand and track.

Infill and Redevelopment: The previous document contained two indicators, which have been combined into one. The indicator now reports on development in targeted redevelopment areas versus specific projects or development in the "Infill Development Area".

Mixed-Use Activity: Data now shows population within ¼ mile from a specific destination, which is a better measurement of overall mix of uses throughout the community as compared to the tracking of commercial uses in the LMN districts only in the 2001 report.

Regulatory Framework: This indicator has been eliminated in the 2007 report. No administrative appeals have been reported.

Air Quality: New information is provided on greenhouse gas emissions.

POPULATION

Rate of Population Growth (Trigger)

Policy Rationale:

City Plan projects population will increase at a compounded annual growth rate of 2% over a 20-year time frame (to the year 2025). Growth projections do not represent a target or limit on the amount or rate of growth within the community. Growth projections will provide a basis for estimating the demand for housing, retail, education, transportation, health care services, base employment and business services, public facilities and services, etc., and for measuring the impacts of growth. Over the next twenty years, the City's current population (2004) of over 130,000 will grow to a population of approximately 193,000.

Changes in population that vary significantly from projections will be used as a trigger to initiate evaluation, and appropriate action, in regard to infrastructure and land use needs. Growth projections will be reviewed, adjusted, and compared periodically to reflect actual conditions.

Trigger:

Compounded annual growth rate equal to or greater than 3.0% (from 1995 to current year).

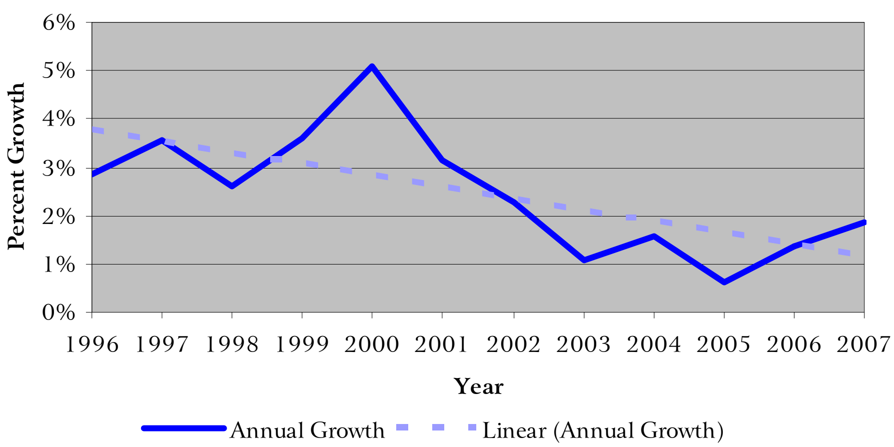
Data:

Figure 1: Fort Collins Population Estimates and Growth Rate

2007 Population Estimate	1995 – 2007 Percent Increase	Population Increase	Compounded Annual Growth Rate
134,169	36%	34,443	2.5%

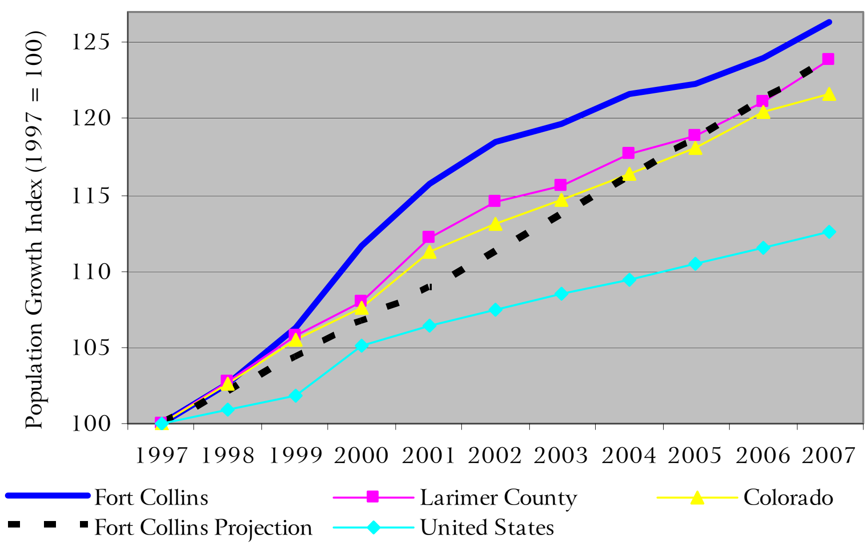
Source: City of Fort Collins Advance Planning Department.

Figure 2: Fort Collins Annual Population Growth Rate



Source: City of Fort Collins Advance Planning Department

Figure 3: Index of Population Growth Rate by Area



Estimates for the U.S., Colorado and Larimer County are for July of each year, except for the April 2000 Census. Estimates for Fort Collins are for August each year except for the April 2000 Census.

Source: City of Fort Collins Advance Planning Department, U.S. Census Bureau, Colorado State Demography Office

Observations:

The compounded annual growth rate from 1995 to 2007 was 2.5% (Figure 1). This is a decrease from the 2001 Indicator Report, which showed the compounded annual growth rate of 3.4% between 1995 – 2000. **Therefore, the trigger for this indicator is not exceeded.**

Figure 2 shows the annual growth rate decreasing since 2001. A high of 5.1% occurred between 1999 - 2000, and a low of .6% occurred between 2004 – 05.

As shown in Figure 3, the City's population growth was more rapid than its larger geographic regions until 2001, when the rate leveled off. By 2007, the compounded annual growth rate was at around 2% for the state, county and city. Note that in Figure 3, the Fort Collins projection from the 2004 *City Plan* update - compounded to reduce annual fluctuations - is nearly the same as the estimated population in 2007.

Methodology:

Fort Collins' population estimates are provided by the State of Colorado Demographer. The population growth index provides a uniform basis of comparison between different geographic areas, and represents the proportional increases in population from 1996 – 2007.

EMPLOYMENT

Job Creation (Trigger)

Policy Rationale:

City Plan projects employment will increase at a compounded annual growth rate of 1.9% within the 20-year planning horizon (to the year 2025). Growth projections do not represent a target or limit on the amount or rate of growth within the community. Growth projections will provide a basis for estimating the demand for housing, retail, education, transportation, health care services, base employment and business services, public facilities and services, etc., and for measuring the impacts of growth.

Trigger:

Compounded annual growth rate of less than 1.8% or greater than 3.0% within the City.

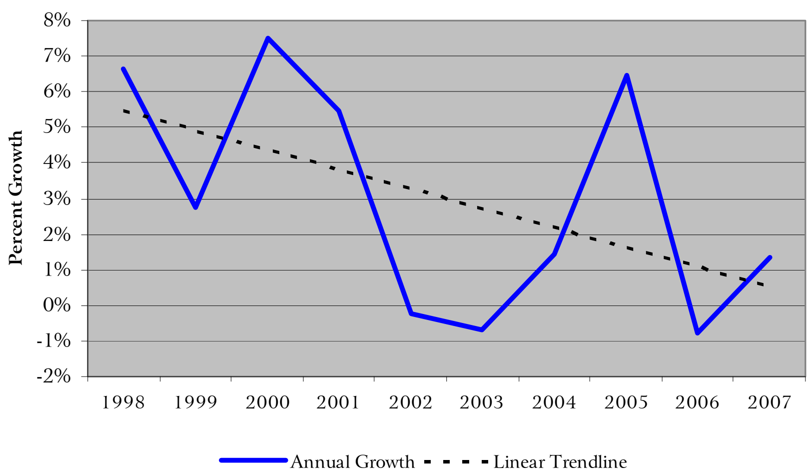
Data:

Figure 4: Fort Collins Employment Estimates and Growth Rate

Employment Estimate	1997 – 2007 Employment Increase	Percent Increase	Compounded Annual Growth Rate
84,312	21,253	25%	2.9%

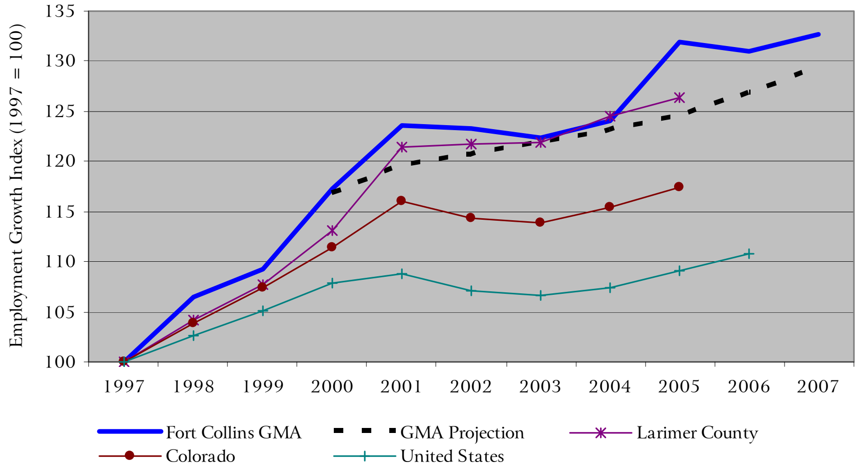
Source: Quarterly Census of Wages and Employment

Figure 5: Fort Collins Annual Employment Growth Rate



Source: Quarterly Census of Wages and Employment

Figure 6: Index of Employment Growth Rate by Area



Source: Quarterly Census of Wages and Employment

Observations:

The compounded annual growth rate between 1997 – 2007 was 2.9% (Figure 4). This compares to a compounded annual growth rate of 2.6% between 1995 – 2000 shown in the 2001 Indicator Report. **Therefore, the rate falls between the trigger thresholds for this indicator.**

Figure 5 shows the annual growth rate generally decreasing since 2001. A high of 7.5% occurred between 2000 - 2001, and a low of -.7% occurred between 2005 – 06.

Employment growth in Fort Collins between 1997 – 2005 was about the same as Larimer County and more rapid than Colorado and the U.S. Fort Collins grew at a rate of 3% (the GMA at 2.8%), Larimer County grew at 3%, Colorado grew at 2% and the U.S. grew 1.1%. Note that Figure 6 shows the Fort Collins projection through 2007 with no year-to-year variation; while in reality the growth rate is expected to vary within an overall 20-year compounded annual growth rate of 1.9%.

Methodology:

Employment estimates are based on the Quarterly Census of Employment and Wages (QCEW) for March of each year. Data is not seasonally adjusted. Sole proprietor employment is included in these estimates based on a proportion of countywide sole proprietors provided by the State Demography Office. Both full-time and part-time jobs are included in the figures.

The employment growth index provides a uniform basis of comparison between different geographic areas, and represents the proportional increases in population from 1997 – 2007.

Employment Balance

Policy Rationale:

ECON-1.4 Jobs/Housing Balance. The City will strive to ensure that a reasonable balance exists between employment and housing is maintained as well as a balance between basic jobs and non-basic jobs. The primary intent is to create a relative balance between the wages generated by various types of employment and housing prices.

Trigger:

Does not apply.

Data:

a) Jobs – Housing Balance

Figure 7: Ratio of Employment to Housing in Fort Collins

Year	Total Jobs	Employed Residents	Housing	Jobs-to-Housing Ratio	Jobs-to-Employed Residents Ratio
1997	63,060	n/a	43,294	1.5	n/a
1998	67,259	n/a	44,489	1.5	n/a
1999	69,116	n/a	46,192	1.5	n/a
2000	74,298	65,670	47,755	1.6	1.1
2001	78,358	n/a	49,337	1.6	n/a
2002	78,183	n/a	51,236	1.5	n/a
2003	77,635	n/a	52,815	1.5	n/a
2004	78,738	n/a	54,328	1.4	n/a
2005	82,983	71,070	55,714	1.5	1.2
2006	82,346	72,985	56,783	1.5	1.1
2007	84,312	74,097	57,772	1.5	1.2

n/a = not available. Data for Employed Residents is based on the American Community Survey, which began in 2005 for Fort Collins, and the 2000 Census.
Source: City of Fort Collins Advance Planning Department, QCEW, American Community Survey

b) Basic – Nonbasic Jobs Balance

Figure 8: Basic and Nonbasic Jobs

Year	Basic Jobs	Non-basic Jobs	# Non-basic jobs per 1 basic job
2001	17,729	59,787	3.37
2002	17,410	59,607	3.42
2003	16,306	59,208	3.63
2004	14,922	60,902	4.08
2005	15,777	63,251	4.01
2006	15,203	63,442	4.17
2007	18,733	61,446	3.28
01 - '07 change	1,004	1,659	
% change	5.7%	2.8%	

Jobs do not include sole proprietors
Source: City of Fort Collins Advance Planning Department, QCEW

Observations:

a) The jobs-housing ratio is often used by planners to determine whether a community has an adequate number of jobs available to provide employment for all the residents within the community seeking employment. A low jobs to housing ratio indicates a housing-rich "bedroom" community. A high jobs to housing ratio indicates an employment center. In a balanced community most residents could work relatively close to home, at least in theory. While some residents would still commute outside of the community, research indicates that where jobs and housing is in balance, people on average do in fact commute shorter distances and spend less time in their cars. Understanding this concept can be useful in understanding the interconnections among housing and affordability, traffic flows and congestion, and air quality.

Planning literature often cites 1.5 jobs per housing unit as a preferred or ideal ratio. The 1.5 jobs-to-housing units ratio indicates a community has an adequate number of jobs to meet the demand for employment by its residents, and therefore is in balance.

A more helpful indicator of balance may be the relationship between the number of jobs to the number of employed residents. An ideal jobs-to-employed residents ratio is 1.0, which indicates that every residents seeking a job can ostensibly find one within a community.

Based on the data in Figure 8, Fort Collins has a healthy balance in 2007. The ratio has remained relatively constant at around 1.4 – 1.6 jobs to one housing unit between 1997 – 2007. This indicates job growth is increasing at a similar rate to housing. The jobs-housing balance for the State of Colorado is approximately 1.7 to 1. Boulder has a ratio of approximately 2 jobs per housing unit.

The jobs-to-employed residents is close to the ideal of 1.0. There are slightly more jobs than people seeking jobs, indicating that there are people coming to jobs from outside the community. As a result, there is a higher level of traffic congestion as a result of these commuters, and possibly a higher level of residential development to house the labor force.

As part of the *City Plan* update in 2004, EPS projected the ratio to remain at 1.5 in 2025 based on its population and employment projections. The City's Buildable Lands Inventory confirms these projections and shows that employment and housing will continue this balance at build-out of the Growth Management Area.

This indicator does not measure the balance of lower income jobs and the housing needed to support those jobs, although such a measure would be desirable to judge progress on Policy ECON-1.4.

b) An economy can be divided into two general sectors: basic and nonbasic. The basic, or export sectors, produce and sell goods for consumption outside of the area, bringing new income into the local economy. The nonbasic industries are service industries, which produce and sell goods that simply circulate existing income within the area. Therefore, the basic sector provides the flow of money into the local economy which is used to purchase the nonbasic sectors' goods and services. A healthy economy includes a wide variety of basic industrial activities, which can help insulate it from economic downturns.

Fort Collins' ratio of the number of nonbasic jobs to basic jobs was 3.28 in 2007. The ratio rose steadily between 2001 – 2006, but then dropped in 2007. This indicates that more and more people were being employed to produce goods and services to be consumed locally, until 2007. In that year, there was a big gain in Educational Services employment (828 jobs; increase of 2066 jobs between 2001 – 2007) with several new schools opening. For Fort Collins, Educational Services is considered a basic sector as it constitutes a higher percentage of local employment than compared to the national average. Other basic sectors that significantly increased between 2001 – 2007 were Professional, Scientific, and Technical Services (2,584), Ambulatory Health Care Services (1,171), Executive, Legislative, and Other General Government Support (530), and Administration of Environmental Quality Programs (485). These and other sectors have begun to offset losses in the Computer and Electronic Product Manufacturing sector (nearly 4,000 jobs lost since 2001).

Some studies show that a healthy economy has a ratio of basic to nonbasic employment that falls within the range of 1 basic job for every 2.5 to 3 nonbasic jobs. Using this range, Fort Collins' employment is skewed too much towards nonbasic sectors.

Methodology:

Employment estimates are based on the Quarterly Census of Employment and Wages (QCEW) for March of each year. Data is not seasonally adjusted. Sole proprietor employment is included in these estimates based on a proportion of countywide sole proprietors provided by the State Demography Office. Both full-time and part-time jobs are included in the figures. Housing unit figures are based on yearly City of Fort Collins Building and Zoning Department reports.

The basic to nonbasic jobs ratio is estimated from the QCEW using the location quotient economic base analysis technique. Essentially, local employment is compared to national employment using 3-digit North American Industry Classification System (NAICS) codes.

Business Creation

Policy Rationale:

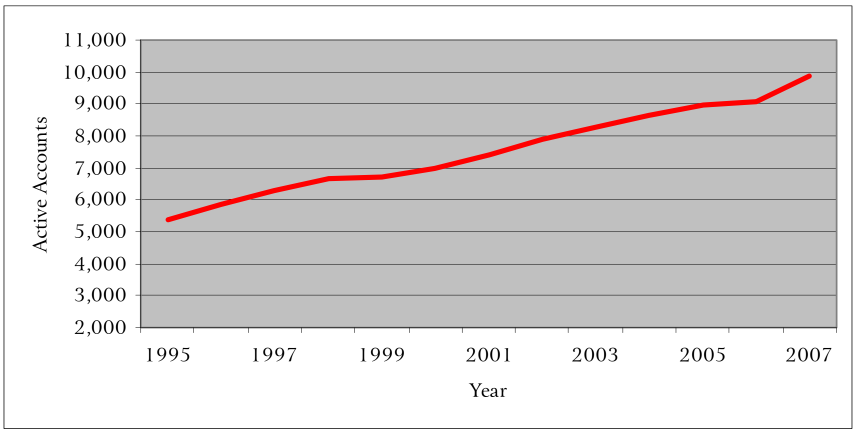
Policy ECON-1.2 Economic Development Policy: d. Create a positive climate for both local and new business.

Trigger:

Does not apply.

Data:

Figure 9: City Sales/Use Tax Accounts



Source: City of Fort Collins Finance Department

Observations:

The number of sales and use tax accounts is a rough indicator of the number of businesses in Fort Collins. The number of accounts has been rising steadily since 1995. All businesses are required to have a sales or use tax license in the City. However, some businesses may carry a license for more than one store.

Data from 1998 shows a small growth rate compared to earlier years. That year, a large number of inactive accounts were purged from 1994 – 1996.

Methodology:

Figure 9 is compiled from City of Fort Collins sales and use tax accounts. The 2001 Indicator Report contained a chart of employer data from the ES202 database. This information is not included in this year's indicator report because the figures are not reliable.

LAND USE

Housing Density (Trigger)

Policy Rationale:

Principle LMN-1: Low Density Mixed-Use Neighborhoods will have an overall minimum average density of five (5) dwelling units per acre, achieved with a mix of housing types.

Principle MMN-1: Housing in new Medium Density Mixed-Use Neighborhoods will have an overall minimum average density of twelve (12) dwelling units per acre, achieved with a mix of housing types.

Trigger:

LMN net density of less than 5 dwelling units/acre or MMN net density of less than 12 units/acre. (Applies to non-infill Land Use Code projects.)

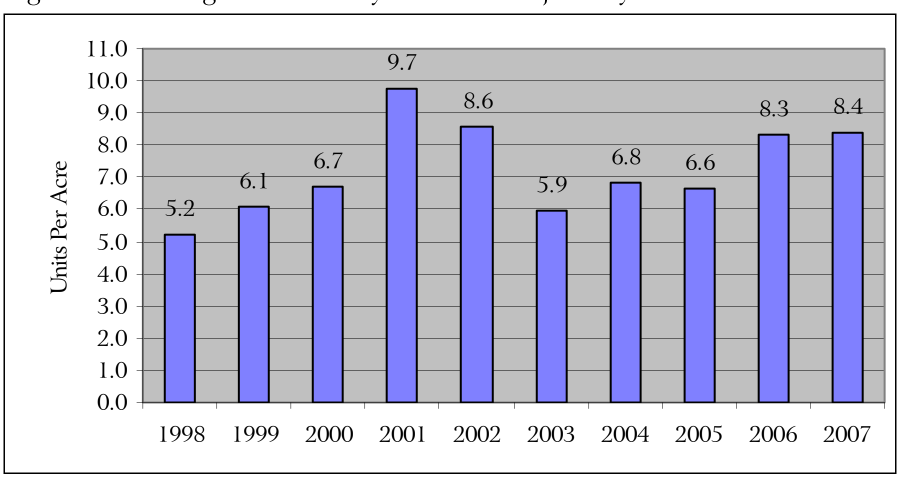
Data:

Figure 10: Net Density of Development Projects in the LMN & MMN Zone Districts

Zone District	Overall Dwelling Units Per Net Acre	Median Dwelling Units Per Net Acre
LMN	7.3	6.6
MMN	18.2	18.6

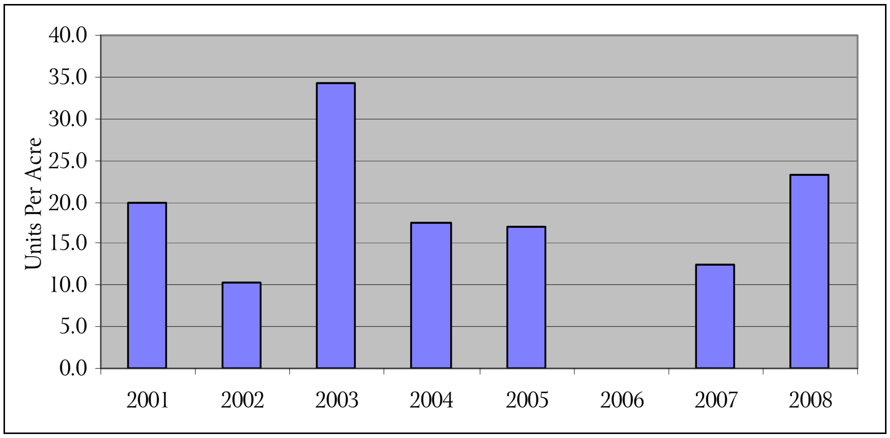
Source: City of Fort Collins Advance Planning and Current Planning Departments

Figure 11: Average Net Density of LMN Projects by Year



Projects under review were included in average net density for 2006 & 2007.
Source: Current Planning Department (DMS Database)

Figure 12: Average Net Density of MMN Projects by Year



No applicable MMN projects were approved between 1997 and 2000 or in 2006.
Source: Current Planning Department (DMS Database)

Observations:

Projects in both the LMN and MMN zone districts exceeded the density requirements of the Land Use Code (Figure 10). **Therefore, the trigger threshold is not exceeded.**

The year-to-year average densities do not show a clear trend towards increasing or decreasing densities for projects in both the LMN and MMN zone districts (Figures 11 and 12). In 2001 and 2002, the average net density of LMN projects exceeded the maximum density requirements due to higher density phasing in the Rigden Farm and Willow Brook areas. Overall, these areas comply with the density requirements. In 2002, the Good Samaritan Village was approved at 5.3 dwelling units per net acre, lowering the average density. However, overall, the Good Samaritan Village (including existing buildings and approved units) meets the minimum density requirements.

Methodology:

Both approved and under review projects are included in the data. There were 55 LMN projects consisting of 7,665 dwelling units on 1,715 acres submitted between 1997 and 2007. There were 16 MMN projects consisting of 946 dwelling units on 70 acres submitted between 1997 and 2007.

Compact Urban Form

Policy LU-1 Compact Urban Form. The desired urban form will be achieved by directing future development to mixed-use neighborhoods and districts while reducing the potential for dispersed growth not conducive to pedestrian and transit use and cohesive community development.

Trigger:

Does not apply.

Data:

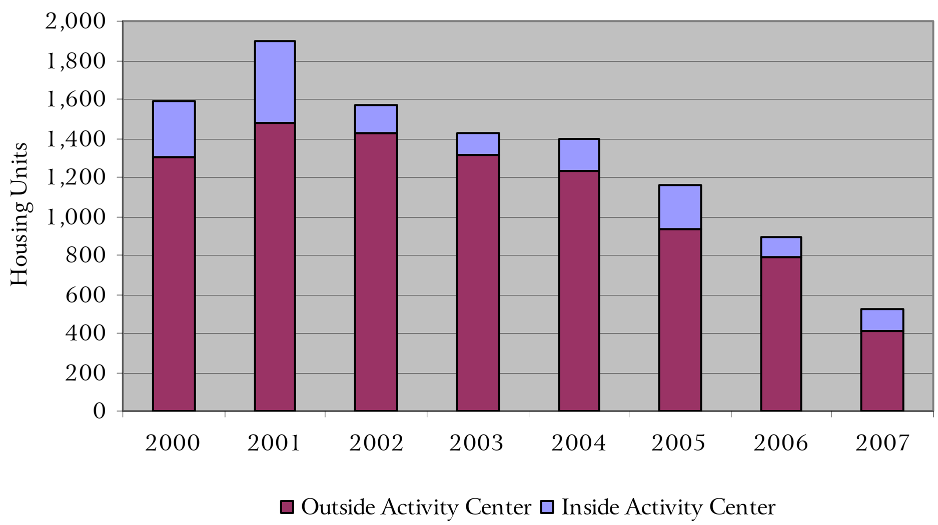
a) New Housing and Nonresidential Construction in Structure Plan Activity Centers

Figure 13: New Development in Activity Centers

	2000	2001	2002	2003	2004	2005	2006	2007	Grand Total
Housing Units	280	430	147	113	162	224	102	118	1,471
% In Activity Centers	17.6%	22.6%	9.4%	7.9%	11.6%	19.4%	11.4%	22.4%	9.6%
Commercial Square Feet (thousands)	529	537	238	239	232	394	351	300	2,820
% In Activity Centers	16.0%	15.4%	7.3%	8.4%	7.1%	13.9%	17.3%	14.6%	12.2%

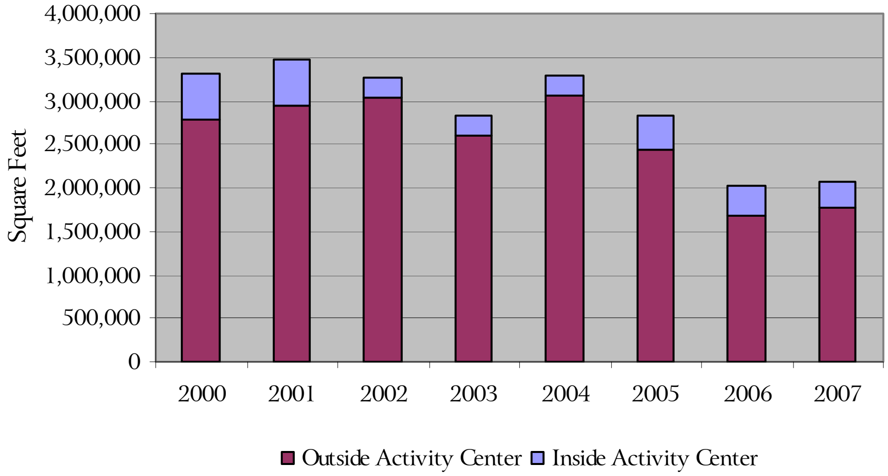
Source: City of Fort Collins Advance Planning Department

Figure 14: New Residential Development Inside and Outside of Activity Centers



Source: City of Fort Collins Building and Zoning and GIS Departments

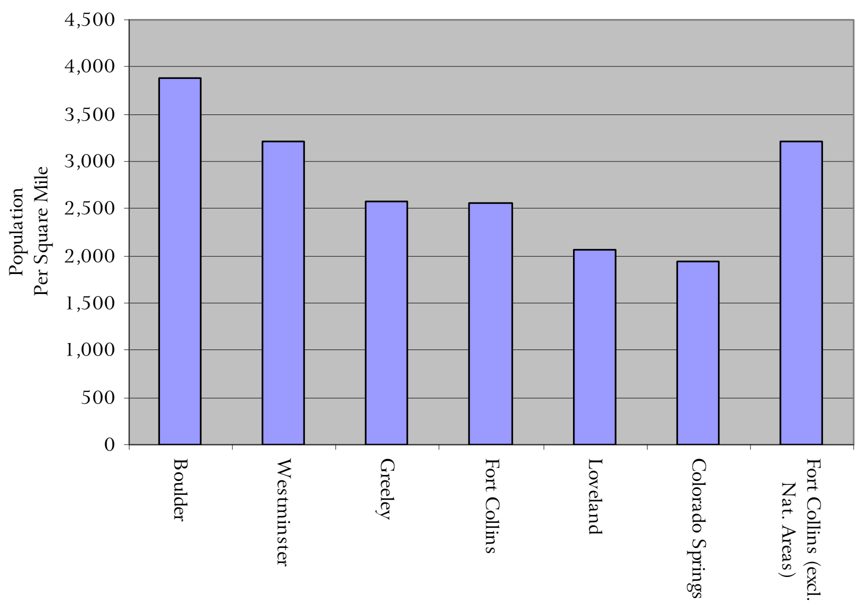
Figure 15: New Commercial Development Inside and Outside of Activity Centers



Source: City of Fort Collins Building and Zoning and GIS Departments

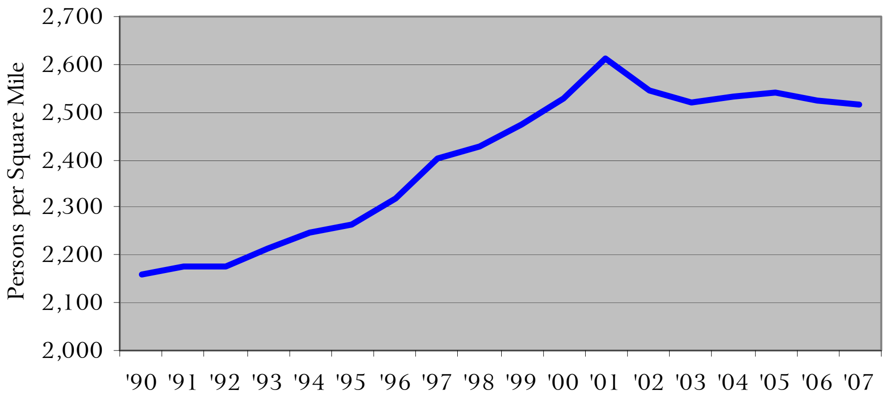
b) Population Density

Figure 16: Population Density of Colorado Cities



Source: U.S. Census Bureau, City of Fort Collins Advance Planning Department

Figure 17: Fort Collins Density Trend



Source: City of Fort Collins Advance Planning Department

Observations:

One measure of compactness is the amount and percentage of development occurring in defined activity centers as compared with other areas of the community. These activity centers serve as a source of employment, shopping and activity for surrounding residential neighborhoods.

Activity Centers are areas identified in *City Plan* as Downtown, Community Commercial Districts, and Neighborhood Commercial Centers. Residential and non-residential growth in these areas has been less than other parts of the city, partly because many of the activity centers already contain commercial and residential uses.

A broader measure of compactness is the overall population density of a community. In comparison to other Colorado communities, Fort Collins is about average density overall. Excluding its extensive system of natural areas, Fort Collins is about as dense as the Denver suburbs. As a comparison, New York City has 26,400 persons per square mile, LA has 7,877 persons per square mile, Denver (city) has 3,617 persons per square mile, and Aurora has 1,940 persons per square mile.

Not surprisingly, the densest area of the City is west of the university. Campus West contains over 14,000 persons per square mile. In contrast, the core part of Downtown contains just over 2,800 persons per square mile.

Figure 17 shows that Fort Collins' density peaked in 2001 and has remained at about 2,500 persons per square mile since then.

Methodology:

Data for housing unit construction, commercial square feet construction and construction valuation is collected by the Building and Zoning Department and geocoded by the GIS Department. The Advance Planning Department compiled density statistics from City sources as well as the State of Colorado Demographer.

Infill and Redevelopment

Policy Rationale:

Policy GM-8.1 Targeted Redevelopment/Infill. Redevelopment and infill development will be encouraged in targeted locations. The purpose of these areas is to channel growth where it will be beneficial and can best improve access to jobs, housing and services with fewer and shorter auto trips. These targeted areas are parts of the city where general agreement exists that development or redevelopment is beneficial. A major goal is to increase economic activity in the area to benefit existing residents and businesses and, where necessary, provide the stimulus to redevelop.

Trigger:

Does not apply.

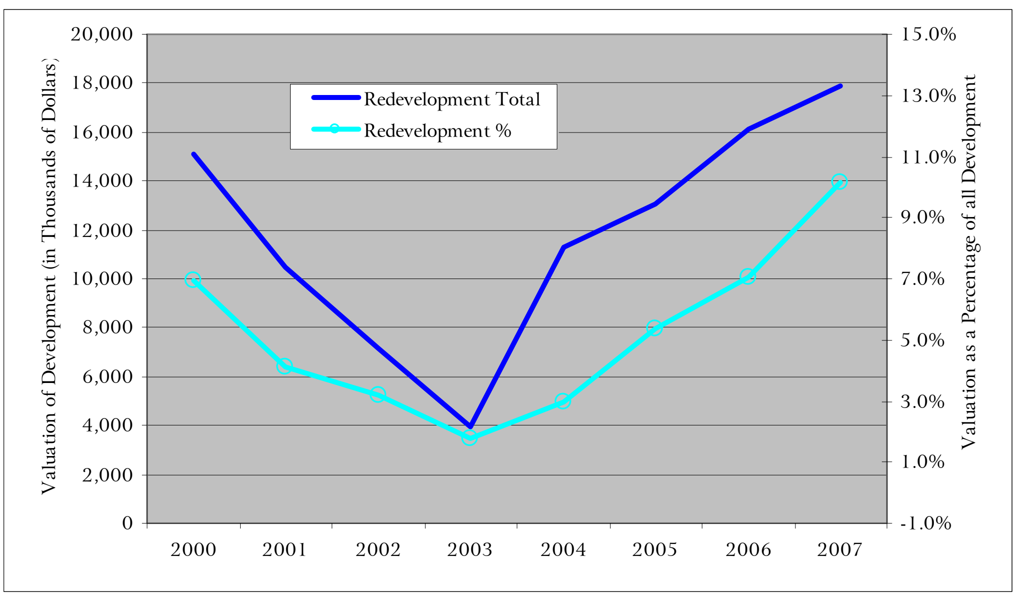
Data:

Figure 18: Development in Targeted Redevelopment Areas

	Dwelling Units	Non-Residential Square Feet	Construction Valuation ($)
Development in Targeted Redevelopment Areas	481	242,536	94,914,986
Percent of Development in Targeted Redevelopment Areas	4.8%	13.1%	5.1%

Does not include development approved by Larimer County
Source: City of Fort Collins Advance Planning Department

Figure 19: Annual Valuation of New Development in Targeted Redevelopment Areas



Does not include development approved by Larimer County
Source: City of Fort Collins Advance Planning Department

Observations:

A significant amount of non-residential investment has been made in some targeted redevelopment areas, including Campus West, Downtown, Foothills Mall, Mason Street, and North College. 13% of all non-residential construction has occurred in these areas. New housing units created in these areas equaled 481 units, which comprise 4.8% of all new housing constructed between 2000 – 2007.

The construction value of development in targeted redevelopment areas has varied between 2 – 10% of the total construction value of development city-wide (Figure 19). Since 2003, the value of construction in redevelopment areas has increased significantly, even while the City-wide construction value has declined in that same period.

Methodology:

Targeted infill and redevelopment areas are identified on page 141 of *City Plan*. Data for housing unit construction, commercial square feet construction and construction valuation is collected by the Neighborhood and Building Department and geocoded by the GIS Department. This indicator replaces the Infill and Redevelopment indicators reported in the 1999 and 2001 Indicator Reports, which reported on specific projects.

Mixed Use Activity

Policy Rationale:

Policy T-1.1 Land Use Patterns. The City will implement land use patterns, parking policies, and demand management plans that support effective transit, an efficient roadway system, and alternative transportation modes. Appropriate residential densities and non-residential land uses should be within walking distance of transit stops, permitting public transit to become a viable alternative to the automobile.

Policy T-5.1 Land Use. The City will promote a mix of land uses and activities that will maximize the potential for pedestrian mobility throughout the community.

Trigger:

Does not apply.

Data:

Figure 20: Fort Collins Population Near a Specific Destination

Destination	2000		2007	
Supermarket/Grocery Store	18,499	16%	25,735	20%
Park	83,764	71%	99,690	76%
Schools	59,700	50%	66,918	51%
Transit Stop	89,550	75%	100,497	77%

Population figures are based on 2000 Census blocks, all or portions of which are within ¼ mile distance of a destination.
The relative change in population between 2000 and 2007 is the important figure.
Sources: City of Fort Collins Advance Planning Department, U.S. Census Bureau

Figure 21: Fort Collins Jobs Within ¼ Mile of a Transit Stop

	2000		2007	
Transit Stop	56,664	76%	60,100	75%

Sources: City of Fort Collins Advance Planning Department, Quarterly Census of Wages and Employment

Observations:

A reasonable walking distance from most homes to shopping, transit, and other destinations is ¼ mile. Figure 21 shows that the absolute number of people and percentage within ¼ mile of a destination has increased since 2000. The most significant change has been for the population near grocery stores. This is due to the construction of several new grocery stores within neighborhoods, such as the King Soopers at Rigden Farms.

Approximately the same percentage of employees was near transit stops in 2000 and 2007.

Methodology:

A Geographic Information System was used to overlay 2000 Census blocks containing population on grocery store and other locations buffered by ¼ mile rings. 2000 population is provided by the Census Bureau; 2007 population for each block is estimated based on new building permits since 2000. The percentage of population is calculated from each year's population totals for Fort Collins.

The GIS was also used to overlay 2000 and 2007 Quarterly Census of Wages and Information data on transit stops buffer by ¼ mile rings. The data does not include sole proprietors or other non-wage data.

Land Absorption

Policy Rationale

Policy LU-3.1 General Area Designations. The City Structure Plan will identify where the various designations apply within the Fort Collins growth management area as an indication of the City's intent to maintain certain conditions within these areas or to promote certain types of development.

Trigger:

Does not apply.

Data:

Figure 22: Capacity of the Growth Management Area (2007)

	Acres	% of Area	Units	Population	Jobs
Existing	49,567	100%	66,570	153,570	95,322
Vacant Land Potential	9,934	20%	14,344	33,392	33,244
Approved & Proposed Projects, & Redevelopment Potential	n/a	n/a	15,615	36,344	17,675
Total At Built Out	49,567	100%	90,295	214,824	135,288
Year of Build Out			2027		2023

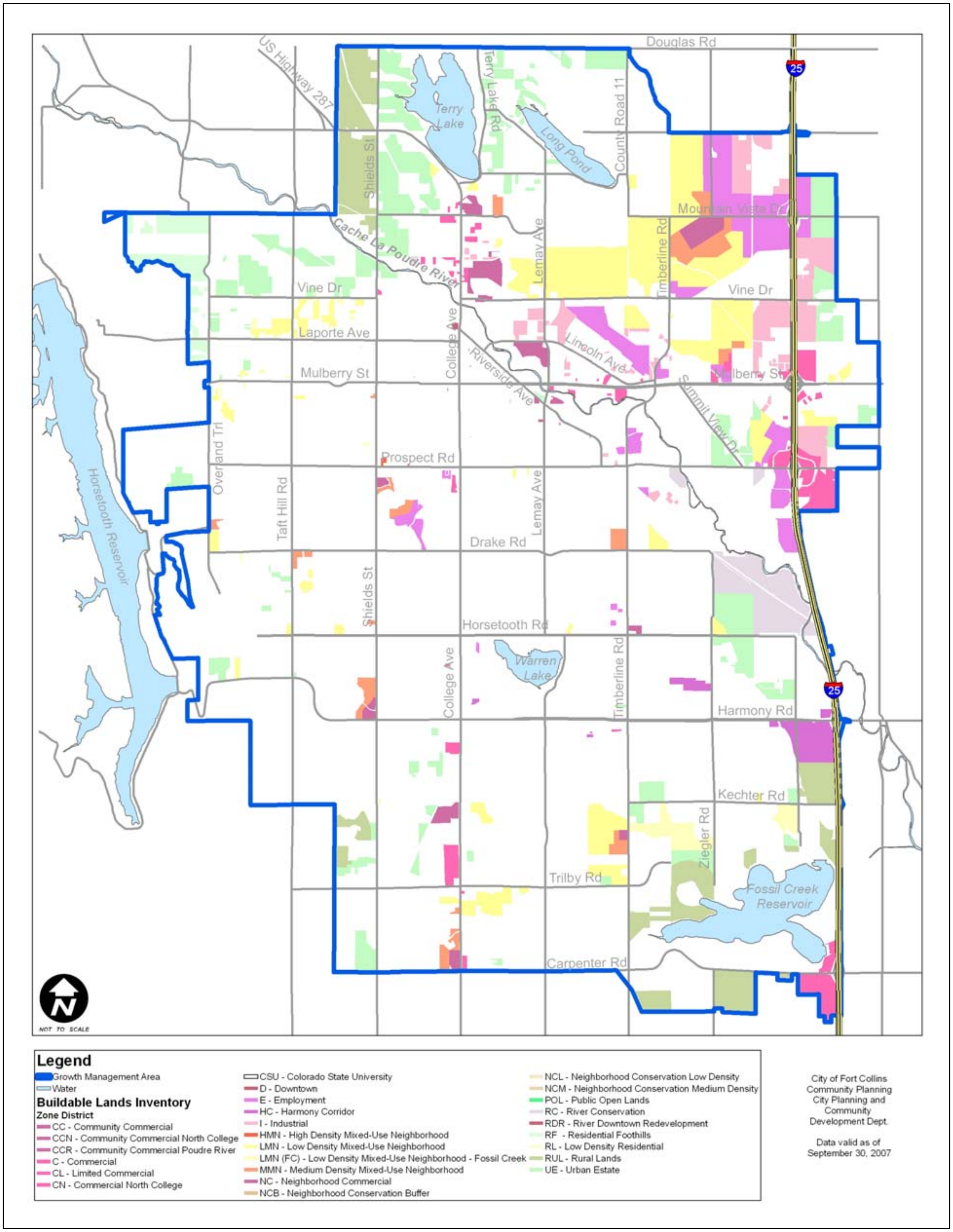
Source: City of Fort Collins Advance Planning Department

Figure 23: Inventory of Buildable Land by Zone District (2007)

Zone District		Acres	Units	Population	Building SF	Jobs
C	Commercial	509	0	0	2,848,012	5,696
CC	Community Commercial	116	343	799	573,366	1,146
CCN	Community Commercial, North College	96	102	237	509,511	1,019
CCR	Community Commercial, River	51	59	138	297,319	594
CL	Commercial, Limited	2	0	0	9,736	20
CN	Commercial, North College	46	0	0	333,664	668
D	Downtown	4	5	12	116,089	387
E	Employment	1,012	537	1,249	5,965,137	14,913
HC	Harmony Corridor	215	52	122	716,228	1,790
HMN	High Density Mixed-Use Neighborhood	3	56	131	947	2
I	Industrial	764	0	0	3,266,396	5,026
LMF	Low Density Mixed-Use Neighborhood - Fossil Creek	194	396	923	40,332	80
LMN	Low Density Mixed-Use Neighborhood	2,158	6,817	15,865	416,323	832
MMN	Medium Density Mixed-Use Neighborhood	382	3,094	7,202	78,744	157
NC	Neighborhood Commercial	65	80	187	402,881	806
NCB	Neighborhood Commercial Buffer	0	1	2	1,348	3
NCL	Neighborhood Conservation Low Density	1	2	5	0	0
NCB	Neighborhood Conservation Medium Density	0	2	5	0	0
RC	River Conservation	458	0	0	62,250	105
RF	Residential Foothills	299	81	189	0	0
RL	Low Density Residential	25	45	106	0	0
RUL	Rural Open Lands	1,280	345	804	0	0
UE	Urban Estate	2,254	2,327	5,416	0	0
Total		9,934	14,344	33,392	15,638,283	33,244

Source: City of Fort Collins Advance Planning Department

Figure 24: Vacant Land by Zone District (2007)



Source: City of Fort Collins Advance Planning Department

Observations:

It is estimated that there is a 19 year supply of land for housing and a 15 year supply of land for employment in the Growth Management Area. The year the community builds out is premised upon projected rates of population and employment growth (2% and 1.9% respectively) developed for the 2004 update to *City Plan*.

Most new housing will be constructed in the Low-Density Mixed-Use Neighborhood, Medium Density Mixed-Use Neighborhood, and Urban Estate Zone Districts. The Employment Zone District will accommodate 30% of the total new employment at build out.

There were 6,684 buildable lots (lots approved but not yet built on) waiting building permits in 2007, which represents at least a six year supply of housing. About half of all new housing units are anticipated to occur in either approved or proposed projects or through redevelopment.

As shown on Figure 25, most new growth will occur in the northeast quadrant of the GMA, with lesser amounts of new growth in the southeast and northwest.

Methodology:

Information is drawn from the 2007 Buildable Lands Inventory and Capacity Analysis – Technical Report. This report is prepared yearly by Advance Planning staff. The report describes in detail the methodology and assumptions for preparing the land capacity analysis. A copy of the report is available from www.fcgov.com/advanceplanning.

HOUSING

Single Family – Multi-family Housing Split (Trigger)

Policy Rationale:

Principle HSG-1: A variety of housing types and densities will be available throughout the urban area for all income levels.

Trigger:

Single family percentage greater than 65% or less than 55% of total housing units.

Data:

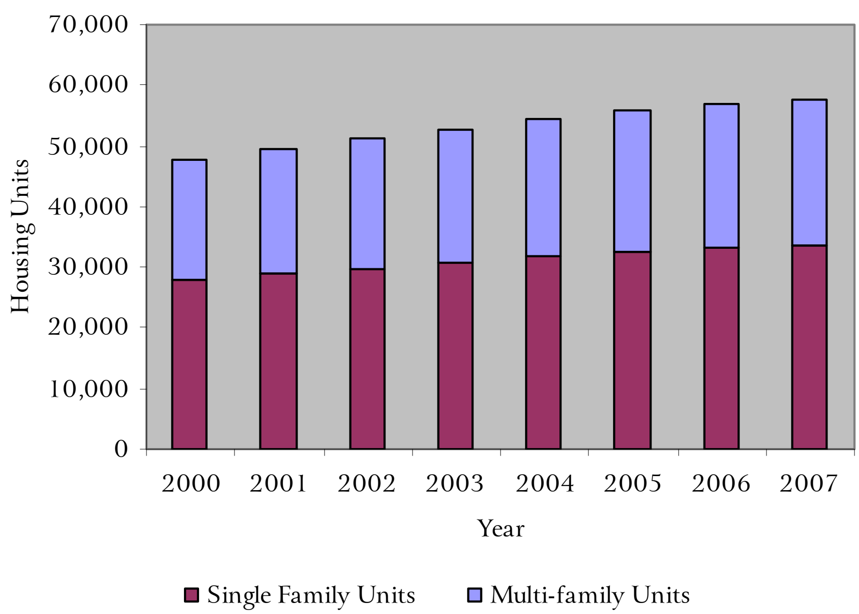
Figure 25: Housing Unit Split (2007)

Housing Type	Units	Percent
Single Family	33,740	58.4%
Multi-family	24,032	41.6%
Total	57,772	100.0%

Source: U.S. Census (2000), City of Fort Collins Neighborhood and Building Department

Notes: Single Family includes single family detached units, mobile homes and others (RVs, boats, etc. defined by the U.S. Census – 17 total). Multi-family includes single family attached, duplexes, and multi-family units.

Figure 26: Year-by-Year Housing Split



Source: City of Fort Collins Neighborhood and Building Department, U.S. Census

Observations:

The split between single family housing units and multi-family units remains within threshold limits. **Therefore, the trigger review process will not be initiated for this indicator.**

A ratio of 60% single family and 40% multi-family is generally considered a desirable housing split. Single family housing is defined in this report as single family detached dwelling units. Multi-family housing is defined as single family attached, duplexes, triplexes, and other multi-family structures.

City Plan has begun to change the housing split slightly. A review of units approved under the Land Use Code shows that 48% were single family housing and 52% were multi-family housing. However, the trend toward a higher proportion of multi-family is having only a minor effect on the overall split because the number of new units is only a minor percentage of the total units already built in the community.

The percent of single family units as a total of all units is expected to decrease over time. Single family could comprise 55% of all units in the future – down from 59% today. There are several reasons for this shift. First, units approved but not yet built have a higher percentage of multi-family units than single family units. Second, most redevelopment for housing will be in the form of multi-family. Third, vacant land will yield equal amounts of single family housing and multi-family housing. Some of the higher proportion of multi-family is a result of minimum density requirements in the LMN zone district.

Methodology

The overall number of units for 2000 is based on the 2000 Census. All other data is compiled from City of Fort Collins building permit data.

Housing Affordability

Policy Rationale:

Principle HSG-2: The City will encourage the creation and expansion of affordable housing opportunities and preservation of existing housing stock.

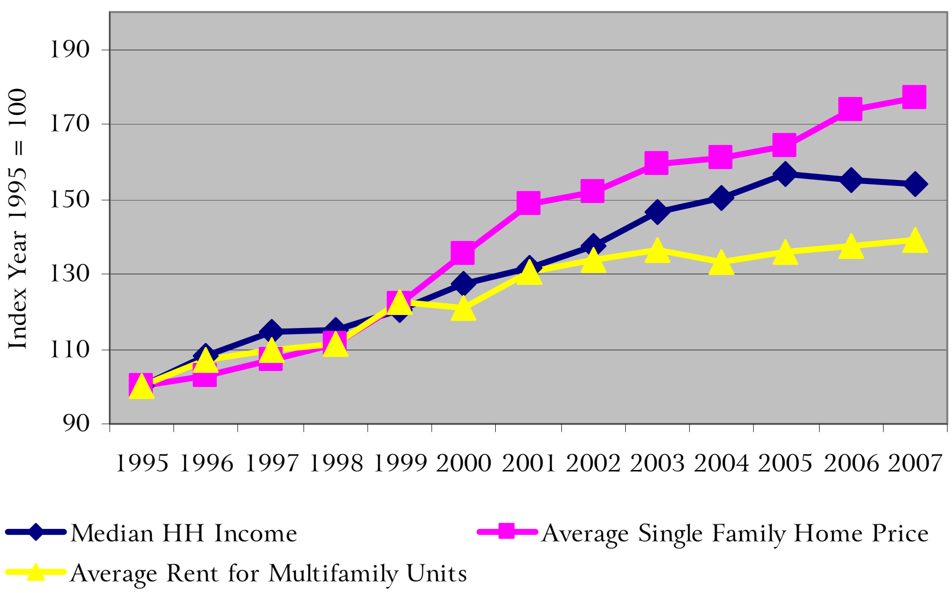
Trigger:

Does not apply.

Data:

a) Trend of Housing Costs vs. Income

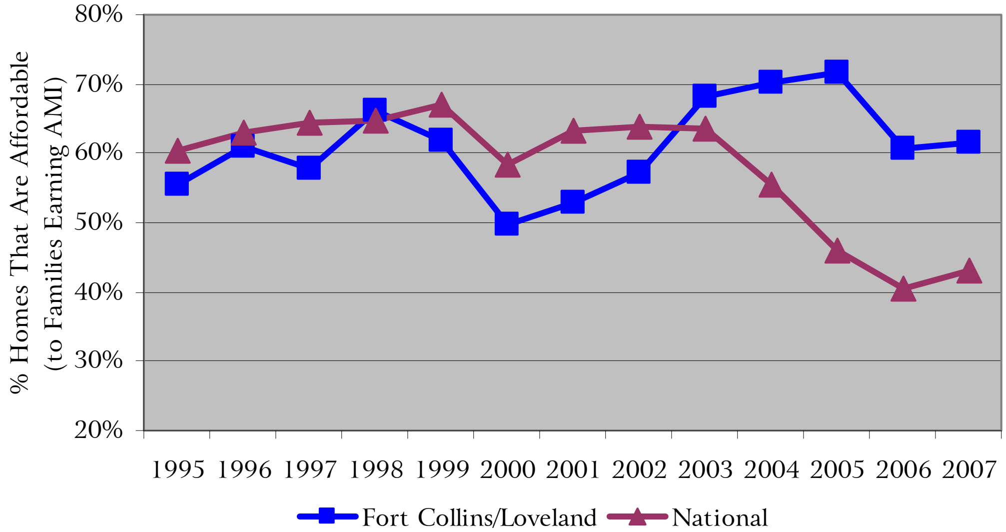
Figure 27: Index of Income and Housing Costs



Sources: U.S. Department of Housing and Urban Development (income data), Colorado Department of Local Affairs (average rent), and The Group, Inc. (average home price).

Housing Availability

Figure 28: Housing Opportunity Index



All figures are for 2nd Quarter of Each Year Except 2003.
Source: National Association of Home Builders/Wells Fargo Bank

c) Median Sales Price Compared to Average Median Income

Figure 29: % of Home Sales Price that Average Median Income Families Can Afford

	2000	2001	2002	2003	2004	2005	2006	2007
Average Sales Price	$194,042	$213,042	$217,314	$228,541	$230,589	$235,429	$248,767	$253,578
Income Needed	$77,083	$75,434	$74,453	$73,961	$74,620	$76,219	$83,467	$84,512
Home Price Affordable to AMI Income	$138,000	$160,000	$174,000	$198,000	$203,000	$212,000	$201,000	$201,000
Area Median Income (family of four)	$56,300	$58,200	$60,800	$64,800	$66,500	$69,200	$68,600	$68,200
% of Average Home Cost that Families Earning AMI Can Afford	71%	75%	80%	87%	88%	90%	81%	79%

Sources: U.S. Department of Housing and Urban Development (income data), The Group, Inc. (median home price), and Freddie Mac (interest rates).

Observations:

This indicator was not chosen as a trigger indicator because another Advance Planning Department report, “Priority Affordable Housing Needs and Strategies”, is intended to provide a greater analysis of housing affordability issues and recommendations.

Figure 28 shows the relative increases in income and housing costs for Fort Collins. Single family housing costs have risen significantly since 1995, while average rents have increased moderately since 2002. Incomes increased steadily between 1995 – 2005, but have been flat since 2005.

Since the decline in affordability as reported in the 2001 Indicator report, Fort Collins has become slightly more affordable for families earning AMI since 2000. In comparing national affordability of homes to the local market through the Housing Opportunity Index (HOI - Figure 29), Fort Collins is more affordable with increasing affordability between 2000 and 2005, declining sharply in affordability between 2005 and 2006, and rising slightly in 2007. The national trend has been downward for the period between 2002 – 2006 with a slight rise in 2007 as well.

Figure 30 shows that families earning the AMI cannot afford the cost of houses at the median price. Numbers in this chart assume a family of four spending no more than 30% of their income on home costs.

Home costs are generally comprised of hard costs, including construction and land, and soft costs, including administration, overhead and profit, and permits and fees. Of the total home cost, land costs comprise approximately 20%, permits and fees comprise approximately 12%, and the remainder (68%) is construction and soft costs excluding permits and fees.

This indicator does not provide information on the number of housing units affordable to low income households. Low income is generally defined as families earning less than 80% of the Area Median Income. In addition, the indicators do not report on trends related to the City's affordable housing policies, which target populations earning less than the AMI.

Methodology:

The index of income and housing costs provides a uniform basis of comparison between different types of data, and represents the proportional increases in income and housing costs from 1995 – 2007. 1995 serves as a baseline and each year is increased or decreased in proportion to 1995 based on increases or decreases in income and housing costs.

The Housing Opportunity Index (HOI) is a measure of the percentage of homes in a given market that a family earning the median income in that market can afford to buy. The higher the percentage, the more homes a family earning the median income can afford. The HOI is based on the median family income, interest rates, and the price distributions of homes sold for a particular market. The price of homes is collected from actual court records by Experian Real Estate Solutions, a marketing company. The number of homes sold is based on a tabulation of closings of new and existing homes. The median family income is calculated by HUD.

Figure 30 is calculated with the following assumptions: 1) down payment of 5%; 2) average interest rates between 1995 – 2006 reported by Freddie Mac; 3) 360 month term; 4) Private Mortgage Insurance of .77%; 5) taxes of 1% of sales price; 6) insurance of 0.4% of sales price; and 7) utility allowances based on information from the Fort Collins Housing Authority.

% AMI served refers to the percentage of homes in the median sales price that families earning the Area Median Income can afford to buy. The higher the percentage, the more affordable homes are to families earning the AMI.

TRANSPORTATION

Rate of Growth of Vehicle Miles Traveled (Trigger)

Policy Rationale:

Policy T-9.1 Vehicle Miles Traveled (VMT). The City will continually strive to reduce the growth rate in vehicle miles traveled (VMT) by implementing a VMT reduction program that strives to meet or exceed the performance of similar programs in comparable cities.

Trigger:

Growth rate of VMT higher than population growth rate. The indicator is calculated as change in VMT divided by change in population. A ratio of VMT growth rate to population growth rate greater than 1 : 1 will initiate the trigger review process.

Data:

Figure 30: Comparison of VMT to Population

Year	VMT	Population
1995	2,399,000	99,726
1998	2,801,000	108,981
2000	3,078,591	118,652
2005	3,180,040	129,951
Increase '95 – '05	781,040	30,225
Percent Increase	32.6%	30.3%
Compounded Annual Growth Rate	2.9%	2.7%
Ratio of VMT to Pop	**1 : 1**	

Source: City of Fort Collins Advance Planning and Transportation Planning Departments, North Front Range Transportation & Air Quality Planning Council

Observations:

The ratio of VMT growth to population growth is nearly equal to 1:1. **Therefore, the indicator threshold is not exceeded.**

A high VMT could be an indicator of several trends in a community. It may point to a preference among residents to travel exclusively by single occupant vehicle. It could also be argued that as a community grows geographically and travel becomes more of a regional (vs. local) activity, trip lengths will increase which would amount to an increase in VMT. High VMT might also reflect the relative affluence of a community where households own or have access to multiple vehicles. Finally, a high VMT could be an indicator that the other components of the transportation system - pedestrian, bicycle, or public transit infrastructure - are lacking in one way or another and simply do not meet the day-to-day mobility needs of residents.

The Fort Collins Transportation Master Plan 2004 identifies a concern that the indicator would be triggered quite often because it will continue to grow faster than population growth. The report suggests a better indicator would be to track the relative year-to-year VMT rates, and to establish a new trigger based on its level from the previous year. In other words, if VMT was not reduced below last year's rate, then the special review process would be triggered.

Methodology:

Population data is from the Colorado State Demographer.

VMT estimation has varied year–by–year. The most accurate estimation was completed in 1995 and 1998 when the North Front Range Transportation and Air Quality Planning Council conducted mobility report cards. The report cards included a survey, traffic counts, information from transportation agencies, and modeled VMT. Subsequent years were based on calibrated model runs by the City of Fort Collins Transportation Planning Department and are considered less precise.

Transportation Mode Split (Trigger)

Policy Rationale:

Policy T-1.1 Land Use Patterns. The City will implement land use patterns, parking policies, and demand management plans that support effective transit, an efficient roadway system, and alternative transportation modes. Appropriate residential densities and non-residential land uses should be within walking distance of transit stops, permitting public transit to become a viable alternative to the automobile.

Policy T-3.1 Demand Management. The City will promote travel demand reduction measures that reduce automobile trips and promote alternative travel modes in which results can be measured – such as telecommuting and in-home businesses, electronic communications, variable work weeks, flextime, transit access, bicycle and pedestrian amenities, parking management, and trip reduction programs for large employers.

Trigger:

Single occupant vehicle (SOV) trips will trigger a special review if they are not reduced by at least 1% compounded annually between 1990 and 2007. The Mode Split trigger will be re-evaluated within the *City Plan/Transportation Master Plan* update process, to begin in fall 2009.

Data:

Figure 31: Transportation Mode Shares

	1990		2000		2006		2007	
Geography	Single Occupant Vehicle	All Other Modes	Single Occupant Vehicle	All Other Modes	Single Occupant Vehicle	All Other Modes	Single Occupant Vehicle	All Other Modes
Fort Collins	74%	26%	74%	26%	73%	27%	74%	26%
Larimer County	76%	24%	77%	23%	76%	24%	76%	24%
Colorado	74%	26%	75%	25%	75%	25%	75%	25%
United States	73%	27%	76%	24%	76%	24%	76%	24%

Source: U.S. Census Bureau: 1990 and 2000 Census, 2006 American Community Survey

Observations:

The trigger is exceeded if 63% of the trip share is by SOV. Obviously, this is a very ambitious target and it would be very unlikely to be achieved without major City intervention. However, the fact that SOV trips have not decreased at all is an indication that *City Plan* policies may not be achieving their desired effect.

As noted below, the data is limited to work trips and travel by primary means. The **number of trips** by alternative modes taken for any purpose is unknown and the percentage may be higher than reported here.

The transportation mode shares have been fairly static at all levels of geography since 1990. Because the percentage of SOV trips has not decreased since 1990, a special review process would typically need to be initiated for this indicator. Given the complexity and timing of the issue, staff recommends that the analysis be rolled into the *Transportation Master Plan (TMP)* update, scheduled to begin in fall, 2009. This analysis would also recommend a more realistic trigger. The new trigger could be based on the TMP benchmark to achieve a ten percent mode shift from SOV by the year 2015.

Methodology:

Data for transportation mode share is taken from the decennial census sample dataset for 1990 and 2000 and from the American Community Survey (ACS) for 2006-2007. The percentages are derived from responses to a question which asked people to indicate the most frequent means of transportation they used to get to work. Thus, the data does not include trips to non-work destinations. "All other modes" include carpooling, public transportation, walking, bicycling, other means, and worked at home. The margin of error in the 2007 ACS for the single occupant vehicle percentage is +/- 3.1%.

According to the Victoria Policy Institute, most travel statistics tend to exaggerate the importance of automobiles relative to other modes by counting only the primary mode used for peak-hour zone-to-zone trips (such as the data reported in the American Community Survey). Comprehensive travel surveys indicate greater levels of alternative modes. Also, increases in the share of travel by automobile mostly reflect increased mileage rather than large reductions in walking, cycling or transit travel.

In the 2001 Indicator report, data was provided by the Metropolitan Planning Organization for 1995 and 1998. The source of this data was the Mobility Report Card, comprised of a survey, traffic counts and other data collection methods. This data is not used in this report because the figures are not comparable to the Census figures (the Mobility Report Card tracked work and non-work trips and showed much higher percentages of non-single occupant vehicle modes). In addition, the Mobility Report Card has not been repeated since 1998 and therefore cannot be used to analyze long-term mode split trends.

ENVIRONMENT

Air Quality

Policy Rationale:

Policy ENV 1.2. City-wide Approach. The City's primary approach to improving air pollution is to reduce total city-wide emissions over the long term. The City's secondary approach is to assure that localized air pollution exposures conform to adopted health standards.

Principle ENV-3 By 2010 the City will reduce greenhouse gas emission 30% below predicted worst-case 2010 levels in order to reduce the impact of the Fort Collins community on global warming.

Trigger:

Does not apply.

Data:

Figure 32: Carbon Monoxide (2nd Max)

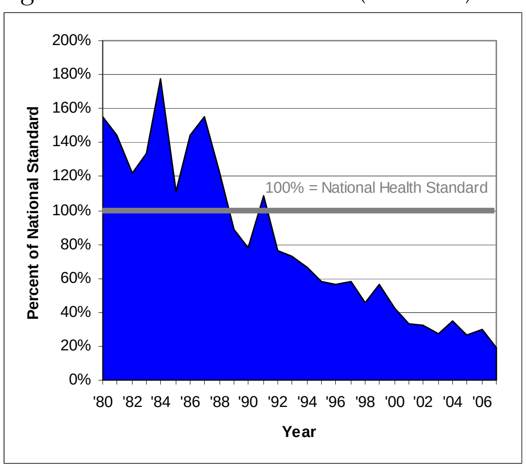


Figure 33: Fort Collins PM_{10} (24 Hour Max)

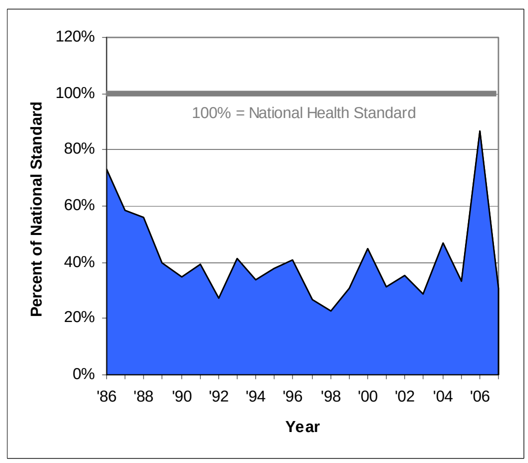


Figure 34: Ambient $PM_{2.5}$ (24 Hour Max)

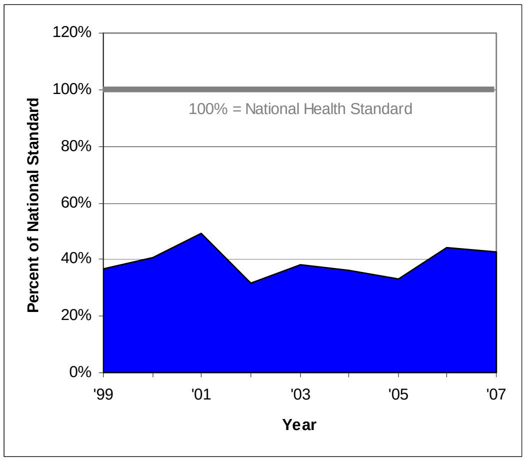


Figure 35: Fort Collins 8-Hour Ozone (4th max)

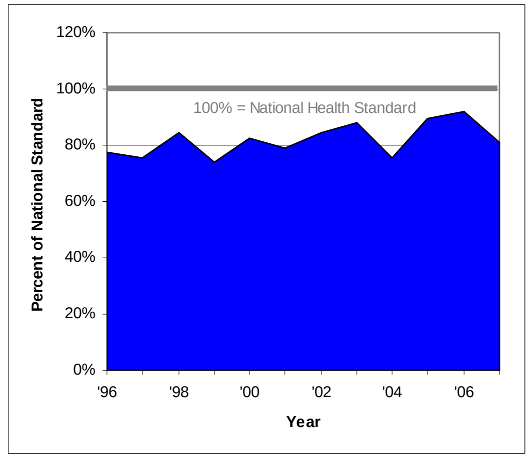


Figure 36: Fort Collins Visibility

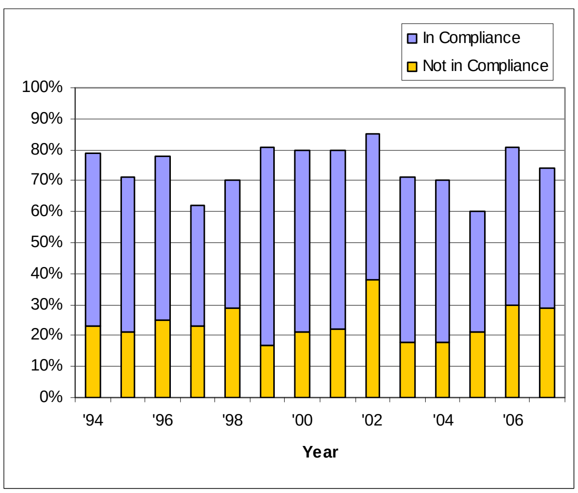
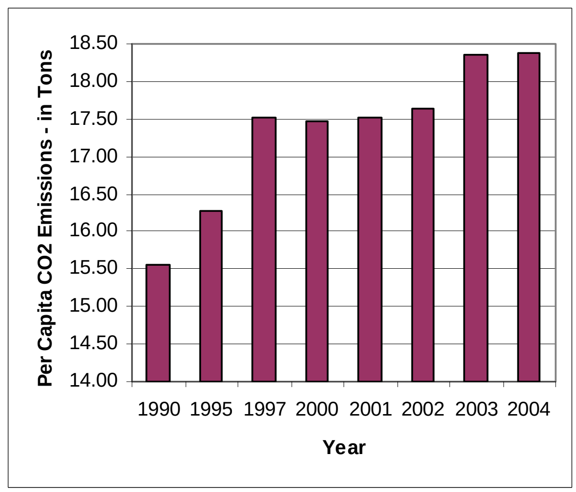


Figure 37: Per Capita Greenhouse Gas Emissions (CO_{2e})



Source of all figures in this section: City of Fort Collins Natural Resources Department
"2nd Max" or "4th Max" refers to the 2nd and 4th highest readings.
CO_{2e} is the standard measure for greenhouse gas emissions, expressing the global warming potential of various gases over 100 years in terms of carbon dioxide equivalents

Observations:

The information contained in the 1997-2007 Biennial Indicator Report is the same as provided in annual Air Quality Trends reports produced by the City of Fort Collins Natural Resources Department.

Emissions continue to decrease nation-wide, largely due to new car standards. Concentrations in Fort Collins are now well below the federal standard. Carbon monoxide is emitted mainly by motor vehicles.

Particulate matter concentrations in Fort Collins are below federal standards. Particles (PM_{10}) are mainly dust from roads, fields, and construction sites. Fine particles ($PM_{2.5}$) typically form when reactions occur between certain pollutants in the atmosphere. Fine particles are a major factor in poor visibility.

8-hour ozone concentrations in Fort Collins are below the federal standard for the downtown monitoring site. Front Range ozone levels exceed the national health standard at the new Fort Collins-West site. Ozone is formed when nitrogen oxides and hydrocarbons emitted mainly by motor vehicles and industry react in sunlight. Fort Collins is included in Colorado's ozone non-attainment (out of compliance) area defined by EPA.

Visibility is a measure of how the air looks. On average, Fort Collins violates Colorado's guideline visibility standard 21% of the time, nearly 1 in 4 days each year. On average, 51% of days were in compliance and 24% were not in compliance.

In the last decade, greenhouse gas emissions across the city rose from 15.5 tons of CO_{2e} per capita in 1990 to 18.45 tons of CO_{2e} per capita in 2004. During the same time, population increased by 53%.

Methodology:

The Colorado Department of Public Health and Environment maintains a permanent network of air pollution monitors, which is the source of the data presented here. Four pollutants are measured at monitoring sites in Fort Collins. In the preceding graphs, pollutant data are presented in comparison with the National Ambient Air Quality Standard for that pollutant. Values higher than 100% are worse than the standard while values lower than 100% are better than the standard. Data for visual air pollution are reported as the percentage of days that air quality was in compliance with the Colorado visibility standard.

Greenhouse gas emissions estimates are based on formulas that include the use of electricity, natural gas, vehicle miles traveled, and solid waste applied to coefficients that convert the production into emissions.

Open Lands Management

Policy Rationale:

Policy OL-1.1 Open Lands System. The City will have a system of publicly-owned open lands to protect the integrity of wildlife habitat and conservation sites, protect corridors between natural areas, preserve outstanding examples of Fort Collins' diverse natural heritage, and provide a broad range of opportunities for educational, interpretive, and recreational programs to meet community needs.

Policy OL-1.2 Urban Development. The City will conserve and integrate open lands into the developed landscape by directing development away from natural habitats and features and by using innovative planning, design, and management practices. When it is not possible to direct development away from natural habitats and features, they should be integrated into the developed landscape in a manner that conserves their integrity. If integration will not effectively conserve the integrity of the natural habitats and features, then either on-site or off-site mitigation will be applied. The City will encourage and assist efforts to private landowners and organizations to integrate open lands into new development and to protect, restore, or enhance privately owned natural areas within the Growth Management Area.

Trigger:

Does not apply.

Data:

Figure 38: Protection Status of Natural Habitats and Features within the GMA

Type of Protection	2001		2007	
Total Acres in Natural Habitats and Features	7,687	100.0%	8,429	100.0%
Protected Total	4,230	55.0%	5,914	70.2%
Protected under Natural Areas or Easements	3,380	44.0%	4,393	52.1%
Protected under a Park, Golf Course or Cemetery	332	4.3%	332	3.9%
Protected Non-Buildable Private Land	269	3.5%	269	3.2%
Other (incl. water bodies)	249	3.2%	920	10.9%
Not Protected	3,336	43.4%	2,325	27.6%
Lost	121	1.6%	190	2.3%

Observations:

A significant amount of area defined as natural habitats and features has been protected through public acquisition and other methods. Only a small percentage has been lost to development since the habitats and features were identified. Natural habitats will continue to be protected through purchase, the development review process, or other means.

Methodology:

Natural habitats and features were identified from the Natural Habitats and Features Inventory Map. The map is conceptual only and is based on visual identification using an aerial map. Specific locations of habitats may not be shown accurately on the map and the actual number of acres may vary considerable from those shown in Figure 39.

The number of acres increased between 2001 and 2007 due to the expansion of the GMA around Fossil Creek Reservoir. The figure includes the reservoir itself.

APPENDICES

Appendix A: Relevant City Plan Goals and Policies

Growth Management Goal:

Regular monitoring and evaluation of actual experience and trends in meeting the goals of the Plan will lead to both *City Plan* amendments and improved ability to project future conditions.

Ongoing monitoring and evaluation will be done as part of the *City Plan* implementation effort. A data collection and processing system will be developed to enable decision makers and the public to assess the City's progress towards achieving the goals of *City Plan*, provide justification for amending the Plan, and to assess the need for changes in implementation measures.

PRINCIPLE GM-10: The City will develop various indicators as a means of evaluating the performance of *City Plan*, and will monitor these on a regular basis to identify situations where the rate or pattern of growth is potentially inconsistent with the intent of *City Plan*.

Policy GM-10.1 Growth Trends and Performance Indicators. The City will develop and monitor various performance indicators on a regular basis over an extended period of time as a means of evaluating the performance of *City Plan*. These indicators will be monitored after the adoption of *City Plan* in order to determine if the City's growth and development is consistent with the intent of *City Plan*. If conditions are inconsistent with *City Plan*, a special review may be initiated in accordance with Policy GM-10.3 below.

Policy GM-10.2 Indicators Listed. Performance indicators may include population, employment, price of raw land, price of housing, land absorption and vacancy rates, densities, distribution of growth, air quality, water quality, conversion of vacant and underutilized land, redevelopment activity, mixed-use activity, infill, mode split, vehicle miles traveled (VMT), rate of growth of vehicle miles traveled, development of critical lands, and wildlife populations.

Policy GM-10.3 Special Review Process. If the indicators demonstrate a trend which is inconsistent with *City Plan*, the City will initiate a review process to determine if said condition needs to be addressed with changes in City policy, regulations or programs. If a determination is made that action is needed to address the situation, then the City may develop and implement appropriate measures.

Policy GM-10.4 Biennial Report. A biennial report shall be produced to provide a mechanism for monitoring and evaluating the impacts of *City Plan* and to assess whether specific policies and strategies are leading to the intended results. Recommendations for improving the Plan's success, based on these reports, may lead to amendments to the Plan.

Appendix B: Notes on Indicator Selection and Data

How the Indicators Were Chosen

The monitoring system began with City staff analyzing the eighteen indicators listed in *City Plan*. In 1998, Advance Planning staff met regularly with the Council Growth Management Committee and other department staff to refine the list. In addition, input was obtained from City Boards and Commissions, including the Planning and Zoning Board, Natural Resources Advisory Board, Transportation Board, Air Quality Action Plan Board and Affordable Housing Board. A set of criteria was applied to the initial list and other suggestions, which refined the list down to sixteen indicators. The criteria were:

- The indicator is related to one or more goals, principles or policies of *City Plan*.
- The indicator describes meaningful information that can be used to evaluate progress towards achieving one or more *City Plan* goals, principles or policies.
- The indicator can be easily understood by decision makers and the public.
- The data for the indicators are already collected on a regular basis.
- There are a reasonable number of indicators.

It was not possible to prescribe indicators for all *City Plan* goals, principles and policies. Instead, the refined indicators focus on land use changes or closely related goals. Some of the indicators are selections from other city or regional documents. For instance, the Air Quality indicators are taken directly from the City's Air Quality Action Plan.

While the indicators are intended to monitor progress towards achieving *City Plan* goals, they are not intended to judge the success or failure of *City Plan*. The monitoring system was created to provide a way to respond to unanticipated effects or changes in the community. In addition, the monitoring system was not created as the only tool in evaluating *City Plan* goals. Other procedures or processes may be needed in addition to this system, such as quantitative metrics or a quality of life survey.

City Plan does not specify numerical outcomes for most of these indicators. Although there are estimates of population and employment in *City Plan*, these numbers do not represent targets. Likewise, the numbers used as trigger metrics do not represent targets but are tools to aid in evaluation of trends. They serve as red flags to assist decision makers in identifying and responding to potential problems in the future.

Some of the changes measured by these indicators result from complex factors beyond the direct control of the City. Private decisions may be mostly or partly responsible for changes. However, knowing the direction of such changes can lead to a greater understanding of *City Plan*'s effects, because the Plan was based on these changes – such as the amount of population and employment growth that would occur.

The base year generally used in this report to compare changes over time varies by indicator. In general, staff has sought to provide a base year around 1997, the adoption year of *City Plan*, but in many cases this year is dependent on the source of data. For instance, the Census Bureau's American Community Survey (ACS) was not initiated for Fort Collins until 2006. Continued publication of trends identified in this report depends upon regular collection of reliable data. Another City document, titled "Trends", reports more extensively on certain basic statistics such as population, housing, employment, and business.

Appendix C: Commonly Used Abbreviations

AMI: Area Median Income
ACS: American Community Survey
GMA: Growth Management Area
HH: Household
HUD: U.S. Department of Housing and Urban Development
LDGS: Land Development Guidance System
LMN: Low-Density Mixed-Use Neighborhoods
LUC: Land Use Code
MF: Multifamily Dwelling Unit
MMN: Medium-Density Mixed-Use Neighborhoods
NA: Not applicable or not available
ODP: Overall Development Plan
PDP: Project Development Plan
PUD: Planned Unit Development
SF: Single family Dwelling Unit
SOV: Single Occupant Vehicle
VMT: Vehicle Miles Traveled