BOARD OF DIRECTORS
AGENDA

Friday, September 13, 2013
10 a.m. to 12 noon
SANDAG Board Room
401 B Street, 7th Floor
San Diego

AGENDA HIGHLIGHTS

• SERIES 13 REGIONAL GROWTH FORECAST: DRAFT SUBREGIONAL FORECAST
• SAN DIEGO FORWARD: THE REGIONAL PLAN: ALTERNATIVE LAND USE AND TRANSPORTATION SCENARIOS

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BOARD OF DIRECTORS
Friday, September 13, 2013

ITEM # | RECOMMENDATION
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1. | PUBLIC COMMENTS/COMMUNICATIONS/MEMBER COMMENTS

Public comments under this agenda item will be limited to five public speakers. Members of the public shall have the opportunity to address the Board on any issue within the jurisdiction of SANDAG that is not on this agenda. Other public comments will be heard during the items under the heading “Reports.” Anyone desiring to speak shall reserve time by completing a “Request to Speak” form and giving it to the Clerk of the Board prior to speaking. Public speakers should notify the Clerk of the Board if they have a handout for distribution to Board members. Public speakers are limited to three minutes or less per person. Board members also may provide information and announcements under this agenda item.

REPORTS (2 through 4)

+2. SERIES 13 REGIONAL GROWTH FORECAST: DRAFT SUBREGIONAL FORECAST (Lemon Grove Mayor Mary Sessom, Regional Planning Committee Chair; Kirby Brady and Clint Daniels)*

In March, SANDAG staff presented the regional results of the Series 13 Regional Growth Forecast. This item will summarize the results of the subregional forecast.

+3. SAN DIEGO FORWARD: THE REGIONAL PLAN: ALTERNATIVE LAND USE AND TRANSPORTATION SCENARIOS (Lemon Grove Mayor Mary Sessom, Regional Planning Committee Chair; Carolina Gregor)*

As part of the adoption of the 2050 Regional Transportation Plan and its Sustainable Communities Strategy, the Board of Directors made a commitment to explore a range of land use and transportation scenarios for regional planning purposes. At a joint meeting in July, the Regional Planning and Transportation Committees reviewed and provided input to staff regarding the alternatives described in the report, which is provided for Board discussion.

+4. SANDAG CONSTRUCTION CONTRACTS: LOCAL HIRING ANALYSIS AND OPTIONS (Laura Coté and John Kirk)

At its June 28, 2013 meeting, the Board of Directors directed staff to explore options for increasing local hiring on SANDAG construction projects. This report discusses the state of local participation in current SANDAG construction projects, as well as summarizes potential options, from both a legal and practical standpoint, for the Board’s consideration.

5. CONTINUED PUBLIC COMMENTS

If the five speaker limit for public comments was exceeded at the beginning of this agenda, other public comments will be taken at this time. Subjects of previous agenda items may not again be addressed under public comment.
+6. CLOSED SESSION-CONFERENCE WITH LEGAL COUNSEL-EXISTING LITIGATION PURSUANT TO GOVERNMENT CODE SECTION 54956.9(A) - SAN DIEGO ASSOCIATION OF GOVERNMENTS V. VANTA, ET AL. (CASE NO. 37-2012-00101950-CU-EI-CTL) (John Kirk)

The Board of Directors will be briefed on the status of the referenced eminent domain litigation regarding a property acquisition adjacent to the San Ysidro Rail Yard Expansion Project.

7. UPCOMING MEETINGS

The next Board Business meeting is scheduled for Friday, September 27, 2013, at 9 a.m.

8. ADJOURNMENT

+ next to an agenda item indicates an attachment
* next to an agenda item indicates a San Diego County Regional Transportation Commission item
Introduction

During the past 12 months, SANDAG staff and representatives and elected officials from each of the San Diego region’s 19 jurisdictions and stakeholders have worked together to develop a long-range growth forecast for the San Diego region and its neighborhoods. The Series 13 Regional Growth Forecast\(^1\) will serve as the foundation for San Diego Forward: The Regional Plan, including the alternative land use and transportation scenarios and other planning documents (e.g., water, general plans) across the region. The preliminary results of that effort are described in detail, below.

Discussion

Overview of Forecasted Regional Growth

As shown in Table 1, SANDAG projects the region’s population will grow by nearly one million people by 2050. This forecast is consistent with previous expectations, although future growth rates have been reduced due to increased domestic migration out of the region. The growth in population will drive job growth and housing demand within the region, adding nearly 500,000 jobs and more than 330,000 housing units by 2050.

Table 1: Series 13 San Diego Regional Growth Forecast

<table>
<thead>
<tr>
<th>Year</th>
<th>Population Total</th>
<th>Percent Average Annual Change</th>
<th>Housing Units Total</th>
<th>Percent Average Annual Change</th>
<th>Jobs Total</th>
<th>Percent Average Annual Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010(^2)</td>
<td>3,095,313</td>
<td>-</td>
<td>1,158,076</td>
<td>-</td>
<td>1,421,941</td>
<td>-</td>
</tr>
<tr>
<td>2012</td>
<td>3,143,429</td>
<td>0.8%</td>
<td>1,165,818</td>
<td>0.3%</td>
<td>1,450,913</td>
<td>1.0%</td>
</tr>
<tr>
<td>2020</td>
<td>3,435,713</td>
<td>1.1%</td>
<td>1,249,654</td>
<td>0.9%</td>
<td>1,624,124</td>
<td>1.4%</td>
</tr>
<tr>
<td>2035</td>
<td>3,853,698</td>
<td>0.8%</td>
<td>1,394,688</td>
<td>0.7%</td>
<td>1,769,938</td>
<td>0.6%</td>
</tr>
<tr>
<td>2050</td>
<td>4,068,759</td>
<td>0.4%</td>
<td>1,491,804</td>
<td>0.4%</td>
<td>1,911,405</td>
<td>0.5%</td>
</tr>
<tr>
<td>2010-2050</td>
<td>973,446</td>
<td>0.7%</td>
<td>333,728</td>
<td>0.6%</td>
<td>489,464</td>
<td>0.7%</td>
</tr>
</tbody>
</table>

\(^1\) SANDAG denotes forecasts by a sequential series number. The current working forecast is known as the Series 13: 2050 Regional Growth Forecast. The forecast used in the 2050 Regional Transportation Plan and its Sustainable Communities Strategy adopted by the Board of Directors in October 2011 was the Series 12: 2050 Regional Growth Forecast.

\(^2\) Data from 2010 are included as reference to the U.S. Census for population. Housing and Jobs in 2010 are sourced from the SANDAG land inventory system and California Employment Development Department. San Diego Forward: The Regional Plan will use 2012 as its reference year.
Much of the region’s growth will be driven by natural increase, total births minus deaths. Longer life expectancies will contribute to the aging population seen in the outer years of the forecast, while the trends of increased deaths (as a result of the older population) and net out-migration will factor into the slower growth rates anticipated in the future. By 2050 it is expected that nearly 20 percent of the population will be ages 65 and over, compared with just 12 percent today.

In terms of the race and ethnic composition of the region, significant changes are on the horizon. The 2010 census revealed San Diego to now be a majority-minority region, meaning no single race or ethnic group comprises more than 50 percent of the total population. In 2010 the two dominant race and ethnic groups were non-Hispanic whites and Hispanics, accounting for 48 percent and 32 percent of the region’s total population, respectively. By 2050, however, it is expected that Hispanics will account for more than 46 percent of the total population while the non-Hispanic White population will decline to approximately 30 percent. The Asian population is expected to increase to more than 15 percent, up from 11 percent in 2010. Non-Hispanic blacks, two or more races, and “other” groups each comprise less than 5 percent of the total population today and are expected to remain relatively unchanged out to 2050.

**Changing Local Plans**

This forecast represents a continuing trend in the San Diego region to provide more housing and job opportunities in the existing urbanized areas of the region. Since 1999, more than three quarters of the local jurisdictions have made or are in the process of making significant updates to their general plans. In 1999, SANDAG projected 21 percent of future housing growth would occur in the unincorporated areas of the county under the local general plans at the time. Today, SANDAG expects 17 percent of growth to occur in the unincorporated areas, and much of that is focused in existing villages such as Lakeside, Valley Center, Ramona, and Alpine. As a result of these updates, SANDAG has identified sufficient housing opportunities in the existing general plans for the first time in nearly two decades.

The forecasted growth also reflects more sustainable general plans from the local jurisdictions. At the turn of the century, about 90 percent of vacant residential land in the cities was planned for single-family use. The Series 13 Forecast shows 82 percent of housing growth by 2050 being multifamily. Local and regional conservation programs also continue to protect more of the San Diego region’s sensitive lands. Currently, more than 50 percent of the region is preserved as open space, parks, or habitat, and SANDAG forecasts that dedicated open space will increase by almost 30 percent by 2050.

**General Intensification of Existing Uses**

As a result of changing local plans, SANDAG forecasts a general intensification of existing land uses within urban communities and along key transportation corridors. For example, National City’s general plan update results in opportunities for more than 10,000 additional multifamily units near the Blue Line Trolley and the planned Trolley line connecting San Ysidro and University Towne Centre (UTC) via National City. San Marcos has drafted specific plans for the San Marcos Creek and University districts, adding mixed-use developments near California State University, San Marcos and the SPRINTER rail corridor. Finally, over half of the growth in new housing will occur in the city of San Diego. Downtown San Diego will continue to thrive over the next few decades, and the growth also will start to occur into areas of Barrio Logan, Golden Hill, and Uptown communities.
In terms of jobs, SANDAG expects the existing employment centers to continue to thrive. The UTC/Sorrento Valley/Torrey Mesa employment cluster will continue to be the largest job center in the region. SANDAG expects downtown San Diego to add another 30,000 jobs by 2050. The Otay Mesa border area will become a much larger job center, growing from approximately 15,000 jobs today to more than 45,000 by 2050. Finally, Chula Vista will add nearly 50,000 new jobs as the Chula Vista Bayfront, downtown investments, and new planned communities in eastern Chula Vista come online.

More detailed results of this growth forecast are shown by jurisdiction in Attachment 1.

**SANDAG Forecasting Process**

The SANDAG forecast is completed in two steps. The first is the development of a regional forecast of population, housing, and jobs. The regional forecast establishes the framework for the next step, the subregional forecast. The regional forecast is developed by SANDAG, with input from expert demographers, economists, developers, local planning directors, and natural resource managers. These experts review economic and demographic assumptions about fertility, migration, inflation, and other indicators. In addition to the traditional expert panel review conducted by the agency, SANDAG also has reviewed the forecast with key stakeholders across the region, including transportation, land use, and economic development advocates.

SANDAG uses its Demographic and Economic Forecasting Model (DEFM) to develop the regional forecast. DEFM was first developed to support the Series 4 forecast in the late 1970s. DEFM uses a standard demographic (i.e., cohort-survival) economic modeling technique to estimate future growth. Forecasts developed using DEFM have had strong accuracy; since Series 4 (1977), on average DEFM regional forecasts have been within 4 percent of observed population growth.

The DEFM results feed the subregional allocation models to develop city- and community-level forecasts. The Series 13 subregional forecast employs a new tool called the Production, Exchange, Consumption, and Allocation System (PECAS). This new model offers several enhancements beyond the subregional forecasting models used in prior forecasts by introducing economic conditions and return on investment calculations into the projections of development, redevelopment, and infill. PECAS, in addition to new data sources, continues to rely upon the land use plans, policies, and zoning ordinances of the 18 cities, the County of San Diego, and other land use authorities.

For the development of the subregional forecast, SANDAG staff works extensively with each jurisdiction to collect and verify detailed land use inputs down to the parcel level. The data collected includes information on remaining housing capacity, zoning, existing and planned land use, as well as constraints to development (e.g., steep slopes, habitat lands, floodplains, etc.).

In addition to providing land use information, each jurisdiction is asked to provide guidance on the most likely development patterns for their jurisdiction by 2050.

A preliminary draft of the subregional forecast was presented to the Regional Planning Technical Working Group (the region’s planning directors) on June 13, 2013. SANDAG staff consulted with each jurisdiction to review these numbers and incorporate any necessary changes to the revised draft subregional forecast.
This report is scheduled to be presented to the Regional Planning Committee for discussion at its September 6, 2013, meeting. Any comments resulting from that discussion will be included in the September 13, 2013, presentation to the Board of Directors.

GARY L. GALLEGOS
Executive Director

Attachment: 1. Draft Series 13 Subregional Growth Forecast

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                  Clint Daniels, (619) 699-6946, clint.daniels@sandag.org
## Draft Series 13 Subregional Growth Forecast

**Disclaimer:** This forecast represents one possibility for future growth in the San Diego region. It is intended to represent a likely prediction of future growth, but it is not intended to be a prescription for growth. The Series 13 Regional Growth Forecast represents a combination of economic and demographic projections and existing plans and policies.

### POPULATION

<table>
<thead>
<tr>
<th>City</th>
<th>Actual 2010</th>
<th>Projections 2020</th>
<th>Numeric Change by Increment</th>
<th>Change 2010 - 2050</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1,158,076</td>
<td>1,249,654</td>
<td>1,394,688</td>
<td>1,491,804</td>
</tr>
<tr>
<td></td>
<td>309,133</td>
<td>345,713</td>
<td>3,853,689</td>
<td>4,068,759</td>
</tr>
</tbody>
</table>

### HOUSING

<table>
<thead>
<tr>
<th>Region Total</th>
<th>Actual 2010</th>
<th>Projections 2020</th>
<th>Numeric Change by Increment</th>
<th>Change 2010 - 2050</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>486,564</td>
<td>543,471</td>
<td>625,809</td>
<td>662,195</td>
</tr>
</tbody>
</table>

### JOBS

<table>
<thead>
<tr>
<th>City</th>
<th>Actual 2010</th>
<th>Projections 2020</th>
<th>Numeric Change by Increment</th>
<th>Change 2010 - 2050</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1,158,076</td>
<td>1,249,654</td>
<td>1,394,688</td>
<td>1,491,804</td>
</tr>
</tbody>
</table>

## Additional Information

- **Region Total Change 2010 - 2050:**
  - Total: 333,728
  - Percent: 28.3%
  - Avg Ann: 0.6%

- **HOUSING Region Total Change 2010 - 2050:**
  - Total: 97,648
  - Percent: 33.8%
  - Avg Ann: 0.7%

- **JOBS Region Total Change 2010 - 2050:**
  - Total: 489,404
  - Percent: 34.4%
  - Avg Ann: 0.7%
SAN DIEGO FORWARD: THE REGIONAL PLAN:  
ALTERNATIVE LAND USE AND TRANSPORTATION SCENARIOS

Introduction

As part of the 2050 Regional Transportation Plan and its Sustainable Communities Strategy (2050 RTP/SCS) adopted in 2011, the Board of Directors committed to preparing alternative land use and transportation scenarios to explore what it would take to further reduce greenhouse gas (GHG) emissions beyond those projected in the Plan. The first phase of the project is focused on exploring potential land use alternatives; the second phase will focus on the transportation component. The results will help inform the SCS and transportation network to be included in San Diego Forward: The Regional Plan.

At a joint meeting in July, the Regional Planning and Transportation Committees provided input on potential land use alternatives that could be tested in a sketch model (summarized below). The Regional Planning and Transportation Committees also directed staff to evaluate the role of emerging technologies in reducing GHG emissions. Additional work is underway on emerging technologies and will be presented to the Board this winter.

Setting the Stage

The region’s vision of its future has been evolving for decades. This change is illustrated in the figures below, which show the planned housing and employment growth between 1995 and 2020 compared to the planned housing and employment growth between 2008 and 2050. During the past decade, many jurisdictions have updated their local land use plans and zoning ordinances, collectively moving the region’s planned growth toward more compact development near public transit, and toward greater habitat and open space preservation.
Proposed Land Use Scenarios

The evaluation of alternative scenarios will provide information that could help further refine the region’s vision over time. The first phase of this effort is to develop alternative land use concepts that could accommodate the region’s projected job and housing growth, and test those alternatives with the 2050 RTP/SCS transportation network, keeping the transportation network constant. The next phase would focus on exploring transportation alternatives that could be paired with the land use scenarios for a more comprehensive analysis of both land use and transportation collectively, including effects on GHG emissions.

Based upon input received from the Regional Planning and Transportation Committees, the Regional Planning Technical Working Group, the Cities/County Transportation Advisory Committee, and the public, staff has developed three potential land use concepts that illustrate different ways of distributing future growth in the region (shown below).

Proposed 2050 Land Use Scenario Concepts

- **Scenario A: Second Units and Infill/Redevelopment in Urban and Suburban Areas**

  Scenario A would spread future growth most equally among the incorporated jurisdictions, testing the effects of second units and infill development in our urban and suburban areas. New jobs would be distributed fairly evenly, with the highest employment intensities in existing job centers.

- **Scenario B: Transit Oriented Development**

  Scenario B would concentrate new housing and jobs within a mile or so, of existing and future transit stations included in the 2050 RTP/SCS, with the highest intensities closest to the transit station areas. New development would consist primarily of mid-rise, mixed-use buildings.

- **Scenario C: Multiple Dense Cores**

  Scenario C takes a different approach and would focus future growth into four dense cores. In this scenario, new housing and jobs would consist of mid- and high-rise, mixed-use buildings.
concentrated along the State Route 78 (SR 78)/SPRINTER/Palomar Airport Road corridor in North County; the Golden Triangle/Sorrento Valley/Mira Mesa area in Mid-County; the Downtown/Kearny Mesa/La Mesa/National City area; and the Chula Vista/International Border area in South County.

The conceptual images contain gradation variations, with the lightest brown in Scenario A, representing the lowest intensities in a larger land area, and the darkest brown in Scenario C, representing the highest intensities in a smaller land area. Each land use concept responds to demographic trends, including the aging of the population and the increasing interest of Generation Y millennials to live in more urban environments.

Regional Planning and Transportation Committee Comments

At their joint meeting in July, the Regional Planning and Transportation Committees suggested that staff incorporate the western portion of the SR 78 corridor (in addition to the Palomar Airport Road corridor) into Scenario C to take advantage of the economic opportunities in this area. This change has been reflected in Scenario C, illustrated above. In addition, staff has made minor changes to Scenario A to reflect more accurately the incorporated area boundaries.

At the joint meeting, various committee members expressed preference for some scenarios over others, but there was general recognition that it would be useful to test all three concepts so that the results from this analysis could potentially help inform future updates of local general plans and the Regional Growth Forecast. There also was a desire to recognize local jurisdictions’ adoption of general plan updates during the past decade, which have resulted in the planned land use changes between the Series 9 and Series 12 forecasts (shown above). On a separate note, Attachment 1 summarizes feedback on initial land use scenarios discussed at the Regional Plan workshop held on June 21, 2013.

Economic Perspective

The Regional Planning and Transportation Committees, the Regional Planning Technical Working Group, and workshop participants also felt that it may be useful to view the land use scenarios through an economic development lens to better address “jobs-housing fit,” or the relationship between wages and housing costs. In other words, a more coordinated spatial matching of jobs and housing could reduce vehicle miles traveled, which could potentially reduce GHG emissions.

To gain additional insights, a workshop was held in August with economic development stakeholders from throughout the region. The stakeholders discussed the importance of recognizing the unique opportunities that the binational region provides in terms of creating job growth and international trade on both sides of the border; adding to our region’s group of globally-successful companies; providing more educational and training opportunities for the jobs that we are encouraging; supporting tools and incentives to build more affordable housing, particularly around transit, as one of the main drivers of economic growth; addressing parking at the regional level; providing solutions for the “last mile” issue; recognizing the needs and desires of the millennials for more housing diversity, more walkable and bikeable neighborhoods, and better Wi-Fi connectivity in local neighborhoods and on public transit; and supporting more compact development patterns such as those in Scenarios B and C.
2050 Regional Growth Forecast, Modeling and Visioning Tools, and Metrics

Concurrent with the scenario effort, SANDAG is developing the Series 13 Regional Growth Forecast through 2050 (see Agenda Item No. 2). The forecast, which will provide a foundation for the Regional Plan, currently projects nearly one million new people, nearly 500,000 new jobs, and more than 330,000 new homes. The forecast is a separate and independent effort from the scenarios. Depending upon the scenario outcomes and subsequent policy discussions by the Board and Policy Advisory Committees, the scenarios could potentially influence the SCS, the final forecast, and/or policies in the Regional Plan.

SANDAG also is developing new modeling and visioning tools. The new modeling tools include the transportation-related Activity-Based Model (ABM) and the land use-related Production, Exchange, Consumption, and Allocation System (PECAS), which will offer several enhancements by introducing economic conditions and return on investment calculations into the projections of development, redevelopment, and infill. The new visioning tools include a sketch model called “UrbanFootprint” that is being used in California by other metropolitan planning organizations on similar scenario planning efforts. The sketch model will provide visual representations of each land use scenario and initial “easy-to-understand” indicators related to scenario performance. Additional metrics could be considered during the second phase of the project through the use of PECAS and ABM. A demonstration of UrbanFootprint will be scheduled this fall.

Emerging Technologies and Parking Strategies

In response to direction by the Regional Planning and Transportation Committees to integrate emerging technologies into the scenario planning effort, staff has been working on a menu of existing and emerging transportation technologies in the categories of personal technology, vehicle technology, and infrastructure technology that could be integrated into the Regional Plan’s preferred transportation network (Attachments 2 and 3). Many of the concepts included in the menu are derived from the SANDAG Intelligent Transportation System Strategic Plan, and were presented at the July 19 joint meeting of the Regional Planning and Transportation Committees.

Regional Planning and Transportation Committee members generally were supportive of the inclusion of emerging technologies in the Regional Plan. In particular, there was interest in providing people with greater mobility choices and greater roadway capacity through technologies that are already available or becoming available in the very near future (e.g., connected vehicles, driverless cars, real-time traveler information via personal devices, and other applications).

Additional work is underway on emerging technologies. Staff is reaching out to individuals and organizations working in transportation technology fields to engage them in a dialogue regarding technologies that have the highest potential to impact the region’s travel patterns and urban form. An important component will be to develop an understanding of which existing, emerging, and advanced technologies could be included in the Regional Plan and to what degree they could be applied, modeled, and used in the next round of Senate Bill 375 (Steinberg, 2008) target-setting.

Staff also is responding to Board direction to analyze parking management strategies in conjunction with the scenario planning efforts, and to prepare a parking toolbox. Parking management strategies such as shared parking, parking maximums, remote parking, unbundled parking, demand-based parking, and other strategies, including pricing strategies, could be considered.
White papers on emerging technologies and parking strategies will be brought to the Board and Policy Advisory Committees this fall and winter.

**Discussion and Next Steps**

Staff is seeking input from the Board on the land use scenario concepts to be tested in the UrbanFootprint sketch model.

During October, SANDAG will hold two public workshops to review the sketch-level performance results of the alternative land use scenarios, and to seek input on alternative transportation ideas that could be tailored to the land use scenarios. The results, as well as feedback from the workshops, will then be presented to the Board and Policy Advisory Committees in November.

Further development and analysis of transportation, emerging technology, and parking strategies will occur over the next several months, and results will be brought to the Policy Advisory Committees and Board as they become available early next year. The final phase of this effort will focus on policy discussions related to the scenario outcomes for potential consideration in the Regional Plan.

GARY L. GALLEGOS
Executive Director

Attachments:  1. Workshop Summary: Focus on Land Use and Transportation, June 21, 2013
               2. Emerging Technologies Illustration Sheet
               3. Existing, Emerging, and Advanced Transportation Technologies

Key Staff Contact: Carolina Gregor (619) 699-1989; carolina.gregor@sandag.org
WORKSHOP SUMMARY: FOCUS ON LAND USE AND TRANSPORTATION - JUNE 21, 2013

More than 125 participants took part in the June 21st workshop on San Diego Forward: The Regional Plan. Below is a summary of input provided by stakeholders on the six topics addressed at the workshop. More information and more detailed notes are available at: www.sandag.org/sandiegoforward.

Land Use Scenarios

- Give more priority to protecting our urban open space, recreation, and habitat areas.
- Expand the higher density core to include Chula Vista and the border area.
- Include the area south of the border for affordable housing opportunities.
- Explore the impacts of each scenario on the economy, health, environment, and quality of life.
- Explore smart growth scenarios that help with transportation choices, transportation costs, and health benefits.
- Consider second units close to the transit oriented development (TOD) areas.
- Look at the redevelopment of the region’s commercial areas and development of shopping malls near transit hubs.
- Address jobs/housing fit and try to do a better job of matching income levels with housing choices to address the range of income levels in a job place (i.e., high-paying jobs versus service workers working in high-tech buildings). The SANDAG modeling process should look at the implications of jobs/housing fit.
- Modify scenarios to acknowledge and better integrate the major employment clusters.
- Conduct a market feasibility analysis on all of the scenarios.
- Map topographic land constraints; many slopes are uninhabitable for human development. River valleys and steep slopes are not suitable for human development.
- Create a scenario with urban growth boundaries.
- Address sea level rise in the scenarios.
- Consider placing just as much emphasis on creating more walkable and bikeable communities than is placed on transit oriented communities so we do not have to invest in so much public transit.
• The TOD scenario is more reflective of where job centers are throughout the region.

• Consider housing costs and affordability in scenarios.

• Consider quality of life issues and transit access to parks, healthcare, education, family resource centers, clinics, childcare, and other community resources/social service facilities.

• Adapt to current trends such as telecommuting, co-work spaces, etc. which are becoming more popular and more sustainable.

Emerging Technologies

• The ability to track the bus is important when people are going somewhere.

• Self-driving vehicles can help reduce accidents.

• When considering emerging technologies, include sustainability, mobility/accessibility, and safety.

• The idea of crowd sourcing would be easy to focus on and easy to do. Provide the cloud to interested individuals and go beyond what is traditionally done.

• Expand Car2Go system geographically so that there is coverage across the whole county.

• Expand the availability of plug-in charging.

• Use technology for information such as real-time traffic information. This would help people decide what mode of transit to take and what route.

• Provide a greenhouse gas calculator application to help change people’s behavior

• Apply emerging technology to infrastructure improvements that reduce reliance on vehicles.

• Consider security and loss of privacy.

• Keep up with technology – signal detection, loops, etc.

• Technology can help with lowering costs.

• Autonomous vehicles are an easy solution to reckless drivers; they would allow more cars on the road without building more lanes, and the idea holds promise.

• The shared economy (Car2Go, etc.) is growing. Consider this in the planning process.

• Provide better traveler information.

• Consider equity as an issue since there are barriers to entry for technology, and not everyone can afford a smart phone, car, or Google glasses.
Parking and Pricing

- Integrate parking with purposeful economic returns.
- Balance demand management strategies (congestion pricing) with alternative transportation modes (public transit, active transportation, etc.).
- Make car-sharing a more attractive option for transit users.
- Develop park-once strategies where people are encouraged to ‘park once’ during a day/trip.
- Use metered parking in a manner that creates turnover of spaces in high demand (for shopping or dining purposes, for example) and allows longer term metered parking (for work/employment) further away.
- Use emerging technologies to connect the public with available parking (available parking spots/vacant lots, variably priced metered parking, etc.).
- Survey communities to better understand their specific needs, in order to create more tailored solutions rather than a one-size-fits-all.
- Consider shared parking strategies that balance the peak AM/PM use and off-peak uses.
- Allocate the parking revenues to contribute to not only to the enhancement of the transit experience, but the walkability of the street.
- On the private side, we need to give carpools priority parking. Cities should require it.
- Companies should be incentivized to reduce employee parking and to subsidize transit passes.

Active Transportation

- Focus on Safe Routes to Transit as a key goal.
- SANDAG is doing an admirable job at trying to connect with communities but needs to do a better job in reaching out.
- SANDAG efforts to reach out and invite participation from groups that traditionally are not engaged in the process are appreciated and beneficial.
- Broaden the active transportation goal to include skateboarding, scooters, etc.
- Implement separated bicycle infrastructure facilities on major corridors.
- Plan according to younger generations that want to live in communities where they can walk and bike.
- Improve systems for carrying bicycles on transit vehicles.
- Engage schools as a method of encouraging kids to walk and bike to school.
• Consider expanding wayfinding signage to direct users to transit stops which would encourage people to bike.

• Develop infrastructure such as bike stations to encourage more people to bike to transit.

• Separation between bicyclists and vehicles is critical since a fear of safety is a barrier.

• Incorporate the complete streets concept into SANDAG planning efforts.

• Offer incentives to encourage more biking; encourage employers to provide more shower and locker room facilities to employees.

• Encourage bicycle education.

• Emphasize utilitarian trips and not just commuter trips.

• Having an Active Transportation discussion puts health first and foremost including individual and environmental health.

**Mobility**

• Focus on intra-regional mobility which can bring money to outlying areas which can foster regional economic vitality.

• Consider a child bike-share program with helmets as a part of a larger bike-share program.

• Create reliability for developers to invest around transit stations.

• Consider moving air freight travel out of Lindbergh, separating passenger from freight and moving freight to Carlsbad or Brown Field.

• Any type of bike-share program needs to include infrastructure to support safer routes to ride.

• Expand traveler information to ease of use of the systems (e.g., “Next Bus” signs)

• Develop a “transit ambassador” program for seniors.

• Make transit competitive with driving in terms of travel time.

• Apply a complete streets model for main boulevards accommodating multiple modes of travel.

• Provide transit service that reaches hard-to-access job centers (e.g., North County).

• Design transit so that it accounts for different areas (e.g., higher density areas merit light rail projects).

• Improve walk/bike/other connections between bus and rail and to/from destinations.

• Direct growth through transportation investments.

• Encourage growth along Smart Growth transportation corridors.
• Consider public health in decision-making.

• Consider including punitive measures to effect change, rather than just incentivizing change; the 18 cities and Port District should be required to follow the Regional Plan goals and principles.

• Include transportation options for all demographics (e.g., youth without licenses trying to get to beach as well as aging population of baby boomers).

• Promote telecommuting and encourage businesses to offer telecommuting to their employees 1-2 days per week.

• Consider sidewalk access and improvements.

• Look at impacts of freight movement versus other modes – do the needs of trucks conflict with the needs of bikes, for example.

• Make transit convenient, cost-effective, and reliable so that transit is competitive with driving.

**Transportation Project Evaluation**

• Consider sustainability and return on investment. Can you sustain what you are building?

• Incorporate public health into the evaluation criteria and prioritization of transportation projects.

• Balance return on investment and use of transportation facilities.

• Provide a complete analysis of the costs and benefits of the projects, on other forms of transportation, and compare between all modes of transportation.

• Encourage smart growth, neighborhood shuttles.

• Add reduced greenhouse gas emissions to the criteria.

• Place greater value on community involvement and input in the evaluation of these projects. Make sure the community’s voice is heard.

• Focus priority on moving the most people at the least cost and increasing transit frequency.

• Consider density as a factor in determining transit project priorities.

• Think about health costs, too.

• Keep equity in mind ... neighborhoods that don’t have many transportation options should be focused on first.

• Think about students, where they need to get to, and how they get to school, and how they make their connections.
EMERGING TECHNOLOGIES

Introduction
Technology has shaped our lives allowing us to be more connected, more productive, and with the potential to change the way we live, work, and play. We will look at three aspects of emerging technology and compare today with what might be in the future.

Personal Technology

Today
• Cell Phones
• Smart Phones
• Tablets
Application: Mobile 511, Traveler Information, Way Finding, Parking Guidance

Tomorrow
• Wearable Computers
• Google Glass
• Augmented or Enhanced Reality
Application: Enhanced 511, Reduction in Travel Demand – Virtual Shopping, Medical Care

Vehicle Technology

Today
• GPS, Way Finding, Routing
• Driver Assist Technology – Lane Keeping, Forward Collision Warning, Self-Parking

Tomorrow
• Autonomous Vehicle, Automated Vehicle, Connected Vehicle
• Co-operative Adaptive Cruise Control – Self Platooning of Vehicles
Application: Improved Safety, Mobility, Throughput, Reduction of Greenhouse Gases

Infrastructure Technology

Today
• Link Transportation Networks (Freeway, Transit, Arterials, Pedestrian, Bicycle, etc.) to work together
• Real Time and Pro-Active Transportation Management and Operations

Tomorrow
• Smart Roads Communicating with Connected Vehicles
Application: Safety, Mobility, Reduction of Greenhouse Gases
EMERGING TECHNOLOGIES

Personal Technology

Google Glass

Vehicle Technology

Self-Driving Vehicle

Connected Vehicles

Infrastructure Technology

Smart Intersections
## Existing, Emerging, and Advanced Transportation Technologies

### Research for Possible Inclusion & Application to Regional Plan

#### A. Roadway Capacity Strategies

<table>
<thead>
<tr>
<th>Transportation Technology</th>
<th>Application to GHG Reduction</th>
<th>When?</th>
<th>Model Application (Y/N)</th>
<th>Primary Responsible Party</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Vehicle Automation/Semi-Automation</strong></td>
<td>Less Stop-N-Go/Reduced Idling</td>
<td>Near*, Mid, and Long-Term</td>
<td>Y</td>
<td>Public/Private</td>
<td>Vehicles are partially or fully automated or able to navigate without human input improving roadway performance and safety</td>
</tr>
<tr>
<td>2. <strong>Real-Time Traveler Information Via Personal Devices</strong></td>
<td>Fewer SOV Trips</td>
<td>Near-Term*</td>
<td>Y</td>
<td>Public/Private</td>
<td>Provides real-time traveler and parking information, available on-the-fly, to influence mode choice, route choice and time of travel</td>
</tr>
<tr>
<td>3. <strong>Arterial, Freeway, and Transit Management System</strong></td>
<td>Fewer SOV Trips</td>
<td>Near-Term*</td>
<td>Y</td>
<td>Public</td>
<td>Extension of the Integrated Corridor Management concept for real time and multi-agency congestion management to proactively improve mobility and corridor travel efficiency</td>
</tr>
<tr>
<td>4. <strong>Green GPS Fleet Tracking Systems</strong></td>
<td>Fewer SOV Trips</td>
<td>Near-Term</td>
<td>N</td>
<td>Public</td>
<td>Reduces GHG emissions and operating costs by using real-time tracking to monitor fuel consumption, route efficiency, etc.</td>
</tr>
<tr>
<td>5. <strong>Corridor Level Signal Timing</strong></td>
<td>Less Stop-N-Go/Reduced Idling</td>
<td>Near-Term*</td>
<td>Y</td>
<td>Public</td>
<td>Improvements to real-time data collection and arterial management, operations, and coordination</td>
</tr>
<tr>
<td>6. <strong>Dynamic Lanes on Arterials to Support HOV Access</strong></td>
<td>Fewer SOV Trips</td>
<td>Near-Term*</td>
<td>Y</td>
<td>Public</td>
<td>Infrastructure and lane control that enables arterial lanes to be switched on-the-fly from general purpose, to HOV use, for certain time periods or based on demand</td>
</tr>
<tr>
<td>7. <strong>Smart Intersections</strong></td>
<td>Less Stop-N-Go/Reduced Idling</td>
<td>Near-Term*</td>
<td>N</td>
<td>Public</td>
<td>Improvements to intersection infrastructure to allow real-time and pro-active signal timing operations and support Multi-Agency Arterial Management. Improved mobility and efficiency</td>
</tr>
</tbody>
</table>
## B. Vehicle and Personal Strategies

<table>
<thead>
<tr>
<th>Transportation Technology</th>
<th>Application to GHG Reduction</th>
<th>When</th>
<th>Model Application (Y/N)</th>
<th>Primary Responsible Party</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Car Sharing</strong></td>
<td>Fewer SOV Trips</td>
<td>Near-Term</td>
<td>Y</td>
<td>Public/Private</td>
<td>Transportation service that provides communities with a neighborhood based fleet of shared vehicles available to members for a fee.</td>
</tr>
<tr>
<td></td>
<td>More Bike/Walk Trips</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>More Transit/Carpool/Vanpool</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Increased Fuel Efficiency</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2. Variable Speed Limits on Freeway Network</strong></td>
<td>Less Stop-N-Go/Reduced Idling</td>
<td>Near-Term*</td>
<td>Y</td>
<td>Public</td>
<td>Speed limits vary in real-time to respond to congestion levels and roadway conditions to maintain smooth and consistent traffic flow</td>
</tr>
<tr>
<td><strong>3. Personal Technology</strong></td>
<td>Fewer SOV Trips</td>
<td>Mid, Long-Term</td>
<td>Y</td>
<td>Public/Private</td>
<td>Transit ticketing via personal devices; trip-tracking and reward reclamation via personal devices</td>
</tr>
<tr>
<td></td>
<td>More Bike/Walk Trips</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>More Transit/Carpool/Vanpool</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4. Universal Transportation Account (UTA)</strong></td>
<td>Fewer SOV Trips</td>
<td>Near-Term*</td>
<td>Y</td>
<td>Public</td>
<td>Fully integrated account for accessing all transportation services (transit, bikeshare, carshare, bikelockers, FasTrak, vanpool etc).</td>
</tr>
<tr>
<td></td>
<td>More Bike/Walk Trips</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>More Transit/Carpool/Vanpool</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5. On-the-Fly Trip Planning and Ride Matching</strong></td>
<td>Fewer SOV Trips</td>
<td>Near-Term</td>
<td>N</td>
<td>Public/Private</td>
<td>Multi-modal trip planning and ridematching in real-time via personal devices enabling travelers to find a ride, where and when they need it, using the mode and time that fits best</td>
</tr>
<tr>
<td></td>
<td>More Bike/Walk Trips</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>More Transit/Carpool/Vanpool</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>6. Enhanced Virtual Office/Telework</strong></td>
<td>Fewer SOV Trips</td>
<td>Near-Term</td>
<td>N</td>
<td>Private</td>
<td>Expansion of virtual collaboration technologies that facilitate telework</td>
</tr>
<tr>
<td></td>
<td>More Bike/Walk Trips</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>More Transit/Carpool/Vanpool</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### C. Infrastructure Strategies

<table>
<thead>
<tr>
<th>Transportation Technology</th>
<th>Application to GHG Reduction</th>
<th>When?</th>
<th>Model Application (Y/N)</th>
<th>Primary Responsible Party</th>
<th>Description</th>
</tr>
</thead>
</table>
| **1. Automated Truck Corridors** | Less Stop-N-Go/Reduced Idling  
Increased fuel efficiency | Near-Term | N | Private | Hybrid, fuel-cell, battery, corridor-level, etc. for energy efficiency |
| **2. Alternative Fueling Stations** | Increased Fuel Efficiency | Near-Term | N | Private | Fuels under CA’s Low Carbon Fuel Standard |
| **3. Solar Highways & Parking Lots** | Increased Fuel Efficiency | Long-Term | N | Public | Road surfaces and parking lots that generate electricity by solar power |
| **4. Eco-Driving** | Less Stop-N-Go/Reduced Idling | Mid-Term | N | Public/Private | Technologies that control and maintain vehicle speed for optimal fuel efficiency and reduced carbon emission |
| **5. Mobility Hub – Shared Vehicles** | Fewer SOV Trips  
More Bike/Walk Trips  
More Transit/Carpool/Vanpool  
Increased Fuel Efficiency | Mid-Term | N | Public/Private | Interconnected “mobility hubs,” integrate regional transit services with communities. Mobility hubs provide a source of shared vehicles and services including cars, neighborhood electric vehicles, personal electric vehicles, and bicycles, along with supporting amenities and technologies. |
| **6. Electric Vehicle En-Route Charging** | Increased Fuel Efficiency | Near-Term | N | Public/Private | Transition to fully electric bus/vehicle fleets |
| **7. Electric Vehicle Charging Stations** | Increased Fuel Efficiency | Near-Term | N | Public/Private | Expansion of efficient vehicle charging stations to support an increase in electric cars and light duty trucks |
| **8. Rail Technologies** | Less Stop-N-Go/Reduced Idling | Near-Term | N | Public/Private | Electric catenary rail systems, dual-mode locomotives, etc. |
| **9. Bike Sharing or Other Shared Services** | Fewer SOV Trips  
More Bike/Walk Trips  
More Transit/Carpool/Vanpool  
Increased Fuel Efficiency | Near-Term | N | Public/Private | Expand shared transportation services such public bike and car sharing and peer-to-peer carsharing. |

**“*” Included in the Intelligent Transportation System for the San Diego Region (SANDAG)
Near-Term = 2013-2020; Mid-Term = 2020-2030; Long-Term = 2030-2050**
SANDAG CONSTRUCTION CONTRACTS:  LOCAL HIRING ANALYSIS AND OPTIONS

Introduction

At its June 28, 2013, meeting, the Board of Directors directed staff to explore options for increasing local hiring on SANDAG construction projects. Because both design consultants and contractors play significant roles in these projects, both are considered in this analysis. This report discusses the state of local participation in current SANDAG construction projects, as well as summarizes potential options, from both a legal and practical standpoint, for the Board’s consideration. As discussed below, express local hiring contractual requirements are not allowed under federal grant requirements and would likely present legal challenges.

Discussion

A. Information Currently Tracked

Within the construction contracting program at SANDAG, information regarding business ownership of prime contractors and subcontractors is tracked per federal requirements. The intent of this tracking is to monitor the small and disadvantaged businesses that are receiving work from SANDAG. Through this tracking process it is possible to report whether the organization is located within San Diego County. SANDAG does not track and monitor information on the employees within a prime or subcontractor firm.

At this time, SANDAG has 47 open construction contracts valued at approximately $281 million. Of these 47 contracts, 98 percent were awarded to prime contractors that have an office within San Diego County. Further, there are 142 subcontracts executed under these primary contracts; of these, 79 percent were awarded to subcontractors that have an office within San Diego County.

<table>
<thead>
<tr>
<th>Contract Type</th>
<th>Total Open Contracts</th>
<th>Construction Contracts Awarded to Contractors with San Diego County Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prime Contracts</td>
<td>47</td>
<td>46 98%</td>
</tr>
<tr>
<td>Subcontracts</td>
<td>142</td>
<td>112 79%</td>
</tr>
</tbody>
</table>
At this time, SANDAG has 26 open architectural, engineering and construction management contracts valued at approximately $514.5 million. Of these 26 contracts, 100 percent were awarded to prime contractors that have an office within San Diego County. Further, there are 415 subcontracts executed under these primary contracts; of these, 74 percent were awarded to subcontractors that have an office within San Diego County.

<table>
<thead>
<tr>
<th>Contract Type</th>
<th>Total Open Contracts</th>
<th>Architectural and Engineering/Construction Management Contracts Awarded to Contractors with San Diego County Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prime Contracts</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>Subcontracts</td>
<td>415</td>
<td>306</td>
</tr>
</tbody>
</table>

**B. Outreach To Small and Disadvantaged Businesses**

SANDAG currently implements a number of programs that outreach to and encourage small and disadvantaged organizations to do business with the agency.

- **Annual and Contract Specific Goals** - SANDAG has identified overall disadvantaged business enterprise (DBE) goals for U.S. Department of Transportation (USDOT) assisted contracts. The overall annual goal is achieved through establishing contract/project-specific goals. Contract goals are established according to the requirement of each individual contract and will vary accordingly. Small business utilization and participation is tracked monthly, with participation being reported quarterly and annually.

- **Bench Program** - In 2012, SANDAG implemented a unique and innovative program in conjunction with the procurement for On-Call Environmental Planning and Architectural & Engineering Design (A&E) services. The new “Bench” concept was developed to assist certified small and disadvantaged businesses in their efforts to participate in the new A&E contracts. The Bench is open to DBE firms and small businesses that provide a variety of professional A&E services and can serve as a pool of certified firms that prime consultants will be able to easily access to work on SANDAG projects. Future “benches” for construction and various professional services are currently planned within the next fiscal year.

- **Subcontracting Plan** - For certain construction procurements, a Subcontracting Plan is the method used to define the subcontractor commitments. A Subcontracting Plan details subcontractor goals and/or dollar commitments along with small business certification type for each listed subcontractor. These plans also include methods of monitoring performance relative to the requirements of the plan. This is an effective tool for establishing accountability of prime contractors in regards to meeting small and disadvantaged business commitments.

- **Outreach Events to Small and Disadvantaged Businesses** - SANDAG hosts or participates in approximately 30 outreach and pre-bid events annually across the region that are designed to communicate upcoming procurements to small and disadvantaged businesses. The events are also intended to promote teaming opportunities between prospective prime contractors and the DBE and small business contracting community.
C. Legal Issues Regarding Local Hiring Preferences

1. Federal Grant Requirements

When SANDAG signs agreements with federal agencies to accept federal funds, it agrees to comply with the Common Grant Rules, which are in Section 18.36 of Title 49 of the Code of Federal Regulations. That section establishes uniform administrative rules for federal grants and cooperative agreements to local government agencies such as SANDAG. These requirements apply on a project level, which may encompass multiple contracts. The Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) can revoke grant funds to grantees that violate federal law or regulations, and a recent court decision upheld a decision by FHWA to revoke funding for a highway improvement project, because the City of Cleveland inserted a local hire ordinance requiring 20 percent of workers on the project to reside in the City of Cleveland. When a local government accepts federal grants with such limitations, federal law and regulations take precedence over any applicable state or local law.

Such a limitation exists for SANDAG in the form of FTA Circular 42201.F, entitled “Third Party Contracting Guidance.” The Circular contains FTA’s interpretation of the Common Grant Rules and addresses additional regulations prohibiting local hire ordinances with projects involving FTA funds. Generally, the Common Grant Rules prohibit solicitation requirements that contain features that “unduly restrict competition.” In addition, FTA and FHWA recipients are prohibited by 49 U.S.C. Section 5325(h) from using federal assistance to support an “exclusionary or discriminatory specification,” which includes “in-state or local geographic restrictions.” SANDAG is specifically prohibited from “specifying in-state or local geographical preferences, or evaluating bids or proposals in light of in-state or local geographic preferences, even if those preferences are imposed by state or local laws or regulations.”

The only exception to this local hiring preferences prohibition that would be generally applicable to SANDAG projects allows the geographic location of a firm as a selection criterion for architectural and engineering services, provided that a sufficient number of locally qualified firms are available to provide competition given the nature and size of the project.

2. Constitutional Issues with Local Hiring Requirements

Express local hiring requirements even on purely locally-funded projects may still present challenges, as various constitutionally-based restrictions against their implementation have been recognized by the courts.

The primary constitutional impediment to an express local hiring requirement is presented by the Privileges and Immunities Clause. Article IV, Section 2, of the United States Constitution provides that “[t]he Citizens of each State shall be entitled to all Privileges and Immunities of Citizens in the several States.” The Privileges and Immunities (P&I) Clause generally prohibits unequal adverse treatment of non-residents on matters of “fundamental rights,” including the right of engaging in lawful commerce, trade, or business. While the P&I clause on its face applies to disparate treatment of out-of-state citizens, any express requirement to hire workers from a local geographic area would affect citizens of both other localities in the state as well as out-of-state citizens, thus triggering scrutiny under the P&I clause. As a practical matter, in order to implement an express local hiring requirement and not run afoul of the P&I Clause, SANDAG
would need to demonstrate both that non-residents are a primary cause of the unemployment the hiring preference is designed to alleviate, and that local hiring requirement is narrowly tailored to address this fact. Historically, courts have been reticent to uphold such local-hiring requirements given the difficulty to proving that any one factor is primarily responsible for local unemployment.

Additionally, defining when an individual worker is truly local can prove to be problematic, as workers who move to the jurisdiction in order to work on a project would generally need to be considered “local” since courts have consistently struck down durational residency requirements under the Equal Protection Clause of the Fourteenth Amendment.

D. Potential Steps to Increase Local Participation in SANDAG Contracts

Because of the challenges presented by both federal grant requirements as well as constitutional limitations on local hiring requirements, the express imposition of any such requirements would likely prove to present significant legal risks. Nonetheless, indirect inducements encouraging local hiring may present both an effective and low-risk avenue to increase local participation in SANDAG construction contracts.

FTA has website pages dedicated to providing guidance to grantees such as SANDAG, including guidance on grantees’ ability to utilize geographic preference provisions in procurements utilizing federal funds. For example, FTA has stated that a grantee’s procurement could evaluate the expected responsiveness of each proposer in terms of the time it will take the proposer’s employees to be at the site of the work. FTA also has advised that a grantee can evaluate the cost to the agency of the travel expenses and the time for traveling, etc. In other words, SANDAG could evaluate the important parameters involved with responsiveness and economics without expressly mandating a local office or requiring the use of local employees.

If directed to do so by the Board, language could be added to procurement documents so that proposers are required to comply with a time limit between the time they are notified of being needed at a site and the arrival at the site without violating the geographical preference rule. Language also can be added to procurement documents stating that SANDAG will not pay for travel expenses to bring consultants into the area for meetings or consultations. If SANDAG will not to pay for travel, the selected firm would presumably be more likely to utilize local workers. Additionally, SANDAG can state in its procurement documents that it strongly recommends a local presence as the only feasible way to efficiently accomplish the work on a project within the time and dollars allotted.

Other options for SANDAG that go further than the actions described above and have been utilized by other government agencies were investigated by staff. For example, a few states have implemented laws that allow for “bid price matching,” which provides in-state bidders the ability to match any out-of-state bidder, or “tie bid preference,” which allows states to award contracts to in-state bidders when in-state and out-of state bids are equal. No cases were found, however, in which a state successfully used such a methodology when federal funds were to be used. Additionally, bid price-matching schemes may not be in the best interest of SANDAG. These methods do not increase competition at the outset, because they only allow a local contractor to match another bidder’s price; they do not provide an inducement for local or out-of-state bidders to lower their bids. For this reason, such provisions could have the effect of reducing competition. Non-local contractors
could grow frustrated with losing work to local bidders who are able to match their low bids and might submit far fewer bids.

GARY L. GALLEGOS
Executive Director

Key Staff Contacts: Laura Coté, (619) 699-6947, laura.cote@sandag.org
John Kirk, (619) 699-1997, john.kirk@sandag.org
An aging, diversifying population...

Growing more sustainably...

Dedicating more lands to preservation...
Forty Years in San Diego

• 50 Million By 2050 (13 Million New Residents)
• San Diego is 2nd Most Populous County
• Majority of Growth in Southern California

Source: State of California, Department of Finance, Report P-1 (County), State and County Total Population Projections, 2010-2060: Sacramento, California, January 2013.
Population, Jobs, and Housing

- **2010 - 2050**
  - 973,000 more people
  - 489,000 more jobs
  - 333,000 more housing units

Series 13 Subregional Forecast: Population Trends

- **San Diego Region Population by Age and Gender**

- **San Diego Region Population**
  - **2010**
    - White, 48%
    - Hispanic, 32%
    - Asian, 11%
  - **2050**
    - White, 30%
    - Hispanic, 46%
    - Asian, 16%
    - 4% Black or more
Subregional Forecast Detailed Demographic Forecast Transportation Model

- Historical data
- Current demographics
- National forecast
- Demographic trends
- Expert review

Regionwide Forecast

- Current Estimates: Jobs, Housing, Population
- Local Plans/Policies
- Market Conditions
- Local Review

Forecast process and new models

Series 13 Subregional Forecast: Land Use Inputs

- Updated General Plans
  - Chula Vista (SP)
  - Escondido
  - Imperial Beach
  - National City
  - San Diego
  - San Marcos (SP)
  - Vista
  - County

- Site Specific Projects

- Sufficient Housing Lands
Proposed Conserved Habitat Lands

Open space will increase by 30%
(based on MHCP & MSCP plans)

Series 13 Subregional Forecast:
Housing Trends

2010-2050 Housing Units Growth, Region Total by Jurisdiction

- San Diego 62%
- Chula Vista 8%
- National City 3%
- Imperial Beach 1%
- Lemon Grove 1%
- Santee 1%
- El Cajon 1%
- Coronado 1%
- Imperial Beach 1%
- Solana Beach 1%
- La Jolla 1%
- Encinitas 1%
- Carlsbad 2%
- Escondido 2%
- Cardiff 2%
- Poway 2%
- Oceanside 2%
- La Mesa 3%
- La Jolla 3%
- National City 3%
- Santee 3%
- Vista 3%
- Santa Ysabel 3%
- La Mesa 3%
- City of San Diego 3%

2010: 0
2020: 10,000
2035: 100,000
2050: 500,000
Series 13 Subregional Forecast
Housing Growth

- 87% of growth within 1/2 mile to transit

Housing Growth
(n = 333,728)

- Multi Family 82%
- Single Family 18%

Series 13 Subregional Forecast: Job Trends

2010-2050 Jobs Growth, Region Total by Jurisdiction
Series 13 Subregional Forecast
Job Growth

- 79% of growth within 1/2 mile to transit

Total Jobs, by Industry

<table>
<thead>
<tr>
<th>Industry</th>
<th>2050</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional</td>
<td>85</td>
<td>72</td>
</tr>
<tr>
<td>Business Services</td>
<td>57</td>
<td>48</td>
</tr>
<tr>
<td>Government</td>
<td>68</td>
<td>56</td>
</tr>
<tr>
<td>Hospitality</td>
<td>33</td>
<td>25</td>
</tr>
<tr>
<td>Education / Health</td>
<td>172</td>
<td>148</td>
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<tr>
<td>Military</td>
<td>152</td>
<td>108</td>
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<tr>
<td>Construction</td>
<td>111</td>
<td>95</td>
</tr>
</tbody>
</table>

Series 13 Forecast DRAFT
Jobs Density
2012-2050
Dedicating more lands to preservation...

An aging, diversifying population...

Growing more sustainably...
San Diego Forward: The Regional Plan
Alternative Land Use and Transportation Scenarios
September 13, 2013

Why Prepare Scenarios?

Commitment to prepare alternative scenarios to explore what it would take to further reduce GHG emissions from cars and light trucks beyond those in the 2050 RTP/SCS.
Setting the Stage

Comparing Growth Projected in 1999 and 2011

Input and Ideas
Three Alternative Land Use Concepts

Scenario A: Second Units and Infill/Redevelopment in Urban and Suburban Areas
Scenario B: Transit Oriented Development
Scenario C: Multiple Dense Cores

Economic Perspectives

Major Employment Areas
2009 Employment Density October 2011
Next Steps

- **September** – Refine scenarios
- **October** – Review testing results
- **November** – Discussion with RPC, TC, and Board
- **Winter** – Analysis and findings for Regional Plan

Your Thoughts and Ideas

- **Scenario A**
  - Second Units and Infill/Redevelopment in Urban and Suburban Areas
- **Scenario B**
  - Transit Oriented Development
- **Scenario C**
  - Multiple Dense Cores
San Diego Forward: The Regional Plan
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