ECONOMIC AND FISCAL ANALYSIS OF THE AUBURN/BOWMAN COMMUNITY PLAN

Prepared for:

The County of Placer

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APPENDIX C
ASSUMED PHASING OF DEVELOPMENT
EXISTING LAND USE PLAN AND ALTERNATIVE 5

EXISTING LAND USE PLAN

	Residential Units				Non-Residential Square Feet		
Year	Multi-Family	Town house	Single-Family	Rural	Retail	Office	Industrial
1991	26	69	66	50	17,770	17,235	13,062
1992	26	69	66	50	17,770	17,235	13,062
1993	26	69	66	50	17,770	17,235	13,062
1994	26	20	65	50	17,770	17,235	13,062
1995	26		65	50	17,770	17,235	13,062
1996	26		65	50	17,770	17,235	13,062
1997	26		65	49	17,770	17,235	13,062
1998	26		65	49	17,770	17,235	13,062
1999	26		65	49	17,770	17,235	13,062
2000	25		65	49	17,770	17,235	13,062
2001	25		65	49	17,770	17,235	13,062
2002	25		65	49	17,770	17,235	13,062
2003	25		65	49	17,770	17,235	13,062
2004	25		65	49	17,770	17,235	13,062
2005	25		65	49	17,770	17,235	13,062
2006	25		64	49	17,770	17,235	13,062
2007	25		64	49	17,770	17,235	13,062
2008	25		64	49	17,770	17,235	13,062
2009	25		64	49	17,770	17,235	13,062
2010	25		64	49	17,770	17,235	13,062

Source: Recht Hausrath & Associates

INTRODUCTION

The Economic and Fiscal Analysis of the Auburn/Bowman Community Plan evaluates the Alternative 5 land use plan as prepared by the Placer County Planning Department on three considerations: 1) the market feasibility of the plan, 2) the fiscal implications of the plan to the County, and 3) the capital facilities needs for fire and public protection services in the plan area.

The market feasibility of Alternative 5 evaluates the future development potential in the plan area in the context of the proposed land use Plan. The analysis examines past trends in absorption of commercial, industrial and residential development in the Auburn/Bowman plan area and estimates the amount of growth for the plan area through 2010. The fiscal analysis estimates the revenues and costs to the County given the parameters of the Alternative. The fiscal benefit of the Plan is compared to that of the existing land use Plan. The third section of this report examines the capital needs for fire protection and sheriff's patrol and investigation for the plan area. The cost for the facilities is calculated and alternative funding sources are reviewed.

MARKET FEASIBILITY OF THE PROPOSED PLAN

This section presents the results of the market feasibility analysis of the Alternative 5 land use Plan. The analysis evaluates whether the Plan's allocation of land for residential, retail, office and industrial development will be sufficient to accommodate the demand from forecasted growth from 1990 through the year 2010.

The residential land use component of Alternative 5 is reviewed first. This is because residential development in the Plan area is one of the driving forces of non-residential development. It determines, in part, the demand for retail space and provides a labor pool for industrial employers. The analysis of non-residential development follows. The demand for and supply of retail, office and industrial space is determined based on assumptions about population growth and the attractiveness of Auburn/Bowman relative to competing locations.

RESIDENTIAL LAND USE

The market feasibility analysis of proposed residential land uses in the Alternative 5 Plan examines the historical trends of residential development in the area; describes the characteristics of the existing supply; forecasts demand for the full spectrum of residential properties; and evaluates the proposed supply provided for in the Plan.

Historical and Current Development Trends

In the last decade there has been a large volume of residential development in the Auburn/Bowman plan area. County records of housing starts in the four census tracts that encompass the plan area show 2,373 new housing units built in the period 1980 through 1990. This represents a 3.1 percent average annual growth rate in the housing stock - slightly faster than population growth. In the same 11 year period, the County as a whole grew at a 3.9 percent average annual rate. Almost all of this growth was concentrated in the incorporated cities of the South County where the average annual growth rate reached 5.7 percent. The unincorporated areas of the county increased their housing stock by 2.6 percent annually. Thus, Auburn/Bowman grew faster than other unincorporated areas but more slowly than the county as a whole.

Typical residential development patterns in the Auburn/Bowman area include rural subdivisions with lots of two acres or more, suburban neighborhoods, and mobile home parks. In response to rising land costs and strong demand for entry-level ownership housing, some new residential configurations have entered the market, including duets and small lot projects. Apartment development has not occurred on the same scale, and although a substantial amount of attached housing was developed in the last decade, much of it was in one project.

In the current real estate market, the most active sector has been the upper end of the market. Applications for subdivisions with half acre or larger lots have been the only residential development activity other than senior housing. Planners report that they are just seeing the return of interest in suburban type development but that the volume has not recovered to pre-recession levels. Staff indicate that there are few pending applications for apartment or other high density development.

Brokers active in the local real estate market indicate that raw land designated for apartment construction sells for $9,000 to $10,000 per buildable unit. Large residential lots (one half acre or larger) are currently on the market for about $100,000 per finished lot. Using the rule of thumb that land and improvement costs should be no more than 30 percent of total value indicates that the minimum housing value for large lots is $300,000.

Housing resale data provide an indication of market value and level of interest in the market area, though resales are not fully comparable to new construction. The volume of resales in the Auburn area (as defined by the Placer County Board of Realtors) for 1990 was 383 units, with the median price at $185,000. The County recorded 315 sales in 1991 at a median price of $182,000.

Further consideration of the resales prices by more detailed categories suggests that in 1990, the majority of Auburn area condominium resales (nearly two thirds of the total) were in the range of $50,000 to $70,000. Of 200 three bedroom homes sold in 1990, just over half were priced under $200,000. One fourth sold at prices between $200,000 and $249,000 and another fourth cost between $250,000 and $399,000. The prevailing price for two bedroom homes was under $200,000; just over half of all resales were priced under $140,000. Current advertised sale prices for entry level housing range between $125,000 and $170,000. These prices give an indication of market value of each of the four land use patterns (i.e., multi-family, townhouse/small lot, single family, and rural) used in this analysis.

Potential For Specific Residential Market Segments

The proposed Alternative 5 land use Plan shifts future residential development potential away from the past focus primarily on low density single family patterns and transfers emphasis of the development potential into townhouse and small lot single family land uses. The Plan introduces a new land use category, mixed-use residential (MU-R), that will permit residential development in areas previously expected to be developed exclusively for commercial use. The mixed-use areas permit a broad range of densities though a minimum of seven units per acre is recommended.

Alternative 5 also changes the definitions of several land use designations. The Plan substitutes MU-R for the existing Plan's residential use in the commercial designation. Neither the high-density residential (HDR) nor the medium-density residential (MDR) designations would change substantially. The permitted densities in the low medium (LMDR) use designation would be reduced; instead of allowing four to six units to the acre, the allowed density would range from two to five units to the acre. The density range allowed under the current Plan for rural low density (RLDR) would be split between low density (LDR) and RLDR. A new rural residential (RR) category would allow densities previously allowed in the rural estate (RE) designation, and RE would have a larger minimum lot size of 4.6 acres, while the agricultural (AG) designation would increase to a 10 acre minimum lot instead of the current 4.6 acres.

Table 1 compares the residential land use designations for the existing Plan and Alternative 5.

Table 1
Existing Plan and Alternative 5
Comparison of Residential Land Use Designations

Existing Plan		Alternative 5	
Land Use Designations	Acres	Land Use Designations	Acres
HDR (10-15 DU/AC)	45	HDR (10-15 DU/AC)	27
MDR (6-10 DU/AC)	160	MDR (5-10) DU/AC)	189
LMDR (4-6 DU/AC)	254	MU-R (7-15 DU/AC)	173
LDR (2-4 DU/AC)	323	LMDR (2-5 DU/AC)	478
RLDR (.4-2.3 AC)	1,254	LDR (.4-.9 AC)	110
		RLDR (.9-2.3 AC)	1,282
RE (2.3-4.6 AC)	8,437	RR (2.3-4.6 AC)	4,744
AGRICULTURAL (4.6-20 AC)	5,467	RE (4.6-10 AC)	2,726
		AGRICULTURAL (10-80 AC)	2,248
TOTAL	15,940	TOTAL	11,977

Source: Placer County Planning Department

County staff developed estimates of total holding capacity under the existing Plan and Alternative 5. Holding capacity, to simplify the definition, is the number of housing units that could be built if the entire plan area were built out at maximum permitted densities after allowing for roads, open space and unusable property. The existing housing units are included in that number. The existing Plan has a total holding capacity of 18,671 residences. Alternative 5 would reduce that holding capacity to 16,093 units. (The existing plan area is slightly larger than the Auburn/Bowman Community Plan area due to boundary changes.) Please note that the holding capacity calculation differs from RHA's estimate of potential units discussed below.

Table 2 shows the maximum number of potential units that could be expected in the plan area under Alternative 5. The calculation of potential units for each category except MU-R is based on the number of vacant acres, the maximum number of units per acre and the number of existing units in 1990. It includes a 20 percent allowance for roads, infrastructure and unusable property and a park allowance (five acres per 1,000 residents). The development potential in mixed use areas was derived from the Community Development Element of the proposed Plan.

Table 2
Auburn/Bowman Community Plan
Potential Units in Alternative 5

Land Use Designation	Maximum Density Per Acre	Gross Acres	Vacant Acres	Existing Units[1]	Potential Units[2]	Total Units
HDR	15.00	27	1	206	111	317
MDR	10.00	383	72	1,945	1,074	3,019
LMDR	5.00	1,156	65	1,807	1,874	3,681
LDR	2.50	110	95	114	105	219
RLDR	1.11	1,282	800	449	687	1,136
RR	0.43	8,174	2,800	1,973	869	2,842
RE	0.22	2,726	1,810	360	114	474
AG	0.10	2,898	2,248	97	135	232
MU-R[3]	10.00	173	142	0	974	974
OTHER[4]				451	0	451
Total		16,929	8,033	7,527	5,943	13,470

1. Existing units were identified by the Placer County Planning Department and distributed among land use designations by Recht Hausrath & Associates.
2. Estimate derived by assessing holding capacity of each land use designation, reducing that by existing units, and adjusting for park allowance (five acres per 1,000 residents) and roads, infrastructure and usable property (20 percent). Mixed use areas calculated based on development vision expressed in Community Development Plan.
3. Average density of all mixed use areas.
4. Includes existing units located in areas designated Open Space, Professional Office, Commercial, Industrial, Mixed-Use Commercial Mixed-Use Professional Office, Mixed-Use Public, and Mixed-Use Industrial.

Source: Placer County Planning Department, Recht Hausrath & Associates.

It should be noted that much of the potential calculated here is in largely developed areas. Therefore, the opportunity is for infill and intensification of use in areas targeted for more urban types of development. A look at the existing vacant acreage for each land use designation verifies this; if no infill opportunities were available, the unit potential and holding capacity would be reduced by nearly half.

Table 3 groups the development potential in each land use designation as shown in Table 2 into four groups representing distinct development patterns and market segments. The four groups are multi-family, townhouses/small lot single family, single family, and rural. These groupings are used throughout the rest of the analysis of residential supply and demand.

Of the projected 5,943 potential units, about 8.3 percent are planned for high density, multi-family units, including some units in mixed use areas. Nearly 60 percent of the potential units are planned at medium densities of up to nine units to the acre; these include townhouse and small lot single family developments in mixed use areas. The unit potential in the low density and rural low density categories account for 13.3 percent of the total potential units. The remaining potential is in rural areas, with minimum lot sizes of 2.5 acres or more.

Table 3
Auburn/Bowman Community Plan
Potential Units By Land Use Pattern
in Alternative 5

Land Use Pattern/Market Segment	Price Range[1]	Potential Units	Percent of Total
Multi-family[2]	$70-125,000	492	8.3%
Townhouse/small lot single family3	$100-180,000	3,541	59.6%
Single family[4]	$165-280,000	792	13.3%
Rural[5]	$210-400,000	1,118	18.8%
Total		5,943	100.0%

1. Based on current sale prices for newly constructed residential property in the Auburn/Bowman area.
2. HDR and 60.9 percent of MU-R.
3. MDR, LMDR and 39.1 percent of MU-R.
4. LDR and RLDR.
5. RR, RE and AG.

Source: Recht Hausrath & Associates.

Forecasted Growth and Residential Demand

Demand for various types of housing can be projected in a number of ways. Population growth projections are available on a countywide basis from several sources, but the expected dominance of residential development in the South County makes their application to the Auburn/Bowman area problematic. As an alternative approach, county staff has used a straight line projection of historical trends to estimate future growth within the plan area. The last decade's three percent average annual growth rate probably overestimates future residential demand. Most forecasters are predicting somewhat slower rates of growth in the future for the state, region, and county. The Sacramento Area Council of Governments' (SACOG) projection of 1.2 percent per year through 2010, however, probably underestimates growth. SACOG acknowledges that the population projection is conservative. Furthermore, it assumes county policy directing growth away from unincorporated areas will be enforced, though the County's policy has not been applied to the unincorporated area around the City of Auburn.

Given that the proposed Plan targets certain parts of the Auburn/Bowman area for more intense residential development, population growth rates over the next two decades will most likely fall between the extremes of the two cited projections. We recommend assuming an uncompounded annual population growth rate of 2.1 percent for the twenty year horizon of the Plan, which is the mid-point between the SACOG projection and historical average. This results in a potential population increase of 10,609 persons.

A housing unit count can be derived from population projections by using average household size figures. The 1990 Census data indicate that the average household in the Auburn/Bowman area is comprised of 2.69 persons; that average is expected to decline slightly over the next twenty years according to SACOG. Assuming a constant household size over the time horizon of the Plan would provide a margin for vacancy. Based on these assumptions, new housing units between 1990 and 2010 would total 3,944.

The likelihood of residential developers building a sufficient supply of units to meet this projected demand depends on a number of economic factors and policy decisions, including development policy, market prices, consumer preference, demographic change and household income. The availability of various housing products (e.g. single family homes on lots of one acre or more, or small starter homes on 5,000 square foot lots) will also affect the demand. For this analysis, the distribution is based on an analysis of the existing housing stock, residential resales in the area, interviews with county staff and local realtors, and an examination of the local and county income structure.

The location of existing units were classified according to the proposed land use designations; these were then grouped according to land use pattern/market segment. Existing units are a good indicator of what residents will seek and choose in the Auburn/Bowman area since they represent the demand for each of the various land use patterns.

Because a significant number (451) of existing units are located in areas with commercial, industrial or open space land use designations, these were redistributed to residential land use designations according to lot size and housing type. The assumption is that no additional residential development will occur in non-residential areas.

Table 4 shows the adjusted distribution of existing units by type and residential land use designations.

Table 4
Adjusted Distribution of Existing Units for Alternative 5 Land Use Plan Designations

Land Use Designation	Single Family (SF)	Duplex/ Two SF	Triplex/ Three SF	Fourplex/ Condos	Mobile Homes	Apart- ments	Total
HDR	0	0	0	0	166	40	206
MDR	234	100	78	496	637	400	1,945
MU	87	28	3	0	178	118	414
LMDR	1,556	162	78	0	1	10	1,807
LDR	111	2	0	0	1	0	114
RDLR	413	28	3	4	1	0	449
RR	1,833	60	12	12	56	0	1,973
RE	475	28	3	0	16	0	522
AG	84	4	3	0	6	0	97
Total	4,793	412	180	512	1,062	568	7,527

1.Reflects redistribution of existing units located in areas with commercial, industrial, and open space land use designations to RE and MU land use designations.

Source: Placer County Planning Department, Recht Hausrath & Associates.

Since demand for housing of various types is not completely dependent on the existing land use pattern, the data in Table 4 were compared with information from people experienced in the local housing market (including county staff and local real estate brokers) and with data on recent resales. This process also helped establish price ranges for each of the four land use patterns/market segments. The resale data are shown in Table 5.

Table 5
1990 Auburn Area Resale Data

Unit Type	Units	Percent
Condo/co-op	58	15.3%
Two Bedrooms	48	12.7%
Three or more bedrooms; under $200,000	118	31.2%
Three or more bedrooms; over $200,000	159	42.1%
Total	378	100.0%

Source: Placer County Board of Realtors

Resale data are not reported by the Board of Realtors according to land use designation; rather, the sales are grouped according to the number of bedrooms, sale price, and whether the unit is a single family house or a condominium. These figures are not, therefore, fully comparable to the data on existing units. We used the sale prices as an indication of demand in each market segment; for example, higher priced and larger homes are more likely to be located on large lots.

Table 6 details the results of the projected housing demand and its distribution among the four development patterns/market segments based on data in Tables 4 and 5 and judgements about future demand. The multi-family grouping consists of all HDR units and 25 percent of the MU units. All the MDR and LMDR and 75 percent of the MU units were grouped together as townhouses/small lots. The single family grouping is comprised of the LDR and LMDR units, and the rural category encompasses the RR, RE, and AG units. Two growth rate assumptions are employed. In addition to the recommended assumption of a 2.1 percent annual growth, figures for a 3.0 percent growth rate are provided for comparison purposes. It is estimated that slightly more than half of the demand will be for large lot single family homes. Ten percent of the demand will be for multi-family units and 35 percent for small lot single family and townhouse development.

Table 6
Auburn/Bowman Community Plan
Housing Demand Projections

Growth Rate Assumption	2.1%		3.0%	
	Units	*Percent of Total*	Units	*Percent of Total*
Multi-family	394	*10%*	617	*10%*
Townhouse/Small lot single family	1,381	*35%*	2,159	*35%*
Single family	1,183	*30%*	1,851	*30%*
Rural	986	*25%*	1,542	*25%*
Total	3,944	*100%*	6,169	*100%*

Source: Recht Hausrath & Associates.

Table 7 presents the potential for future residential development for the Alternative 5 land use Plan; the projected demand for units is compared to the estimated supply. The annual absorption rate assumes an even amount of development (or demand) from 1990 to 2010. For example, the projected demand for single family homes indicates an average annual absorption rate of 59 units (1,183 units/20 years).

Applying the projected annual rate of absorption over the twenty year period reveals a possible mismatch between demand and supply. Under Alternative 5 there appears to be surplus supply to meet the demand for townhouse and small lot single family development, but only 13 years of supply for single family development on lots of one half to 2.5 acres. (There is, however, an ample supply of lots of one-half to 2.5 acres outside the Auburn/Bowman plan area, e.g. in Meadow Vista.)

As Table 7 shows, the potential mismatch would indicate that only 3,553 of the 3,944 projected units could be accommodated in the Alternative 5 land use Plan. This number is calculated by taking the smaller of the demand and supply estimates for each land use pattern/market segment. It does not assume that the unmet single family demand (391 units) will be accommodated by another product type. This assumption, however, is discussed further in the market feasibility section following Table 7.

Table 7
Auburn/Bowman Community Plan
Residential Development Potential
in Alternative 5

DEMAND	Multi-family	Town-house	Single Family	Rural	Total
Units[1]	394	1,381	1,183	986	3,944
Annual Absorption Rate	20	69	59	49	197
SUPPLY					
Units	492	3,541	792	1,118	5,943
Years to Buildout	25	51	13	23	
1990-2010 Potential					
Units	394	1,381	792	986	3,553

1. Assumes a 2.1 percent non-compounded annual growth rate. This is total demand over the period 1990-2010.

Source: Recht Hausrath & Associates

Market Feasibility and Competitive Projects

The Auburn/Bowman area currently provides a rural residential environment both in the general ambiance and in large lot single family homes. But as more suburbanites and ex-urbanites relocate to the area for its rural qualities, two development trends can be expected to occur: the increased demand for a rural atmosphere will change the very atmosphere that attracts new residents, and new residents will demand a higher level of urban services.

To maintain a rural atmosphere, the proposed Plan will direct higher density residential development along major arterials and allow rural residential development in the outlying areas. While there is tremendous demand for residences in a rural atmosphere, that demand is constrained by the expense. Half acre lots are currently on the market in the Auburn/Bowman area at $100,000, prices that dictate a finished cost well over

$300,000. Because fewer households can afford these higher prices, the absorption rate for this land use type is slower than for conventional subdivisions.

Large lot single family development has been the area's dominate residential product in the past, and demand for this product type will continue to represent a significant amount of future demand. As was shown in Table 7, demand for large lot single family units represents about 30 percent of the demand for 1990 to 2010. The supply of land for these units, however, appears to be insufficient to meet this projected demand. This is largely because those areas designated for this type of development are considered built out with little or no potential for further development.

One possible response to a shortage of land for large lot single family type development is that developers will, if land prices permit, seek to build lower density homes on land designated for medium and high density development. Developers will also seek to build at slightly higher densities in areas designated for rural residential development.

It is likely that some demand for large lot single family homes will be deflected. Some of it will stay in the Auburn/Bowman area but shift to a different market segment. For example, buyers interested in a single family home on a half acre lot may choose a home on a smaller lot in order to locate in the community. There may be some shift upward, as well, since there is some price overlap between the large lot single family market segment and the rural segment.

Much of the demand for homes on one half to 2.3 acre lots, however, will be satisfied outside the Plan area, e.g. Meadow Vista. Leakage of unmet demand for semi-rural lots is expected because of the nature of the product and the buyer. Buyers of large semi-rural lots are typically seeking a lifestyle and an atmosphere rather than a specific community. Most buyers are relocating to the area from outside, and hence have no particular attachment to any one place. Therefore, their first objective is to locate the desired product. If it cannot be found in the Auburn/Bowman area they will seek the desired product in a different community.

We expect that the majority (75 percent) of the unmet demand would choose to leave Auburn/Bowman than to opt for a different housing product. This is the equivalent of 293 units. Thus, 25 percent of the unmet demand for single family units could be accommodated in the plan area with another product type. The Auburn/Bowman area, therefore, could accommodate an additional 98 units beyond the 3,553 calculated in Table 7.

Table 8 presents the adjusted potential units given the assumption that 25 percent of the unmet demand will choose a different product type in the plan area.

Table 8
Auburn/Bowman Community Plan
Adjusted Residential Development Potential
in Alternative 5

1990-2010 Potential	Multi-family	Town-house	Single Family	Rural	Total
Units[1]	394	1,479	792	986	3,651

1. Assumes that 25 percent (98 units) of the unmet demand for large lot single family units will be accommodated by the townhouse/small lot single family product.

Source: Recht Hausrath & Associates

The unmet demand will most likely opt for small lot single family or townhouse type development (typically at densities between five and 12 units to the acre). A market for these products could develop in the Auburn/Bowman Plan area if single family detached homes are priced out of reach due to a limited supply. Although the small lot product type is not common in the community now, it has gained prevalence in a number of suburban communities. The market for townhouses in the Auburn/Bowman area will be sensitive to the availability of similarly priced detached homes elsewhere in the region since buyers still exhibit a strong preference for detached units.

Retirees and other non-commuters represent other market segments that could be attracted to townhouse development in the Plan area. The foothills region has already attracted a large number of retirees. According to the 1990 Census, the Auburn/Bowman area had the highest percentage of elderly population (persons 65 years of age and older) of any community in Placer County. The North Auburn area's population was 14.4 percent elderly, compared to 8.2 percent for the county as a whole. The availability of housing designed for the growing population of seniors could attract more of this market segment to the Auburn/Bowman area.

Whether there is an active or established market for higher density condominium or apartment development in the Plan area is questionable. The level of apartment development activity in the area in the past has lagged far behind the pace of single family development, with one major development accounting for half the total supply. The lack of available financing is one impediment to further development, along with the tendency of apartment developers to seek out areas relatively close to employment centers with a variety of shopping, entertainment and recreational opportunities nearby. In this respect, the areas designated for higher density development are well located within the Plan area but do not compare well with other apartment developments in the region.

Roseville and Rocklin currently have both standing inventory and a surplus of approved single family lots on the market. They will continue to be better able to provide the conventional single family detached home in a suburban setting due to the existing urban services, the proximity to jobs, and the more suitable terrain. To be competitive in the standard single family suburban market segment, the Auburn-Bowman community must offer a superior environment or a superior value. Competition on price is possible only if land is substantially less expensive.

El Dorado County is probably the area most likely to capture some of the future growth that could go to Placer; however, water and infrastructure problems are impeding development there. Nevada County has a geographic disadvantage for commuters in comparison to Placer, but offers a similar level of amenity.

Comparison of Alternative 5 With Existing Land Use Plan

The existing land use Plan includes an area slightly larger than that of the Alternative 5 land use Plan. Thus, as presented in Table 1, the amount of acres designated for residential development is less in Alternative 5. The existing Plan, however, would accommodate less of the projected demand than Alternative 5, given the amount of acres designated in each land use category, the amount of available land, and the demand for units summarized in Table 6. Table 9 presents a comparison of potential units for both Plans.

Table 9
Existing Land Use Plan and Alternative 5 Land Use Plan
Residential Development Potential
1990-2010

	Multi-Family	Town-house	Single Family	Rural	Total
Existing Land Use Plan[1]	509	227	1298	986	3,020
Alternative 5 Land Use Plan	394	1,479	792	986	3,651
Difference Between Alternative 5 and Existing	115	(1,252)	506	0	(631)

1.Assumes that 10 percent of the demand for townhouses/small lot single family will be accommodated in multi-family units and that another 10 percent will be met by large lot single family units.

Source: Table 8, Recht Hausrath & Associates.

Table 9 shows that the most significant difference between the existing land use Plan and Alternative 5 is in the townhouse/small lot single family category. Alternative 5 is better suited to meet more of the demand for this land use pattern/market segment than the existing Plan. It is expected, given the designations of the existing Plan, that roughly 20 percent of the demand for this land use pattern/market segment will be captured by multi-family and large lot single family units (10 percent for each category). It is assumed that the remaining unmet demand for townhouse/small lot single family units will go elsewhere, e.g. Rocklin. This unmet demand represents 924 units. The existing Plan, however, can accommodate more of the demand for large lot single family units than Alternative 5. Both Plans have sufficient land designated for projected rural and multi-family development.

NON-RESIDENTIAL LAND USE

The market feasibility of the Plan's non-residential land use involves analysis of three distinct market segments: retail, office, and industrial. The analysis is divided into two parts: the first part presents the Auburn-Bowman area's historical employment trends and the forecasted job growth for all three types of non-residential land use. The second part analyzes the future supply of retail, office, and industrial land use proposed in Alternative 5. The analysis estimates absorption rates over the next twenty years and evaluates whether the proposed amount of land uses will be absorbed through the year 2010.

Historical Employment Trends and Projected Job Growth

The fastest growing employment sectors in Placer County over the last three years were related to population growth. For example, jobs in the construction industry, general merchandise and food stores, and personal and business service establishments all increased at double digit annualized growth rates.

In order to establish the area's current employment, RHA used developed square footage data from the County Assessor and SACOG employment statistics. The Assessor's space inventories were divided by average employment densities for retail, office and industrial land uses; Table 10 shows these calculations. This approach assumes full occupancy of all the reported existing space. Institutional employment is estimated from a 1990 County survey and includes employees at the County, Pacific Gas and Electric, Pacific Bell, a private school, Nevada Irrigation District, fire district, Placer County Water Agency and other institutional employers as identified by the County Planning Department. Other employment (e.g. home-based employment and construction) is estimated from SACOG's data base for the four census tracts that encompass the plan area.

Table 10
Auburn/Bowman Community Plan
Existing Space and Estimated Employment

	Existing Space (sq.ft.)	Employment Density (sq.ft./emp)	Total Number of Jobs	Percentage of Total Employment
Retail Segment				
Retail	529,147	450	1,176	13.6%
Restaurant	114,009	450	253	2.9%
Commercial Recreation	40,305	450	90	1.0%
Auto	157,243	450	349	4.0%
Misc. Commercial	60,597	450	135	1.6%
Sub-Total	**901,301**	**450**	**2,003**	**23.1%**
Professional Office	**788,825**	**350**	**2,254**	**26.1%**
Industrial Segment				
Light Industrial	162,982	435	375	4.3%
Heavy Industrial	146,159	870	168	1.9%
Industrial Park	31,752	435	73	0.8%
Warehouse	264,821	870	304	3.5%
Sub-Total	**605,714**	**658**	**920**	**10.5%**
Other			**600**	**6.9%**
Total Private Employment	**2,295,840**	**443**	**5,777**	**66.6%**
Institutional Employment			**2,860**	**33.1%**
TOTAL			**8,637**	

Source: Placer County Planning Department, Recht Hausrath & Associates.

The results derived in Table 10 were confirmed by SACOG's employment data. The SACOG data are divided into two categories: retail and non-retail. The non-retail employment figure conformed closely with estimates derived from the County Assessors space inventory. SACOG's retail employment estimate exceeded the figure derived from the Assessor's space inventory by about 21 percent. (The SACOG data are for four census tracts which are slightly larger than the plan area.) The additional employment in the SACOG estimate is attributed to retail establishments (e.g., restaurants, gas stations) in Penryn and Newcastle which are located in one of the four census tracts that include the plan area, though not in the plan area.

The analysis indicates that the area currently provides about 8,600 jobs, with one third of those jobs being institutional (e.g., government, education and quasi-public employers). Professional offices generate nearly as many jobs or 26 percent of the total. Retail is the next largest employer with 2,003 jobs and 23 percent of the total. Combined industrial and warehouse employment make up nearly 11 percent of the total.

The Center for the Continuing Study of the California Economy (CCSCE) and SACOG both project that the long term average pace of employment in Placer County will grow at about three percent or less, slightly slower than during the eighties. Since most of the County's new jobs will be created in the South County area, including Rocklin, Roseville, and the Sunset Industrial Park, deriving a more accurate projection for job growth in the Auburn/Bowman area required desegregating and analyzing data available from SACOG and other sources.

SACOG publishes 2010 employment projections for the area at the census tract level, with separate projections for retail and non-retail employment. Since retail employment is closely tied to population growth, and RHA's population growth projections differ from SACOG's (see discussion of population growth rates under the residential section), we prepared another retail projection. Our projected retail employment and future demand for retail space are based on an analysis of spending patterns within the Auburn/Bowman community and surrounding areas, the current supply of shopping opportunities, and other factors (see Appendix A). To project job growth in non-retail employment sectors and the resulting demand for office and industrial space, RHA relied on SACOG projections for the four census tracts encompassing the Plan area.

The projections shown in Table 11 are thus a combination of RHA retail projections and SACOG forecasts for non-retail sectors. The underlying employment growth rates reflect expectations that faster growth will occur after the turn of the century. Specifically, SACOG projects that non-retail employment (i.e. office and industrial) will increase at about 1.7 percent annually between 1990 and 2000 but increase by about 2.3 percent per year from 2000 to 2010. The reason for faster growth in the latter ten year period is that SACOG expects most of the growth will continue to occur in the South County area through the year 2000. As that area becomes more developed, Auburn/Bowman will be more attractive to developers as an undeveloped alternative and will experience an increased rate of growth. (It should be noted that SACOG does not provide growth rates for the specific non-retail sectors, e.g. office. This analysis, therefore, assumes the same growth rate for each non-retail sector.)

Table 11
Auburn/Bowman Community Plan
Projections of Employment

Land Uses	1990	2000	2010
Retail	2,003	2,447	2,958
Office	2,254	2,637	3,239
Industrial	920	1,076	1,322
Total	5,177	6,160	7,519

Source: Placer County Planning Department, Sacramento Area Council of Governments, Recht Hausrath & Associates.

Market Feasibility and Competitive Projects

In the following section, the forecasted employment growth discussed above is converted into demand for space for retail, office and industrial land uses (i.e., absorption rates). Table 12 presents the conversion of the employment projections shown in Table 11. The forecasted absorption of new space is derived by multiplying the SACOG employment projections by the corresponding average number of square feet per employee. The last two columns in Table 12 show the 20-year total demand and annual absorption rates for new retail, office and industrial development, respectively.

The projections show that the annual rate of absorption for office, retail and industrial space is about 52,000 square feet per year. Office and retail development are expected to add the most space during the 20 year period, though all three sectors are projected to increase by over 35 percent.

Table 12
Auburn/Bowman Community Plan
Projections of Space Absorption

Land Use	Existing Inventories (1990)	New Space Absorption 1990-2000	New Space Absorption 2000-2010	Total 20 Year Absorption	Annual Rate of Absorption
Retail[1]	901,301	199,700	230,000	429,700	21,485
Office[2]	788,825	134,000	210,700	344,700	17,235
Industrial[3]	605,714	101,400	159,900	261,300	13,065
Total Space	2,295,840	435,100	600,600	1,035,700	51,785

1. Assumes 450 square feet per employee.
2. Assumes 350 square feet per employee.
3. Assumes 650 square feet per employee.

Source: Placer County Planning Department, Sacramento Area Council of Governments, Recht Hausrath & Associates.

In Table 13, these absorption projections are compared to Alternative 5's proposed land use projections. Based on the County's estimate of undeveloped non-residential land and a Floor Area Ratio (F.A.R.) assumption of 0.25, there is the potential for 4.9 million square feet of space. A comparison of this supply potential with the estimated demand indicates that the Plan area is generally well supplied with land designated for commercial and industrial uses: a 56 year supply of retail land, a 27 year supply of office land, and 251 years of industrial land supply is made available under Alternative 5. The underlying reasons for these results are discussed below for each of the three market segments.

Table 13
Auburn/Bowman Community Plan
Commercial & Industrial Development Potential in 2010

	Land Use Segments			Total
SUPPLY	*Retail*	*Office*	*Industrial*	
Vacant Acreage in 2010	122	47	335	504
Floor Area Ratio	0.25	0.25	0.25	
Potential Supply (sq.ft.)[1]	1,195,722	460,647	3,283,335	4,939,704
DEMAND				
Absorption in 2010 (sq.ft.)	429,700	344,700	261,300	1,035,700
Annual Absorption Rate (sq.ft.)	21,485	17,235	13,065	51,785
Years to Buildout[2]	56	27	251	

1. Reflects a ten percent adjustment for streets and utilities.
2. County staff reports that, since the inventory of space was conducted in 1990, an additional 131,600 square feet of office and retail space and 24,000 square feet of industrial space have been constructed in the planning area. This additional space is not incorporated in the calculation of remaining development potential or years to buildout as almost all of the data available for this analysis were from 1990.

Source: Placer County Planning Department. Recht Hausrath & Associates.

Retail Space

Estimates of existing retail space put the current supply at 901,301 square feet within the Plan area. Over 12 percent of this total is in restaurants; auto related uses, including sales showrooms, account for over 17 percent of the total space. Advertised lease rates vary widely, from $.54 to $1.25 per square foot depending on location and type of use.

With regard to land prices, owners of commercial sites (both office and retail) with frontage on Highway 49 are reportedly asking as high as $7 to $8 per square foot, though there have been no sales recorded at those rates. Retail and office sites removed from Highway 49 by one intervening property are listed at $3.50 to $5.50.

During the 1980's, retail development in the Plan area proceeded at a significantly faster pace than office development. This trend is related to the rapid population growth the area experienced in the last decade. It is also indicative of the area's stage in the growth cycle, where it will continue to be for at least five to ten years. Population growth has been and will continue to be the primary stimulus to retail job development in the near term.

Retail activity is discussed here in terms of convenience, highway, tourist and comparison categories, as each of these categories is affected differently by market forces. The potential for further convenience retail development will be tied primarily to population growth in the Plan area. Some portion of the demand for this category of retail space is derived from residents of Nevada County shopping in the Auburn/Bowman area. As expanded shopping opportunities become available in Nevada County, some of that demand will be diverted from the Auburn/Bowman area. It is assumed, however, that as the Auburn/Bowman area continues to develop this potential decrease in demand will be offset by new local residents.

County staff do not anticipate extensive highway and tourist oriented development in the Bowman area beyond currently approved projects. Therefore, the plan area should continue to maintain its current draw from these consumers. Any potential decrease in demand due to competing locations is expected to be countered by the demand from increased traffic.

The Auburn/Bowman market area (including Auburn, Colfax, and the rest of the foothills area of Placer County) is currently under-served by major retail department stores, and clothing purchases are largely made outside of the market area. The population of the area has probably reached a level that justifies additional outlets of this type. Future retail development could include a major chain offering comparison goods such as those found in department stores. The large market area (including outlying areas in both Placer and Nevada counties) has attracted interest. According to the County's economic development director, a number of major retailers have shown interest in the Auburn/Bowman area but have been unable to locate a suitable development opportunity - a large (10 to 20 acres) integrated site with high visibility. Developers may also be concerned that the development of a long anticipated regional mall located in Rocklin or Roseville would draw off much of the potential.

Office Space

Existing office development in the Plan area totals approximately 788,825 square feet, with advertised lease rates ranging from $0.69 to $1.00 per square foot. An additional 3,300 square feet are currently under construction. The volume of current advertised office vacancies in the Auburn/Bowman Plan area is under 19,000 square feet or 2.4 percent; this is most likely an underestimate of true vacancy rates. Brokers report sale prices of $3.50 to $5.50 per square foot for land designated for office use in the Auburn/Bowman area.

Typical office space users include businesses in the finance, insurance, and real estate sector; business and personal services providers; and many health related occupations. The Professional Office land use category (a new designation) targets a market likely to grow in the Auburn/Bowman area over the next decade. Professionals providing business and personal services as well as health care providers can be expected to seek office space in the area as the population grows and becomes more affluent.

For at least the next five years, office development will be oriented predominately to serving the residential population. Demand from economic base employment (e.g., backroom banking operations) will lag until the area develops a critical mass of population, and competition from available space (both vacant and Planned) in Roseville and Rocklin will inhibit large scale office development in the Auburn/Bowman area for the next decade. The Plan area also lacks the large business parks and related services necessary to capture most large users, though some potential for this type of development exists at and near DeWitt Center.

Some office market segments are quite viable in the near term. Most office development in the Auburn/Bowman area is likely to accommodate those business and personal services most closely tied to the residents' needs, e.g. lawyers, physicians, accountants. Such users typically have smaller space needs and desire to locate close to clients and other similar service providers. This type of development should sustain an average annual absorption of 17,235 square feet for office space. This rate does not include demand from institutional employers (e.g., local government offices, PG&E, school districts).

Industrial Land Use

From 1990 to 1991, annual absorption of industrial space in the Auburn area (including the City of Auburn, the Auburn Airport, the Auburn/Bowman community Plan area, and the surrounding vicinity) declined nearly 21 percent, from 27,780 square feet in 1990 to 21,950 square feet in 1991. In contrast, industrial absorption in the South County, while of a far greater volume, fell by over 38 percent.

The available supply of industrial space as of 1990 in the Auburn/Bowman Community Plan area is estimated at 605,714 square feet, or about a third of the Auburn area total. Of this total, 5.7 percent was reported vacant. By the end of 1991, CB Commercial reported a total supply of 1.85 million square feet in the Auburn area, of which 9.2 percent was reported vacant. Industrial jobs comprise almost 11 percent of the Plan area's total current employment and over 26 percent of the developed space. This is a remarkable amount of employment and industrial space relative to the Plan area's population and overall economic position within the county.

Advertised vacancies in the Auburn/Bowman area total 62,300 square feet, with an additional 25,200 square feet reported under construction. In general, the lowest industrial vacancy rates have been in high tech flex space, but a substantial increase in the supply of this category of industrial space (92,054 square feet were under construction in the Auburn area in 1990) created a higher vacancy rate. This type of space differs from standard warehouse and industrial space in that it is typified by generally smaller floor areas, higher quality finishes, higher employment densities and greater potential for combined or convertible use for manufacturing, storage, offices or laboratories. This type of specialty space is included in the category of light industrial.

Advertised lease rates start at $0.35 per square foot for warehouse space, and range from $0.45 to $0.53 per square foot for industrial space. A report to the Placer County Business and Industrial Development Commission estimated industrial land costs at $1 to $2 per square foot. According to area real estate brokers, the best industrial sites (Kemper Road and the Airport were given as examples) command prices comparable to low end retail property, or $3.50 per square foot.

The proposed Plan provides a limited amount of development opportunity for heavy industrial uses, and much of the land with this designation is already developed. Alternative 5 places a greater emphasis on the light industrial land use designation. Three major industrial concentrations are proposed in the Plan: on the west side of the Auburn airport, southeast of the airport and south of Bell Road along the rail line.

Major industrial park development depends on large tracts of land with good transportation access and readily available utilities. This type of development has been the focus of building in the Rocklin and Roseville areas, where major manufacturing facilities have located in parks like the Stanford Ranch. This scale of development is not likely to occur in the Auburn/Bowman area in spite of large areas designated for industrial use.

Growth in industrial employment, and in demand for industrial space, in the Auburn/Bowman area will come from existing businesses undergoing expansion or particularly footloose industries relocating to the area. The latter make location decisions based on reasons other than proximity to markets or resources, and often on the basis of environment or lifestyle. High tech is the best known though not the only example of this type of business.

The plan area, due to its removal from Interstate 80, will not compete well for warehousing and distribution businesses. Instead, likely prospects to occupy new industrial space in the area include small specialty manufacturers needing flex type space. Local brokers report that small manufacturing and high tech companies relocating from the Bay Area to the Auburn area are interested in relatively small floor area industrial leases with opportunities for flexible use. This is substantiated by the county's economic development staff, and by consultants to the Business and Industrial Development Commission, who report that most job growth in the foothills has been in small firms relocating to the area.

The Auburn/Bowman community plan area, along with the airport business park, provide the best potential industrial development sites in the foothills area of Placer County. Key to the future development of these areas will be the provision of infrastructure and services: water delivery, wastewater treatment, and especially access and transportation infrastructure. Real estate brokers report that although the industrial area west of the airport is an attractive site for industrial activity, potential occupants find leasing at the Auburn airport park to be a better financial deal. Inadequate services and the lack of a direct connection to the airport business park are cited as factors influencing the decision to locate elsewhere.

Projected absorption of industrial space is based on current industrial employment and growth rates projected by SACOG. Industrial employment growth should increase after 2000, as more jobs are created in the foothills and the Auburn/Bowman area captures a greater share of those new jobs. Average annual absorption is projected at 13,062 square feet. This amount is roughly equal to two thirds of the amount of industrial space reported absorbed in the entire Auburn area in 1991. There is abundant land designated for industrial development in both the existing and proposed Plans, so that even at this healthy rate of absorption, the supply would not be exhausted for over 200 years.

The abundant supply will help keep land costs down, a factor that should encourage industrial development. This abundant supply, however, may lead to some premature development by less desirable industrial users while the most desirable industrial development leapfrogs these areas and locates in other communities. If the county does not actively manage the vacant supply of industrially zoned land, the combination of its low cost, inadequate access, and other infrastructure constraints may attract undesirable development that will discourage high value or job intensive development. Zoning can help to pinpoint the location for development and to encourage the kind of development suitable for industries likely to grow, such as flex space that can converted to or accommodate office and warehouse activities as well as light manufacturing.

Comparison of Alternative 5 with Existing Land Use Plan

There are a number of differences between the existing Plan and Alternative 5 as the Plans concern commercial and industrial land use designations. The Highway Services category, which governed 136 acres in the existing Plan, is eliminated in Alternative 5. The proposed Plan introduces two new land use designations - Professional Office (PO) and MU. Within the MU category there are seven subcategories - MU/open space, MU/professional office, MU/public, MU/commercial, MU/industrial, MU/commercial, and MU-R, discussed in the residential market section. Each of these subcategories applies to defined areas within the 377 acres designated MU.

Alternative 5 also creates more specific definitions of allowed uses within each land use designation than does the existing Plan. For example, residential use is permitted under each commercial category in the existing Plan. That provision is eliminated in the proposed Plan, and the MU/residential designation is substituted. The PO designation, applied to 90 acres in the proposed Plan, is designed specifically to accommodate office uses, whereas under the existing Plan offices could locate in the commercial category.

The amount of commercial and industrial designated land would also change under the proposed Plan. The number of acres designated Industrial would increase from 498 in the existing Plan to 550 in Alternative 5. The overall acreage of commercially designated property, however, would be reduced by 26 percent from 2,144 acres to 1,585 acres. In Alternative 5, the emphasis is shifted away from the retail-oriented Commercial and Highway Services land use designations to more narrowly defined categories that target certain areas for specific commercial development visions. The 571 acres in the MU category (including 194 acres of MU/public and 173 acres of MU-R) will be subject to more careful land use control than is enabled by the current Plan.

While the two Plans do differ in terms of land use designations, the amount of non-residential development that can be expected from 1990 to 2010 for the Plans is generally the same. The office and industrial space projections are identical. The projection of retail space is lower for the existing Plan as there is less population growth projected: 8,124 population versus 9,821 population. Table 14 presents the projected space for both Plans.

Table 14
Existing Land Use Plan and Alternative 5 Land Use Plan
Non-Residential Development Potential:1990-2010

	Retail	Office	Indus-trial	Total
Existing Land Use Plan	355,400	344,700	261,300	961,400
Alternative 5 Land Use Plan	429,700	344,700	261,300	1,035,700
Difference Between Alternative 5 and Existing	(74,300)	0	0	(74,300)

Source: Table 13, Recht Hausrath & Associates.

FISCAL ANALYSIS OF THE PROPOSED PLAN

This section analyzes the fiscal impact on Placer County of expected development in the Auburn/Bowman area. After calculating the cost/revenue balance for Alternative 5 of the proposed Community Plan, that development scenario is contrasted with the fiscal implications of the existing land use Plan. This study focuses on the local revenues from each scenario, i.e. aid from the State and Federal governments is not estimated. Similarly, the section on costs isolates the County's local fiscal responsibility, net of expenditures that are the responsibility of the State or Federal governments.

Many of the revenue sources projected in this report, and all of the service costs, are calculated on an average per capita basis. In other words, this study measures the impacts on the County of new development on the basis of people, i.e. residents and employees, as opposed to building square feet. It is assumed that future residents and employees will generate revenues and costs at approximately the same levels as the current population. Current average revenues and costs are calculated by dividing total amounts reported in the 1990/91 budget by appropriate groups of population and employees.

In considering any particular cost or revenue, the appropriate population to use as a divisor hinges on two considerations: 1) will new employees/businesses as well as residents generate additional revenues or costs, and 2) does development in the unincorporated area contribute a larger amount of revenue or cost than development inside cities? Employees do contribute to several revenue sources; sales tax, for example. They also impact public service costs. The Sheriff responds to calls in convenience marts as well as residences. The impact of employees on either costs or revenues is somewhat less than that of residents, however, partly because employees are only present in the county five days out of the week. To account for the lower impact of employees, they are weighted at an appropriate amount in relation to residents. The weight of employees varies from 41 percent for costs relating to public protection costs to zero for welfare and library costs. A similar weighting procedure adjusts for the difference in County service costs and revenues between residents of the unincorporated area and city residents.

The following section describes additional revenues and costs that can be expected from new development given Alternative 5 of the Auburn/Bowman Community Plan. The overall fiscal impact of Alternative 5, or the cost/revenue balance, is the difference between revenues and costs. A parallel analysis is outlined for the existing land use Plan. Alternative 5 is then compared with the existing land use Plan, and the final section compares seven land uses in terms of fiscal consequences for the County.

ALTERNATIVE 5

Revenues

Table 15 shows total revenues to the County from development that can be expected as a result of Alternative 5 of the Auburn/Bowman Community Plan.

Table 15
Revenues to the County General Fund
from the Auburn/Bowman Community Plan, Alternative 5

	1995	2000	2005	2010
Property Tax	$793,000	$2,019,000	$3,787,000	$6,139,000
Property Transfer Tax[1]	39,000	105,000	203,000	334,000
Sales Tax	237,000	574,000	1,014,000	1,536,000
Licenses and Permits	154,000	371,000	658,000	996,000
Fines and Forfeits	45,000	109,000	191,000	290,000
Other Revenues[2]	189,000	460,000	812,000	1,228,000
Total	$1,457,000	$3,638,000	$6,665,000	$10,523,000

1. Does not include transfer tax generated by non-residential development.
2. Includes revenues such as Use of Money and Property, Interest Income, Miscellaneous, and Aid from Other Governments.

Source: Placer County 1990-1991 Actual/Estimated Budget; Recht Hausrath & Associates.

In addition to the revenues shown in Table 15, development of the Auburn/Bowman plan area as outlined by Alternative 5 should generate $40,000 in property tax revenue to the Placer County Library District in 1995. By 2010, that amount will increase to $171,000 (in 1995 dollars).

These estimates of property, property transfer, and sales tax revenues are based on specific analyses which measure the marginal, or incremental, benefit to the County from expected development in the plan area. Assumptions that drive property and sales tax analyses are reviewed in this section in considerable detail. All other revenue estimates are based on current average revenues derived from the 1990/91 Actual/Estimated budget. (See the Introduction for a general description of the methodology for calculating average revenues.)

Property Tax

Property tax is the single largest source of revenue from new development. Because property typically increases in value faster than the rate of inflation, over time property tax becomes an even more significant revenue source, increasing to 61 percent of total revenue in 2010 from 57 percent in 1995.

A computer model developed by RHA was used to project the increase in assessed value in the plan area under Alternative 5 given the results of the market analysis and assumptions regarding appreciation and turnover of property. Property tax receipts to the County are the result of overall assessed value and the percentage of taxes the County receives in applicable tax rate areas.

Both the change in assessed value and the distribution of taxes in any one tax rate area are shaped by the provisions of Proposition 13. Under current California law, assessed value (AV) increases by two percent a year, except on a change in ownership, at which time properties are reappraised at market value. Because of the two percent clause, assessed value typically lags market value, and that gap becomes larger each year. When dealing with a number of properties over time, a certain percentage of which are turned over each year, the average AV can range from 60 to 90 percent of market value. The rate of turnover determines how large the gap between AV and market value becomes. For example, a neighborhood where homes are sold on average every three years will have a higher AV overall than one where owners hold their homes for twenty years.

This analysis assumes an appreciation rate of six percent for residential property; on average homes are assumed to turnover every seven years (or in any one year one seventh of the housing is sold). Turnover of commercial space is estimated to occur every 15 years. Additional information on assumed phasing and magnitude of development can be found in the market analysis section and in Appendix C.

Homeowner's Property Tax Relief monies are not explicitly calculated in this study. In reality, the County forgoes homeowner's property tax exemptions and is reimbursed by the State. In this analysis, the foregone amount is not separated out and appears in the total property tax estimate.

The County's share of property tax revenue in the plan area is approximately 30 percent, based on a survey of tax rate apportionments in the 17 largest tax rate areas in the plan area. The Library District receives approximately 1.5 percent of each property tax dollar generated by new development. Other jurisdictions which will receive additional property tax revenue generated by development in Auburn/Bowman include the Auburn Recreation District, and various school districts and fire districts.

Property Transfer Tax

When a property is sold, or otherwise transferred in ownership, it is assessed a tax of $1.10 per $1,000 of value. In the unincorporated area, the County receives the full amount of property transfer tax. A seven year turnover rate implies that each year 14 percent of the total units in the project will change ownership. This number of units, multiplied by the inflated average market price per unit, is the basis for projected property transfer tax revenue shown in Table 15.

Sales tax

While sales tax is a small percentage of total County revenue, it represents a significant revenue source from the development identified in the Auburn/Bowman plan area. In Placer County, for every sale of $1.00, the consumer pays 7.25 cents in sales tax (no sales tax is paid on food and prescription drugs). If that sale occurs in the unincorporated part of the county, the County receives one cent of that total sales tax. That one cent accrues to the cities if the sale occurs inside city boundaries. Of the total 7.25 cents, 0.25 cents on sales anywhere in the county is allocated to the County for local transportation projects. The revenue resulting from the .25 cents is currently shared between the Public Ways and Facilities fund and transportation related enterprise funds. In future years, that portion of the sales tax will be transferred completely to enterprise funds, and so is not considered in this analysis.

Sales tax is the result of the interaction between the supply of retail services, or retail establishments, and the demand for retail services generated by residents and employees. The development resulting from the Auburn/Bowman Community Plan includes elements of both supply and demand. While it is clear that additional development in Auburn/Bowman will increase sales tax revenues to the County, allocating the benefit of increased sales tax revenue between different land uses is less straightforward.

For example, attributing all the sales tax to new retail ignores competition between new and existing establishments. Unless new retail serves a new or currently unmet demand, it will only draw off sales from existing establishments. It is possible for additional retail space to result in no, or very little, sales tax revenue (for example the fifteenth video rental store in a neighborhood).

There is no question that residential and business development will increase the demand for retail, and thereby increase taxable sales. Where those sales take place is a crucial question. If future Auburn/Bowman residents prefer to shop outside the county, for example, the County would not receive any additional sales tax revenue. The sales tax model developed for this analysis combines both a supply and a demand based approach. Both models are reviewed below.

Demand Based Approach

The goal of the demand based approach to modeling sales tax revenue is to arrive at an average amount of sales tax generated per capita, given assumptions about leakage of sales from the area, capture rates of local demand, and sales to tourists and other sources of outside demand. As with other average revenues and costs, the multiplier is based on revenue generation by current population and employment in the county.

In 1990, approximately $524 million dollars of taxable sales occurred in the unincorporated area of Placer County. The first step towards accounting for those sales is to identify separate regions of the county in terms of consumer expenditures and market areas. For example, Tahoe is essentially an independent region in terms of sales; Tahoe residents do not travel to Auburn to shop for most goods, and vice versa. The relationship between the mid-County and South-County regions is slightly more complex. This analysis assumes that sales flow southward, i.e. that mid-County residents shop in Roseville (and even further in Sacramento), for some types of goods, but that South County residents do not travel to the Auburn area for retail services.

The implication of this model is that the $524 million in taxable sales in the unincorporated area is mainly attributable to sales which occurred in Tahoe and the mid-County region. South County residents, whether they live in cities or in the unincorporated area, are estimated to contribute five percent of the County's sales tax revenues. Of the total taxable sales in the unincorporated area, approximately 34.5 percent is generated in the Tahoe region (see Appendix B for derivation of this percentage). The mid-County region, then, generated 60.5 percent or $317 million in taxable sales to the County in 1990.

Including taxable sales that occurred in Auburn and Colfax, the total taxable sales in the mid-County region in 1990 were $464 million. Local residents of all three jurisdictions contributed to those taxable sales, but several sources of demand from outside the region also made taxable purchases in the region. Before calculating the per capita sales tax multiplier, the sales attributable to outside demand must be identified.

Outside demand is estimated to account for 21 percent of the sales in the mid-County region (again, refer to Appendix B for the derivation of that percentage). Local demand is therefore responsible for $4.8 million in sales tax revenue in the mid-County region. That total translates to $79 on a per capita basis.

Future residents and employees of Auburn/Bowman can be expected to bring at least $79 per capita in sales tax to the region. Which jurisdiction receives that revenue, however, depends again on the pattern of consumer expenditures within the mid-County. By comparing sales tax received by each jurisdiction in 1990 with population estimates, we can model these flows. Table 16 shows one possible pattern of expenditures between

Colfax, Auburn, Auburn/Bowman, and the remainder of the unincorporated area that would account for actual sales tax receipts in 1990/91.

Table 16
Pattern of Consumer Expenditures, Mid-County Region

	Where Sale Occurs				
Source of Sale	Auburn	Colfax	Auburn/ Bowman	Other Foothills	Total
Auburn	$39.50	$ 0.00	$39.50	$ 0.00	$79
Colfax	0.00	38.00	41.00	0.00	$79
Auburn/Bowman	39.50	0.00	39.50	0.00	$79
Other Foothills	0.00	11.00	43.00	25.00	$79

Source: Recht Hausrath & Associates

The market analysis indicates that under Alternative 5, 9,821 new residents and 2,342 additional employees will have moved to the County by 2010. According to this model of sales tax generation, new development in Auburn/Bowman will generate $905,000 in sales tax revenue to the County (in inflated dollars) by 2010. Development in Auburn/Bowman will also result in increased sales tax revenue for the City of Auburn.

Supply based approach

As already discussed, approximately one quarter of the sales at existing retail stores in the mid-County region derives from outside demand, namely tourists, drivers on I-80 and Highway 49, and residents of surrounding counties. Auburn/Bowman is an even smaller area, and as a result the percentage of sales related to outside demand is even higher, approximately 69 percent. While this demand is unrelated to the sales tax amount quoted above, additional retail space will be built to service demand from outside the area (see market section for a discussion of the relationship between local and outside demand and retail development in Auburn/Bowman). Of the total projected retail square footage, 429,700 square feet, approximately 293,000 relates to outside demand. That space will generate $630,000 in sales tax revenue by 2010 (in inflated dollars) and that revenue is attributed to retail land uses, as opposed to land uses that create additional local demand for retail.

Other Revenues

Fees paid for licenses and permits, fines and forfeits, and other miscellaneous revenues can also be attributed to development in Auburn/Bowman. Budget estimates for each type of revenue are divided by the appropriate population group to derive per capita revenue amounts. Figure 1 shows how population groups are weighted to arrive at the appropriate divisor population for each of these revenue sources. In some cases, population in the unincorporated area generates a higher per capita revenue to the County than city residents.

Figure 1
Divisor Population Groups, Other Revenues

Relative Weighting of Unincorporated and City Residents

Uninc = Inc	Uninc > Inc	Uninc Only
Judicial Fines and Forfeits	Vehicle Fines Other Revenues	Licenses and Permits

License and Permits. In 1990/91, the County estimated that it would receive approximately four million dollars in revenue from licenses and permits. Construction permits, which include septic permits, energy review fees and underground tank permits, represent 55 percent of this total. Business permits and franchises are also included in this revenue category.

All of these licenses and permits are primarily the result of activity in the unincorporated area. For example, city residents and businesses will have no need to acquire most types of County permits, especially building permits. Within the unincorporated area, businesses as well as residents purchase many types of licenses and permits. They purchase business licenses, restaurants require health inspections and licenses, and construction permits are required for non-residential development.

Fines and Forfeits. Revenue from fines and forfeits was estimated at $2.2 million in 1990-91. Approximately 45 percent of that revenue resulted from vehicle fines; the remainder came from other types of court fines and various county penalties.

Vehicle fines are treated separately from other fines and penalties because the County receives only 26 percent of the fine paid on a traffic ticket received in a city. In the unincorporated area, the County receives the full amount of the vehicle fine. Assuming that residents of the unincorporated area are more likely to get tickets outside of cities, they will contribute more on a per capita basis to vehicle fine revenue than city residents. There is no comparable distinction between city residents and residents of the unincorporated area for other types of judicial fines.

Employees are also included in the divisor population. One reason for projecting that business development will result in additional fine revenue is that employees receive traffic tickets while on the job. Businesses also pay consumer fraud fines and forfeit property.

Other Revenues. This revenue source consists of leases on county owned property, interest income on fund balances, miscellaneous revenue, and revenue from other government agencies. None of these revenues in and of themselves are an impact of growth, i.e. new development will not necessarily result in increased interest and lease income. However, these revenues are not an insignificant source of revenue to the County, and new development should be credited with a portion of future revenue in these categories.

Because these revenues do not increase with population, as population and employment increase, the average revenue amount per capita will get smaller. County population is projected to roughly double by 2010. Therefore, the per capita revenue amount for Other Revenues assumed in the fiscal model is one half the average revenue amount in 1990/91.

County Service Costs

Table 17 lists the total cost to the County to provide services to the residents and employees identified in Alternative 5 of the Community Plan.

Table 17
County Service Costs, General Fund
Auburn/Bowman Community Plan, Alternative 5

	1995	2000	2005	2010
General Government	$509,000	$1,233,000	$2,179,000	$3,301,000
Public Protection	708,000	1,718,000	3,039,000	4,615,000
Health and Sanitation	63,000	151,000	267,000	404,000
Public Ways and Facilities	124,000	301,000	532,000	806,000
Public Assistance	133,000	323,000	570,000	860,000
Recreation & Culture	14,000	35,000	61,000	92,000
(Adjustment for Other State Aid)[1]	58,000	141,000	249,000	378,000
(Adjustment for Other Charges)	44,000	108,000	192,000	289,000
Total	$1,449,000	$3,512,000	$6,207,000	$9,411,000

1 Other State Aid includes funding for Mandated Costs, Other, and Child Abuse Protection.

Source: Placer County 1990-1991 Final Budget; Recht Hausrath & Associates.

In addition to the costs incurred against the General Fund, the Library District will also experience increased demand for services and increased costs. These costs are estimated at $38,000 in 1995, and grow to $136,000 by 2010 (in 1995 dollars).

These costs are based on actual/estimated expenditures for county functions. Similar to the analysis of average revenue generation, these per capita costs reflect two divisions: 1) between countywide services and services oriented exclusively to the unincorporated area, and 2) between residents and employees. Figure 2 groups county expenditure categories along these two dimensions.

Figure 2
County Expenditures by Service Population

	Countywide	Unincorporated Area
Residents Only	Welfare Libraries	
Residents and Employees	Health Justice & Jails General Admin	Sheriff Patrol General Admin Public Ways

As described in the introduction to this section, State and Federal revenues are not included in either revenues or costs. In general, State and Federal subventions are restricted to social services, mainly health and welfare. Theoretically, these revenues rise as the service population (welfare recipients, veterans, etc.) increases. For this reason, to the extent that a program is supported by subventions, it may grow without a direct fiscal impact on the County.

Services supported by user charges are also excluded from the local cost of service. New residents and employees that require a county service will pay the charge that covers the cost of that service. To the extent that charges for services cover the cost of those services, increased demand will be offset by a higher amount of user fee revenue, canceling out part of the fiscal impact on the County. The cost estimates in Table 17 include any part of the service cost that is not covered by charges for services.

Finally, some budget items include expenditures for capital facilities, notably the County Office Building. Capital costs are excluded from total costs because the capital costs to accommodate new development are dealt with in other sections of this report and in other reports completed for the Community Plan. The exclusion of subvented revenue, charges for services, and payments for capital facilities leaves as a remainder the cost of services funded by local revenues, i.e. the revenues described in the previous section.

Table 18 shows per capita costs for all county expenditure categories. These costs relate to development in the unincorporated area only. The cost per resident of incorporated areas is $197, less than one half the cost to the County of unincorporated area residents. The marginal costs of county service to the unincorporated area consist primarily of Sheriff patrol and other public protection services such as planning, an additional component of administrative costs, and the cost of road maintenance.

Table 18
Per Capita Service Costs
Unincorporated Placer County

Expenditure Category	Cost per Resident	Cost per Employee
General Administration	$145.23	$34.23
Public Protection	195.36	80.05
Health and Sanitation	18.16	2.45
Public Ways and Facilities	35.47	8.36
Public Assistance	39.97	
Recreation & Culture	4.28	
Library	1.42	
(Adjustments)	29.31	6.94
Total	$410.58	$118.15

Source: Recht Hausrath & Associates.

The per capita costs detailed in Table 18 are multiplied by the projected increase in service population in the Auburn/Bowman Community Plan Area under Alternative 5 to derive the total costs to the County, which appear in Table 17 at the beginning of this section.

Cost/Revenue Balance

The General Fund revenues projected in Table 15 are compared to anticipated service costs in Table 19. Table 20 shows the same comparison for the Library Fund.

Table 19
Cost/Revenue Balance, General Fund
Auburn/Bowman Community Plan, Alternative 5

	1995	2000	2005	2010
Total Revenue	$1,457,000	$3,638,000	$6,665,000	$10,523,000
Total Costs	1,449,000	3,512,000	6,207,000	9,411,000
Cost/Revenue Balance	$ 8,000	$ 126,000	$ 458,000	$ 1,112,000

Source: Tables 15 and 17.

Table 20
Cost/Revenue Balance, Library Fund
Auburn/Bowman Community Plan, Alternative 5

	1995	2000	2005	2010
Total Revenue	$40,000	$101,000	$190,000	$308,000
Total Costs	38,000	92,000	163,000	246,000
Cost/Revenue Balance	$ 2,000	$ 9,000	$ 27,000	$ 62,000

Source: Placer County 1990-91 Actual/Estimated Budget, Recht Hausrath & Associates.

Under Alternative 5, anticipated development in the Auburn/Bowman area will have an initial fiscal balance that is close to zero. The fiscal benefit of that development improves significantly over time. This improvement is attributable primarily to the rate of property appreciation of six percent, two percent higher than the assumed rate of inflation. While this appreciation rate is reasonable given the performance of most real estate markets in Placer County in the 1980s, it is possible that future appreciation rates will be slower.

EXISTING LAND USE PLAN

Revenues

All of the revenues discussed for Alternative 5 will also be present should the current land use plan remain in place. Table 21 shows total revenues from the existing land use plan. Because the existing land use plan allows for less population growth than Alternative 5, total revenues are lower.

County Service Costs

Table 22 shows total service costs under the existing land use Plan. Again, these are calculated on the basis of the per capita costs shown in Table 18. Different population and employment forecasts account for the differences between Table 22 and Table 17.

Table 21
Revenues to the County
Auburn/Bowman Existing Land Use Plan

	1995	2000	2005	2010
Property Tax	$ 719,000	$1,687,000	$3,192,000	$5,497,000
Property Transfer Tax	34,000	87,000	169,000	296,000
Sales Tax	217,000	466,000	810,000	1,279,000
Licenses and Permits	141,000	302,000	525,000	829,000
Fines and Forfeits	41,000	88,000	153,000	242,000
Other Revenues	176,000	372,000	646,000	1,020,000
Total	$1,328,000	$3,002,000	$5,495,000	$9,163,000

Source: Placer County 1990-1991 Actual/Estimated Budget; Recht Hausrath & Associates.

Table 22
County Service Costs
Auburn/Bowman Existing Land Use Plan

	1995	2000	2005	2010
General Government	$ 467,000	$1,001,000	$1,740,000	$2,748,000
Public Protection	651,000	1,401,000	2,441,000	3,859,000
Health and Sanitation	57,000	122,000	212,000	335,000
Public Ways and Facilities	132,000	288,000	505,000	801,000
Public Assistance	122,000	260,000	451,000	712,000
Recreation & Culture	13,000	28,000	48,000	76,000
(Adjustment for Other State Aid)[1]	53,000	115,000	199,000	315,000
(Adjustment for Other Charges)	41,000	87,000	152,000	240,000
Total	$1,348,000	$2,898,000	$5,046,000	$7,976,000

1. Other State Aid includes funding for Mandated Costs, Other, and Child Abuse Protection.

Source: Placer County 1990-1991 Actual/Estimated Budget; Recht Hausrath & Associates.

Table 23 subtracts costs from revenues to calculate the cost/revenue balance projected given the existing land use Plan for the County General Fund. Table 24 shows the cost/revenue balance for the Library Fund.

Table 23
Cost Revenue Balance, General Fund
Auburn/Bowman Existing Land Use Plan

	1995	2000	2005	2010
Total Revenue	$1,328,000	$3,002,000	$5,495,000	$9,163,000
Total Costs	1,348,000	2,898,000	5,046,000	7,976,000
Cost/Revenue Balance	$ (20,000)	$ 104,000	$ 449,000	$ 1,187,000

Source: Tables 21 and 22

Table 24
Cost Revenue Balance, Library Fund
Auburn/Bowman Existing Land Use Plan

	1995	2000	2005	2010
Total Revenue	$36,000	$84,000	$159,000	$274,000
Total Costs	35,000	74,000	129,000	203,000
Cost/Revenue Balance	$ 1,000	$10,000	$ 30,000	$ 71,000

Source: Placer County Actual/Estimated 1990-91 Budget, Recht Hausrath & Associates.

COMPARISON OF ALTERNATIVE 5 WITH EXISTING LAND USE PLAN

Both land use scenarios have a fiscal result that is close to zero in the earlier part of the projection period. This analysis suggests an essentially break-even situation in the first five to ten years followed by a gradually increasing fiscal surplus. Note that because the model is based on average revenue and cost assumptions, the "average" project (one that represents the current land use mix and assessed value of the county) will result in no fiscal impact. Under either the existing Plan or Alternative 5, it is projected that there will be a larger percentage of higher density/lower value housing types than is currently the norm in the county. This suggests that the average AV of the development proposed in the plan area under either Plan will be lower than the rest of the county, which reduces the fiscal balance. Both Plans feature a large component of high value rural housing, however, with values significantly higher than the current county average. Over time, the higher value housing and the non-residential uses will generate a sufficient surplus to pull the whole project into the range of fiscal benefit.

A comparison of Tables 19 and 23 indicates that the fiscal consequences of the existing Plan and Alternative 5 are very similar throughout the study period, although the existing plan has a lower fiscal balance initially and a slightly higher balance by 2010. Again, the difference in the fiscal balance between the two is primarily attributed to the mix of housing types. In general, the supply for large lot single family housing is limited under Alternative 5 and higher density housing is encouraged. The existing Plan is oriented in the opposite direction. Under the existing Plan, the supply of land for higher density single family and townhouses is limited by the year 1993, and so the bulk of housing under the existing Plan will be lower density single family units with a generally higher value. By 2010, the differences between these two plans in terms of the average value of housing, and property tax generation is clearer.

FISCAL COMPARISON OF LAND USES

Comparing land uses in terms of fiscal benefit provides insights into the fiscal model and clarifies the impact of various land uses on the County. This exercise highlights some of the limitations of fiscal modeling, however. For example, individual land uses generally do not exist in a vacuum (with the exception of industrial development). On the contrary, different grades of housing are generally interdependent. The most expensive residential neighborhood requires policemen, school teachers, bus drivers, and gardeners who typically live in more moderately priced housing.

The interdependence of land uses is more pronounced when comparing residential with non-residential land uses. Although office uses frequently prefer to locate near other offices, proximity to housing for workers is also an important location factor. Retail development depends even more closely on nearby residential neighborhoods. Dividing sales tax between retail and residential uses is one way to account for this dependence, although it may not fully account for the causal relationship between housing and retail.

Keeping these caveats in mind, Table 25 compares per capita revenues and costs by land use given Alternative 5. Table 25 reiterates the conclusion that higher density/lower value housing does not fund the County's cost of service in the unincorporated area. Rural housing generates twice the revenue of multi-family housing, on a per capita basis. Because of its higher revenue generation, rural housing represents a sizeable fiscal surplus to the County.

Table 25 also shows that costs and revenues increase at different rates. Service costs are assumed to increase with inflation at four percent per year. Property taxes, on the other hand, are modeled to increase at a rate between four and six percent (the rate of appreciation in market value of housing).[1]

Table 25
Per Capita Fiscal Balance by Residential Land Use

	1995	2000	2005	2010
Per Capita Revenues				
Multi-Family	$310	$385	$483	$609
Townhouse	384	480	607	772
Single-Family	509	641	810	1,024
Rural	$627	$793	$1,015	$1,309
Per Capita Costs	$512	$623	$757	$921
Cost/Revenue Balance				
Multi-Family	-202	-237	-274	-313
Townhouse	-128	-142	-151	-149
Single-Family	-2	19	52	103
Rural	116	171	258	388

Source: Recht Hausrath & Associates

Over time, for example in the case of single-family units, the higher rate of growth of revenues overwhelms the increase in costs, and reverses the initial negative result.

The initial fiscal balance of a particular land use category also significantly affects its long run performance. Rural housing starts out with a large surplus, and that surplus grows over time as revenues continue to outpace costs. Revenues also increase faster

[1] The rate of turnover determines how closely assessed value follows market value. The increase in property tax between 1990 and 2010 is higher than it will be in subsequent years, because new units which are sold each year function essentially as if they were turned over.

than costs for multi-family housing, but because of the large initial difference between revenues and costs, higher marginal revenues are drowned out by larger absolute increases in costs.

Table 26 compares non-residential land uses on the basis of employees.

Table 26
Per Capita Fiscal Balance by Non-Residential Land Use

	1995	2000	2005	2010
Per Capita Revenues				
Retail	$713	$872	$1,048	$1,237
Office	162	202	255	324
Industrial	181	226	285	363
Per Capita Costs	144	175	213	259
Cost/Revenue Balance				
Retail	569	697	835	978
Office	18	27	42	65
Industrial	37	51	72	104

Source: Recht Hausrath & Associates

Given the assumptions regarding the service costs of employees versus residents, non-residential land uses are fiscally beneficial to the County. Retail development demonstrates the largest fiscal benefit, but this result should be interpreted broadly. This is because retail land uses are credited with the component of sales tax revenue attributed to outside demand which was assumed to increase in proportion with local retail demand. It is conceivable that the proportion of outside sales will decline as surrounding areas develop commercially, which would reduce the fiscal return of retail land uses.

One of the reasons that office uses exhibit a lower fiscal surplus is that office has the highest employee density. Since costs are assessed against all three uses on a per employee basis, office uses appear to present the highest relative cost to the County.

In actuality, retail uses generate the majority of public protection costs credited to employees. Shoplifting, robberies, and crimes related to liquor stores represent almost all of the crimes identified with non-residential land uses from the Placer County Sheriff's dispatch records. One way to make the analysis even more specific is to allocate a larger share of public protection costs to retail to reflect this. That refinement would result in a more even fiscal balance across non-residential land uses.

FIRE PROTECTION FACILITIES & SERVICES

Description of Department and Services

Four agencies provide fire protection and emergency medical response to the Auburn/Bowman plan area: the Placer Foothills Consolidated Fire Protection District, the City of Auburn Fire Department, the California Department of Forestry (CDF) and the Newcastle Fire District. A brief description of each agency follows.

Placer Foothills Consolidated Fire Protection District: This District operates four stations; two of these stations are located in North Auburn, one in Ophir, and the other in Bowman. The District's service area covers about 60 square miles all in the unincorporated area. It maintains an ISO[2] rating of Class 4 in the more urban areas of the district. Two stations are housed in leased space, and the District plans to relocate its Bowman station should the Bowman/Christian Valley area annex to the District.

The District's existing equipment totals 16 fire engines, rescue and other emergency vehicles. Current staff includes a fire chief and an administrative assistant, seven full-time firefighters, 13 part-time firefighters and 35 paid volunteers. The District will add five professional suppression positions for the coming 1992/93 fiscal year.

City of Auburn Fire Department: The Auburn Fire Department operates five stations inside the city boundaries. Four stations serve the urban areas and the fifth station is located in the industrial center adjacent to the Auburn Airport. The Department employs two full-time firefighters, one part-time fire marshal, an assistant fire chief and 45 volunteer firefighters. The City owns 14 fire engines and rescue vehicles. The Department maintains an ISO rating of Class 4.

California Department of Forestry: The primary responsibility of CDF includes fire suppression and prevention of all the wildland regions outside of incorporated cities. The CDF also provides structural fire protection under contract with the county. The County's current contract pays the CDF $22,000 per year. The CDF operates four stations in Placer County, and one of these stations is located in the Bowman/Christian Valley area. CDF relies on mutual aid from both the Auburn Fire Department and the

2. Insurance Service Organization rating (ISO) reflects fire suppression response time based on a schedule of ten public protection classifications that range from Class 1, which indicates the highest level of protection and usually affords properties the lowest insurance premium, to Class 10. The poorer (or higher) ratings generally occur in more rugged mountainous areas with inadequate hydrants and insufficient water flow. The ISO ratings in Placer County range from class 4 to class 8.

Placer Foothills Consolidated Fire Protection District to provide adequate fire protection for the Bowman/Christian Valley area. The Bowman area has a Class 4 ISO rating, but the Christian Valley area is rated at 10 because it is located outside of the five mile radius of the CDF Bowman station.

Newcastle Fire Protection District: The Newcastle District includes about 200 acres southwest of the City of Auburn and serves about 10,000 residents. The District's service area, however, includes only 21 residential structures within the plan area. Currently, it has one station staffed by six part-time firefighters and six emergency vehicles. It is constructing a second station on Ridge Road and plans a third station on a donated parcel in Green Ranch Estates, located on Route 193. The District maintains an ISO rating of Class 7.

Facility Needs

All four of the fire agencies serving the plan area provide generally acceptable levels of service to existing development within their respective districts (with the possible exception of the Bowman/Christian Valley area. Each agency has a capital facility plan and imposes assessment and/or impact fees on new development to fund capital improvements and/or operating expenses. Future development in the plan area will impact each district differently; thus, the following discussion presents each district's facility needs separately.

Placer Foothills Consolidated Fire Protection District

The Placer Foothills Consolidated Fire District has proposed annexing the Bowman/Christian Valley area that CDF currently serves. The Placer Foothills District would have to relocate its Bowman station and augment its current equipment inventory to serve the existing population and structures. The relocated station would require similar equipment and staffing as the existing CDF station with some modifications. Specifically, the District would need an additional fire engine, a medical squad truck, a wildland/grassland fire truck, and a 100-foot ladder truck. The District would staff the new station with 12 professional firefighters in order to provide 24-hour coverage.

The relocation of the Placer Foothills station and its new equipment would be sufficient to serve the existing development and population in the Bowman/Christian Valley area. The District believes that it would only have to hire additional professional staff to serve future growth.

City of Auburn Fire Department

The Auburn Fire Department has formal and informal mutual aid agreements with the other three districts to assist with emergencies in the plan area. The Department, therefore, anticipates that future development of multi-story buildings in the plan area may necessitate replacement of its 40-foot aerial truck with a 100-foot one. Such a replacement, however, does not diminish the equipment required by whichever fire agency must provide primary protection to the area. The aerial truck's replacement, therefore, will be at the discretion of the City and, therefore, is not dealt with further in this report.

California Department of Forestry

The CDF currently serves the Bowman/Christian Valley area and would have to increase its facilities to serve new development in that area. Currently, the fire protection in Christian Valley is sub-standard as indicated by an ISO rating of class 10. While any significant improvement to the current service level is constrained by a lack of sufficient revenues from the area's existing tax base, funding from new development should generate sufficient capital and operating revenues to augment service levels.

The CDF has proposed plans to expand its station, equipment, and professional staffing to improve service to existing development and to serve new development. These plans include a second fire station (about 4,000 square feet) staffed with six full-time professional firefighters. In addition, CDF would need an all-purpose vehicle for medical emergencies and fire suppression.

Newcastle Fire Protection District:

The Newcastle Fire District serves the southwestern corner of the plan area and currently provides an acceptable level of service. The District's new second fire station will provide additional fire protection to this small corner of the plan area, but the area's low potential for significant amounts of new development will virtually negate the need for additional protection.

As an alternative to the Newcastle District's continued responsibility for the southwestern corner of the plan area, the *Auburn/Bowman Community Plan* has suggested the Auburn Fire Department take over the area's protection. The Department's new Maidu Station is in closer proximity to this area than Newcastle's existing station or its future second station.

Facility Cost

Neither the Auburn Fire Department nor the Newcastle Fire District will require additional facilities to serve new development in their parts of the plan area. The Bowman/Christian Valley area is the only part of the plan area that will require additional facilities and equipment to serve future growth. The County has not decided whether it will continue to contract with CDF or allow the Placer Foothills District to annex the area into its current district. At present, only the Placer Foothills District has located a parcel for relocation of its station and identified funding sources for its purchase of the additional equipment and hiring of additional staff. The County, however, has not as yet located a site for a new CDF station or secured a source of funding for the contract costs for CDF service. The following facility costs, therefore, estimate the expense of relocating the Placer Foothill District's Bowman station and the additional equipment needed.

The *Auburn/Bowman Community Plan* provided cost estimates for the additional facilities needed to serve the existing population at an adequate level of service and provide protection to the projected new development. The Placer Foothills District has revised these estimates to reflect their anticipated cost to provide service. Table 27 presents the Placer Foothills District estimates.

Table 27
Additional Facilities Needed To Serve Existing & New Development in the Bowman/Christian Valley Area ***(1992 dollars)***

Facility & Equipment	CDF	Placer Foothills District
Relocation of Fire Station (4,000 sq.ft.)[1]	$ 540,000	$ 540,000
Water Tanker	100,000	100,000
Wildland Truck	n/a	120,000
100-foot Aerial Ladder Truck	250,000	250,000
Firefighter Turnout Equipment[2]	24,480	24,480
Total Facility Cost	$ 914,480	$1,034,480

1. The relocated station would cost approximately $135 per square foot and would not include the 0.5 acres of land that developers may dedicate. The new station would include living quarters for 12 personnel.
2. Protection gear costs approximately $2,040 per firefighter. The total cost assumes 12 personnel. CDF staffing would cut this number to six, thus costing $12,000.

Source: California Department of Forestry, Placer Foothills Consolidated Fire Protection District, Auburn/Bowman Community Plan, and Recht Hausrath & Associates.

Preliminary cost to either construct a new CDF station or relocate the Placer Foothills District's Bowman station is estimated at $540,000 ($135 per sq.ft.). The Placer Foothills District based its estimated costs for land acquisition and construction for a 4,000 square foot station with living quarters for 24-hour fire protection services and located on a specific site. Both the CDF's new station or Placer Foothills District's relocated station would also require additional equipment including: a water tanker, a 100-foot aerial truck, and turnout equipment. The Placer Foothills District would also require a wildland/grassland fire truck.

Alternative Funding Sources

The projected growth in the plan area will force the County to improve fire protection to existing development and provide this higher service level to new development. The requisite improvements will involve additional capital funding and higher operating costs. There are generally three funding sources available to cover these additional costs: property taxes, assessment districts and capital impact fees.

Property Taxes

Placer Foothills and Newcastle Fire Districts receive a share of the property tax collected within their district boundaries. Although the amount varies throughout the plan area, the two districts receive between zero and 1.4 percent of the one percent assessment. These revenues support operating expenditures and fund some equipment acquisition. New development within these districts will generate additional property tax revenues. The County currently receives property tax revenues in the Bowman/Christian Valley area that would otherwise go directly to a fire district. The County then pays CDF some portion of these taxes for contract fire protection. The proposed annexation of the Bowman/Christian Valley area to the Placer Foothills District would involve negotiations between the District and the County regarding the reallocation of property tax shares.

Assessment Districts

Assessment districts may charge property owners for both capital costs and on-going operational expenses. Currently, the Placer Foothills and the Newcastle Fire districts assess property owners for fire suppression services. The assessments supplement property tax revenues, thus funding higher service levels. Future growth in the Bowman/Christian Valley area will participate in the existing assessment district if it is annexed to the Placer Foothills District.

Capital Impact Fees

Capital impact fees, used in conjunction with developer exactions, are used commonly to cover the cost of new stations, vehicles and equipment. Newcastle Fire District and Auburn Fire Department administer impact fee programs in addition to their assessment district. While impact fees must be limited to an amount that maintains existing service levels, fire districts may negotiate with developers to dedicate land and/or construct fire stations with a value in excess of a legally justifiable fee.

The estimated $1 million needed to relocate the Bowman station and purchase its additional vehicles and equipment would exceed the amount that the County or the Placer Foothills District could collect as an impact fee program. And unlike an assessment district or property tax revenues, a fee program could not fund the higher operating costs associated with the new personnel and other station expenses.

SHERIFF PATROL FACILITIES

Development in Auburn/Bowman will impact the County Sheriff's Department primarily because new residents and employees will generate additional calls for service for Sheriff's Deputies. Growth will also increase the workload of dispatch operators and generate a demand for police investigations. This impact in terms of expenditures for additional protection services was explored in the fiscal section of this report. This section determines the additional facilities, including buildings and vehicles that will be necessitated by growth in the Auburn/Bowman plan area. This chapter covers only those facilities that relate to the patrol and investigation branches of Sheriff's operations. Jail facilities and any other services which benefit residents of the county beyond the plan area are not specifically addressed here.

New development in the plan area will also impact other police agencies such as the California Highway Patrol and the Auburn police department which has a mutual aid agreement with the County. These agencies are not addressed in this report.

Current Patrol and Investigation Services

Sheriff deputies generally respond to calls for service in the unincorporated area, but are also responsible for coroner's cases wherever they occur in the County. Because of geographical considerations, Sheriff patrol and investigations are organized into two distinct divisions: one in Tahoe and one in Auburn. The Auburn division consists of two large beats (i.e. a fixed geographic area assigned to one patrol car), one in the south part of the county and a second beat centered around Auburn. A third Auburn beat consists of five resident deputies stationed in Foresthill and along I/80. Development in the Auburn/Bowman plan area will impact the need for patrol and investigation services in the beat centered around Auburn.

Table 28 shows the number of patrol deputies in each of the three beats that make up the Auburn division. The ratio of deputies per 1,000 service population is derived by dividing the number of deputies by the appropriate service population.

Table 28
Deputies per 1,000 Population, Auburn Beats

	Auburn	South-County	Foothills	Total Division
Deputies	30	13	5	48
Service Population[1]	36,794	35,169	8,712	80,675
Deputies/1,000 Population	0.82	0.37	0.57	0.60

1. The service population in the south-county includes the township of Loomis.

Source: Placer County Sheriff's Department; Recht Hausrath & Associates.

Table 28 indicates that coverage by Sheriff deputies in relation to population varies between sub-areas of the Auburn division. This is because a number of factors besides population enter into assignment of patrol personnel. For example, in the south-county calls for service are significantly less on a monthly basis than in the Auburn beat, although the service populations are comparable. In the Foothills area the service population is small, but distances are much greater which slows response times. One reason that the Auburn beat appears to be more heavily staffed is that patrol deputies assigned to the Auburn area cover for resident deputies if they are off-duty, sick or on vacation, which greatly increases the geographical area of that beat.

Although the service ratio has been presented to this point relative to residential population, business development will also create additional demands for Sheriff services. A number of crimes can be linked exclusively to non-residential development, for example shoplifting or white collar crimes. One way to measure the impact of future non-residential development is to include employees in the service population. It is doubtful that employees represent the same burden to public protection services as residents, if only because employees are only present in the County part of the week, and one third of the day. An audit of dispatch records for the last week of March 1992, indicates that employees have approximately 30 percent of the impact of residents. Thus, the ratio of patrol deputies per 1,000 <u>service</u> population in the Auburn beat (including employees) is 0.76.

New development will increase staffing needs in the Sheriff's Department other than patrol deputies. The dispatch center will be the first to encounter increased demand for service due to growth. The number of required detective investigations and demands on clerical and administrative personnel will also increase. Excluding the Tahoe division and not counting senior management level employees, the current number of employees in other areas of the Sheriff's Department include six sergeants, 12 dispatch employees, 18 detectives, and 20 clerical and administrative personnel. Table 29 shows the ratio of these types of Sheriff employees to patrol deputies.

Table 29
Other Sheriff Employees in Relation to Deputies

Position	Employees per Patrol Deputy
Sergeants	0.20
Detectives	0.32
Dispatchers	0.21
Clerical/Administrative	0.36

Source: Placer County Sheriff's Department, Recht Hausrath & Associates.

Current Patrol and Investigation Facilities

The Sheriff Department's operations for Auburn are currently housed in three buildings located at the DeWitt County Center. Buildings 1, 7, and 8 provide a total of 20,987 square feet.

A portion of that space relates to Sheriff functions other than patrol and investigation of the Auburn division. For example, overall administration of the Department is located in Building 1. Space that relates to general administration and other countywide services is estimated at ten percent of the total. After adjusting for general administration, 18,888 square feet directly relate to patrol, detective, administrative, and dispatch services in the mid and south-county regions.

A total of 104 Sheriff Department employees work in the three DeWitt buildings, with a standard of 182 square feet per employee. This standard is much lower than that of typical office space at 350 square feet per person, but this is because few employees have individual offices, and patrol officers do not have any designated office space. A large amount of space in these three DeWitt buildings is configured for more general uses such as locker rooms, questioning areas, and storage.

The Sheriff's Department in Auburn currently maintains and operates 42 vehicles: 26 are patrol vehicles and 16 are assigned to detectives. This is the equivalent of a ratio of one Sheriff vehicle for every two sworn officers in the Auburn division.

Future Facilities Required by New Development

The market analysis of Alternative 5 indicated that at buildout 9,821 additional residents would have moved into the plan area County and that 2,123 employees will be employed in the area. Applying the ratio of 0.76 deputies per 1,000 service population, new development will require nine additional deputies. Those additional deputies will require additional supervisory, clerical, and detectives. Assuming that current staffing ratios are maintained, the Sheriff will need to add nine support staff, including three sworn officers.

Assuming a standard of 182 square feet per officer, the Sheriff's Department will need to add 3,276 square feet of additional space to accommodate new staff. The 12 new sworn officers (nine patrol deputies and three additional sworn officers) will require six vehicles.

The DeWitt Center is the most likely location for additional space for the Sheriff Department, either through renovating some existing buildings or constructing new space. The Criminal Justice Master Plan, (Linakis-Beaumont Design Group, Faberstein & Associates, October, 1991) recently completed for the County, proposes a "bipolar" approach to facility planning for the Sheriff and other justice departments. In other words, rather than expanding only in Auburn, some justice functions could be established at locations in the South County. Although the space relating to patrol service to Auburn/Bowman clearly should be located in the mid-county, construction of additional space in the south-county may free up some space currently occupied in Auburn.

Cost of Future Facilities

Table 30 summarizes the cost of additional Sheriff facilities needed to accommodate the growth projected under Alternative 5 of the Auburn/Bowman Plan. The cost per square foot of office space does not include land, but does include site work, fixtures, and furnishings. Patrol cars are substantially more expensive that standard vehicles because of special equipment, such as cages, lights, sirens, etc.

Table 30
Cost of Facilities Needed to Accommodate Growth

Building Cost (3,276 square feet at $132 per square foot)	$432,400
Vehicle Cost (six at $20,000 per vehicle)	120,000
Total Facility Cost	$552,400

Source: Placer County Sheriff's Department, Recht Hausrath & Associates.

Alternative Funding Sources

The Sheriff's Department, as one of several competing county departments, has less power to raise revenue to fund facilities than the independent fire districts. Potential funding sources include General Fund revenues, special assessment districts, and capital impact fees imposed by the County.

General Fund Revenues

The County General Fund has funded the acquisition and improvement of Sheriff facilities in the past. Due to the restrictions of Proposition 13 and more recently the current economic downturn, it is not anticipated that General fund revenues will be available to fund additional Sheriff facilities to serve growth.

Special Assessment Districts

County Service Areas, or special districts such as Mello-Roos Districts are another potential funding source for additional Sheriff facilities. While several county service areas presently support basic utilities such as water and wastewater disposal, neither a special district or a county service area currently funds additional Sheriff operations or facilities.

Capital Impact Fees

Facility fees imposed by the County are one of the most feasible funding sources for additional Sheriff facilities. As noted in the section on fire protection, impact fees can be used to maintain the current level of service (in terms of facilities) as the county grows. In general, they cannot be used to solve existing facility deficiencies, such as current overcrowding of office space, lack of air conditioning, etc.

APPENDIX A
RETAIL SPACE PROJECTIONS

This appendix details the methodology used to develop a scenario for future demand of retail space. The first step of the analysis identifies the source of demand and estimates how much of the space in Auburn/Bowman is a result of local demand versus demand from other areas or groups, e.g. tourists. The second step of the analysis establishes a per capita retail square foot factor so that the amount of retail space needed to serve new development can be calculated. The final step applies the percentage of outside demand determined in step one to the square feet calculated in step two to determine the total demand for retail space in the Auburn/Bowman plan area through 2010.

The underlying assumption for the first step of the analysis is that demand for retail space in the Auburn/Bowman plan area comes from four groups: 1) residents of Auburn/Bowman, 2) residents in the rest of the Auburn-Foothills region (mid-county), 3) Nevada County residents, and 4) tourists. It is assumed that Lake Tahoe residents and people living in the south part of the county (e.g., Roseville, Newcastle, etc.) do not shop in Auburn/Bowman.

The first two groups of consumers represent the primary demand for retail space in Auburn/Bowman. Their total population is 55,265, according to 1990 Census data. Their retail space demand can be determined using per capita taxable sales data from the State Board of Equalization. The statewide average per capita taxable retail sales in 1990 was $6,083. (This total does not include business and personal services or sales from other outlets, e.g. wholesalers.) For this analysis, the sales are divided into three types: regional, community and neighborhood. The per capita total for each category is $2,684, $2,294, and $1,105 respectively. See Table A-1. Neighborhood refers to sales that are likely to or can be made near a resident's home (e.g. food) versus regional sales which are for comparison goods (e.g. apparel).

An example illustrates how the allocation in Table A-1 reflects the particular situation in the mid-county area. In the unincorporated communities in the mid-county area (excluding Auburn/Bowman) there are seven sporting goods stores. We assume some (20 percent) of the per capita sporting goods taxable sales will therefore occur at the neighborhood level. The Auburn area, representing a community shopping area, has 17 such stores and can expect to capture more of these sales (30 percent). It is assumed, however, that half of the sales will be regional, i.e. made outside of the mid-county.

Table A-1
Allocation of Per Capita Taxable Sales to Shopping Classifications

Business Type	Total Taxable Sales	Regional	Community	Neigh-borhood	Regional	Community	Neig.. borhood
Apparel	$346.44	70.0%	30.0%	0.0%	$242.51	$103.93	$0.
Limited Price Variety	23.46	40.0%	50.0%	10.0%	9.38	11.73	2.3
Department/Dry Goods	771.32	90.0%	5.0%	5.0%	694.19	38.57	38.
Drug	159.79	10.0%	50.0%	40.0%	15.98	79.90	63.92
General Merchandise	68.70	40.0%	50.0%	10.0%	27.48	34.35	6.
Gifts, Art Goods	40.87	60.0%	30.0%	10.0%	24.52	12.26	4.09
Sporting Goods	77.14	50.0%	30.0%	20.0%	38.57	23.14	15.4
Florists	23.61	30.0%	60.0%	10.0%	7.08	14.17	2.36
Photo Supplies	19.18	60.0%	30.0%	10.0%	11.51	5.75	1.9
Musical	50.22	80.0%	20.0%	0.0%	40.18	10.04	0.00
Stationery & Books	97.72	60.0%	30.0%	10.0%	58.63	29.32	9.7
Jewelry	52.08	80.0%	20.0%	0.0%	41.66	10.42	0.00
Business/School Supplies	190.02	60.0%	40.0%	0.0%	114.01	76.01	0.0
Other Specialties	245.24	60.0%	30.0%	10.0%	147.14	73.57	24.52
Food	498.74	5.0%	45.0%	50.0%	24.94	224.43	249.3
Packaged Liquor	67.54	5.0%	45.0%	50.0%	3.38	30.39	33.7
Eating & Drinking	779.42	40.0%	40.0%	20.0%	311.77	311.77	155.8
Household Furnishings	309.94	60.0%	30.0%	10.0%	185.96	92.98	30.9
Second-hand Merchandise	10.92	20.0%	60.0%	20.0%	2.18	6.55	2.1
Farm & Garden Supplies	110.16	30.0%	40.0%	30.0%	33.05	44.06	33.0
Fuel & Ice dealers	12.36	0.0%	60.0%	40.0%	0.00	7.42	4.9
Building Materials	475.21	20.0%	70.0%	10.0%	95.04	332.65	47.5
Auto	1121.88	40.0%	50.0%	10.0%	448.75	560.94	112.19
Service Stations	531.17	20.0%	30.0%	50.0%	106.23	159.35	265.5
RETAIL TOTAL	$6083.13				$2684.16	$2293.70	$1105.28

Source: State Board of Equalization, 1990 Annual Report; Recht Hausrath & Associates.

The allocation of per capita taxable sales presented in Table A-1 was determined based on an analysis of Dun & Bradstreet's (D & B) business listing for Auburn (data for the city and unincorporated area are not separated); the City of Colfax; and the unincorporated areas of Alta, Applegate, Baxter, Dutch Flat, Emigrant Gap, Foresthill, Gold Run, Meadow Vista, and Weimar. These unincorporated communities are all located in the mid-county region. Table A-2 summarizes the D & B data.

The D & B data are listed by Standard Industrial Classification (SIC) code which classifies business establishments by type, e.g., food, drug, wholesale, financial. Thus, for the given communities a determination could be made as to how well the community was served locally and by its neighboring communities and by which types of businesses. Based upon this data, assumptions regarding where the mid-county residents could find various goods were made.

The data show that the mid-county area is well served by community and neighborhood shopping goods but that it lacks regional shopping goods. For example, out of a total of 756 establishments, there are only 38 apparel stores and 10 general merchandise stores, both of which have regional shopping goods. Therefore, it is assumed that all mid-county residents do their regional shopping outside of the mid-county region, in the south part of the county and Sacramento. The Auburn area has a significant number of community and neighborhood type establishments. The City of Colfax is also well served for a community of its size, with a mix of retail establishments. The unincorporated communities, however, are generally not well served locally. Exceptions to this are Applegate, Foresthill and Meadow Vista. Foresthill, which is geographically more isolated than the rest of the communities, has a broader mix of retail stores than either Applegate or Meadow Vista.

In most cases, the allocations in Table A-1 show that sales take place at the community or regional level. Service station and food store taxable sales are notable exceptions. This is because the smaller communities, as well as Auburn, are well supplied with these types of establishments.

It is assumed that the various resident groups (e.g., residents of Colfax) will have different levels of demand for goods provided in the Auburn/Bowman area. These differences are due to the availability of goods locally (e.g., florists in Colfax), the distance to Auburn/Bowman relative to other areas where the same goods are available, and the goods provided in Auburn/Bowman. Thus, for Colfax residents and those in the unincorporated communities in the Foothills, the group of businesses in the City of Colfax can be viewed collectively as a community shopping center that serves as an alternative to the stores in Auburn/Bowman.

Table A-2
Existing Businesses in Auburn-Foothills Communities

	Apple-gate	Auburn Area	Colfax	Forest-hill	Meadow Vista	Other Mid-County[1]	TOTAL
Apparel	2	32	3	0	0	1	38
Auto	1	79	15	1	2	1	99
Books	0	9	2	1	1	0	13
Bottled Gas	0	0	2	0	0	0	2
Building/Garden	1	42	4	2	4	0	53
Direct Sell	1	0	1	1	0	0	3
Drug Stores	0	8	1	0	1	0	10
Eating/Drinking	1	111	11	2	3	7	135
Florist	0	5	1	0	0	0	6
Food Stores	0	48	7	4	2	2	63
Fuel Dealers	0	29	0	2	0	0	31
General Merch.	0	8	1	0	0	1	10
Gifts, Souvenirs	0	20	2	1	2	1	26
Hobby/Toy Stores	0	0	1	0	0	0	1
Home Furnishings	2	63	6	0	1	0	72
Jewelry	0	11	1	0	0	0	12
Liquor Store	0	8	2	1	0	0	11
Mail Order	0	0	1	0	0	0	1
Misc. Retail	15	23	31	13	21	19	122
Photo equipment	0	5	0	0	0	0	5
Used Merchandise	0	16	2	0	0	0	18
Sporting Goods	0	17	2	3	0	2	24
Stationery	0	1	0	0	0	0	1
RETAIL TOTAL	23	535	96	31	37	34	756

1.Includes communities of Alta, Baxter, Dutch Flat, Emigrant Gap, Gold Run, and Weimar.

Source: Dun & Bradstreet Business Listing.

From the existing business analysis RHA assumed spending patterns for each of the resident groups; these are presented in Table A-3. The percentage amounts indicate how much of a particular type of shopping is done in the Auburn/Bowman area. For example, it is assumed that Colfax and Other Mid-County residents do all of their neighborhood shopping in their respective community and/or Colfax but do most of their community goods shopping in Auburn/Bowman.

Table A-3
Retail Spending Pattern Assumptions
Auburn/Bowman Plan Area

Resident Group	1990 Population	Percent of Neighborhood Shopping	Percent of Community Shopping
Auburn/Bowman	20,248	100%	60%
City of Auburn	10,592	50%	50%
City of Colfax	1,306	0%	50%
Other Mid-County	23,119	0%	80%
TOTAL	55,265		

Source: Recht Hausrath & Associates

Based on these spending pattern assumptions and the allocation of per capita taxable sales presented in Table A-1, the Auburn-Foothills population contributes $112 million in taxable retail sales to the Auburn/Bowman area. Because food and prescription sales are not taxable an adjustment is made to determine total sales. The State Board of Equalization suggests that 70 percent of food store sales are not taxable and 35 percent of drug store sales are not taxable. When these adjustments are made, the 55,265 mid-county residents contribute $149 million in retail sales.

The market analysis of Alternative 5 is concerned with the amount of new square feet that will be absorbed in the plan area. Thus, the 1990 total sales figure of $149 million must be converted to square feet in order to determine the relationship between the demand that the mid-county residents represent and the existing retail square feet in the plan area. This calculation was made based on sales per square foot data from the Urban Land Institute (ULI) publication *Dollars & Cents of Small Town/Nonmetropolitan Shopping Centers: 1990*, and from sales and square foot data for the City of Auburn collected by Donnelley Marketing Information Services (1988) and the County Planning Department. The conversion of retail sales to square feet distinguished sales from eating and drinking establishments, auto related businesses and food stores from other business sales because these businesses typically have very high sales per square foot compared to the average. Based on the data sources, the sales per square foot factors used are $250, $400, and $270, respectively, compared to an average of $190.

The conversion of sales to square feet showed that 621,041 square feet of the existing 901,301 square feet of retail space is a result of demand from the Auburn-Foothills population. Conversely, 280,260 square feet is due to non-residents, e.g. tourists, Nevada County residents. Therefore, 31 percent of the retail space in Auburn/Bowman is due to "outside" demand.

Of the 69 percent of demand due to the Auburn-Foothills population, about half is due to residents of Auburn/Bowman. In terms of the total demand, Auburn/Bowman residents account for 32 percent of the total; this is the equivalent of 291,508 square feet. In other words, 68 percent of the total retail square feet in Auburn/Bowman is a result of demand from residents in the City of Auburn, the City of Colfax, residents in the other unincorporated communities of the mid-county region, tourists and Nevada County residents.

There are 14 square feet of retail space per capita in the Auburn/Bowman area based on the sales analysis detailed above. The residential market feasibility analysis estimated that under the Alternative 5 land use Plan, the plan area could accommodate 3,651 new units by 2010 and 9,861 new people in the plan area. This is the equivalent of about 137,500 square feet of retail space. Applying the factor for non-local demand (68 percent) results in a total retail space need of about 430,000 square feet. This, of course, assumes that the current spending patterns will hold through 2010. As areas in Nevada County develop, some of those residents may reduce the amount of their shopping in Auburn/Bowman. However, as Nevada County develops, so too will Auburn/Bowman. We assume that the net effect will be insignificant.

APPENDIX B
SALES TAX ANALYSIS

Future residential and retail development in the Auburn/Bowman plan area will add to the County's sales tax receipts. That additional sales tax is the result of the interaction between retail supply (stores) and demand for retail (residents and employees). In terms of assigning the fiscal benefit of sales tax revenue, there is no standard for allocating increased sales tax to either residential or retail land uses. In general, retail developers will "count rooftops," i.e. assess the amount of residential demand for retail, before locating in an area. For that reason, this analysis allocates the majority of the benefit of sales tax increases to residential development. The increment in sales tax that is attributable to outside demand, as opposed to local demand, is allocated on a supply side basis to retail development itself.

The demand based approach begins with the total sales tax revenue collected by the County in the 1990/91 fiscal year, $6.6 million[1], and partitions it between various sources of demand. The portion that is based on local resident and employee purchasing in the mid-county region is divided by mid-county population to derive a per capita sales tax multiplier. That multiplier provides one indication of the sales tax that can be attributed to future development in the Auburn/Bowman plan area. The methodology consists of three related analyses:

1) The county is divided into three relatively independent market areas: south, mid, and north-county. Sales attributable to each region are identified in order to isolate sales tax revenue collected by the County in the mid-county region.

2) The portion of that sales tax attributable to the mid-county region that is due to demand from outside the region, either from traffic on the freeways, residents of Nevada County, or tourists to the foothills region, is identified.

3) The remaining sales tax can be allocated to local demand, i.e. mid-county population, (which includes residents of the cities of Auburn and Colfax). Because residents are not restricted to their own jurisdiction when shopping, the sales tax collected in the mid-county unincorporated area and the two cities must be analyzed as one system. Based on population and actual sales tax revenues in each area, the flows between jurisdictions can be modeled.

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[1]This amount does not include sales tax revenue restricted to local transportation uses, estimated at $1.3 million.

Each of these analyses is described in detail below.

1. Identification of Mid-county Taxable Sales

In terms of retail market areas, Placer County consists of three separate regions: south-county, mid-county, and north-county or Lake Tahoe. Tahoe is essentially separate from the rest of the county in terms of retail sales. For example, Tahoe residents normally would not travel to Auburn to purchase groceries, clothes, or cars. From another perspective, it is not expected that development in Auburn/Bowman increases taxable sales in the Tahoe area.

The relationship between the mid and south-county regions is more complex. Because the south-county is relatively well served by retail, it is assumed that mid-county establishments capture very little of the taxable sales that originate in the south-county. From the other direction, south-county cities feature a wider array of retail services than is found in the mid-county, including some regional retail facilities. (Retail in the south-county unincorporated area is mainly grocery stores and other neighborhood serving retail.) Because the retail supply in the south-county exceeds what is available in the mid-county, it is assumed that some of the retail demand in the mid-county is captured by south-county cities.

Based on these observed relationships between the three regions of the county, we can begin to isolate the sales attributable to the mid-county. Table B-1 compares sales tax revenue for 1990/91 attributable to each area and calculates the per capita sales tax revenues for the three regions.

Table B-1
Per Capita Sales Tax to the County by Sub-region

	South-County	Mid-County	Tahoe	Total
County Sales Tax Revenue	$328,000	$3,965,000	$2,264,000	$6,557,000
Percent of Revenue	5.0%	60.5%	34.5%	100.00%
Population (1990)	108,274	55,265	9,257	172,796
Per Capita Sales Tax	$3.03	$71.75	$244.57	$37.95

Source: Placer County 1990/91 Budget; Recht Hausrath & Associates.

Of the total sales tax collected by the County in 1990/91, it is estimated that only five percent comes from the south-county unincorporated area, primarily neighborhood serving retail in Granite Bay. This relatively minor amount is due to competition for retail sales from Roseville and Rocklin, which receive a significant share of total taxable sales in the south-county.

The percentage of County sales tax revenue generated in Tahoe is not reported separately by the State Board of Equalization. To estimate sales tax generation in Tahoe, a listing of firms in the Tahoe area (Dun & Bradstreet) was combined with data on the average sales per establishment in the county (County Business Patterns, U.S. Department of Commerce). The data indicate that 34.5 percent of county taxable sales occurred in Tahoe.

A 1988 study by Economic Research Associates (ERA) generally confirms this conclusion, using a substantially different methodology. ERA conducted expenditure surveys of seasonal residents and visitors to the Tahoe area. After calculating the number of visitors, seasonal residents, and permanent residents, an estimate of total taxable sales in Tahoe was calculated and compared to the total taxable sales for the county in 1988. That study indicated that the Tahoe region generated approximately 30 percent of taxable sales in the county in 1988.

Table B-1 indicates that on a per capita basis, the Tahoe region generates more than three times the amount of sales tax generated in the mid-county. This is because 65 percent of the sales tax generated in Tahoe is attributable to tourists and other outside demand (ERA) as opposed to local residents. When adjusted for these sources of outside demand, the actual amount of sales tax attributable to Tahoe residents is closer to the mid-county per capita estimate.

After accounting for taxable sales that occur in the south-county and in Tahoe, the remaining taxable sales were generated in the mid-county. The mid-county represents the majority of retail in the county, with 60.5 percent of taxable sales occurring there.

2. Outside Demand in the Mid-county

Table B-1 identified only sales tax that accrues to the County from each subregion of the unincorporated area. When the focus is shifted to the mid-county, the sales tax collected in Auburn and Colfax are also significant factors. Table B-2 shows the total sales tax collected in that subregion, including the $3,965,000 collected by the County.

Table B-2
Average Per-Capita Sales Tax, Mid-County Subregion

Jurisdiction	Sales tax Revenue	Per Capita Sales Tax
Auburn	$ 1,723,155	$31.18
Colfax	392,000	7.09
County	3,964,883	71.74
Total Mid-county	$ 6,080,038	$110.02

Source: Conversation with cities of Auburn and Colfax; Recht Hausrath & Associates.

The per capita estimate for the mid-county shown in Table B-2, $110, also reflects sales from tourists and other sources of outside demand, although outside demand is not as important in the mid-county as in Tahoe. Absent a consumer expenditure survey such as the one completed by ERA for Tahoe, no data exist to distinguish outside demand from local demand in the mid-county region. However, an estimate of local demand can be derived based on state average per capita taxable sales. This estimate of local demand can then be compared with the actual amount of taxable sales in the mid-county. The difference between the two can be attributed to outside demand.

On average, every California resident generated $9,439 in taxable sales in 1990 (State Board of Equalization). This total includes retail sales, business and personal services, and sales occurring at other outlets (mainly construction related sales). We can reasonably assume that mid-county residents also generate this amount of sales. Incomes are slightly lower in the Auburn/Bowman area than the state average, suggesting that local per capita sales would be lower than the state average; on the other hand, construction activity has generally been higher in Placer County than in other counties which would bring per capita sales in Auburn/Bowman closer to the average.

Not all of the $9,439 in taxable sales generated by each resident will occur in the mid-county region, or even in the county. A review of the Dun & Bradstreet listing of retail stores indicates that the mid-county area is fairly well served by most types of retail (See Appendix A). Automobile related businesses and eating and drinking establishments are particularly common in the mid-county. As already mentioned, however, there is no regional mall in the mid-county. Sales that would normally take place in a mall setting, for example department store purchases or comparison shopping for apparel, will therefore occur outside the mid-county area.

By comparing average taxable sales for various types of goods with the Dun & Bradstreet listings for the mid-county, it is estimated that approximately $2,800 of total per capita taxable sales are for regional goods and are likely to occur outside of the mid-county area. This suggests that mid-county area residents spend approximately $6,700 on taxable goods in the mid-county, for a total of $368 million in taxable sales in 1990 (55,265 mid-county residents times $6,663).

In 1990/91, taxable sales in the mid-county were actually $464 million, as shown in Table B-3.

Table B-3
Mid-County Taxable Sales 1990/91

Jurisdiction	Taxable Sales
City of Auburn	$125,494,000
City of Colfax	21,526,000
Unincorporated Placer County	316,609,000
Total	$463,629,000

Source: State Board of Equalization

Taxable sales due to outside demand, either tourists, pass through drivers, or residents of surrounding counties, are the difference between local resident demand and total taxable sales. That amount is $95,412,000, or 21 percent of mid-county taxable sales.

Table B-4 shows average per capita sales tax generation for the mid-county, adjusted for outside demand.

Table B-4
Mid-County Per Capita Sales Tax Revenue Attributable to Local Demand

Jurisdiction	Total Sales Tax Revenue	Sales Tax Due to Local Demand[1]	Population	Per Capita Sales Tax from Local Demand
Auburn	$ 1,723,155	$ 1,368,542	55,265	$24.76
Colfax	392,000	311,329	55,265	$5.63
Unincorporated Area	3,964,883	3,148,939	55,265	$56.98
Total mid-county	$ 6,080,038	$ 4,828,810	55,265	$87.37

1. Adjusted by 21 percent to reflect outside demand.

Source: Recht Hausrath & Associates.

3. Flows of Sales within the Mid-County Region

Table B-4 indicates that mid-county residents generate $87 in per capita sales tax revenue that accrues to the County and the cities of Auburn and Colfax. That estimate is only applicable as an average across the mid-county subregion. In reality, spending patterns vary between Auburn residents, Colfax residents, residents of Auburn/Bowman, and residents of unincorporated communities such as Foresthill and Meadow Vista. For example, residents of Colfax probably generate $60 per capita in sales tax revenue to Colfax, not $6; Auburn residents probably generate less than $6 in Colfax.

Another way to look at the expenditure patterns in the area is to identify surplus areas, i.e. areas that receive more sales tax than would be expected based on their population. Table B-5 shows per capita sales tax revenues if residents shopped exclusively in their own jurisdiction. Another difference between Tables B-4 and B-5 is that employees are considered along with residents in calculating per capita sales tax revenue in Table B-5. Up to this point, the analysis has centered around residents. Employees also generate sales through purchases while at work, and they are used as a stand-in for sales between businesses.

Table B-5
Locally Generated Per Capita Sales Tax Revenue
(Assuming Sales Are Restricted to Jurisdictional Boundaries)

Jurisdiction	Sales Tax Due to Local Demand	Divisor Population[1]	Per Capita Sales Tax from Local Demand
Auburn	$ 1,368,542	12,505	$109
Colfax	311,329	1,568	$199
Unincorporated Area	3,148,939	46,770	$67
Total mid-county	$ 4,828,810	60,843	$79

1. Divisor Population includes employees weighted at 5/7ths of a resident.

Source: Recht Hausrath & Associates

If population and employment are indicators of the amount of sales tax revenue an area produces, then both Auburn and Colfax are surplus areas, i.e. they receive more than they produce in terms of sales tax revenue. In actuality, Colfax residents generate sales in the unincorporated area and in Auburn, and vice versa.

By repeating the approach used to identify regional sales which escape the area completely, we can estimate how actual 1990/91 sales tax collections in the mid-county region occurred. The $9,400 in average per capita taxable sales was partitioned into regional and local spending, $2,800 and $6,700 respectively. Local spending can be divided further into neighborhood and community sales. Neighborhood spending, 17 percent of total per capita taxable sales, occurs in immediate local areas. It consists of purchases of groceries, drugs, newspapers, etc. The identification of neighborhood spending was largely based on Dun & Bradstreet listings which provided a characterization of shopping areas such as Foresthill, Weimar, and Meadow Vista. Community shopping makes up 40 percent of per capita taxable sales. Areas that are identified as providing community shopping, Auburn, Colfax, and Auburn/Bowman, have a more diverse retail base than neighborhood shopping areas. See Appendix A for a more complete explanation of the definition of community and neighborhood shopping in this analysis.

Table B-6 shows a pattern of the capture rates of each jurisdiction for four areas, Colfax, Auburn, Auburn/Bowman, and the remainder of the mid-county region.

Table B-6
Distribution of Taxable Sales Between Mid-county Areas

Jurisdiction	Colfax	Auburn	Auburn/Bowman	Other Unincorporated	Total Sales
Auburn[1]		50%	50%		100%
Colfax[2]	46%		54%		100%
Auburn/Bowman[3]		50%	50%		100%
Unincorporated Remainder[4]	13%		54%	33%	100%

1. Neighborhood and community shopping are split between Auburn and Auburn/Bowman on a 50/50 ratio.
2. Neighborhood and 20 percent of community shopping occurs in Colfax. Remaining 80 percent of community shopping occurs in Auburn/Bowman.
3. Neighborhood and community shopping are split between Auburn and Auburn/Bowman on a 50/50 ratio.
4. Neighborhood shopping takes place in individual communities. Community shopping is split between Colfax and Auburn/Bowman on a 20/80 ratio.

Source: Recht Hausrath & Associates

This arrangement of expenditure flows, multiplied times the per capita sales tax revenue of $79 (See Table B-5), results in the actual sales tax revenue collected by the County from the mid-county, and by the cities of Auburn and Colfax. Table B-6 shows that of the $79 dollars in sales tax revenue generated by residential development and employee spending in Auburn/Bowman, only 50 percent of it will actually be spent in the unincorporated area.

The per capita sales tax multiplier applicable to development proposed in the Auburn/Bowman plan area is therefore $39 per resident and $9 per employee.

The market analysis of the Alternative 5 land use Plan suggests that 3,651 units could be constructed between 1990 and 2010. Estimated population growth is 9,821 persons. The estimated increase in employment is projected to be 2,342 in the same time period. That level of development will generate $857,000 in sales tax revenue to the County by 2010 ($391,000 in 1990 dollars). The City of Auburn should experience the same increase in sales tax revenue due to development in the Community Plan Area.

APPENDIX C
ASSUMED PHASING OF DEVELOPMENT
EXISTING LAND USE PLAN AND ALTERNATIVE 5

EXISTING LAND USE PLAN

	Residential Units				Non-Residential Square Feet		
Year	Multi-Family	Town house	Single-Family	Rural	Retail	Office	Industrial
1991	26	69	66	50	17,770	17,235	13,062
1992	26	69	66	50	17,770	17,235	13,062
1993	26	69	66	50	17,770	17,235	13,062
1994	26	20	65	50	17,770	17,235	13,062
1995	26		65	50	17,770	17,235	13,062
1996	26		65	50	17,770	17,235	13,062
1997	26		65	49	17,770	17,235	13,062
1998	26		65	49	17,770	17,235	13,062
1999	26		65	49	17,770	17,235	13,062
2000	25		65	49	17,770	17,235	13,062
2001	25		65	49	17,770	17,235	13,062
2002	25		65	49	17,770	17,235	13,062
2003	25		65	49	17,770	17,235	13,062
2004	25		65	49	17,770	17,235	13,062
2005	25		65	49	17,770	17,235	13,062
2006	25		64	49	17,770	17,235	13,062
2007	25		64	49	17,770	17,235	13,062
2008	25		64	49	17,770	17,235	13,062
2009	25		64	49	17,770	17,235	13,062
2010	25		64	49	17,770	17,235	13,062

Source: Recht Hausrath & Associates

ALTERNATIVE 5 LAND USE PLAN

	Residential Units			Non-Residential Square Feet			
Year	Multi-Family	Town-House	Single Family	Rural	Retail	Office	Industrial
1990	20	75	60	50	21,485	17,235	13,062
1991	20	74	60	50	21,485	17,235	13,062
1992	20	74	60	50	21,485	17,235	13,062
1993	20	74	59	50	21,485	17,235	13,062
1994	20	74	59	50	21,485	17,235	13,062
1995	20	74	59	50	21,485	17,235	13,062
1996	20	74	59	49	21,485	17,235	13,062
1997	20	74	59	49	21,485	17,235	13,062
1998	20	74	59	49	21,485	17,235	13,062
1999	20	74	59	49	21,485	17,235	13,062
2000	20	74	59	49	21,485	17,235	13,062
2001	20	74	59	49	21,485	17,235	13,062
2002	20	74	59	49	21,485	17,235	13,062
2003	20	74	22	49	21,485	17,235	13,062
2004	19	74		49	21,485	17,235	13,062
2005	19	74		49	21,485	17,235	13,062
2006	19	74		49	21,485	17,235	13,062
2007	19	74		49	21,485	17,235	13,062
2008	19	73		49	21,485	17,235	13,062
2009	19	73		49	21,485	17,235	13,062

Source: Recht Hausrath & Associates