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MEMORANDUM

To: Lesli Ellis and Ben Herman, Clarion Associates
From: BBC Research & Consulting
Re: Commerce City Comprehensive Plan, Baseline Fiscal Conditions
Date: July 15, 2009

This memorandum, prepared by BBC Research & Consulting (BBC), provides an overview of city budgetary systems, capital and special funds, as well as cost and revenue trends. General comments are offered on the nature of these funds and how their respective revenue sources and cost structures react to growth and urbanization. In addition, this memo discusses treatment of capital expenditures and the process by which local sales and use taxes are derived and allocated to various land uses.

Following the fiscal overview, the memo presents a fiscal evaluation of three land use alternatives for the Northern Range¹ as part of the Commerce City Comprehensive Planning process. This document presents the three alternatives in terms of residential, commercial and industrial land uses and provides a comparative fiscal evaluation of each alternative.

This analysis is prepared as part of the comprehensive plan update process. A comprehensive plan provides the framework and policy direction for future land use decisions. In Colorado, different land uses have different revenue generation characteristics, city service demands and capital infrastructure requirements. This document highlights the relationship between land use and government finances specific to Commerce City and serves as one of many inputs to the comprehensive planning process.

Commerce City Financial Structure

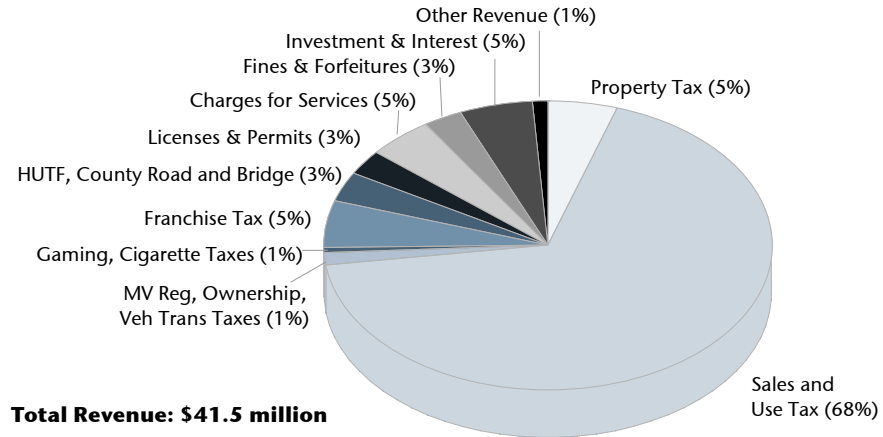
Commerce City administers most municipal services, including municipal administration, police, public works and parks and recreation, through its general fund. Water, sewer and firefighting services are provided by separate districts, which are not under city control. Sales tax collections are the major source of revenue support for general fund operations. In addition to the general fund, Commerce City maintains several capital, debt service, special revenue, and enterprise funds. These funds are used for capital projects, special governmental purposes and debt maintenance.

General fund. The city provides a full range of services including police, public works (highways, streets and snow removal), general recreation (parks, swimming pools and recreation programs), community development, and general administrative services. These services are maintained through the city's general fund. Total general fund revenue in the fiscal year 2009 budget is \$41.5 million. The city's general fund is largely supported by sales and use tax as shown in Exhibit 1.

¹ The Northern Range includes the region of Commerce City north and east of the Arsenal National Wildlife Refuge. It is roughly bounded by Havana Street to the west, 96th Avenue and 80th Avenue to the south, Picadilly Road to the east and 120th Avenue to the north.

**Exhibit 1.
City of Commerce City
Sources of General Fund
Revenue, 2009 Budget**

Source:
City of Commerce City.

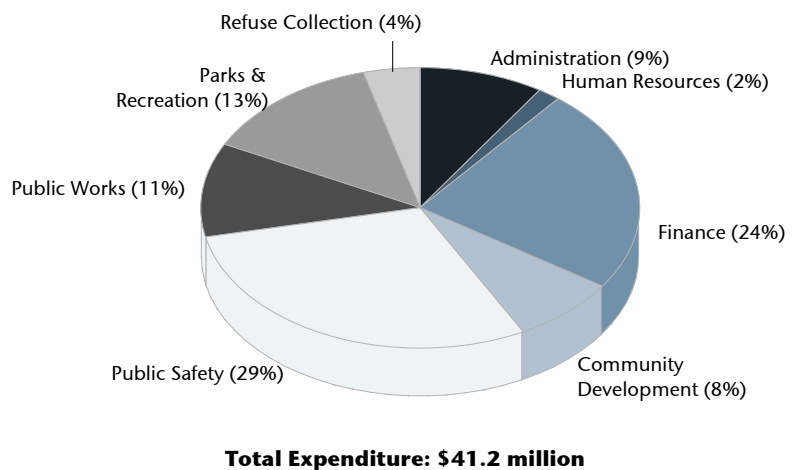


Commerce City also raises a modest amount of revenue through its 3.28-mill property tax levy, although it is far less reliant on property tax than sales tax. Other major sources of revenue include licenses, permits, fees, fines and charges for services. The city also receives revenue not tied to local land uses such as interest on investments, cigarette taxes and highway users’ tax. These funds are subject to state policies or external economic conditions. The city’s reliance on sales tax is common among municipalities in Colorado; however, Commerce City is unusual in that it derives a large share of sales tax revenue from sales of industrial goods. Sources of sales tax revenue are discussed later in this memorandum.

On the expenditure side, the city spends roughly 30 percent of its annual operating revenue on police functions, which is near the average for cities roughly the size of Commerce City. According to the latest *Municipal Financial Compendium* published by the Colorado Department of Local Affairs (DOLA), an average of 28 percent of general funds is spent on police services in cities between 5,000 and 20,000 households. Exhibit 2 shows budgeted general fund expenditure for fiscal year 2009.

**Exhibit 2.
City of Commerce City
General Fund Expenditure, 2009 Budget**

Source:
City of Commerce City.



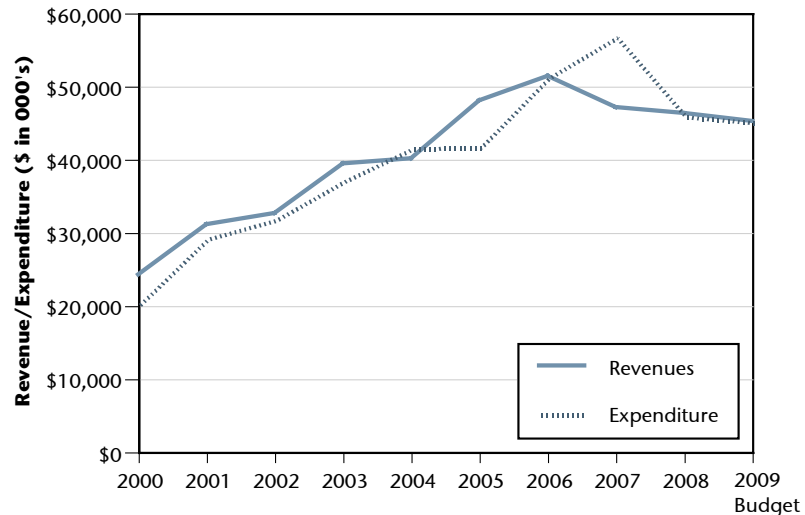
Other significant elements of general fund spending include finance, community development, public works, parks and recreation and administration. General fund expenditures are budgeted at \$41.2 million for fiscal year 2009. Most city expenditures go towards employee salaries, benefits, supplies, and materials for providing city services. The relatively large amount of expenditures allocated to the finance department includes expenditures for “internal services,” which include general city employee benefits, insurance and other related expenses. Despite the large resource apportionment to finance, police, parks and road maintenance are the

city’s most expensive direct services. According to the DOLA Municipal Financial Compendium, Commerce City’s percent of expenditure allocated to parks and public works are slightly below average in cities between 5,000 and 20,000 households. Parks and recreation expenditures averaged 19 percent of general fund expenditure and public works expenditure averaged 15 percent.

The following exhibit shows Commerce City’s general fund revenue and expenditure over the last 10 years. It is important to note that the exhibit shows annual revenue generated and service expenditure. It does not show the actual fund balance, as each year a certain portion of revenue is held in reserve.

**Exhibit 3.
Commerce City General
Fund Revenue and
Expenditure, 2000 to 2009**

Source:
City of Commerce City.



Commerce City’s general fund revenue has grown at an average annual rate of 8.6 percent between 2000 and 2009. General fund expenditure has a similar growth path, as generally cities spend what revenue they take in on service expenditures or transfer the revenue out to other funds to support capital projects. In 2007, general fund expenditure exceeded general fund revenue by nearly \$8 million. A general fund reserve balance drawdown was used in that year to finance the \$8 million funding gap.

Capital project funds. Commerce City uses its capital funds to finance the acquisition and construction of major city facilities, roads and parks.² The city has nine capital funds. The largest capital fund is the capital improvement and preservation plan (CIPP) fund, which was formed in 2009 by merging the parks and recreation capital fund with the capital expenditures fund. The CIPP fund accrues revenue from transfers from Adams County and other municipal accounts for targeted capital projects. The CIPP fund includes most city capital improvement expenditures. In 2009, the capital fund is budgeted to accrue about \$2.2 million in revenue and to spend about \$5.5 million on various capital projects and transfers, including a \$2.1 million transfer to the water rights acquisition fund, a \$1.4 million transfer to the general fund, and a \$2.0 million expenditure on various directly funded capital projects. The beginning balance of the CIPP fund in 2009 is approximately \$18.4 million and the budgeted expenditure in 2009 represents a balance drawdown of \$3.3 million.

² City facilities includes roads, parks, trails, heavy equipment and buildings. Commerce City does not own or maintain its water, sewer or fire infrastructure.

Other capital funds include: several storm drainage funds; the city's impact fee fund, which accrues revenue for parks, transportation, drainage and the voluntary road landscape impact fees³; and the future growth fund, which accrues 2 cents of the city's 3.5-cent use tax for the construction of municipal infrastructure in the Northern Range. In 2005, Commerce City Council diverted future growth fund revenue for debt service payments for city hall and other capital purchases. The city also has a water rights acquisition fund for the purchase of water for parks to serve future growth.

Other funds. These functions and revenues are kept separate from general government expenditure. Their purposes include:

- **Special Purpose Funds** — Special purpose funds are used to account for the proceeds of revenue sources that are restricted for expenditure for specified purposes. These funds include special revenue, debt service and pension funds. Commerce City has several special purpose funds that include: the conservation trust fund, chemical roundup fund, police donation fund, police pension fund, urban renewal authority fund, housing authority fund, elected officials retirement fund, and sales tax bond issues fund.
- **Internal Service Funds** — Internal service funds are used to account for services provided to one department by another on a cost reimbursement basis. Commerce City has three internal service funds: the information technology fund, facility services fund and fleet management fund.
- **Enterprise Funds** — Enterprise funds are established to account for services operated in a manner similar to a private business enterprise. The intent is that the full costs of providing services be financed primarily through charges and fees. The golf course fund is Commerce City's sole enterprise fund.

The budgeted revenue for all government and enterprise funds in 2009 is \$47.4 million. The general fund accounts for 87 percent of all city revenue.

Land Use and Public Service Costs

As part of the comprehensive plan process, BBC addressed the following questions:

- What happens to government costs when Commerce City grows? Why?
- Can long term government operations costs be influenced by good land use planning?
- Are there any economies of scale in government service provision?

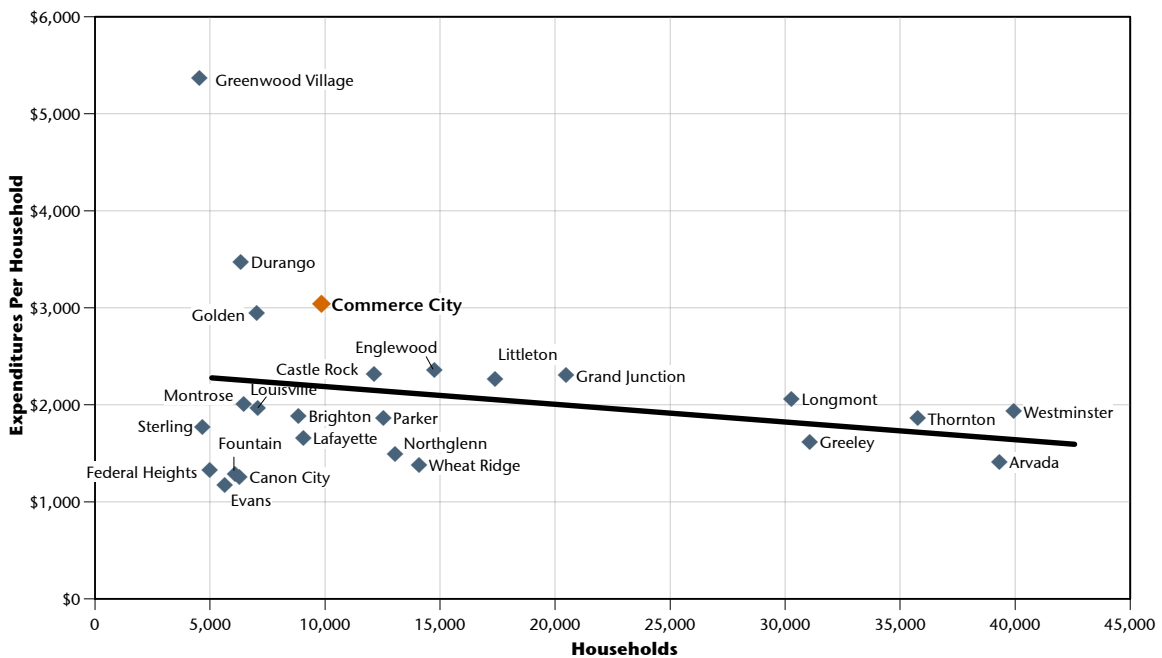
In order to address these issues, BBC interviewed Commerce City service providers, reviewed budgetary trends and analyzed per household government service costs of similar Colorado municipalities. The latter investigation was aimed at uncovering any demonstrable economies of scale for municipalities as they grow in size. Data were obtained from the DOLA's *Municipal Financial Compendium*. After removing much larger communities, resort communities and certain statistical outliers, the sample contained about 80 municipalities with data from fiscal year 2004.

³ Road impact fees are not imposed for areas of the city south of 80th avenue. Up until March 2009 there were 2 parks impact fee schedules, where the core city had a lower rate than the Northern Range. In some cases the city has collected a landscape impact fee for future landscape installation along arterial roadways. This is a voluntary impact fee and not an ordinance requirement. (Commerce City 2009-2010 Biennial Budget).

The following exhibit shows data arrays for municipal general fund expenditures. Each dot on the array in Exhibit 4 represents a Colorado city, the horizontal axis shows city size in households and the vertical axis shows per household general fund expenditure. The trend line shows the general relationship between the selected municipal cost and city size.

Commerce City is shown to slightly above average general fund expenditure on a per household basis, although this is likely due to the presence of a larger than average concentration of commercial and industrial land uses, which are not accounted for in the exhibit on the following page.

**Exhibit 4.
Operating Expenditures per Household**



Source: State of Colorado, Department of Local Affairs; BBC Research & Consulting, 2008. Data are for 2004.

As noted in Exhibit 4, within the size ranges tested, there is a very wide spread of costs per household, which suggests that there are other variables that influence city service costs in addition to the number of households. However, the trend line does show an apparent cost relationship between overall community size (number of households) and per unit service delivery costs. Interviews with city service providers confirmed this evidence anecdotally. The evidence indicates the presence of fixed costs in government service provision. This fixed cost is borne over more households as the city grows, creating economies of scale.

In sum, the evidence from other Colorado communities suggests that Commerce City has experienced, and will likely experience economies of scale as it grows in number of households. In practice, other factors will affect service costs. These factors include a variety of demographic and related influences, such as household age, income levels and overall city geographic size.

Land Use and Capital Costs

The data presented in prior Exhibit 4 relate to government operational costs only. The same data source provides some comparative information on per household capital investment standards. A comparison of Commerce City per household capital expenditures with similar data from all other communities in Colorado (Exhibit 5) suggests that Commerce City is above average in municipal capital investment.

**Exhibit 5.
Annual Average Per Household
Expenditure for Capital Investment**

Source: Colorado Department of Local Affairs/BBC
Data are from 2004

\$ Value per Household	
All Colorado Municipalities:	
Average	\$723/unit
Commerce City	\$1,781/unit

Per unit capital costs are very closely tied to development form and location of growth, and capital investment efficiency should be a foundational concept for long term planning. Annual capital investment can vary broadly and thus statistical comparisons among communities are not always revealing. In any given year, communities may have very low or high costs, but capital investment and capital maintenance are, over time, a large share of a community’s budget. Significant savings can be achieved if infrastructure investment efficiency is pursued. This typically means incremental phasing of infrastructure expansion so that capital investment is not way ahead of demand, and management of development location to ensure transportation network efficiency and maximization of the number of users that can be served by the infrastructure system.

Capital costs that are sensitive to the location and the capital efficiency of new development include the cost of new streets, drainage systems and city facilities. Efficient development patterns will slow the need for roadway expansion, satellite police stations, libraries and other municipal facilities.

Capital efficiency is particularly challenging in Commerce City, where the physical layout of the city and the adjacent Rocky Mountain Arsenal National Wildlife Refuge create two distinct city regions. In interviews, city service providers, particularly police and public works, identified current inefficiencies in providing services to the Northern Range from facilities located in the core city. They noted an eventual need for additional substations or maintenance facilities in the Northern Range in order to maintain service levels. The need for additional facilities is exacerbated in Commerce City by the long distance between the eastern end of the Northern Range and the core city, and the absence of a direct road connection due to the National Wildlife Refuge. The higher than average capital cost shown in prior Exhibit 5 is likely a manifestation of the difficult physical conditions that exist in the city.

Capital expansion costs, particularly street and highway expenses, are often among a community’s largest expenses and, when recovered through impact fees or developer exactions, are a significant contributor to the cost of new housing. The relationship between public sector capital costs and growth is complex:

- Capital expenditures are often designed to increase facility size in anticipation of growth, but virtually all expenditures have some components that are unrelated to growth, these include:
 - **Repair and replacement of existing facilities** (often spurred by long standing deferral of facility repair needs);
 - **Improvement of infrastructure standards**, such as the installation of a multi-purpose trail network that never used to exist, or incorporation of advanced technology into new buildings.

Other points worth noting are:

- In physical terms, capital needs can arise at considerable distances from new growth, and the linkage is often unclear. For example, costly drainage improvements in an old neighborhood may be the result of new development many miles away, or conversely, simply a remedy of long standing, inadequate drainage systems in the older community—or both.
- A large share of capital costs are successfully recovered from new growth through impact fees, exactions or development negotiations. For instance, Commerce City has impact fees intended to recover the arterial street, parks and drainage expansion costs associated with new development, but fee levels are admittedly below the full cost recovery amount.
- Capital budgeting is further complicated by the inherently “lumpy” character of capital investment expenditures, which implies that any one year capital budget may not be reflective of typical local needs. In some cases capital expenditure may occur when the city is able to finance the infrastructure, which may happen independent of the time of local need. There are not reliable standards for capital expenses that can be applied to smooth out annual cost data.

Ultimately, planning for and expanding capital infrastructure in Commerce City is challenging when compared with other municipalities. The physical layout of the city will eventually cause the inevitable replication of existing city facilities in new growth areas. Tightening cost recovery methods (e.g., raising impact fees or establishing improvement districts) is a means of ensuring funds for capital expansion, but there are consequences to raising fees.

Commerce City currently charges \$1,181 per single family unit for road impact fees and \$900 per single family unit for parks impact fees. This compares with average road (\$2,052) and parks (\$2,634) impact fees obtained from an informal internet survey of Colorado municipalities.⁴ Commerce City and other municipalities impose impact fees for most forms of development. The single family residential fees are used for comparative purposes.

The city has instituted a practice of dedicating 2 cents of its 3.5-cent use tax to infrastructure in growth areas, which is prudent, although recently these funds have been rededicated to support debt service of a bond issue that financed the construction of new city facilities. Regardless of its current dedication, using use tax to finance capital infrastructure rather than city operations is a responsible financial practice.

Land Use and Sales and Use Tax Revenue

Sales tax receipts dominate all other governmental revenue sources, typically providing 55 to 70 percent of annual city financial resources. As a result, it is important for the comprehensive plan to acknowledge the importance of sales tax revenue and its relationship with land use in the city.

Rates. Commerce City’s 3.5 percent sales tax is similar to most municipal sales tax rates in the state.

**Exhibit 6.
Sales and Use
Tax Rates
Commerce
City, 2009**

Source:
BBC Research &
Consulting.

Taxing Jurisdiction	Tax Rate
State of Colorado	2.90%
Commerce City	3.50%
Adams County	0.75%
RTD	1.00%
Cultural Council	0.10%
Stadium District	0.10%
Total	8.35%

⁴ Cities include: Boulder, Basalt (roads only), Colorado Springs (parks only), Durango, Loveland, Fort Collins, Windsor and Greeley.

Most municipalities have sales tax rates between 3 percent and 4 percent.

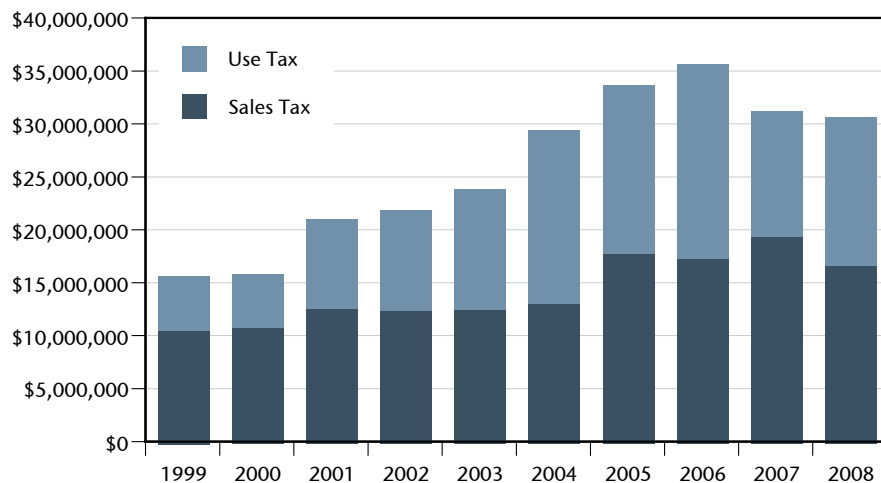
Tax incidence. In Colorado, there is substantial variation between communities in what items are legally subject to sales and use tax charges. In this instance:

- The state’s 2.9 percent retail sales tax is applied uniformly throughout the state and is levied on retail trade goods, prescription drugs, utilities at home, automobile purchases and sale of unprepared food (groceries);
- Commerce City’s sales tax does not apply to groceries, prescription drugs, medical devices, heavy construction equipment or machinery or products sold wholesale;
- City sales tax does apply to short term lodging, cable television and gas, electric and telephone utilities; and
- Use tax is charged on building materials and commercial and industrial equipment on a one-time basis at the time of first use within the city.

Commerce City’s sales and use tax growth has been remarkably strong in recent years, averaging about 10.0 percent annual growth over the last decade, peaking in 2006 at \$35.6 million. Exhibit 7 on the following page shows Commerce City’s sales and use tax revenue from 1999 to 2008.

**Exhibit 7.
Commerce City Sales
and Use Tax, 1999 to
2008**

Source:
City of Commerce City.



The growth trend has reversed in each of the last two years; the city reported \$31.2 million and \$30.6 million in sales and use tax revenue in 2007 and 2008, respectively. Most of the revenue losses in the past few years are in construction use tax, which has been in steady decline since 2004.

Of the city’s \$30.6 million in sales and use tax collections in 2008, approximately \$13.8 million or 45 percent is use tax revenue and \$16.9 million or 55 percent is sales tax revenue. This distribution between sales and use tax is very unusual among metro area communities. Typically, municipal sales tax revenue is far greater than use tax revenue. Commerce City’s near even distribution of sales and use tax revenue is an indication of the importance of industrial and non-retail commercial land uses in the city’s financial position. The following section describes sales and use tax origin by land use.

Sales tax origins by land use. Commerce City provided data on sales and use tax revenue attributed to industry sectors. The sector allocations followed the 2007 North American Industry Classification System (NAICS). BBC made some reasoned attributions of the NAICS categories to different land use categories, including residential, commercial and industrial. The exhibit below shows the land use allocation process.

**Exhibit 8.
Land Use Classifications
by NAICS 2007**

Source:
BBC Research & Consulting.

NAICS Code	Sector Description	Land Use Classification
21	Mining	Industrial
23	Construction	Industrial
31-33	Manufacturing	Industrial
42	Wholesale Trade	Commercial
44-45	Retail Trade	Res/Comm
48-49	Transport & Warehousing	Industrial
51	Information	Commercial
52	Finance & Insurance	Commercial
53	Real Estate, Rental and Leasing	Industrial
54	Professional, Scientific, Technical Services	Commercial
55	Mgmt of Companies & Enterprises	Commercial
56	Admin, Support & Waste Mgmt	Industrial
61	Educational Svcs	Res/Comm
62	Healthcare and Social Assistance	Res/Comm
71	Arts, Entertainment, Recreation	Res/Comm
72	Accommodation and Food Svcs	Res/Comm
81	Other Services	Res/Comm

The allocation of sectors to residential land uses reflect household retail demand. Residences in Commerce City are most likely to patronize establishments in retail, real estate, educational, healthcare, entertainment, accommodation and food service and other service sectors. Allocation to commercial and industrial sectors reflects affiliated land uses. These sectors generally provide their goods and services to other businesses in an area wider than Commerce City and are likely net importers of sales tax revenue.

Sales and use tax revenue is allocated according to the categories in Exhibit 8, with an additional step, the calculation of resident supported sales and use tax.

Household sales. Exhibit 9 demonstrates the derivation of per household retail sales estimates, which are based on household income, the allocation of income to retail sales and the percent of household retail purchases captured by Commerce City. The US Census American Community Survey reports that median household income in Commerce City is about \$51,000. BBC used the US Bureau of Labor Statistics Consumer Expenditure Survey to estimate that roughly 30 percent of that household income (about \$15,300) is spent on taxable retail sales (groceries excluded)⁵. Additionally, BBC estimated that 70 percent of household taxable retail sales are spent locally in Commerce City.⁶

⁵ Taxable retail sales includes all goods purchased through retailers in Commerce City with the exception of food purchased for home consumption. Retail goods include all “taxable transactions, commodities and services” described in Section 20-4 of the Commerce City Sales and Use Tax Code and Regulations.

⁶ BBC used a 70 percent capture rate as a rule of thumb we have observed in other communities with mature retail offerings. It is an estimate. Commerce City’s capture is likely lower considering the limited number and variety of retail establishments in the city. The city’s retail capture will approach 70 percent as more retail develops in the Northern Range and elsewhere.

As shown in the following exhibit, total household retail trade sales average about \$10,700 per household. DOLA estimated about 12,200 households in 2007.⁷

**Exhibit 9.
Retail Sales Tax Generation by
Households Located Within
Commerce City**

Note: Figures may not calculate exactly due to rounding.

Source:
US Census; US Bureau of Labor Statistics; BBC Research & Consulting

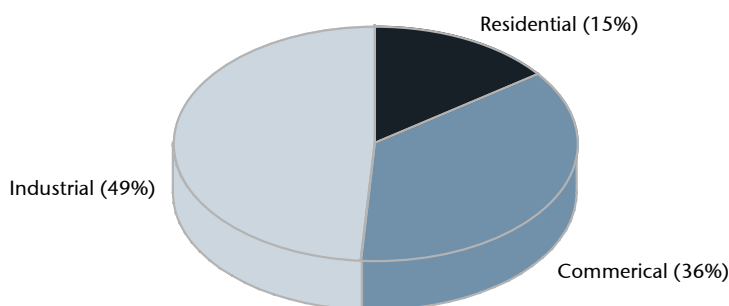
Category	Value
Average Household Income	\$ 51,043
All Retail Trade Sales (30% of Income)	\$ 15,313
Commerce City Capture (70% of sales)	\$ 10,719
Commerce City Households (2007)	12,217
Total Household Retail Trade Sales	\$ 130,954,390
Commerce City Sales Tax Rate	3.5%
Residentially Produced Sales Tax Revenue	\$ 4,583,404

Total household retail trade sales (\$131.0 million) are derived by multiplying Commerce City’s capture of per household retail sales (\$10,717) by the number of households in Commerce City (12,217). Commerce City’s 3.5 percent sales tax rate is then applied to total retail trade sales to calculate the amount of sales tax supported by residential land uses, about \$4.6 million.

Sales and use tax by land use. After residentially supported sales tax is calculated, the amount is netted out of the residential/commercial sectors presented in Exhibit 8. The remainder of revenue in residential/commercial sectors is allocated to commercial land uses, as these businesses are likely selling their goods and services to other businesses and patrons from outside the area. Industrial sales and use tax is apportioned as presented in Exhibit 8. The results of this process are shown in Exhibit 10.

**Exhibit 10.
Sales and Use Tax Generation
by Land Use, Commerce City,
2008**

Source:
BBC Research & Consulting.



Sales Tax Total: \$30,655,278

By these estimates, residential land uses in Commerce City account for just 15 percent of sales and use tax production, mainly through the production of retail sales tax. This figure is low compared to other Denver Metro Area communities, although not surprising given the concentration of industrial and commercial establishments and the relative lack of consumer-oriented retailers in Commerce City. The remainder of sales and use tax revenue is produced by commercial and industrial land uses, demonstrating the importance of these land uses to the community’s fiscal position.

⁷ A “household” for the purposes of this study is defined as an average 3.1 persons. Data obtained from DOLA.

Northern Range Land Use Alternatives Fiscal Analysis

The following presents a fiscal evaluation of three land use alternatives for the Northern Range as part of the Commerce City Comprehensive Plan process. This document presents the three land use scenarios in terms of residential, commercial and industrial land uses and provides a comparative fiscal evaluation of the alternatives.

This document highlights the general relationship between potential land uses and government finances specific to the Northern Range alternatives and serves as one of many inputs to the comprehensive planning process. The evaluation of the alternatives is only from a fiscal perspective. There are other important issues that the community must weigh when selecting an appropriate mix of future land uses including transportation impacts, contiguous land use compatibility, job creation potential, desired community character and others.

Land Use Alternatives—Northern Range

The alternatives shown in Exhibit 1 were developed by Clarion Associates (Clarion) and Felsburg, Holt & Ullevig (FHU). The residential unit and commercial and industrial square footage figures are developed using residential densities, coverage ratios and floor-area ratios defined by Clarion and FHU for the Comprehensive Plan and the transportation evaluation for the Northern Range (including the E-470 Influence Area). Commercial and industrial space represent the expected built square footage of each land use. The scenarios project land uses when the area is built out, which is estimated to be 2035.

Exhibit 11. Northern Range Land Use Scenarios

Source:
Denver Regional Council of Governments;
Clarion Associates; Felsburg, Holt and Ullevig.

Land Use	Alternative		
	A	B	C
Residential (Units)	21,913	29,891	37,298
Commercial (Sq Ft)	16,140,400	15,278,200	9,529,000
Industrial (Sq Ft)	18,707,000	9,934,000	4,595,000

Alternative A emphasizes commercial and industrial development, specifically office, light and heavy industrial and retail development. It contains the least residential development of the three options. Alternative B is moderate in residential, commercial and industrial development when compared to the other alternatives. Alternative C has more residential development and less commercial and industrial development than the other alternatives.

Comparative Fiscal Evaluation

The above scenarios were evaluated by estimating impacts on key municipal revenue sources and service expenditures obtained from Commerce City's 2009-2010 Biennial Budget. Information on the general relationship between land use and government finances was obtained from the baseline fiscal conditions analysis presented previously in this memorandum.

Additional information on service expenditure and land use was obtained through a series of interviews with Commerce City staff, including the finance director, police chief, director of public works and director of parks and recreation. These interviews occurred between December 2008 and April 2009. The comparative fiscal evaluation focuses on operational costs and revenue under the city general fund. It does not consider

capital costs. For a discussion on land use and capital expenditure, please refer to BBC's Baseline Fiscal Conditions analysis. The following describes the methodology used to perform the comparative analysis of the Northern Range land use alternatives.

Methodology. The primary objective of this analysis is to inform city officials, as well as the general public, about the financial consequences of land development. In order to examine multiple scenarios of development, BBC devised a fiscal model that accommodates assumptions about varying development scenarios, as well assumptions about:

- Fixed and variable service delivery costs;
- Fixed and variable city revenues; and
- The differing service requirements of residential, commercial and industrial land uses.

The model is calibrated to replicate revenue patterns and expenditure requirements documented in the city's 2009 budget.

In order to calculate marginal costs, i.e. those costs that rise inline with growth as opposed to fixed costs, which are largely unaffected by changes in community size, BBC followed a two-step research approach.

- **Budget analysis.** First, BBC conducted an in-depth analysis of the city's budget to identify costs and revenues that would change as the city grows. BBC reviewed expenditure data in each department's budget and developed estimates of the likely marginal costs and revenues.
- **Departmental interviews.** To augment the budget analysis, BBC conducted interviews with representatives from select general fund departments, including planning, public works, finance, police and parks and recreation. These interviews explored which departmental costs and revenues would change with new development, and how different types of development, or density of development, would influence departmental costs and revenues.

After completion of these two steps, BBC prepared a fiscal model to test future land use scenarios in the Northern Range. The calculations in the BBC fiscal model are based on assumptions about the size and type of projected development to be analyzed by the model (see Exhibit 11); and assumptions about the service delivery patterns of city departments, including identifying the expenditures that are variable in regards to growth and the types of development that cause increases in service delivery expenditures.

City expenditure assumptions. Fiscal impacts of proposed development are calculated by developing per unit and per square foot revenue and expenditure values and applying these estimates to a projected land use scenario. It is important to note that default estimated expenditure values are based upon the current cost of services, and do not account for any current "deficits" or the need to "catch up" in certain areas.

Three steps were involved in calculating general fund expenditure values (expanded proportionately with new growth) in Commerce City.

Step 1. Estimating Fixed and Variable Expenditures. For every general fund department, budgeted 2009 expenditures were split between fixed and variable costs based on interviews with department staff and past BBC and city staff experience. BBC staff interviewed representatives of general fund departments to estimate the proportion of costs in each of their budgets that were largely variable costs, and the proportion that were largely fixed costs. In addition to interview responses, BBC and city staff depended on past experience in estimating fixed and variable expenditures.

Step 2. Estimating Residential/Commercial/Industrial Expenditures. A second step involved splitting the total variable costs for each department into four groups: those most sensitive to residential growth in the city, those most sensitive to commercial growth in the city and those sensitive to industrial growth. As with Step 1, these estimates were obtained through interviews with department staff, an analysis of the budget and BBC experience.

Step 3. Per Unit/Square Foot Allocation. After allocating variable residential, commercial and industrial expenditures for each department, these values were divided by the number of current residential units and non-residential square feet in the city. These calculations generated current marginal costs for each land use type in each city department.

Steps 1 through 3 are illustrated in Exhibit 12 on the following pages for the city's general fund. To complete the fiscal analysis, these per unit and per square foot costs are multiplied by the previously described land use scenarios to generate the annual general fund service cost of projected development. The projected service costs are then evaluated against projected revenue to calculate a net fiscal impact.

**Exhibit 12.
General Fund Expenditure Allocations**

	2009 Budget	Percent Fixed	Percent Variable	Fixed Expenditure	Variable Expenditure	Percent Residential	Percent Comm/Retail	Percent Ind	Residential Variable	Comm/Retail Variable	Comm/Ind Variable
Administration											
Legislative	\$ 449,451	20%	80%	\$ 89,890	\$ 359,561	70%	20%	10%	\$ 251,693	\$ 71,912	\$ 35,956
Legal	805,274	20%	80%	161,055	644,219	70%	20%	10%	450,953	128,844	64,422
City Manager	905,841	20%	80%	181,168	724,673	70%	20%	10%	507,271	144,935	72,467
City Clerk	283,202	20%	80%	56,640	226,562	70%	20%	10%	158,593	45,312	22,656
Community Events	175,267	20%	80%	35,053	140,214	70%	20%	10%	98,150	28,043	14,021
Economic Development	450,318	20%	80%	90,064	360,254	70%	20%	10%	252,178	72,051	36,025
Marketing and Public Relations	654,155	20%	80%	130,831	523,324	70%	20%	10%	366,327	104,665	52,332
Human Resources	638,927	20%	80%	127,785	511,142	70%	20%	10%	357,799	102,228	51,114
Organizational Development	50,000	20%	80%	10,000	40,000	70%	20%	10%	28,000	8,000	4,000
Administration Total	\$ 4,412,435			\$ 882,487	\$ 3,529,948				\$ 2,470,964	\$ 705,990	\$ 352,995
Finance											
Financial Planning & Budgeting	\$ 354,955	20%	80%	\$ 70,991	\$ 283,964	70%	20%	10%	\$ 198,775	\$ 56,793	\$ 28,396
Financial Services	872,528	20%	80%	174,506	698,022	70%	20%	10%	488,616	139,604	69,802
Tax	948,181	20%	80%	189,636	758,545	70%	20%	10%	530,981	151,709	75,854
Judicial	536,249	20%	80%	107,250	428,999	70%	20%	10%	300,299	85,800	42,900
Resource Development	58,156	20%	80%	11,631	46,525	70%	20%	10%	32,567	9,305	4,652
Internal Services	7,020,674	20%	80%	1,404,135	5,616,539	70%	20%	10%	3,931,577	1,123,308	561,654
Finance Total	\$ 9,790,743			\$ 1,958,149	\$ 7,832,594				\$ 5,482,816	\$ 1,566,519	\$ 783,259
Community Development											
Administration	\$ 348,059	30%	70%	\$ 104,418	\$ 243,641	70%	20%	10%	\$ 170,549	\$ 48,728	\$ 24,364
Planning	493,142	20%	80%	98,628	394,514	70%	20%	10%	276,160	78,903	39,451
Building Safety	934,600	20%	80%	186,920	747,680	70%	20%	10%	523,376	149,536	74,768
Neighborhood Services	1,378,098	20%	80%	275,620	1,102,478	70%	20%	10%	771,735	220,496	110,248
Housing	71,440	20%	80%	14,288	57,152	70%	20%	10%	40,006	11,430	5,715
Community Development Total	\$ 3,225,339			\$ 679,874	\$ 2,545,465				\$ 1,781,826	\$ 509,093	\$ 254,547
Public Safety											
Administration	\$ 1,233,032	30%	70%	\$ 369,910	\$ 863,122	40%	50%	10%	\$ 345,249	\$ 431,561	\$ 86,312
Support Operations	2,920,290	10%	90%	292,029	2,628,261	40%	50%	10%	1,051,304	1,314,131	262,826
Patrol Operations	7,148,695	10%	90%	714,870	6,433,826	40%	50%	10%	2,573,530	3,216,913	643,383
Community Justice	175,335	10%	90%	17,534	157,802	40%	50%	10%	63,121	78,901	15,780
Special Investigations Unit	469,866	10%	90%	46,987	422,879	40%	50%	10%	169,152	211,440	42,288
Emergency Management	149,349	10%	90%	14,935	134,414	40%	50%	10%	53,766	67,207	13,441
Public Safety Total	\$ 12,096,567			\$ 1,456,263	\$ 10,640,304				\$ 4,256,122	\$ 5,320,152	\$ 1,064,030

**Exhibit 12. (CONTINUED)
General Fund Expenditure Allocations**

CONTINUED	2009 Budget	Percent Fixed	Percent Variable	Fixed Expenditure	Variable Expenditure	Percent Residential	Percent Comm/Retail	Percent Ind	Residential Variable	Comm/Retail Variable	Comm/Ind Variable
Public Works											
Administration	\$ 395,961	30%	70%	\$ 118,788	\$ 277,173	40%	35%	25%	\$ 110,869	\$ 97,010	\$ 69,293
Street & Traffic Maintenance	1,738,746	10%	90%	173,875	1,564,871	40%	35%	25%	625,949	547,705	391,218
Snow & Ice Control	268,558	10%	90%	26,856	241,702	40%	35%	25%	96,681	84,596	60,426
Engineering	1,726,732	10%	90%	172,673	1,554,059	40%	35%	25%	621,624	543,921	388,515
Street Cleaning	328,996	10%	90%	32,900	296,096	40%	35%	25%	118,439	103,634	74,024
Refuse Collection	1,750,000	10%	90%	175,000	1,575,000	40%	35%	25%	630,000	551,250	393,750
Public Works Total	\$ 6,208,993			\$ 700,092	\$ 5,508,902				\$ 2,203,561	\$ 1,928,116	\$ 1,377,225
Parks & Recreation											
Administration	\$ 900,221	30%	70%	\$ 270,066	\$ 630,155	100%	0%	0%	\$ 630,155	\$ -	\$ -
Parks Maintenance	2,433,838	10%	90%	243,384	2,190,454	100%	0%	0%	2,190,454	-	-
Program Activities	2,133,902	10%	90%	213,390	1,920,512	100%	0%	0%	1,920,512	-	-
Parks & Recreation Total	\$ 5,467,961			\$ 726,840	\$ 4,741,121				\$ 4,741,121	\$ -	\$ -
General Fund Total	\$ 41,202,038	16%	84%	\$ 6,403,704	\$ 34,798,334	60%	29%	11%	\$ 20,936,408	\$ 10,029,869	\$ 3,832,057
Current Residential Units	12,217										
Current Comm/Retail Sq Ft	13,515,412										
Current Industrial Sq Ft	3,915,078										
GF Expenditure per Res Unit	\$ 1,714										
GF Expenditure per Comm Sq Ft	\$ 0.74										
GF Expenditure per Ind Sq Ft	\$ 0.98										

Source: City of Commerce City; BBC Research & Consulting.

City revenue assumptions. Revenues were calculated in a manner similar to expenditures, with per residential unit, and per non-residential square foot revenues estimated and then applied to the projected land use scenarios. Sales tax revenue is apportioned among land uses according to the allocations presented in Exhibit 10. Property tax is apportioned to land uses according to their share of assessed value as reported in the DOLA Division of Property Taxation 2008 Annual Report. The allocations are shown below in Exhibit 13.

Exhibit 13.
Commerce City Assessed
Value by Land Use, 2008

Note:

“Other” land uses include agricultural, natural resources and oil & gas land uses.

Source:

DOLA Division of Property Taxation.

Land Use	Assessed Value	Percent of Total
Residential	\$ 212,523,330	33%
Commercial	218,578,430	34%
Industrial	148,100,140	23%
Other	68,681,410	11%
Total	\$ 647,883,310	100%

In the fiscal model, Commerce City 2009 budgeted property tax revenue is allocated to the above land uses⁸ and then divided by existing residential units, and non-residential square footage to calculate average property tax by residential unit and commercial or industrial square footage.

All other revenues were calculated in a fashion similar to expenditures. Total current “other” revenues were split among those that are fixed and those that are variable. Variable revenues were then split based on sensitivity to commercial, industrial or residential development. Finally, variable residential, commercial and industrial revenues were divided by total residential unit or non-residential square feet to estimate marginal revenues. Exhibit 14 on the following page illustrates the calculations for Commerce City general fund revenue.

⁸ The fiscal model only takes into account residential, commercial and industrial land uses and only projects forward the 89 percent of property tax revenue attributable to those three types of land use. The remaining 11 percent of property tax is assumed to not grow with the mix of land uses described in the alternatives.

**Exhibit 14.
General Fund Revenue Allocations**

	2009 Budget	Percent Fixed	Percent Variable	Fixed Revenue	Variable Revenue	Percent Residential	Percent Comm/Retail	Percent Ind	Residential Variable	Comm/Retail Variable	Industrial Variable
Property Tax	\$ 2,113,396	0%	100%	-	\$ 2,113,396	33%	34%	23%	\$ 693,251	\$ 713,003	\$ 483,103
Sales and Use Tax	28,155,839	0%	100%	-	28,155,839	15%	36%	49%	4,223,376	10,136,102	13,796,361
MV Reg, Ownership, Veh Trans Taxes	539,685	0%	100%	-	539,685	80%	10%	10%	431,748	53,969	53,969
Gaming, Cigarette Taxes	210,000	95%	5%	199,500	10,500	80%	10%	10%	8,400	1,050	1,050
Franchise Tax	2,228,102	0%	100%	-	2,228,102	80%	10%	10%	1,782,482	222,810	222,810
HUTF, County Road and Bridge	1,339,000	50%	50%	669,500	669,500	56%	34%	10%	374,920	227,630	66,950
Licenses & Permits	1,230,123	0%	100%	-	1,230,123	80%	10%	10%	984,098	123,012	123,012
Charges for Services	1,935,137	0%	100%	-	1,935,137	80%	10%	10%	1,548,110	193,514	193,514
Fines & Forfeitures	1,066,800	0%	100%	-	1,066,800	80%	10%	10%	853,440	106,680	106,680
Investment & Interest	2,241,379	50%	50%	1,120,690	1,120,690	80%	10%	10%	896,552	112,069	112,069
Other Revenue	467,195	20%	80%	93,439	373,756	80%	10%	10%	299,005	37,376	37,376
Total	\$ 41,526,656	5%	95%	\$ 2,083,129	\$ 39,443,528	31%	30%	39%	\$ 12,095,381	\$ 11,927,214	\$ 15,196,893
Current Residential Units	12,217										
Current Comm/Retail Sq Ft	13,515,412										
Current Ind Sq Ft	3,915,078										
GF Revenue per Res Unit	\$990.05										
GF Revenue per Comm Sq Ft	\$0.88										
GF Revenue per Ind Sq Ft	\$3.88										

Source: City of Commerce City; BBC Research & Consulting.

Net revenue. General fund revenue by land use is netted against general fund expenditure by land use to calculate net fiscal impact by residential unit and non-residential square foot. Exhibit 15 shows net fiscal impact by land use.

**Exhibit 15.
Net Fiscal Impact by Land Use**

Source:
BBC Research & Consulting.

Land Use	Net Fiscal Impact
Residential (per Unit)	\$ (724)
Commercial (Per 1,000 SqFt)	140
Industrial (Per 1,000 SqFt)	2,903

New residential units in Commerce City are estimated to produce approximately a \$725 general fund deficit per unit. Retail/office development is estimated to produce a modest general fund surplus (\$140) per 1,000 square feet. Industrial development is by far the most fiscally beneficial land use to Commerce City, producing a near \$3,000 general fund surplus per 1,000 square feet of development. As discussed previously, industrial development produces near half of the city’s sales tax revenue, while requiring modest services.

Net fiscal impact. Exhibit 16 presents the net fiscal impact of the three land use alternatives for the Northern Range. The most fiscally beneficial alternative to Commerce City would produce higher revenues and require lower service expenditures (e.g., police, road maintenance, park maintenance, etc.).

**Exhibit 16.
Net Fiscal Impact,
Northern Range
Land Use
Alternatives**

Source:
BBC Research & Consulting.

Land Use	Alternative		
	A	B	C
Residential	\$ (15,857,692)	\$ (21,631,099)	\$ (26,991,293)
Commercial	2,265,851	2,144,812	1,337,718
Industrial	54,303,388	28,836,791	13,338,540
Net Fiscal Impact	\$ 40,711,547	\$ 9,350,504	\$ (12,315,036)

The fiscal modeling exercise indicates that Alternative A is the most fiscally beneficial future land use scenario in the Northern Range, however it is important to note that the figures shown in the above exhibit should be interpreted acknowledging the limitations of applying fiscal impact analysis in a comprehensive plan setting. Specifically, fiscal impact analysis applies the current relationships between land use and government finances to a land use scenario that may occur 25 years in the future. The observed relationships between land uses and governmental costs and revenues will likely change during the next 25 years. As an acknowledgment of these limitations, it is best to interpret the figures shown above in a relative sense.

Exhibit 17 on the following page presents the relative fiscal impact of the three land use alternatives for the Northern Range. The evaluation compares sales and use tax revenue, property tax revenue and service expenditures among the three land use alternatives. The following is a discussion of the relative fiscal impacts of each land use alternative.

Alternative A. Alternative A is more beneficial to Commerce City fiscally than the other two alternatives. The higher concentrations of industrial and commercial land uses offer the city ample sales, use and property tax revenue while requiring fewer services than residential units. Commerce City currently generates well over half its General Fund revenue through sales and use tax from commercial and industrial land uses and this alternative provides the most opportunity for those land uses.

**Exhibit 17.
Northern Range
Comparative
Fiscal Evaluation**

Source:
BBC Research & Consulting.

Land Use Alternative	Evaluation Criteria			
	Sales and Use Tax Revenue	Property Tax Revenue	Service Expenditures	Net Fiscal Benefit
Alternative A	High	High	Low	High
Alternative B	Medium	Medium	Medium	Medium
Alternative C	Low	Low	High	Low

Alternative B. Alternative B offers nearly the same commercial land uses and about half the industrial land use as Alternative A. Alternative B also provides for more land for residential uses, which require more city services than commercial or industrial land. This alternative is the “middle road” alternative that offers the greatest mix of land uses but does not offer the focus on revenue producing land uses presented in Alternative A. Nevertheless, Alternative B provides ample opportunity for retail, office and light industrial uses that have traditionally generated more revenue for the city than have required in services.

Alternative C. Alternative C is less fiscally beneficial to Commerce City than Alternatives A and B. The vast majority of land area under this alternative is dedicated to residential land uses, which generally require more service expenditure than commercial or industrial development.

Implications for the Comprehensive Plan

The following observations that emerged from our fiscal analysis have implications on the comprehensive plan:

- Commerce City has enjoyed a long period of financial success—with it has come associated robust government service levels.
- The city benefits from its traditional industrial base, which contributes heavily to use tax, property tax and sales tax revenue, while demanding only modest government services.
- Commerce City relies on use tax as heavily as it relies on sales tax for revenue production. This situation further reinforces the importance of industrial land uses. In general, industrial establishments produce a great deal of use tax through the purchase of heavy machinery used in production processes. This is a valuable revenue source for the city.
- Industrial and commercial land uses are estimated to produce about 85 percent of sales and use tax revenue, while residential land uses produce about 15 percent.

- Commerce City’s relatively low mill levy has benefits and consequences.⁹ The low property tax rate is an asset in attracting and retaining commercial and industrial business establishments, but it causes the city to rely heavily on sales and use tax revenue, which leaves the city more exposed to regional and national economic forces.
- Current city geography presents challenges, especially in a difficult retail market:
 - Commerce City occupies a large, dispersed area, with associated service delivery inefficiencies.
 - The Arsenal Wildlife Refuge occupies a large portion of the retail trade area.
 - There is strong and entrenched retail competition in the immediate area.
- It is likely to be several years before the Northern Range supports a large amount of new retail due to the presence of retailers in neighboring communities and national and regional adverse economic conditions, yet in the meantime demand for city services will grow.
- Recent growth in the Northern Range has been primarily residential; industrial and commercial development opportunities should be preserved in the growth area for future revenue production capability.

A fiscally beneficial plan would emphasize the following strategies:

- Encourage infill clustering and “capital efficient” development;
- Retain, support and expand the community’s industrial base;
- Ensure adequate land for residential, commercial and industrial uses;
- Acknowledge long term challenges in maintaining current service levels; and
- Preserve the opportunity for future retail development.

These observations are intended to inform the comprehensive planning process. It is important to note that fiscal implications are but one consideration among many that the community must weigh when evaluating future land uses in Commerce City.

⁹ Commerce City’s 3.28 mill levy is considered relatively low when compared to other Adams County municipalities: Aurora-10.664, Arvada-4.31, Brighton-6.65, Thornton-10.21, Northglenn-11.597, Westminster-3.65, Bennett-11.95, Lochbuie-11.624.