CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: **Envision San José 2040 Task Force**

FROM: **Andrew Crabtree**

SUBJECT: **February 22, 2010 TASK FORCE MEETING SCENARIO ANALYSIS SUMMARY**

DATE: February 16, 2010

This memo provides additional background information on the Land Use Study Scenarios and a summary of the results of the analyses provided for each scenario, to assist you in preparing for the February 22, 2010 Envision San José 2040 Task Force Meeting. Links to the Task Force Meeting Overview Memorandum, a Fiscal Report Memorandum and the other referenced documents and resource materials (e.g., reading materials and correspondence) are posted on the Envision website.

The first part of the February 22, 2010 Task Force meeting will be used to review the Envision Land Use Study scenarios and the results of the analyses provided for each scenario. The following information is being provided to the Task Force to address various questions that have been raised at recent Task Force meetings and to provide additional information on the results of the various scenario analyses.

The Task Force has also been provided with a **Scenario Table & Pie Chart Comparison** which illustrates the amount of job and housing growth capacity provided within each of the growth areas for each scenario. Reference to this document will be useful for the following discussion.

How were the scenarios selected?

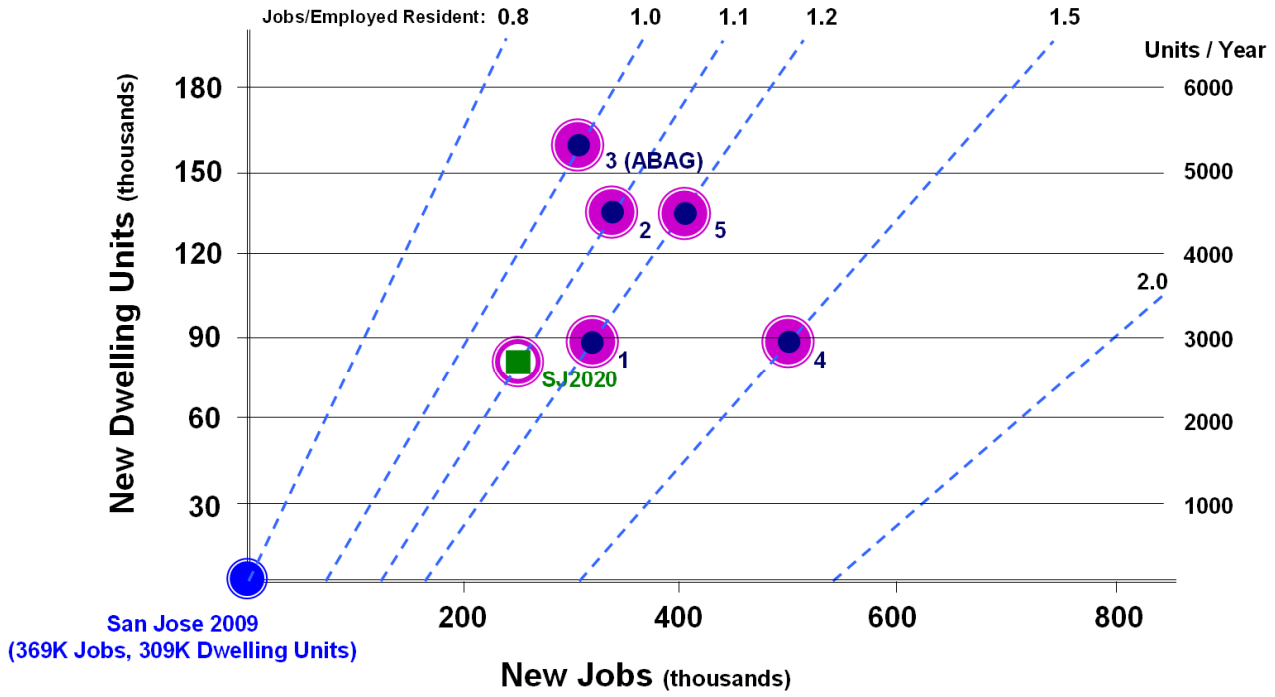
The Land Use Study Scenarios are defined by two variables, the number of New Dwelling Units and the number of New Jobs for which they provide growth capacity and which in combination correspond to a specific jobs-housing balance or ratio of Jobs per Employed Resident (J/ER). The amount of job and housing growth capacity included within each of the Land Use Study Scenarios is graphically depicted in Table 1 below.

The Land Use Study scenarios were selected by the Task Force and accepted by the City Council following a community workshop and several Task Force meetings conducted between January and April of 2009. After developing a list of potential scenarios to study, the Task Force voted on which to study further and the scenarios receiving the highest number of votes were forwarded to the Envision consultants for further analysis. Initially four scenarios were identified, but because the consultants indicated they had additional workload capacity, the next most preferred scenario was added to the list for analysis.

As a beginning point for the scenario selection process, the Task Force was provided with expert projections for job growth and population growth for San Jose through the year 2040. Projecting demand for housing units is considered to be a relatively straight forward exercise using demographic

factors which can be predicted based upon the composition of the current population and long-term trends such as changing birth rates, increases in longevity and household size. Predicting job growth rates is more difficult given the relatively volatile nature of economic development. The Task Force was provided with two sets of job growth and population growth projections, one developed by a consultant hired to support the Envision process (Steve Levy of CCSCE) and one developed by staff working for the Association of Bay Area Governments (ABAG). Both projections predicted very similar population growth rates, while the ABAG projections for job growth were slightly more optimistic than those developed by Steve Levy.

Table 1: Envision San Jose 2040 Land Use Study Scenarios



One of the scenarios (Scenario 3) corresponds to the 2009 ABAG projected demand for job and housing growth for San Jose through 2035. Build-out of the Scenario 3 job and housing capacity would result in a Jobs / Employed Resident ratio (J/ER) of 1.0. Other scenarios were identified and selected by the Task Force primarily with the goal of supporting a higher Jobs / Employed Resident ratio: Scenario 1 (1.2 J/ER), Scenario 2 (1.1 J/ER), Scenario 4 (1.5 J/ER) and Scenario 5 (1.2 J/ER). This ratio is considered very important because a higher ratio is expected to make a positive contribution to the City's fiscal condition (other cities in the region with a higher ratio have more fiscal resources) and to support growing San Jose's prominence in the region. It was noted that San Jose is the only large city in the US (population greater than 500,000) that currently has a J/ER less than 1.0.

The Task Force spent considerable time discussing the feasibility of producing housing within San Jose at the rate needed to accommodate the projected demand due to population growth. Two scenarios (Scenario 1 and Scenario 4) are based on housing growth capacity less than the projected demand, but correspond to the production of 3,000 dwelling units per year, a rate comparable to the

City's average annual housing unit production between 1999 and 2008. The current downturn in the housing market, along with the desired shift toward high-density housing production, suggest that it will be infeasible for developers within the City to maintain this rate of production, particularly over a sustained 30-year time period. The other study scenarios are each based on a higher total housing growth capacity, which would require an even faster rate of construction to achieve 'build-out' within the 2040 time frame.

Task Force members expressed equal skepticism as to the feasibility of achieving the level of job growth represented by the more job-oriented scenarios. The most conservative scenario (Scenario 3) matches the 'optimistic' job growth projections made by ABAG in 2009, while the other scenarios provide additional job growth capacity beyond the projected demand. The Task Force discussed how projections and the General Plan growth capacity will be used as policy tools to inform other decision making processes, concluding that it may be desirable to ultimately select a scenario with job growth capacity greater than the projected demand to influence those policy decisions while also communicating the City's goals for its future character. It is particularly worth re-emphasizing that ABAG, which produces the job and population growth projections used by the State, will look at San Jose's General Plan as one factor when deciding how much of the region's growth projection to allocate to San Jose for future ABAG projections.

While the Task Force had reservations about the City's ability to achieve the high number of jobs necessary to reach the higher J/ER ratios, they also acknowledged that it is important to have a General Plan with additional job capacity (beyond the projected demand) in order to provide multiple options for future job growth and to communicate the City's desire to become more of a regional job center. Conversely, the Task Force was not interested in further considering scenarios which would allow job and housing growth corresponding to a J/ER ratio of less than 1.0. Similarly, it may be of value to have a General Plan with housing growth capacity that accommodates an increased rate of housing production in order to provide more flexibility for responding to future market conditions.

How are the scenarios similar?

Prior to designing the Land Use Study Scenarios, the Task Force developed a set of Land Use Scenario Guidelines, that together with additional direction provided by the Task Force through the study scenario development process, gave a significant amount of direction on where job and housing growth should be planned within each of the scenarios. As a result, the scenarios are very similar in several aspects. Specifically, all of the scenarios:

1) Incorporate growth capacity from the current General Plan, Scenario SJ2020. This includes significant job and housing growth capacity in the Downtown and North San Jose areas.

2) Focus new growth within the existing Urban Growth Boundary (UGB). The scenarios do not consider any potential growth within the Mid-Coyote Valley or South Almaden Valley urban reserves.

3) Direct new growth to identified "Growth Areas", including the Downtown, Specific Plan areas, Employment Lands, Commercial Corridors and identified Villages. Growth is not planned within built-out single-family residential areas. The scenarios do not support small scale "infill" development within existing single-family neighborhoods.

4) Give highest priority to placing new growth within the Downtown and at sites served by existing or planned transit (BART, High-Speed Rail, Light Rail and Bus Rapid Transit). The scenarios plan development in these areas at densities equivalent to or greater than the existing high-density development that can be found within San Jose. Before growth capacity was allocated to other areas within the City in any of the scenarios, the maximum amount feasible was allocated to the Downtown and other transit-oriented sites.

5) Allocate most housing growth capacity at higher densities (e.g., 55+ Dwelling Units per Acre). Some lower density development (e.g., 30+ Dwelling Units per Acre) may be appropriate at the periphery of Village areas to provide a transition to lower density, adjacent uses.

6) Preserve the existing employment lands and plan for the intensification of those lands in order to accommodate future job growth. New employment lands are added in Alviso, utilizing the currently undeveloped Water Pollution Control Plan lands. An Employment Lands Demand Analysis was prepared for each scenario and to the extent feasible, job growth capacity was allocated within each scenario based upon the projected demand by type (e.g., Industrial Warehouse, R&D Low-Rise, Mid & High Rise Office, Retail (Small), Retail (Large) and Institutional / Other). However, because of the limited feasibility of adding additional low-density industrial and commercial lands, Industrial Warehouse and Retail (Large), there was generally an insufficient amount of these lands available to accommodate the projected demand within each of the scenarios. To reach the scenario overall job targets, jobs were instead allocated to Mid & High Rise Office lands in excess of the projected demand for that type of job growth. Accordingly it would be imprudent, particularly given the ambitious job growth goals embodied within the scenarios, to suggest that job growth should be further concentrated into a denser configuration on a reduced amount of employment lands because the scenarios are already based upon intensification of job growth beyond the level supported in the *Job Growth Projections and Employment Land Demand* Report.

7) Maintain and expand the existing job capacity within Village Growth Areas. To implement the Village concept it will be necessary to include policy within the General Plan to ensure that job capacity is retained (and enhanced consistent with the scenario goals) as part of any redevelopment project conducted on a Village site. It would be counter to several of the Envision Land Use Guidelines to allow conversion of existing industrial or commercial land to purely residential use. Redevelopment of existing commercial lands is part of the Village concept, but must be done in a way that preserves and enhances the current level of on-site employment and fiscal activity.

8) Use the same transportation network, including existing transit facilities and those planned for construction prior to 2040, and minor modifications (expansions and reductions) at specific locations reviewed by the Task Force. Details of the proposed transportation network were reviewed by the Task Force at Meeting #23 and Meeting #24.

As a result of these similarities in the design of the Land Use Study Scenarios, the Transportation and Environmental analyses in many cases yield similar results for all of the scenarios. The analyses that produced similar results are discussed below by topic.

Transportation – Land Use Connection

The Transportation Analysis Summary Memorandum (part of the packet materials for Meeting #33) provides a summary of the key results of the traffic analysis and some detail as to underlying causes of those results. Generally the analysis indicates similar performance for each of the scenarios because all five are based on a similar location of growth areas and because the "Service Population" (equal to the total jobs + total residents for the scenario) has a greater influence than the mix of housing and job growth upon the outcome of the traffic modeling work. Furthermore, all of the scenarios, including Scenario 1, include enough growth capacity to effectively, at build-out, fully use the available roadway capacity, with additional travel demand diverted to the transit system. Thus, for most of the transportation indicators (e.g., commute mode share, Vehicle Miles Travelled, roadway Level of Service, etc.) the traffic modeling indicates a similar outcome for each of the scenarios, with the exception of a notable increase in total transit ridership for the scenarios with more job growth.

Table 2: All Scenarios Place a Similar Percentage of Growth Capacity Near Transit

	Planned Growth Capacity						
	Base	**SJ2020**	**1-C**	**2-E**	**3-K**	**4-J**	**5-H**
Jobs/Employed Resident	0.8	1.1	1.2	1.1	1.0	1.5	1.2
Service Population (Jobs + Residents)		506,800	617,820	775,640	825,980	797,320	846,640
Job Growth Capacity (Jobs)	-	255,550	346,550	360,550	339,530	526,050	431,550
% near transit	-	59%	60%	59%	57%	59%	60%
Housing Growth Capacity (DU)	-	82,110	88,650	135,650	158,970	88,650	135,650
% near transit	-	74%	86%	74%	64%	85%	74%
Total Daily Transit Ridership (Boardings)		439,400	498,400	494,900	480,900	635,200	541,500

Transportation – Commute Mode Split

All five Land Use Study Scenarios concentrate new growth capacity according to a land use pattern that gives strong emphasis to supporting transit, bicycle and pedestrian activity (Table 2). The model forecasts a similar and reasonably high share of travel for each of these modes (Table 3). Scenario 4-J and Scenario 5-H concentrate regional job growth within San Jose, generating more demand for more regional movement which then generates slightly higher regional traffic levels, diversion to the transit system and overall transit ridership rates.

Table 3: Traffic Modeling for All Scenarios Predicts a Similar Distribution of Trips by Mode

Mode	**Peak Period Commute to Work (% mode share)**						
	Base	**SJ2020**	**1-C**	**2-E**	**3-K**	**4-J**	**5-H**
Auto	94.1%	87.4%	85.6%	86.1%	86.9%	80.8%	84.2%
Transit	3.9%	10.2%	11.6%	10.9%	10.2%	16.2%	12.8%
Bicycle	0.7%	1.1%	1.4%	1.5%	1.5%	1.6%	1.6%
Walk	1.3%	1.3%	1.3%	1.4%	1.4%	1.4%	1.4%

For a full explanation of transportation analysis results excerpted in this memorandum, refer to the Transportation Scenario Analysis Memorandum provided by Fehr & Peers.

Traffic modeling, as required to satisfy the environmental review process (CEQA), must be based upon conservative assumptions about the future behavior of San Jose residents. Following this conservative approach, integrated into the model is a bias that the majority of people will chose to drive (rather than use transit, bicycle or walk) as long as it is not either too expensive or too inconvenient. The reasonably high degree of alternative mode travel forecast by the model for each scenario could be further increased by the adoption of additional policies to promote transit, bicycle or pedestrian activity. Those policies, which will be discussed further at a future Task Force meeting, are not incorporated into the modeling exercise. (The Task Force may find it useful when discussing mode shift goals and policies to consider a phased approach with one set of goals and policies appropriate for 2020 and another set possibly for 2040.)

Transportation – Congestion Levels

Traffic congestion is measured for the transportation analysis in terms of Vehicle Miles Traveled (VMT), total Roadway Level of Service (LOS) and Percentage of Travel on "Uncongested" Roadways. The latter is important because other measures, such as VMT, indicate the amount of travel but do not measure how much of that travel is conducted under "congested" conditions. LOS is useful for the study of specific locations, but has limited application for Citywide or regional analysis. The Transportation Scenario Analysis Memorandum provides analysis based on all three of these indicators and also on a per capita based on "Service Population", defined as the combined total of residents and jobs within the scenario. Generally, the degree of differentiation between scenarios is not particularly significant. As a result in part of their relative similarity, each of the scenarios has the "best" or "worst" performance for some particular indicator.

All five of the Land Use Study Scenarios include enough new growth to use the existing road network capacity at or close to the level corresponding to driver tolerance. The traffic modeling thus predicts a similar outcome for build-out of all scenarios for total VMT and total LOS (Table 4), for VMT per capita (Table 5) and for percentage of travel on uncongested roadways (Table 6) with minor differences for build-out of each scenario noted as follows:

- Scenario 4-J has the highest level of Citywide VMT and VMT per capita.
- Scenario 5-H has the highest level of Countywide VMT.
- Scenarios 5-H and 3-K have the highest levels of congestion for peak commute hour and off-peak travel times.
- Scenario 5-H has the lowest VMT per capita, but is only 5% better than the worst performing scenarios.
- The Service Population for Scenario 1-C is low enough that Scenario 1-C has less total congestion measured in terms of VMT or LOS.
- Scenario SJ2020 does not perform as well on a per capita basis because it has a less transit-oriented land use pattern.
- Depending upon time and roadway type, Scenarios 2-C, 3-E and 4-J each have the best performance in terms of total travel on "uncongested" roadways.

The scenarios with a higher J/ER ratio (Scenario 4-J and Scenario 5-H) have slightly higher levels of regional congestion, in terms of Countywide VMT, as they require that a higher number of people commute from outside of San Jose into the City for their employment, consistent with the City taking on a regional job center role. Scenario 1-C does not perform better in these areas on a per capita basis (Table 5), indicating that it is not a more efficient land use pattern, but that diversion of regional

housing growth to locations outside of San Jose will have a positive effect upon overall traffic congestion levels. Scenario 4-J, because of its disproportionately focused job capacity generates a less efficient regional land use pattern and performs poorly in terms of regional VMT, but it and other scenarios with more regional movement, have in some instances a reduced level of congestion on streets within San Jose (Table 6).

Table 4: Traffic Modeling Predicts Similar Levels of Total Traffic Congestion

	Automobile Activity						
	Base	**SJ2020**	**1-C**	**2-E**	**3-K**	**4-J**	**5-H**
J/ER	0.8	1.1	1.2	1.1	1.0	1.5	1.2
Vehicle Miles Traveled (1,000s) [1]							
Citywide Daily	20,156	30,230	31,733	33,298	33,687	35,050	34,687
Countywide Daily	40,928	61,667	62,698	64,505	65,181	65,108	65,513
Roadway Level of Service							
# Segments[2] LOS E or F Daily	4	7	9	11	11	11	11

[1] Generated by City Service Population = Residents + Jobs
[2] There are a total of 109 study roadway segments

Table 5: Traffic Modeling Predicts Similar Levels of Vehicle Miles Travelled Per Capita

	VMT per Service Population (Residents + Employment)						
	Base	**SJ2020**	**1-C**	**2-E**	**3-K**	**4-J**	**5-H**
Peak Period	6.49	7.04	6.96	6.75	6.67	7.03	6.79
Off-Peak Period	8.43	9.15	9.08	8.80	8.68	9.21	8.91
Daily Total	14.92	16.19	16.04	15.55	15.35	16.24	15.70
% of SJ2020 VMT per Service Population	N/A	100%	99%	96%	95%	100%	97%

Note: VMT ratio calculations are based on VMT divided by the total number of residents and jobs.
Model results presented in these tables are not reflective of General Plan policies and programs (such as Transportation Demand Management programs, expansion of the City's bicycle/trail network, increased transit frequency to serve increased development intensity at transit nodes, and construction of High Speed Rail) that would affect the model outputs and further reduce automobile mode share.

Table 6: Traffic Modeling Predicts Similar Percentages of Travel on "Uncongested" Streets Citywide

	Percent of Uncongested VMT by Functional Class (V/C <1.0)						
	Base	**SJ2020**	**1-C**	**2-E**	**3-K**	**4-J**	**5-H**
Peak Period							
Arterial	94.64%	71.80%	67.99%	63.82%	63.48%	65.13%	63.24%
Collector	97.14%	76.94%	75.24%	70.24%	68.19%	71.83%	68.23%
Off-Peak Period							
Arterial	98.16%	95.07%	91.29%	90.84%	91.86%	92.73%	90.61%
Collector	99.95%	99.52%	99.39%	99.47%	99.37%	99.24%	99.09%

Because the amount of roadway congestion is very similar between scenarios, this particular variable does not provide much basis for the determination of a Preferred Land Use Scenario. On the other hand, it can be helpful to understand that within the range of growth options studied studied, depending upon the total Service Population, different mixes of housing and job growth will have similar transportation impacts.

Green House Gas Emissions

The different potential impact upon Green House Gas (GHG) emissions for each scenario is correlated to the congestion levels (VMT and Percentages of Travel on "Uncongested" Streets) as well as to the construction of new building on a square footage basis. Of these two, the first is currently much more important (see Reference Material: Greenhouse Gas Emissions by Detailed Source). However, as discussed above, the traffic analysis does not clearly suggest that one scenario will do significantly more than other scenarios to reduce GHG emissions. Because the scenarios are uniformly progressive in the degree to which they accommodate growth in an environmentally positive manner, other policy decisions will have a greater impact on the City's ability to meet its GHG reduction goals.

The scenario land use patterns, in combination with other City policies, support achievement of the City's Green House Gas Emission targets, consistent with State mandates as well as the City's more ambitious policy goals. The California Global Warming Solutions Act of 2006 (AB 32) mandates that California reduce its greenhouse gas emissions to 1990 levels by 2020. This is equivalent to a reduction target of 15 percent below 2005 levels by 2020. San José has a more aggressive goal of achieving a 20 percent reduction in GHG emissions below 2005 levels by 2020 and a 35 percent reduction by 2030. Based on analysis of the GHG emissions reduction benefits from fully implementing the City's Green Vision Goals, the City would realize a 36 percent reduction in GHG emissions by 2022. The draft Goals, Policies and Implementation Actions being developed for the Envision San José 2040 General Plan continue or expand on the Green Vision goals resulting in additional reductions for the 2022 to 2040 timeframe.

In addition to the City's Green Vision Goals and the General Plan, the State's Climate Change Scoping Plan includes measures that would reduce GHG emissions statewide from transportation sources, which are responsible for 38 percent of California's GHG emissions (40 percent of San José's emissions).

It should be possible to achieving the City's GHG emissions targets regardless of the composition of the Preferred Land Use Scenario.

Water Supply

As population and jobs (Service Population) increases, so does water demand. When comparing the five scenarios based on total water demand per Service Population, the difference between the highest and lowest scenarios is approximately four percent. In terms of absolute water demand, Scenarios 4-J and 5-H, which have the highest Service Population, have the highest increase in water demand, while Scenario 1-C has the lowest increase in water demand. The final drafts of the Water Supply Analysis are not yet available, but they will further explore the implications of the various scenarios in terms of conservation measures, increased reliance upon recycled water, and other measures necessary in order to provide the water supply necessary to meet anticipated demand levels through 2040.

Table 7: Forecast for Water Demand for All Scenarios

	Water Demand / Population % Increase					
	SJ2020	1-C	2-E	3-K	4-J	5-H
% Increase in Water Demand from SJ2020	0%	6%	12%	14%	18%	18%
% Increase in Service Population from SJ2020	0%	6%	14%	17%	15%	18%
% Difference in Water Demand per Service Population from SJ2020	0%	0%	-1%	-2%	2%	0%

Selection of a scenario with a lower service population within San Jose would reduce the City's projected demand for water supply, but if this population is diverted to other areas within the region, it will likely result in a similar or potentially even greater demand for water on a regional level. Diverting new growth to areas where it would be accommodated in a less dense, less urban setting would likely increase the water supply associated with that growth.

How are the scenarios different?

Transportation – Transit Ridership

The transportation modeling indicates that scenarios with a higher proportion of job growth (Scenarios 4-J and 5-H) will generate a higher level of transit ridership (Table 8). In general, the increases shown in the model results for each scenario in transit, bicycle and pedestrian trips are the result of the increased inconvenience of driving due to increased traffic congestion caused by the scenario job and housing growth capacity. In other words, by the year 2040, the City will have experienced sufficient growth (regardless of the distribution between housing and jobs) to fully use the regional roadway network, making it more difficult to drive within the City and region. As additional growth generates demand for travel above this level of saturation, an increasing percentage of trips are allocated by the model to transit, bicycle or pedestrian travel modes. For this reason, the scenario which represents the greatest demand for regional movement (Scenario 4-J) generates the highest total ridership for the regional transit system. Conversely, scenarios with more housing, because they represent a more balanced community (allowing more people to live in proximity to their jobs), enable more people to drive conveniently to their work and therefore predict less demand for alternative modes of transit.

Table 8: Transit Ridership Increases with Job Growth Capacity

	Transit Activity						
	Base	SJ2020	1-C	2-E	3-K	4-J	5-H
J/ER	0.8	1.1	1.2	1.1	1.0	1.5	1.2
Daily Bus Ridership	87,000	131,300	156,400	154,200	144,100	219,400	175,500
Daily LRT Ridership	40,700	120,900	150,800	155,300	146,700	213,300	186,400
Daily BART Ridership	-	187,200	191,200	185,400	190,100	202,500	179,600
Total Transit Ridership	127,700	439,400	498,400	494,900	480,900	635,200	541,500

From this data, Task Force members can conclude that if increasing total transit ridership is an important goal, some priority should be given to fostering a higher J/ER ratio within the Preferred Land Use Scenario, while recognizing that such an approach may also lead to a slight increase in regional vehicle travel, but also a slight decrease in vehicle travel within San Jose. Generating

increased transit ridership will provide more resources for further expanding the transit system, which in turn could allow for even higher ridership as the system becomes more convenient.

Distribution of Growth within Transit Areas

While the five scenarios are similar in the amount of growth capacity they provide within the Downtown, Specific Plan Areas and Employment Lands because the potential for additional growth or change in land uses is limited in these areas, the scenarios vary more significantly in the amount and type of development that they allocate to transit areas (refer to the Scenario Table & Pie Chart Comparison). More than half of the transit area capacity is allocated to housing growth for Scenarios 2-E and 3-K, while the majority is allocated to job growth in Scenarios 1-C, 4-J and 5-K. The latter two scenarios also include more overall development on the transit system given the demand for job intensification created by these high job-growth scenarios.

Distribution of Growth within the Commercial Centers and Neighborhood Villages

The scenarios differ most significantly from each other in terms of the amount and type of growth capacity each provides within the Commercial Center and Neighborhood Village areas. The Task Force Land Use Scenario Guidelines identify the establishment of Villages and Commercial Hubs as an important goal for the City's future as described within the Preferred Land Use Scenario. Scenario 1-C does not include enough new growth capacity to support the development of Villages. The other scenarios provide relatively equivalent amounts of growth capacity within the Commercial Centers, but with the focus heavily placed upon job growth in Scenario 4-J, generally upon housing growth in Scenario 3-K and relatively equally for job and housing growth in Scenario 5-H. Scenario 3-K provides the most growth capacity within the Villages, while Scenario 4-J only provides job growth capacity and Scenarios 2-E and 5-H are more balanced. The scenarios with more housing growth also place more job growth into the Village and Commercial Center areas because these scenarios have more retail and other job growth that should be located in proximity to residential areas. The character of the Villages would be very different in Scenario 4-J, where if successfully implemented they would provide small, distributed employment centers throughout the City. The Villages would be used in a more traditional, mixed-use format with considerable amounts of housing and retail in Scenarios 2-E and 3-K. If promotion of the Commercial Center and Village concept is an important goal for the Task Force, then Scenarios 3-K, 4-J and 5-H will best advance this goal, with the caution that careful consideration should be given to the contrast between job-centered employment Villages of Scenario 4-J with the residential, mixed-use Villages of Scenario 3-K and 5-H.

Fiscal

The results of the fiscal modeling are discussed in a separate memorandum as well as in the Fiscal Report. While all five of the scenarios are projected to have a positive fiscal impact, the scenarios with higher job growth (Scenario 5-H and Scenario 4-J) have the best performance in terms of positive fiscal impact associated with land use (while Scenario 5-H also provides for significant housing growth capacity). In order to realize the positive fiscal impacts of any scenario, it will be critical to include key implementation strategies within the General Plan to ensure the capture of future retail activity within San Jose and the preservation of the City's employment base.

How will the Task Force select a Preferred Land Use Scenario?

The scenarios and their analyses are intended to provide the Task Force with information that will support the Task Force decision making process. The Task Force will be asked to form a recommendation on a Preferred Land Use Scenario at the March 8, 2010 Task Force meeting in order to allow the Envision process to stay on schedule to reach conclusion in June of 2011. The goal for the February 22, 2010 meeting is to provide the Task Force with all of the technical information necessary to enable formulation of a Preferred Land Use Scenario on March 8th. Prior to the March 8,2010 meeting, staff will provide the Task Force with some additional tools and feedback from the March 27 Community Meeting to further assist the Task Force. Once the Task Force has completed this important step, we will resume discussion of Goals, Policies and Actions, consider the translation of the Growth Areas Map into a Land Use / Transportation Diagram, and the development of General Plan Implementation Tools.

Task Force members should carefully consider the information provided by the scenario analyses and use it in a collaborative process to identify the elements or components from each studied scenario which should be included within the a Preferred Land Use Scenario to best achieve the goals set forth in the Draft Task Force Land Use Transportation Guidelines which were developed by the Task Force to enable this process. The Task Force does not need to choose one of the Land Use Study Scenarios to be the Preferred Land Use Scenario, but instead is able to design a new scenario which best accomplishes the Task Force goals, using the data provided from analysis of the Land Use Study Scenarios to inform this process.

While the scenarios are based on providing capacity for job and housing growth through the year 2040, the City will most likely need to undertake a comprehensive General Plan Update sometime before 2040, likely within the next 10 to 15 years. While demographers express a fair level of confidence in their ability to forecast population trends into the distant future, few claim much ability to predict the level of future economic growth and the character of that growth, even in the near term. Because there is enough uncertainty with the actual level of growth that might be achievable by 2040, the Task Force should approach the Preferred Land Use Scenario selection process with the goal of setting the City on a desired course toward a desired City form, rather than with the expectation of achieving a particular outcome for the year 2040. The Preferred Land Use Plan selected by the Task Force should clearly set a course and provide adequate capacity to address predicted and unexpected changes for San Jose through the next 15 years.

Because the scenarios are defined in large part by the Jobs / Employed Resident ratio, it may be useful to think of each scenario as a course along a different J/ER trajectory. Accordingly Scenario 3 represents development along the course of a 1.0 J/ER ratio, Scenario 2 a 1.1 J/ER ratio, Scenario 1 and Scenario 5 along the course of a 1.2 J/ER ratio, and Scenario 4 along the course of a 1.5 J/ER ratio. According to this logic, Scenario 1 could be considered as an earlier phase of Scenario 5, and similar phases could be developed for the other scenarios, with the expectation that the performance of those scenarios in relationship to each other would be similar to the relationship between their ultimate build-out. For this reason, the actual "feasibility" of the scenarios does not need to be a concern for Task Force members.

As discussed above, while the scenarios are similar in several ways (a positive result of the analysis, reflecting the strength of decisions already made by the Task Force and suggesting multiple options which could achieve the other Task Force goals), they are also different in some notable goal areas.

Task Force members should focus on these key differences and how the Preferred Land Use Scenario can best be assembled to reflect the relative importance of these goals.

Scenario Composition – Additional Technical Background Information

The Land Use Study scenarios were initially identified by two variables: number of New Dwelling Units and number of New Jobs. These specific variables were selected because their significance is fairly easy to understand and they correspond to demographic projection and traffic modeling methodologies. Other types of planning and technical analysis work may be based upon population, acreage or building square footage. Dwelling units are correlated to population based upon standard unit occupancy rates and household size demographic trends projected forward to 2040. The correlation between jobs and employment land acreage and/or building square footage is more complex. For the Envision project, the relationship between jobs, acreage and building square footage was analyzed in the *Job Growth Projections and Employment Land Demand* Report.

For planning purposes, job capacity is considered in terms of building square footage and required acreage for different job types and different building configurations. While land use policies and ordinances can specifically regulate the number of dwelling units on a property, they do not, nor can they normally regulate the number of jobs located on a property. Land use plans instead can designate certain amounts of acreage for different types of employment activity and rely upon an analysis of existing development patterns to project the job yield from the designated acreage. In some cases regulations may prescribe the maximum or minimum amount of development (building square footage or dwelling units) which may be built on a designated land area through a Floor Area Ratio (FAR) limit or a required residential Dwelling Units per Acre (DU/AC) density range. To translate scenario Job targets into a land use plan, the total number of jobs for each scenario was distributed into different industry clusters, generating an acreage and square footage demand based on industry data for those different employment activities (as described in more detail in the *Job Growth Projections and Employment Land Demand* Report).

Within the more detailed scenario tables, the scenario jobs are distributed amongst the following categories:

- **Industrial / Warehouse** – a low-intensity industrial use, typified by large footprint, tall single-story or two-story buildings or outdoor activities. The typical Floor Area Ratio (FAR) can vary from 0.35 to 0.7, depending on the use. Because these sites are lower intensity in use, they require less open area for employee parking. In addition to warehouse / distribution facilities, uses include heavy and medium manufacturing, contractor yards, and automotive repair facilities.

- **R&D Low-Rise** – typified by buildings of one to four stories in height that house light manufacturing or laboratory space along with offices uses. This is currently the most prevalent type of development within North San Jose, Edenvale and other industrial park areas. The typical Floor Area Ratio (FAR) can also vary from 0.35 to 0.7, but with more of the land area used to accommodate parking or other open spaces that accommodate a greater number of employees on site.

- **Mid & High Rise** – mid-rise (4-8 story) and high-rise (8-20+ story) buildings are typically in downtowns and other urbanized commercial areas. They can house "commercial" uses, such as financial firms, or "industrial" uses such as software companies, but typically do not include manufacturing or significant amounts of warehouse or laboratory space. This type of buildings will be located on sites at higher FARs in a downtown setting. In areas like North San Jose or Edenvale, buildings may have this form but typically are developed with considerable surrounding open space to result in an overall density lower than that found in the Downtown setting.

- **Retail (Small)** – small scale retail can include convenience stores, specialty retailers, restaurants and other commercial services, either located in a traditional neighborhood business district form, as part of a mixed-use development, or in support of larger commercial centers. This type of retail is intended to support a nearby residential or employee population by providing close, convenient access to commercial services.

- **Retail (Large)** – larger scale retail, such as large shopping centers or large single retailers ("big box"), can serve the population of a larger region and act as a regional draw. While most large-scale retail is single-use, some larger mixed-use developments can function as large scale retail. Generally large scale retail generates significantly more sales tax revenue than small scale revenue, but does less to support the development of neighborhood character or provide convenient services to residents.

- **Institutional / Other** – includes schools and other government uses, which provide employment generally in support of the residential population. The form of this use may be very specific to the use, such as a school, or may fit into a typical commercial office building.

Additional Questions

If you have any questions on the content of this memorandum, please contact either me or Susan Walton. I can be reached by phone at (408) 535-7893 or by email at: andrew.crabtree@sanjoseca.gov. Susan can be reached by phone at (408) 535-7847 or by email at: susan.walton@sanjoseca.gov.

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