APPENDIX B: EVALUATION METHODOLOGY

This appendix explains the methodology used in this report to evaluate and score the four alternatives.

Evaluation of each issue is ranked on a five-point scale:

- ♦ double negative (ΘΘ) indicates the greatest negative ranking
- ♦ a single negative (Θ) indicates a negative ranking
- ♦ neutral (Ø) indicates neither positive nor negative ranking
- ♦ a positive (⊕) indicates a positive ranking
- ♦ a double positive (⊕⊕) indicates the greatest positive ranking.

A. Economics

1. Summary of *Market and Fiscal Conditions* Report

BAE's background research for the General Plan Update found that the Sacramento region has been experiencing strong demand for housing. As a result of these recent housing pressures, once rural communities in Yuba, Sutter, and Colusa Counties have begun to experience large amounts of residential growth. Due to the availability of freeway access to both the Sacramento and Bay Area job markets from locations within Yolo County, the unincorporated County could be well positioned to compete with these other communities for new residential developments. In addition, despite a recent dip in the housing market, regional projections indicate a significant increase in households over the long-term. The 2006 Metropolitan Transportation Plan (MTP) reported that there is currently an insufficient amount of land regionally to meet anticipated housing demand through 2027.

As a whole, the incorporated cities of Yolo County – Davis, West Sacramento, Winters and Woodland – are planning to grow less than their projected potential during the General Plan time horizon, although growth policies for individual cities vary. The Preliminary Draft MTP estimates from March of 2006 project Yolo County's incorporated cities will grow by approximately 49,000 housing units during the General Plan horizon. However, interviews with each of these jurisdictions revealed their projections to

be in the range of 40,000 units.[1] Based on the assumption that the incorporated cities continue this trend of planned residential growth not keeping up with potential demand and an assessment that unincorporated Yolo County is competitive with unincorporated Yuba and Sutter County locations, BAE determined that it would be feasible from a market perspective for unincorporated Yolo County to grow by as many as 12,000 to 15,000 new residential units during the General Plan time-frame, were current policies to change to promote such growth. This "unrestricted" growth projection is not reflective of the County's prior and current land use policies.

Unlike residential land uses, the 2006 MTP report found an over abundance of commercial sites regionally. BAE's analysis also found that potential new retail development opportunities in unincorporated Yolo County are generally limited to local-serving convenience retail designed to serve new residential projects, highway commercial designed to serve drive-by traffic, and community, regional, and destination "opportunistic" retail designed to serve adjacent cities and unincorporated areas. The report also finds that a minimum population of approximately 12,000 people is necessary to support a local-serving neighborhood retail center anchored by a full-sized grocery store.

Based on historic regional trends, unincorporated Yolo County is not likely to experience a great deal of new non-retail commercial space during the General Plan time horizon. Small amounts of professional office space targeted to office users with a local clientele, such as doctors, dentists, realtors, and so forth could also be expected. These types of small office uses are most likely to locate in a new town setting involving a sufficient population base and/or in an existing town or on the periphery of one of the existing cities. The population thresholds for supporting such services are explored further in the Community Sustainability section found later in this report.

[1] Design, Community & Environment; October 25, 2006.

BAE found that some potential exists for research and development facilities related to activities at the University of California, Davis as well as limited business park development on the periphery of Woodland, West Sacramento, or Davis. However, once research activities do generate marketable product, it is likely that production facilities would be moved to more competitive regional locations closer to existing manufacturing supply chains for inputs and labor. In the long-term, most sites in the unincorporated County are not competitive with locations that are more central to the Sacramento Region, have better infrastructure availability, have better access to transportation networks and the regional labor pool, are more established, and still offer available sites; thus, growth in these uses can be expected to be minimal, but could include light industrial, warehousing, and distribution uses that are ancillary to primary agricultural uses. The exception to this is possibly warehouse and distribution uses located near the I-505/I-5 interchange. Such uses may be attracted to this location because it could serve as a hub for shipments into and out of both the Bay Area and the Sacramento region and the larger western U.S. and national transportation networks.

The fiscal analysis revealed that new development in the unincorporated County would not fully address the County's current and future fiscal problems.[2] A preliminary analysis of 2005-2006 County budget figures found that single-family detached residential development in the unincorporated County may generate modest fiscal surpluses for the County's General Fund under "average" County service cost and revenue assumptions depending on the value of the property. Retail development, because of sales tax revenues that accrue to the County, can under many circumstances generate net positive revenues for the County's General Fund. Office and industrial type land uses are likely to be roughly fiscally neutral, as they typically do not generate significant revenues for the County's General Fund beyond property taxes and related revenues.

[2] The Fiscal Analysis only looks at costs and revenues associated with the County General Fund, and does not consider County services funded by enterprise funds such as water and sewer services.

However, the location of new developments will have an important effect on the amount of General Fund revenues because the County's share of property taxes can vary greatly throughout the unincorporated area. Therefore, while demand for residential development may be greatest during the General Plan horizon, its fiscal benefits are not assured. An average new home price of $360,000 would be necessary for new residential development to achieve fiscal neutrality based on 2005-2006 Yolo County budget conditions in a location where the County receives and "average" share of the property tax distribution. However, the County's General Fund receives anywhere between 5.5 and 15.4 percent of new property taxes generated by new development, depending on which Tax Rate Area (TRA) includes the new development. On average, the County General Fund receives approximately 13 percent of the tax increment. Therefore, new development located in TRAs in which the General Fund receives higher than average allocations could support new housing development with average sales prices lower than $360,000 while TRAs with lower than average property tax allocations would necessitate a higher average value in order to maintain fiscal neutrality. In some areas residential values need to be upwards of $500,000 to achieve fiscal neutrality. In contrast to residential development, retail, office, or industrial developments tend to fall within narrower bands of value. Therefore, assumptions regarding the specific locations of residential development that would occur in the unincorporated area under the proposed General Plan Update will be critical to understanding potential fiscal impacts.

The potential for new retail development to generate net revenue increases is based on the premise that the increase in sales tax revenues is generally large enough that it offsets normally foreseeable increases in service costs. However for this to occur, the new retail development must generate new retail sales rather than capturing retail sales from existing retail stores. In addition, providing higher levels of service demanded by new retail development may be costly and, due to high levels of competition for new retail developments, the County may have to absorb these costs rather than passing them on to the

retail development, thus reducing potential net fiscal revenues from new retail development.

In addition, BAE found that while developing some land uses within the unincorporated area may bring the potential for fiscal benefits to Yolo County, certain land use decisions may jeopardize the redevelopment pass-through funds that the County receives from Winters and Davis, or the development impact fees that Davis, Winters, Woodland, and West Sacramento collect on behalf of the County. Therefore, the County must balance the potential financial benefits of land use decisions against the potential financial risks in the event that the cities disagree with the County. Furthermore, the County will need to work with the cities to ensure that sufficient fiscal mitigations can be established for new development in the incorporated areas, which also creates demand for County services.

The *Market and Fiscal Considerations* report also provides an analysis of the market potential for six different growth models. The analysis indicates that the greatest market demand for new development is located in and around the incorporated cities. These areas provide access to urban amenities such as shopping, cultural, and recreational opportunities. From a market perspective, a new town strategically located near freeway access presents the next best growth strategy. However, a new town in another location would not likely be more competitive than the existing unincorporated communities. Financial benefits resulting from the ability to build larger projects at the edge of towns makes this growth strategy slightly more market friendly than infill options in these towns. However, if infrastructure issues are addressed in many of these communities, infill projects will become more feasible. Scattered rural development, development of single-family homes and individual businesses on parcels that are currently zoned for agriculture in areas of the county outside the existing communities, represents the least market-viable growth pattern. Scattered suburban development (i.e., separate gated communities) is nearly as uncompetitive as the scattered rural pattern. The latter two growth scenarios are inefficient in terms of development costs and do not provide the locational amenities associated with the other growth models.

2. Market Viability

The market viability analysis was prepared by Bay Area Economics (BAE). The analysis builds upon BAE's previous work for the General Plan Update *Market and Fiscal Considerations* report. Following is a description of the methodology used to assess market viability.

a. Analytical Framework

BAE examined the market potential for residential and job-generating land uses broken out by locality for each individual alternative and other development scenario. In order to do so, BAE first translated the number of acres specified for a given land use into an estimate of the building square footage for each of the four job-generating land uses – retail, office, lodging, and industrial[3]. BAE also determined the total number of housing units each of the unincorporated communities would consist of, based on the Sacramento Area Council of Governments (SACOG) projections reported in the *Market and Fiscal Considerations* report. An analysis of the market potential for each land use was then developed based on the findings of the *Market and Fiscal Considerations* report and the planned land uses for each location.

For retail uses, BAE analyzed the market potential for local- and community-serving retail, highway-serving retail and "opportunistic" retail (retail dollars captured from nearby population centers). Based on findings in the *Market and Fiscal Considerations* report, a population of approximately 12,000 people is necessary to support a modern, local-serving shopping center, anchored by a large grocery store. A smaller population would not likely be able to support a full-service grocery store, but could potentially support smaller-sized,

[3] [3] For all job-generating land uses, with the exception of lodging, the square-foot estimate was calculated using 43,560 square feet per acre, applying a 15 percent discount to allow for infrastructure, and using a floor area ratio (FAR) of 0.25 for retail and office, and a 0.4 FAR for industrial building space. The lodging estimate is calculated using an estimate of 45 rooms per gross acre, based on previous research by BAE.

local-serving retail. Larger populations could potentially support a wider range of retail. Community-serving retail, which can include things like clothing and soft goods, office supplies, some home improvements and household furnishings, as well as some specialty stores, requires a community size of 20,000 to 50,000 people.

The potential for new highway-serving retail development is assessed based on potential visibility and access from a highway or freeway. Opportunistic retail would require a location near a significant population center. Such locations would include the peripheries of the incorporated cities of Davis, Woodland, West Sacramento and, to a lesser extent, Winters. All four alternatives assume that all future development that occurs at the peripheries of the incorporated cities would be subject to annexation by the cities. Therefore, there is little potential for opportunistic retail within the unincorporated county through the General Plan timeframe, unless different direction is provided during the General Plan process.

As discussed in the *Market and Fiscal Considerations Report,* in the present-day retail industry, the "neighborhood" shopping center is the basic unit of retail development. A neighborhood center is typically 100,000 to 120,000 square feet in size, and includes a 50,000 to 55,000 square foot supermarket as the anchor tenant, along with a range of other smaller tenants. The center may include a drugstore if the supermarket itself does not include a pharmacy. Other likely tenants include fast-food and casual dining restaurants (e.g., pizza parlors, ethnic restaurants), personal services such as nail salons and cleaners, and video stores. Typically, a population of approximately 12,000 to 13,000 people is necessary to provide adequate retail demand to support such a center. A community of this size will also support a range of other primarily convenience-oriented retail establishments in smaller unanchored strip centers or stand-alone buildings.

Prior BAE research has indicated that average retail demand in California is approximately 37 square feet of retail space per capita, less space for sales of autos and other vehicles. Of this, approximately 9 to 10 square feet of space is

likely to be for convenience-oriented retail. In other words, with a population of 12,000 to 13,000 people, a neighborhood retail center is likely to satisfy most local convenience retail demand. Although these local residents would still generate additional retail demand, for more specialized "comparison" shopping goods such as clothing, home improvements and building materials, autos, electronics, and other specialty retail, the more specialized nature of these types of merchandise and the less frequency with which people shop for these types of goods means that a larger community is necessary to support these types of stores. Consequently, these types of stores will not find adequate demand in small communities, and they will tend to locate in larger communities, where they can serve the larger local population base and also attract shoppers from surrounding areas where there are fewer shopping options. This reflects the current situation in Yolo County, with county residents even making some of their purchases in larger cities outside of the county, such as Sacramento and Vacaville.

Smaller communities (i.e., too small to support a neighborhood retail center) will support some retail development too but it will likely be very limited. Service stations, convenience stores and fast food establishments will be the most likely types of retail provided. A small independent grocery store may be viable in communities as small as 3,000 or fewer residents; however, such stores provide a very limited selection of products and typically do not offer pricing that is competitive with larger regional and national chain supermarkets. Consequently, residents in areas served by these types of stores typically use them for convenience shopping only and then make periodic trips to larger stores in nearby communities for "pantry loading" or to purchase specialty items. Thus, a figure of 10 square feet per capita is probably a reasonable guideline for the amount of retail that can be supported in small communities, not including retail that would capture significant business from drive-by traffic.

As communities grow beyond the 12,000 to 13,000 minimum population needed to support a neighborhood shopping center, they will attract larger quantities of retail space and, as the population grows and gets large enough

to support a more diverse range of more specialized retailers, the average per capita amount of retail space will tend to increase. Communities in the range of 20,000 people to 50,000 people tend to be able to support at least some kinds of "community" retail, which can include things like clothing and soft goods, office supplies, some home improvements and household furnishings and some specialty stores. At this size range, the amount retail space that local demand can support is probably in the range of 12 to 18 square feet per capita.

To support "regional" retail in the form of big box stores such as Target, Costco, Home Depot or large format specialty retailers such as Best Buy or Sports Authority, a population of 50,000 or more is usually required. When the local population is at the low end of the range, the surrounding trade area must also have significant additional households that are not served by similar competitive stores in order to provide adequate market support. Only once a trade area reaches about 300,000 people will it support a full complement of neighborhood, community, and regional retail developments, including high-end specialty stores and full-line department stores. When large enough to support this full range of store types, a market area might support 30 to 40 square feet of retail space per capita, not including space for auto sales.

Within the General Plan Alternatives, under Alternatives 3 and 4 as well as the Proposed Dunnigan Hills Development, Dunnigan would meet the population threshold requirements for a neighborhood retail center at buildout. Alternative 3 and the Proposed Dunnigan Hills Development also present some potential for community retail at General Plan Buildout. Under Alternative 2 there is some potential for one neighborhood retail center, likely located in Esparto that would serve a combined Esparto-Madison market area.

Markey viability was scored as follows:

- (ΘΘ) The amount of development would greatly exceed market demand.
- (Θ) The amount of development would exceed market demand.

- (∅) The amount of development may or may not be market viable (it is too close to tell) or some uses would be market viable while other uses would not (e.g., sufficient demand exists for the amount of retail uses but the amount of office and lodging exceeds market demand), or there would be a large undersupply of the use in an isolated market area, leading to both strong absorption (a positive factor) and an overall undersupply (a countervailing negative factor).
- (⊕) The amount of development would be market viable.
- (⊕⊕) The amount of development would be extremely viable in today's marketplace.

3. Community Services Thresholds

In considering General Plan Update options, the Yolo County Board of Supervisors has expressed interest in understanding thresholds of community size that are necessary to support various types of services that may be considered desirable within a community. The following discussions present information about the thresholds for furnishing community services: public schools, libraries, health services and fire protection.

a. Public Schools

Schools can function as community focal points and are considered by many to be a critical community amenity. The population in unincorporated Yolo County tends to be located in a few small concentrations, with much of the population dispersed at low densities over larger areas. As a result, many communities in unincorporated Yolo County lack the full spectrum of schools and, as children progress to middle school and high school, they are more likely to have to travel further distances outside of their community each day to attend school. For some people, one criteria for a self-contained community would include having a local high school.

Yolo County Office of Education officials provided the following information on student population requirements to support different types of

schools, and student generation factors.[4] Student generation factors are expressed as the number of students per household and are used to plan potential students based on the number of households in a community.

Three types of schools are considered:

- **Elementary School.** Elementary schools generally require 600 to 900 students and about 10 to 12 acres of land. Student generation rates on average are approximately 0.25 students per dwelling unit. Based on this, a community will need at least 2,400 households within the district area to generate adequate enrollment to support an elementary school. Of the unincorporated towns, Esparto and Knights Landing are the only ones with elementary schools.
- **Middle School.** Middle school populations typically range between 750 and 1,200 students and require about 20 to 30 acres of land. Generation rates on average are between 0.09 and 0.10 students per dwelling unit. Based on these factors, at least 7,500 households would be needed to generate enough enrollment to support a middle school. Clarksburg and Esparto both have middle schools.
- **High School.** High School populations typically range between 1,500 and 2,200 students and require about 50 to 60 acres of land. Generation rates on average are between 0.15 and 0.18 students per dwelling unit. At these yields, at least 8,300 households are required to support a high a high school. Clarksburg and Esparto both have high schools.

The household thresholds above provide guidance on the number of households required in a given area in order to support different types of schools. At the high school level, it appears that at a minimum, a community of 23,000 people would be necessary to support a local high school; 21,000 people would be necessary to support a local middle school, and 7,000 people would be necessary to support a local elementary school. These population

[4] These figures are statewide averages. Figures from each of the five school districts in the county may vary from these averages.

estimates are calculated by multiplying the minimum household size required for each school by the average household size in unincorporated Yolo County. According to the State Department of Finance (January 2006), the average household size for unincorporated Yolo County is 2.77 persons per household.

b. Libraries

Like schools, libraries are an important community resource and can serve as a community focal point. As our society becomes increasingly "information-based," libraries play an increasingly important role in ensuring that all socio-economic groups have access to information in both printed and digital form (i.e. Internet access).

The Yolo County Library Department manages three types of libraries: Neighborhood, Community and Resource:

- **Neighborhood libraries**. Neighborhood libraries currently exist in Clarksburg, Knights Landing, and Yolo. These small libraries serve a population up to 5,000 and stock three books per capita or 10,000 books, whichever is greater. Neighborhood libraries are open only 20 hours per week.
- **Community libraries.** Community libraries exist in both Esparto and Winters and can serve a population between 5,000 and 50,000. These medium-sized libraries stock three books per capita or 200,000, whichever is less. Community libraries are open up to 45 hours per week.
- **Resource libraries**. The largest County-managed libraries in Yolo County are Resource Libraries, located only in Davis and West Sacramento.[5] These libraries serve over 50,000 people. Resource libraries store three books per capita or 200,000, whichever is greater and remain open to the public up to 60 hours per week.

[5] The City of Woodland operates its own library, independent of the Yolo County Library.

Currently, communities as small as Clarksburg with 440 people support Neighborhood libraries; however, not every community in the unincorporated area with this level of population is provided a Neighborhood library. Given that communities as large as Dunnigan with a population of approximately 1,000 people are not currently provided with a library, and absent an unforeseen increase in resources available to support library services, it should probably not be expected that Neighborhood libraries would be provided in communities with less than 1,000 persons.

c. Health Services

Because there are so many factors involved with determining what type of medical services a community can support, it is difficult to make a definitive estimate of the population thresholds necessary to provide local health services and facilities. While population is one consideration, the distance of the community to an established medical center also plays a role. Additionally many employer-based health plans contract with Kaiser Permanente, which requires patients to use Kaiser doctors and Kaiser clinics and hospitals. Sutter Health representatives estimate as many as 40 percent of the population belongs to Kaiser Permanente. This can radically reduce the demand for general, private practice physicians.[6]

Access to a general practitioner physician may be considered the base level of medical services for a community. According to the Petris Center of Analysis at UC Berkeley, Yolo County had 220 physicians per 100,000 population in 2002. Of these 220 physicians, 104 are general practitioners. On a per capita basis, this translates to one general practitioner per 960 residents countywide (including incorporated cities). This ratio of physicians per capita is the fourth highest in California, behind only San Francisco, Marin, and San

[6] Larry Maas, Administrator, Sutter Health. October 11, 2006

Mateo Counties. Representatives of Sutter Health echo that this ratio may reflect a surplus in supply for health services in Yolo County.[7]

Sutter representatives estimated that a development in Yolo County with a population between 19,000 and 20,000 could be adequately served by a small primary care clinic staffed with one or two general medicine physicians or internists and a nurse practitioner. More specific and intensive care can be easily accommodated with existing facilities and medical personnel in Davis or Woodland. With the current state of medical care in Yolo County, it would take a population close to 150,000 to adequately support a full-service hospital.[8]

The Sutter Hospital in Davis is a 48-bed hospital that currently hosts approximately 22 patients a day. The bulk of the hospital's patients are served by outpatient care facilities. In an ideal scenario, Sutter Hospital would be hosting at least 38 patients a day. The Catholic Healthcare West hospital in Woodland has a similar shortage of daily patients.[9]

Based on the information discussed above, a community population of approximately 1,000 people is likely necessary to support one general practitioner; however, given the way medical services are organized in medical groups that include a number of affiliated physicians who share facilities and support staff, a larger population of approximately 19,000 to 20,000 is likely to be necessary to support basic medical services within a local community. This indicates that only the Dunnigan area under Alternatives 3 and the Dunnigan Hills Landowner Group proposal would be likely to support basic local medical services. Furthermore, based on the under-utilization of existing Yolo County hospitals, it is unlikely that that under any of the General Plan

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[7] Coffman, Janet. Et al. *Is There a Doctor in the House? An Examination of the Physician Workforce in California Over the Past 25 Years,* Nicholas C. Petris Center of Health Care Markets and Consumer Welfare. June, 2004.

[8] Larry Maas, Administrator, Sutter Health. October 11, 2006

[9] Ibid.

Update Alternatives under consideration, there would be sufficient growth in any unincorporated area to support a new hospital. One possible new model of health care delivery in rural areas is provided by the Winters Healthcare Foundation, a non-profit clinic which treats patients with no insurance.

d. Municipal Fire Protection Services

For the purposes of this analysis, municipal fire protection services are defined as community fire protection provided by a fire department that is staffed by full-time professional firefighters through a fire station or stations. The fire station(s) would be located such that the fire department can provide timely response to emergencies within its response area. An example of a typical urban fire service standard would be an engine company response to the scene of an emergency within six minutes of the dispatch center receiving the call for service, 95 percent of the time. Throughout unincorporated Yolo County, as well as the City of Winters, fire protection services are provided using volunteer fire departments. Such models are both successful as well as sustainable in many locations. However, if the County were to expand industrial uses in the unincorporated area, a professional fire protection force trained to deal with the types of chemicals and materials used in manufacturing processes may become necessary.

Fire service planning is complicated and is influenced by numerous factors, including the quantity and mixture of land uses within the service area, the configuration of the road network, the level of congestion, and/or other factors affecting emergency response times. It is not possible to provide a detailed analysis of the specific requirements to provide municipal level fire protection services for a given area within a given General Plan Alternative; however, it is possible to provide a general sense of the fiscal viability of providing this type of service.

In order to provide an emergency response, a fire engine company is required. An engine company requires a minimal level of staffing (typically at least three crew members and increasingly four crew members, based on national standards) on a round-the-clock basis. Municipal fire service cannot be pro-

vided without at least one engine company and, when service demand exceeds the capacity of one engine company, the next unit of service is to add another complete fire engine company. For example, it is not effective to add 25 percent more firefighters to an existing company, because all of the staff would be tied to the same fire engine, and thus would not be able to respond to 25 percent more calls. Thus, in order to provide municipal fire protection service, the engine company is the basic unit of service. Based on experience with other communities that operate full-time fire departments, the cost to operate one fire engine company is approximately $1.2 to $1.3 million per year.

Because of the high cost of each increment of fire protection service (i.e., engine companies), a key criteria for viability of this type of service is the ability to spread the cost of each engine company among a large enough base of development so that each unit of development must only contribute a reasonable amount of revenue each year to the operation of the fire department. Within unincorporated Yolo County, fire protection is provided by a number of fire districts that rely upon an allocation of local property taxes for almost all of their operational funding. Based on information provided by the Yolo County Auditor-Controller's office, Yolo County's various fire districts receive between 1.6 percent and 14.2 percent of the basic property taxes collected within their jurisdictions, depending upon the specific Tax Rate Area (TRA) within a fire district. The median fire district allocation within TRAs covered by fire districts is 4.8 percent, and the average is about 7 percent. Within the Dunnigan Fire District, the District's property tax allocation ranges from about 4.3 to 4.8 percent of the total.

Using the information above, it is possible to perform a series of rough calculations to determine a basic threshold for viability of municipal fire protection services. For example, we can assume that the local fire district receives seven percent of the basic property taxes, and it is serving primarily residential development with an average assessed value of $400,000. Thus, each house would generate $4,000 in basic property taxes each year, of which $280 would accrue to the fire district. Dividing a $1.3 million annual engine com-

pany operating cost by $280 per home means that the district would need to serve the equivalent of approximately 4,600 homes in order to collect adequate revenues to cover its operations costs. In reality, there could be a mixture of commercial and residential uses within the service area; however, this estimate is meant to provide a simple illustration of the order of magnitude of development that must be served in order to make municipal fire protection fiscally viable. In addition, the density of development must be such that the geographic area that the 4,600 home spans is small enough that the fire department can reach an emergency within the area within the prescribed response time. For the purposes of this analysis, it can be assumed that the density must be at least a "suburban" level in order to serve the equivalent 4,600 homes with one fire station.

Based on this information, we can conclude the following:

- Based on existing fire district funding mechanisms, municipal fire protection will only be feasible in locations where large quantities of housing (e.g. 4,000 or more units) and/or commercial development are concentrated in densities that are typical of newly developing areas within Yolo County's cities. Within the General Plan Update Alternatives, the only sub-area that would appear to meet these criteria is Dunnigan in Alternatives 3 and 4, as well as the Dunnigan Landowner Group Proposal.
- Smaller concentrations of development or areas of development at lower densities can only be provided with municipal fire services if the local fire district property tax share is greater than seven percent, or average property valuations are greater than the equivalent of $400,000 per home, or local property owners are willing to pay extra taxes to fund the service, or a combination of the preceding.

e. Summary of Community Services Thresholds

Community Services thresholds were scored on the following scale:

- Θ indicates population growth of at least 100 units, or stand-alone non-residential growth is predicted in an area with inadequate services, but

does not meet the thresholds identified herein for various new community services.

- Ø indicates either that growth would be less than 100 units, or that existing services are sufficient to accommodate growth.
- ⊕ indicates population growth in an area with inadequate services is high enough to warrant new community services, and its is presumed that the revenue sources will be adequate to fund new services.

4. Fiscal Impacts

a. Analytical Framework

The fiscal analysis focuses on the additional costs and revenues associated with development under the various alternatives that would impact the County's General Fund balance. The General Fund receives the County's general purpose discretionary revenues that fund basic services that the County provides to the public. The expansion of services that receive funding from enterprise funds, such as water and sewer services, would not impact the County's General Fund, and therefore are not represented in this analysis.

Because the County is interested in knowing the fiscal impacts of potential development for each community within each alternative, this analysis uses a qualitative approach to the fiscal impact analysis. A quantitative model generally uses average per service population cost and revenue factors to determine the incremental County service costs and revenues associated with new development but would not account for location-based cost differences. In order to do so, the analysis focuses on the revenues and costs that are likely to vary based on location for each proposed land use. Variables that will change with location, and therefore will likely impact the fiscal implications include sales tax revenues and property values on the revenue side, and Sheriff patrol costs, roadway maintenance, and library costs on the cost side. Other costs are not likely to vary by location as the County either provides them at a central location (e.g., Sheriff detention services) or the General Fund's portion of the budget is sufficiently small that providing additional services would not represent a significant impact.

In addition, the analysis does not consider the fiscal impacts of residential units or commercial space that the market viability analysis concludes are unlikely to be successful. Rather, the analysis assumes that any excess space would not be built due to lack of market demand and this analysis only considers the fiscal impacts the market supports.

b. Revenues

Revenues are likely to vary by location for three reasons. First, sales tax revenues will be higher for a given amount of retail located closer to a critical mass of residents than the same retail store located at a further distance from the population. For example, a new store located at the edge of a city would contribute more sales tax revenues than the same store that is located in northwestern Yolo County. This is because there are more potential customers located in the proximity of the store that is next to the city than the store that is in the more remote location. The fiscal analysis accounts for potentially significant differences in sales tax revenues based on professional judgment and demand assessments in the market viability analysis.

Second, property tax revenues will vary with property values. The local housing market will dictate property values for new commercial space and residential units in the county, and will vary by location. As more households want to be located in an area with urban amenities (schools, shopping, employment centers, etc.), they are willing to pay more for a housing unit that is located in closer proximity to the desired amenities. Likewise, property values for commercial buildings will also vary according to locations with the greatest demand. Commercial buildings that are located in areas that have large amounts of residential units but little competing retail will command a higher price, on average, than the same buildings located away from potential customers and employees. The fiscal analysis uses recent sales data for new commercial and residential developments within each sub-area to determine the relative property values of the proposed alternatives. For each of the sub-areas, Table B-1 shows the average 2005-2006 residential property values and Table B-2 shows the average commercial property values.

Table B-1: Yolo County Housing Prices, 9/05-9/06

	Median Home Price	Average Home Price	Average Lot Size	Average SF	Average Price/SF
Incorporated Cities					
Davis (a)	$585,000	$687,306	0.12	1,228	$559.64
Woodland (a)	$528,000	$548,009	0.15	2,552	$214.71
Winters (a)	$449,500	$449,500	0.23	N/A	N/A
West Sacramento (a)	$485,000	$517,356	0.13	2,270	$227.92
Sub-Geographies					
Clarksburg (b)	$719,500	$850,113	10.96	2,615	$325.11
Dunnigan (b)	$399,425	$380,542	1.65	1,497	$254.26
Esparto (b)	$417,500	$420,250	0.17	1,981	$212.12
Knights Landing (b)	$360,000	$366,000	0.16	1,589	$230.29
Madison (b)	$299,000	$322,667	0.20	1,152	$280.09
Monument Hills (a)	$669,000	$689,493	0.26	3,688	$186.96
Yolo (b)	N/A	N/A	N/A	N/A	N/A
Other Communities	N/A	N/A	N/A	N/A	N/A
Outside Communities (b)	$850,000	$1,001,550	49.67	2,220	$451.17

Notes:
(a) Home sales data are provided by First American Real Estate Solutions from 9/05 to 9/06. Includes only new housing construct
(b) Home sales data includes current for sale housing due to a lack of completed sale

Sources: First American Real Estate Solutions, 2006; Metro List, 200

Table B-2: Commercial Property Prices, 9/05-9/

Commercial (a)	Median Price	Average Price	Average SF	Average Price Per SF
Incorporated Cities				
Davis (b)	$915,500	$923,975	2,271	$406.86
Woodland (b)	$1,100,000	$1,379,909	9,338	$147.78
Winters	N/A	N/A	N/A	N/A
West Sacramento (b)	$615,000	$662,000	9,135	$72.47

Industrial	Median Price	Average Price	Average SF	Average Price Per SF
Incorporated Cities				
Davis	N/A	N/A	N/A	N/A
Woodland (c)	$495,000	$463,750	7,369	$62.94
Winters	N/A	N/A	N/A	N/A
West Sacramento (c)	$1,262,500	$1,617,500	15,687	$103.11

Notes:
(a) Data for unincorporated communities is not available due to lack of recent sales and current for sale prope
(b) Price data includes current for sale property as well as property sold within the last ye
(b) Price data includes current for sale property onl

Sources: Loopnet, 2006; First American Real Estate Solutions, 200

In addition, the analysis considers County requirements for inclusionary (affordable) housing units. Specifically, the analysis assumes that all developments with more than ten units will allocate 10 percent of all units to be affordable[10] to moderate-income households and another ten percent will be affordable to low-income households.[11] Although the ordinance specifies the number of persons per household for each type of affordable housing unit (e.g., two persons for a one bedroom, three persons for a two bedroom, and an additional bedroom for each additional person), the General Plan alternatives descriptions do not provide details on the types of housing units that would be developed under each alternative. In order to estimate the affordable home prices under the alternatives, the analysis estimates the affordable home prices for a household with the countywide average of 2.77 persons per household. As Table B-3 shows, a moderate-income household with three persons can afford to purchase a home for $198,000, while a low-income household with three persons can afford to purchase a home for $132,100. Since the U.S. Department of Housing and Urban Development (HUD) defines affordability levels on a countywide basis, the analysis assumes that all affordable units marketed to moderate-income households will have a value of $198,000, and all units marketed to low-income households will have a value of $132,100, regardless of where the units are located within the county. Table B-4 shows the weighted average property value per housing unit for each sub-area, accounting for affordable units.

Finally, property tax revenues will vary by tax rate area (TRA). The County has many TRAs, each of which allocates a different amount of the basic one percent property tax to the County. The average county TRA allocates approximately 13 percent of basic property taxes to the County for discretionary uses. A housing unit of average value that is located in a TRA with a higher County allocation factor will result in higher County property tax

[10] Under HUD guidelines, an affordable unit must be priced such that the monthly housing expenditures (mortgage, taxes, and insurance) are not greater than 30 percent of a household's gross monthly income.

[11] Chapter 9 of Title 8, Yolo County Code.

Table B-3: Affordable Home Prices, Yolo County

2005 Income Limits (a)	Household Size 3-Persons
Low-Income	$43,550
Moderate-Income	$65,280

3-Person Household		Amount Avail. for Housing	Principal & Interest	Property Insurance	Property Taxes	Mortgage Insurance	Total Monthly Payment	Down-Payment	Affordable Home Price
Low-Income	$43,550	$1,089	$793	$28	$132	$136	$1,089	$6,606	**$132,126**
Moderate-Income	$65,280	$1,632	$1,189	$41	$198	$204	$1,632	$9,900	**$198,007**

Ownership Cost Assumptions		
% of Income for Housing Costs	30%	of gross annual income
Mortgage Terms	Standard Mortgage Terms	
Down Payment	5.0%	of home value
Annual Interest Rate	6.50%	fixed
Loan Term	30	years
Annual Mortgage Insurance	1.30%	of mortgage
Annual property tax rate	1.2%	of home value
Annual Hazard Insurance	0.25%	of home value

Note:
(a) Income limits based on 2.7 persons per household

Sources: HUD, 2006; Bay Area Economics, 2006

Table B-4: Weighted Average Home Values, Market Rate and Affordable Units

	Market Rate (a)	Moderate Income	Low Income	Average Value
Distribution of Units	0.8	0.1	0.1	
Community				
Clarksburg	$850,113	$198,007	$132,126	$713,104
Dunnigan	$380,542	$198,007	$132,126	$337,447
Esparto	$420,250	$198,007	$132,126	$369,213
Knights Landing	$366,000	$198,007	$132,126	$325,813
Madison	$322,667	$198,007	$132,126	$291,147
Monument Hills	$689,493	$198,007	$132,126	$584,608
Yolo	N/A	$198,007	$132,126	N/A
Other Communities	N/A	$198,007	$132,126	N/A
Outside Communities	$850,000 (b)	N/A	N/A	N/A

Notes:

(a) Market rates are based on average home prices for each area as reported in Table 1.

(b) Scattered development would not likely be subject to the County's inclusionary ordinance.

Sources: HUD, 2006; Yolo County, 2006; Bay Area Economics, 2006

revenues than the same house, with the same value, that is located in a TRA with a lower County allocation factor. These variations in County revenues will result in fiscal impact differentials for the different sub-areas within the unincorporated county. Figure B-1 shows the range of the County's share of the basic property taxes for each of the sub-areas, relative to the County average. Teal and blue areas represent TRAs where the County receives a larger than average share of the basic property tax, while red, orange, and green areas represent TRAs where the County receives a smaller than average share of the basic property tax.

c. Costs

Like revenues, County service costs may also vary by geographic location within the county. The analysis qualitatively examines how costs would differ from average service costs for Sheriff Patrol services and ongoing roadway maintenance. These particular services have the potential to significantly deviate from average cost figures based on the location of development.

Sheriff patrol services in rural areas become less efficient as development occurs further from Woodland.[12] In addition, when communities that are not located near Woodland have limited amounts of growth that could not support a sub-station, but patrol units still dispatch from Woodland, the result will be longer response times, and tied up patrol units for longer periods per call.[13] While health services and other countywide services would also lose efficiency with remote development, these additional costs are not likely to deviate significantly from the average, and are therefore left out of this qualitative analysis.

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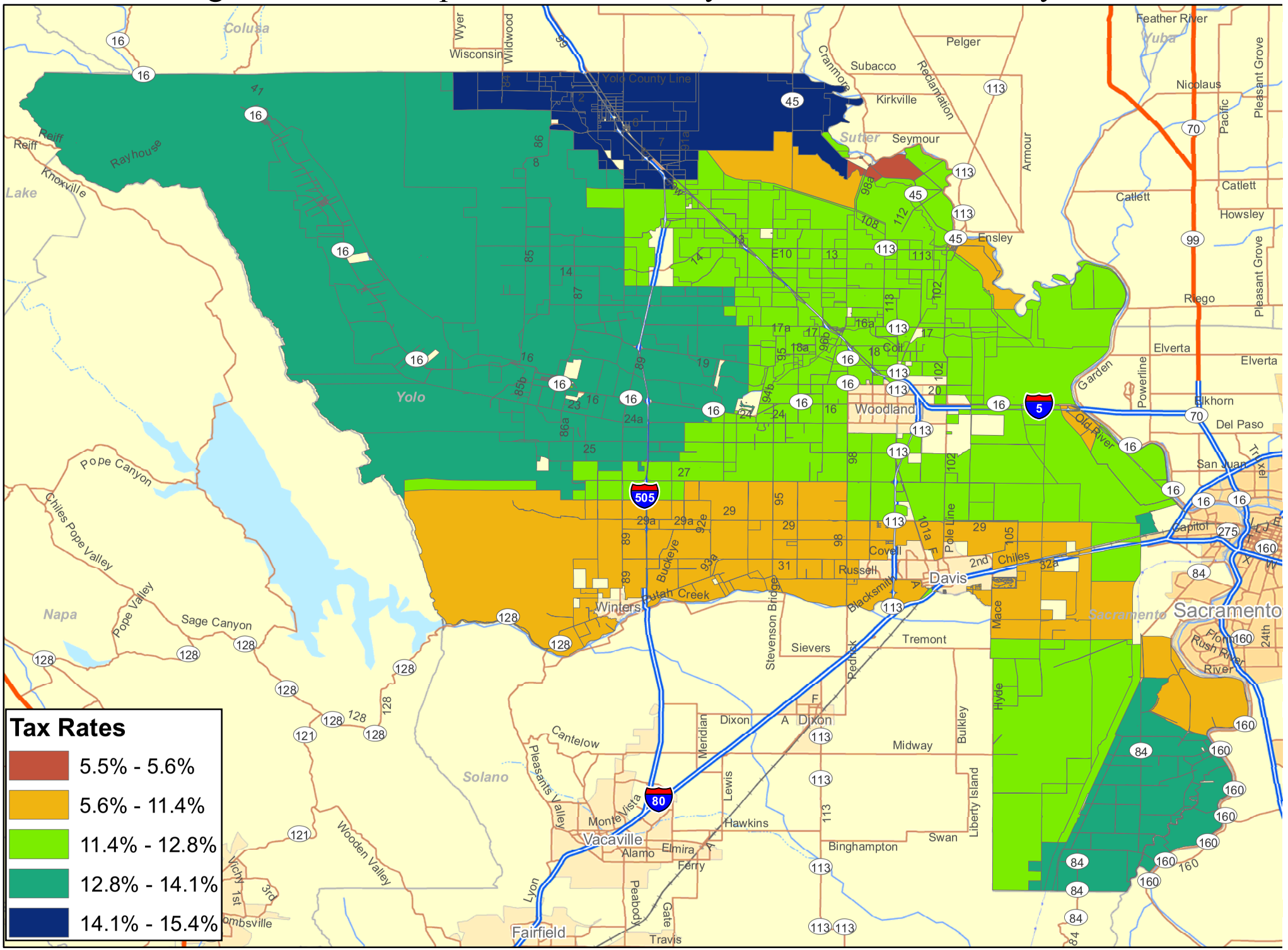
[12] A Resident Deputy lives in the more remote areas of the unincorporated county and serves his/her own community, working out of his/her home. While this saves on travel to and from Woodland each shift, each resident deputy requires his/her own patrol vehicle, which cannot be used by another patrol officer during the time when the resident deputy is off duty.

[13] Phone conversation with Captain Tom Lopez of the Yolo County Sheriff Department, October 12, 2006.

Figure B-1: Unicorporated Yolo County Tax Allocation Rates by Area



It should be noted that the analysis also excludes a discussion of the additional costs of providing services to development in new towns, and suburban development in the unincorporated county that would have the critical mass to support a new Sheriff sub-station. Based on current trends, this analysis assumes that the County would implement a funding mechanism that would not rely on discretionary County General Fund monies to pay for County services in any area with concentrated development that would require an "urban" standard of service. According to County staff, new development would require a Sheriff sub-station once the community reached approximately 800 rooftops. In order to avoid burdening the County's General Fund with costs for additional services, the County could implement any of the following:

- County Service Area (CSA) for new development only – This would pay to provide services to the new development only at an enhanced service level, compared to what is provided elsewhere in the county.
- CSA for both existing and new development – This would pay to provide additional services to existing and new developments and could be used in places like Esparto, Monument Hills, and/or Dunnigan
- Not providing additional enhanced services to the new development – This was not treated as a viable option.

All of the above options would result in alleviating the County of the cost burden of providing enhanced services. The type and location of the development will determine which of these mechanisms would best serve the new population.

There are currently eight service maintenance CSAs in the unincorporated County that provide funding for enhanced services. Three of the CSAs are located on the periphery of the City of Davis, with the remainder scattered in other areas of the county. Following is a list of the CSAs in the County that

currently provide enhanced services in areas that are considered for development in the alternatives.[14]

- Clarksburg Lighting District – This CSA provides for street lighting in Clarksburg.
- Dunnigan CSA – This CSA provides for street lighting in Dunnigan.
- Madison-Esparto Regional CSA – This CSA provides soil erosion and storm drainage services to prevent flooding in the Madison and Esparto area. It also provides park, recreation and parkway facilities services in Esparto.
- Snowball CSA – This CSA provides levee repair, operation, control and maintenance for Knight's Landing.
- Wild Wings CSA – This CSA provides water and sewer maintenance to the Wild Wings development in Monument Hills.

All of these CSAs exist in areas considered for development in this analysis. Whether a community can extend an existing CSA to cover additional types of services depends on whether LAFCO granted the CSA the authority to engage in other activities at the time of original formation. For example, if Clarksburg residents supported levying an assessment in exchange for enhanced park services, they might want to extend the current lighting district, rather than forming a new CSA. If the Clarksburg lighting district were initially granted the ability to provide park maintenance, then the property owners could extend the assessment to provide for enhanced park services. However, if the district were not granted the ability to perform park maintenance, the property owners would need to form a new CSA to provide this service. To the extent that these CSAs can be extended to provide additional services, the property owners may extend the CSAs to cover the costs of enhanced County services.

[14] Yolo County Web Site, 2006.

d. Net Fiscal Impact

Assuming that CSAs or other non-discretionary funding mechanisms would fund the portion of costs for enhanced services for areas with sufficiently concentrated development, the net fiscal impact would depend on whether the proposed development would generate significant general County revenues. According to the General Plan Update *Market and Fiscal Considerations* background report, a housing unit in a TRA where the County receives an average share of basic property taxes would need to have a value of approximately $360,000 for the County to break even. Higher property values in TRAs where the County receives an above average allocation of basic property taxes would provide a net fiscal surplus for the County's General Fund. Likewise, in TRAs where the County receives a below average allocation of basic property taxes, residential development would likely produce a fiscal deficit for units with an average property value below $500,000. As retail development produces sales tax revenues for the County, it typically produces a fiscal surplus. However, if the market cannot support additional retail, then the retail establishment will not likely provide enough sales tax revenues to generate a surplus. Office and industrial land uses, which do not generate sales tax revenues but also do not generate as much service demand as residential uses are likely to be more or less fiscally neutral to the County. However, in TRAs where the County receives an above average share of basic property taxes, office and industrial uses could potentially generate fiscal surpluses. Finally, lodging uses tend to generate fiscal surpluses, as they generate transient occupancy tax (TOT) revenues[15] to the County; however, their level of fiscal benefit depends on whether the market can support the lodging facility in a given location.

e. City Edge Development

LAFCO regulations stipulate that cities can only provide municipal water and sewer services to developments that are within the cities' jurisdictions. Thus, in order for edge developments to obtain access to community sewer

[15] The current TOT rate in the unincorporated county is 8 percent of nightly room rates.

and water services, the adjacent city would need to annex the development site. Due to these regulations, this analysis assumes that all city edge development would necessarily occur within a city's incorporation boundary.

Under this assumption, the county would only receive revenues from its revenue sharing agreements with the different cities. The county would incur costs associated with providing countywide services including law and justice non-patrol services, health services, and other services that it provides to all county residents. To the extent that the county negotiates favorable revenue sharing agreements with the cities, edge development will generate fiscal surpluses for the county's General Fund. This analysis assumes that if the county cannot negotiate favorable agreements that produce surpluses, then revenue sharing agreements will at a minimum provide sufficient revenues from property tax collections to leave the county whole. Under this assumption, edge development would be fiscally neutral for the county's General Fund.

A summary of the fiscal impacts of development for each community is provided in Tables S-1 through S-9 of the Executive Summary.

Fiscal impacts were scored as follows:

- (ΘΘ) Likely substantial county general fund deficit
- (Θ) Likely county general fund deficit
- (∅) Neutral for the county general fund
- (⊕) Likely county general fund surplus
- (⊕⊕) Likely substantial county general fund surplus

B. Infrastructure

The following section describes for water, wastewater, storm drainage and flooding. For a overview of existing infrastructure conditions in the county and the various ways that growth might be served, see the *County Infrastructure Conditions Report*.