

3.1 Master Responses

Numerous comments raised common concerns or questions that are most appropriately answered or clarified in one comprehensive or “master” response. For this Final EIR, the issues listed in Table 3-2 are addressed in Master Responses, lettered A through I. Many of the individual responses refer back to these master responses.

TABLE 3-2: MASTER RESPONSE LIST

<i>Master Response</i>	<i>Title</i>	<i>Page Number</i>
<i>A</i>	<i>Land Use and Environmental Review</i>	
A.1	Local Control Over Land Use	3.1-2
A.2	CEQA Streamlining Options	3.1-4
A.3	Specificity of a Program EIR	3.1-7
<i>B</i>	<i>Project Description</i>	
B.1	Population Projections	3.1-8
B.2	Feasibility of the Proposed Plan’s Priority Development Areas	3.1-10
<i>C</i>	<i>Requests for Extensions of the Public Comment Period</i>	3.1-13
<i>D</i>	<i>GHG Impacts</i>	
D.1	Regional Greenhouse Gas Emissions Reductions for Land Use and Transportation Planning Sectors Under SB 375	3.1-16
D.2	The Connection between High-Density Housing near Transit and Reduced Greenhouse Gas Emissions	3.1-19
<i>E</i>	<i>Sea Level Rise</i>	3.1-25
<i>F</i>	<i>Displacement</i>	3.1-28
<i>G</i>	<i>Water Supply</i>	3.1-34
<i>H</i>	<i>UrbanSim Modeling and Subsidies</i>	3.1-36
<i>I</i>	<i>Priority Development Area (PDA) Process</i>	3.1-39

A: LAND USE AND ENVIRONMENTAL REVIEW

Master Response A.1: Local Control Over Land Use

The proposed Plan Bay Area (the proposed Plan) is a joint effort led by Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) and completed in partnership with the Bay Area's other two regional government agencies, the Bay Area Air Quality Management District (BAAQMD), and the Bay Conservation and Development Commission (BCDC). (Draft EIR, pp. 1.1-1 to 1.1-2.) The proposed Plan constitutes the first Regional Transportation Plan (RTP) for the Bay Area that includes a Sustainable Communities Strategy (SCS) as well as a transportation policy element, an action element, and a financial element.

The Sustainable Communities and Climate Protection Act of 2008, also known as Senate Bill 375 (SB 375), requires California's 18 metropolitan planning organizations (MPOs) to develop an SCS or an Alternative Planning Scenario (APS) if an SCS is not feasible, as a new element of their federally mandated RTPs. The preferred land use scenario and resulting development pattern described in Chapter 3 of the Draft Plan represent the SCS for the Plan.

Pursuant to SB 375, the SCS must do the following:

- Identify the general location of uses, residential densities, and building intensities within the region;
- Identify areas within the region sufficient to house all the population of the region, including all economic segments of the population, over the course of the planning period of the regional transportation plan taking into account net migration into the region, population growth, household formation and employment growth;
- Identify areas within the region sufficient to house an eight-year projection of the regional housing need for the region;
- Identify a transportation network to service the transportation needs of the region;
- Gather and consider the best practically available scientific information regarding resource areas and farmland in the region;
- Consider the state housing goals;
- Set forth a forecasted development pattern for the region, which, when integrated with the transportation network, and other transportation measures and policies, will reduce the greenhouse gas emissions from automobiles and light trucks to achieve, if there is a feasible way to do so, the greenhouse gas emission reduction targets for the region; and
- Allow the regional transportation plan to comply with Section 176 of the federal Clean Air Act (42 U.S.C. § 7506). (Gov. Code, § 65080, subd. (b)(2)(B).)

The purpose of SB 375 is, in part, to “encourage developers to submit applications and local governments to make land use decisions that will help the state achieve its climate goals under AB 32, assist in the achievement of state and federal air quality standards, and increase petroleum conservation.” (SB 375, Stats. 2008, ch. 728, § 1(f) [uncodified legislative findings].) The CEQA streamlining benefits provided by SB 375 are some of the mechanisms utilized to incentivize development of pro-

jects that will help the state achieve its climate goals under AB 32. It is important to note, however, that while this EIR provides lead agencies with CEQA streamlining benefits for certain projects, neither the proposed Plan nor this EIR limits in any way the existing land use authority of any city or county. (Gov. Code, § 65080, subd. (b)(2)(K).)¹

In other words, even after the final Plan Bay Area (the Plan) is adopted by MTC and ABAG, the lead agencies for future projects retain the discretion to, for example, (1) carry out or approve projects that are not consistent with the Plan, (2) exercise their discretion to deny approval of projects even if they are consistent with the Plan, and (3) reach environmental conclusions and/or adopt mitigation measures that differ from those identified in this EIR. In short, the Plan, if adopted, is advisory and not binding at the local level. For this reason, unless MTC or ABAG have regulatory or approval authority over a future project implemented pursuant to the Plan, MTC and ABAG must rely on incentives to encourage implementing agencies to commit to the mitigation measures set forth in the program EIR for the Plan. As discussed in greater detail in Master Response A.2, an implementing agency that elects to take advantage of the CEQA Streamlining provisions of SB 375 (Public Resources Code sections 21155.1, 21155.2, and 21159.28) must commit to the mitigation measures set forth in the program EIR, as applicable and feasible, to address site-specific conditions.

Cities and counties, not MTC or ABAG, are ultimately responsible for the manner in which their local communities continue to be built out in the future. For this reason, cities and counties are not required to revise their “land use policies and regulations, including [their] general plan, to be consistent with the regional transportation plan or an alternative planning strategy.” (Gov. Code, § 65080, subd. (b)(2)(K).) The proposed Plan merely provides a transportation and land use vision that “*if implemented*, [would] achieve the greenhouse gas emission reductions targets” for the region. (Pub. Resources Code, § 21155, subd. (a) (emphasis added).) The land use portion of the proposed Plan will only be implemented insofar as local jurisdictions act upon the Plan’s policies and recommendations.

Some commenters on this EIR suggest that the relationship between the proposed Plan and the Regional Housing Needs Allocation (RHNA) is evidence that the proposed Plan supersedes the land use authority of cities and counties within the region. This is incorrect. The legislature first established the RHNA process in 1980 as an additional requirement for housing elements in local General Plans. The RHNA statutes require cities and counties to make sites available through their General Plans and zoning that can accommodate the jurisdiction’s share of the regional housing need and, where necessary, requires a jurisdiction to zone or rezone adequate sites to accommodate its RHNA. (Gov. Code, §§ 65583, subd. (c)(1), 65584.09, subs. (a), (c).) This requirement predates enactment of SB 375’s SCS process. SB 375, however, requires the RHNA, starting in 2014, to be consistent with the development pattern included in the SCS. (Gov. Code, § 65584.04, subd. (i).)

Therefore, SB 375 both requires future RHNAs to be consistent with the SCS and states that the proposed Plan must not be interpreted to supersede the exercise of the land use authority of cities and counties within the region. (Gov. Code, §§ 65080, subd. (b)(2)(K), 65584.04, subd. (i).) Interpreting these provisions to be internally inconsistent would violate established canons of statutory inter-

¹ “Nothing in a sustainable communities strategy shall be interpreted as superseding the exercise of the land use authority of cities and counties within the region.” (Gov. Code, § 65080, subd. (b)(2)(K).)

pretation. (*Hatch v. Superior Court* (2000) 80 Cal.App.4th 170, 226 [a statute should not be interpreted in a manner that is “inconsistent with other provisions of the same statute, defeats the apparent legislative intent and is otherwise in conflict with accepted interpretive canons”].) As a result, the proposed Plan should not be viewed as superseding local land use authority simply because SB 375 requires the RHNA to be consistent with the development pattern included in its SCS.

SB 375 neither compels cities and counties to construct housing necessary to fulfill their RHNA obligations nor limits their discretionary authority in evaluating future projects proposed within their jurisdictions. As stated in Government Code section 65584, subdivision (a)(2), “[w]hile it is the intent of the Legislature that cities, counties, and cities and counties should undertake all necessary actions to encourage, promote, and facilitate the development of housing to accommodate the entire regional housing need, it is recognized, however, that future housing production may not equal the regional housing need established for planning purposes.” (Gov. Code, § 65584, subd. (a)(2).) Both market forces and discretionary actions taken by cities and counties, not the proposed Plan, will dictate whether the regional housing need established for planning purposes is achieved.

Master Response A.2: CEQA Streamlining Options

Once certified by MTC and ABAG, this Final EIR may be used to streamline the environmental review process for some future projects carried out or approved by various agencies and municipalities including, but not limited to, cities and counties, Bay Area congestion management agencies (CMAs), Caltrans, transportation authorities, BCDC, BAAQMD, and transit providers in the region (such as Muni, BART, AC Transit, SamTrans, Caltrain, SolTrans, WestCAT, ACE, Water Emergency Transit Authority, etc.). (Pub. Resources Code, §§ 21068.5, 21093-21094.5.5, 21155-21155.3, 21159.28.) As discussed on pages 1.1-12 to 1.1-16 of the Draft EIR, SB 375 and other CEQA provisions provide a number of potential streamlining benefits to proposed projects that are consistent with the Plan.

If Plan Bay Area is adopted and the program EIR is certified by MTC and ABAG, and the California Air Resources Board determines that the proposed Plan, if implemented, would achieve the greenhouse gas emission reduction targets required by AB 32 and SB 375, then a number of streamlining benefits may become available to lead agencies that carry out or approve future projects contemplated by the Plan.

For a lead agency to take advantage of many of the potential streamlining benefits associated with the SCS, the lead agency must comply with all feasible and applicable mitigation measures included in this EIR, to the extent necessary, to substantially lessen or avoid the potentially significant impacts of the project. Where a future project, as mitigated by the lead agency, will not result in a potentially significant impact identified in this EIR, the lead agency is not required to adopt the mitigation measures set forth in this EIR and/or other relevant project-level EIRs to take advantage of the CEQA streamlining benefits discussed below.

SB 375 provides streamlining benefits for Transit Priority Projects (TPP). A TPP is a project that is:

- Consistent with the general land use designation, density, building intensity, and applicable policies specified for the project area in the SCS;
- Located within half a mile of a major transit stop or high-quality transit corridor;

- Comprised of at least 50 percent residential use based on total building square footage, or as little as 26 percent residential use if the project has a floor area ratio of not less than 0.75; and
- Built out with a minimum of 20 dwelling units per acre. (Pub. Resources Code, § 21155.)

One of three potential streamlining benefits may apply to a TPP pursuant to SB 375.

First, TPPs that meet a detailed list of criteria set forth in Public Resources Code section 21155.1 are statutorily exempt from CEQA. Due to the extensive list of criteria that must be met to achieve this exemption, the exemption will likely only be available in very limited circumstances. This conclusion is supported by the fact that although the Southern California Association of Governments (SCAG) and Sacramento Area Council of Governments (SACOG) both adopted their first respective RTP/SCS in early 2012, no agency in either region has invoked the statutory exemption created by SB 375 in approving any project.

Second, a TPP that does not qualify for the statutory exemption may be eligible to comply with CEQA using a Sustainable Communities Environmental Assessment (SCEA). An SCEA is similar to a streamlined negative declaration or mitigated negative declaration that requires a 30-day public review period rather than the otherwise available 20-day public review period. An SCEA is available for a TPP that does not result in any potentially significant environmental impacts after mitigation and that has incorporated all feasible mitigation measures, performance standards, or criteria set forth in the prior applicable EIRs including the EIR for the RTP/SCS. (Pub. Resources Code, § 21155.2, subd. (a).) An SCEA is not required to discuss (1) growth inducing impacts, or (2) any project specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network. (Pub. Resources Code, §§ 21155.2, subd. (b)(1), 21159.28, subd. (a).) And, unlike a negative declaration or mitigated negative declaration, a lead agency's decision to approve a TPP based on an SCEA is reviewed, if challenged, by a court under the substantial evidence standard. (Pub. Resources Code, § 21155.2, subd. (b)(7).)

Third, a TPP that will result in one or more potentially significant impacts after mitigation may be reviewed using a tiered TPP EIR as established by Public Resources Code section 21155.2(c). A tiered TPP EIR is only required to address the significant or potentially significant effects of the TPP on the environment and is not required to include a discussion of (1) growth inducing impacts, (2) any project specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network, (3) cumulative effects that have been adequately addressed and mitigated in prior applicable certified EIRs, (4) off-site alternatives, or (5) a reduced density alternative to address effects of car and light truck trips generated by the TPP. (Pub. Resources Code, §§ 21155.2, subd. (c), 21159.28, subds. (a)-(b).)

In addition to the benefits provided for TPPs, SB 375 provides streamlining benefits for residential or mixed-use residential projects, as defined in Public Resources Code section 21159.28(d), that are consistent with the use designation, density, building intensity, and applicable policies specified for the project area in the SCS. Projects eligible for streamlining must incorporate mitigation measures required by an applicable prior environmental document, such as this EIR if it is certified by MTC and ABAG. EIRs for qualifying residential or mixed-use residential projects are not required to include a discussion of (1) growth inducing impacts, (2) any project specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional trans-

portation network, or (3) a reduced density alternative to address effects of car and light truck trips generated by the project. (Pub. Resources Code, § 21159.28, subs. (a)-(b).)

In 2011, SB 226 was enacted by the legislature to establish additional streamlining benefits applicable to infill projects. (Pub. Resources Code, § 21094.5.) Within the Bay Area, SB 226 applies to infill projects that are consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in the SCS once adopted, and are consistent with the requirements set forth in CEQA Guidelines section 15183.3. (Pub. Resources Code, §§ 21094.5, subd. (c), 21094.5.5.) For these projects, an “Infill EIR” is only required to analyze effects on the environment that are specific to the project or to the project site and were not addressed as significant effects in a prior planning level EIR unless new information shows the effects will be more significant than described in the prior EIR. (Pub. Resources Code, § 21094.5, subd. (a)(1).) Moreover, an Infill EIR is not required to consider potentially significant environmental effects of the project that may be reduced to a less than significant level by applying uniformly applicable development policies or standards adopted by the city, county, or the lead agency. (Pub. Resources Code, § 21094.5, subd. (a)(2).) And, the Infill EIR is not required to discuss (1) alternative locations, project densities, and building intensities, or (2) growth inducing impacts.

Unlike the CEQA streamlining benefits established by SB 375, the benefits created by SB 226 may apply to non-residential projects including qualifying commercial, retail, transit station, school, or public office building projects. (CEQA Guidelines, § 15183.3, subd. (f)(1).) It should be noted, however, that the effectiveness of Public Resources Code section 21094.5 and the related CEQA Guidelines section are uncertain. Although Public Resources Code section 21094.5 provides that “[a] lead agency’s determination pursuant to this section shall be supported by substantial evidence,” many believe the supporting CEQA Guidelines require lead agencies to make determinations that may implicate the fair argument standard of review thereby limiting SB 226’s streamlining benefits.

Finally, for all other types of projects proposed to be carried out or approved by a lead agency within the region, the lead agency may utilize this EIR for the purposes of traditional CEQA tiering. (Pub. Resources Code, §§ 21068.5, 21093-21094.) Tiering is the process by which general matters and environmental effects in an EIR prepared for a policy, plan, program or ordinance are incorporated by reference into a narrower second-tier or site-specific EIR. (Pub. Resources Code, § 21068.5.) Moreover, by tiering from this EIR (if certified by MTC and ABAG), a later tiered EIR would not be required to examine effects that (1) were mitigated or avoided in this EIR, (2) were examined at a sufficient level of detail in this EIR to enable those effects to be mitigated or avoided by site specific revisions, the imposition of conditions, or by other means in connection with the approval of the later project, or (3) constitute cumulative effects and were adequately addressed in this EIR. (Pub. Resources Code, § 21094.)

Therefore, the proposed Plan and this EIR, if adopted and certified, respectively, by MTC and ABAG, will provide lead agencies with a number of potential ways to streamline CEQA review for future projects proposed within their jurisdictions. While the streamlining benefits of the proposed Plan may serve to reduce time and costs associated with complying with CEQA, the ultimate land use authority provided to local agencies to approve, modify, or deny proposed projects within their jurisdiction is not diminished by the proposed Plan.

Master Response A.3: Specificity of a Program EIR

The proposed Plan is subject to the California Environment Quality Act (CEQA) and, as a result, this program EIR is being prepared. MTC and ABAG are serving as joint lead agencies in preparing this program EIR for the proposed Plan. Therefore, MTC and ABAG will rely on the EIR's analysis of potential environmental effects in their review of the proposed Plan prior to taking action on the Plan. (See also Draft EIR, p. 1.1-4.)

“The level of specificity of an EIR is determined by the nature of the project and the ‘rule of reason’.” (*Laurel Heights Improvement Ass’n v. Regents of University of California* (1988) 47 Cal.3d 376, 407.) “[W]here an EIR covers several possible projects that are diverse and geographically dispersed, the agency has discretion to evaluate the potential environmental impacts of the individual projects in general terms in the EIR, while deferring more detailed evaluation of the projects for future EIRs.” (*California Oak Foundation v. Regents of University of California* (2010) 188 Cal.App.4th 227, 271, citing *In re Bay-Delta* (2008) 43 Cal.4th 1143, 1170-1171.) Here, the proposed Plan is a long-term, regional-scale plan covering 101 cities and nine counties, over 150 major transportation projects, and many other transportation and land use projects over the next approximately 28 years. Accordingly, the EIR analyzes the proposed Plan at a programmatic level.

With limited exceptions, MTC and ABAG cannot require local implementing agencies to adopt specific mitigation measures, and it is ultimately the responsibility of a lead agency to determine and adopt mitigation measures. Moreover, because MTC and ABAG have prepared a program EIR, the EIR does not include city, county, or site-specific environmental analysis. For both of these reasons, MTC and ABAG cannot ensure either that the mitigation measures set forth in this EIR will be feasible for all site-specific projects or that local implementing agencies will exercise their discretion to implement the measures. As a result, a large number of impacts identified in this EIR remain potentially significant and unavoidable. Where MTC and ABAG have determined that successful implementation of the mitigation measures identified in this EIR would reduce a potentially significant and unavoidable impact to a less than significant level, however, the EIR states this conclusion and discusses the above uncertainties concerning successful implementation of the measures.

Subsequent second-tier land use plans (such as city and county general plans and specific plans) as well as project-specific CEQA analysis will be undertaken by implementing agencies. This EIR does not dictate the environmental conclusions a lead agency must reach as part of future project-specific CEQA analysis. For example, the EIR does not conclude that all transportation and land use projects will, on the project-level, result in each of the potentially significant environmental impacts identified at the programmatic level in this EIR for Plan Bay Area.

Where substantial evidence supports the conclusion that a future project as mitigated by the lead agency will not result in one or more of the potentially significant environmental impacts identified in this EIR, implementation of the mitigation measures identified in this EIR would not be required pursuant to CEQA. Similarly, in the event that currently unforeseen project-specific factors result in additional significant impacts or make infeasible mitigation measures included in this EIR, and no alternative measures can otherwise mitigate or avoid the future project's significant effect, then the lead agency may, based on substantial evidence, adopt findings required by Public Resources Code section 21081, subdivision (a)(3), and approve the project notwithstanding any significant and unavoidable impacts. Therefore, the proposed Plan and this EIR do not diminish in any way the jurisdic-

tion and authority of implementing agencies that serve as the lead agency under CEQA for future projects. (See also Draft EIR, pp. 1.1-11 to 1.1-12.)

B: PROJECT DESCRIPTION

Master Response B.1: Population Projections

Several commenters requested an explanation of the different population projections provided by ABAG and the California Department of Finance (DOF). MTC and ABAG relied on ABAG's population projections in the Jobs-Housing Connection Strategy, which was released on May 16, 2012. The Jobs-Housing Connection Strategy, which serves as the base land use element of the Sustainable Communities Strategy, describes the job growth projections and demographic trends ABAG relied on to establish population growth projections. (Jobs-Housing Connection Strategy, pp. 14-30.) ABAG predicts the Bay Area population will be 9.3 million people in 2040, which includes an increase of 1.1 million jobs and 2.1 million people. (Draft Plan Bay Area, p. 29; Jobs-Housing Connection Strategy, p. 24; Draft EIR, pp. 1.2-5 to 1.2-8.)

ABAG's population forecast is based on the detailed, industry-specific job growth projections compiled and analyzed by the Center for Continuing Study of the California Economy ("Levy Report").² ABAG combined the job growth projections from the Levy Report with demographic information, including fertility/mortality projections and ethnic composition, derived from DOF reports and 2010 Census data. (Draft Plan Bay Area, p. 30; Draft EIR, p. 1.2-7.)

In January 2013, DOF released population projections for the Bay Area forecasting 1.3 million additional people between 2010 and 2040, which is significantly lower than ABAG's forecast of 2.1 million additional people. The DOF develops population projections for various purposes, including consultation by the Department of Housing and Community Development's ("HCD") Regional Housing Needs Determination ("RHND") for the Bay Area. The RHND is an estimate of the number of housing units needed over the next eight years to meet housing demand, which ABAG then allocates to local jurisdictions through the Regional Housing Need Allocation ("RHNA") process.

ABAG must ensure that the land use pattern in the proposed Regional Transportation Plan/Sustainable Communities Strategy ("Plan") accommodates its RHNA determination; however, MTC and ABAG are under no obligation to use DOF's population projections for the purposes of developing the proposed Plan. ABAG, not DOF, is responsible for developing population projections for each RTP/SCS. In this instance, the proposed Plan accommodates ABAG's population projections, which are higher than DOF's, and the draft RHNA is consistent with the land use pattern in the proposed Plan. Thus, the RHNA and the proposed Plan are consistent regardless of any apparent disparity between DOF's 2013 population projections and ABAG's population projections for the Plan.

Recognizing the public controversy surrounding the differences between the population projections, ABAG, DOF, and HCD, voluntarily collaborated to explain the discrepancy and affirm the reasonableness of ABAG's methodology. On April 2, 2013, ABAG, DOF, and HCD jointly held a work-

² Levy, Stephen, Bay Area Job Growth to 2040: Projections and Analysis, Center for Continuing Study of the California Economy, February 2012 ("Levy Report"). http://www.onebayarea.org/pdf/3-9-12/CCSCE_Bay_Area_Job_Growth_to_2040.pdf

shop and released a memorandum (“Population Memo”) that discusses the different methodologies used by ABAG and DOF that resulted in the different population projections.³

ABAG, DOF, and HCD concluded that the primary cause of the different population projections was the migration data relied upon by DOF. Migration is one of the three variables in the baseline cohort-component method used by DOF to forecast population growth. Employment is a major driver of migration, however the DOF model does not specifically incorporate current and projected employment trends in its model. DOF’s projections were based on net migration into the Bay Area between 2000 and 2010. The DOF net-migration number does not account for irregularities, such as the job losses that occurred from 2000-2002 and from 2007-2010 and fails to reflect current and expected employment trends. As a result, the Population Memo concludes that DOF’s projections are “not a forecast of the most likely outcome.” DOF and HCD agreed that ABAG’s methodology for determining population projections is appropriate for ABAG’s purposes.

In contrast to DOF’s methodology, ABAG’s methodology incorporates current and expected employment trends by linking population growth to projected job growth.⁴ The Population Memo states:

Job growth is the main determinant of population growth in the ABAG regional growth forecast as in all major regional forecast modeling in California and around the nation. ABAG job growth to 2040 is estimated as a share of U.S. projected job growth, based on an assessment of regional competitiveness by major industry sectors.

ABAG projections use DOF fertility and mortality assumptions to determine the amount of natural increase in the population. Migration, rather than being tied to recent trends, is a function of job growth. The theory of deriving migration forecasts linked to job growth is that most migration is the result of people moving to regions where job growth exceeds the number of workers supplied by the local economy and vice versa. For the Bay Area, the best example is the large number of people who migrated to the region from other parts of the state, nation and world during the high-tech and dot.com boom of the late 1990s and the exodus out of the region in the years when job losses occurred after 2000 when the boom ended.

ABAG’s methodology linking population projections to expected job growth is a better predictor of future populations than models that simply rely on net-migration numbers from the previous decade. Linking population growth to job growth is used in the regional projections of all of the other major Councils of Governments in California as well as the three major national forecasting firms (IHS Global Insight, Regional Economic Models, Inc., and Moody’s). As a result, the Population Memo

³ The Population Memo is available at:
http://apps.mtc.ca.gov/meeting_packet_documents/agenda_2038/06_Overview_of_RHND__DOF_Projections__and__Plan_Bay_Area.pdf

⁴ A June 11, 2013 memorandum from Stephen Levy responds to critics of ABAG’s population projections and includes current data and analysis that provide additional support for ABAG’s determinations. The memorandum can be found at <http://onebayarea.org/regional-initiatives/plan-bay-area/draft-plan-bay-area/supplementary-reports.html>

states that “DOF acknowledges that ABAG employment methodology and its impact on migration is reasonable.”

Staff at the California Air Resources Board (CARB) also support ABAG’s population projection methodology. CARB’s technical analysis of the proposed Plan states:

ARB staff’s analysis of the Bay Area’s population projection methodology and process show that ABAG/MTC used the best available information at the time of their plan development process to come up with their projections. The agencies considered a variety of data inputs to estimate the future population, such as 2010 Census and Bureau of Labor Statistics projections, DOF projections, local jurisdiction inputs, expert panel review and a consultant-provided set of economic assumptions.⁵

Under CEQA, population projections relied on in an EIR must be supported by substantial evidence. (*Federation of Hillside and Canyon Assns. v. City of Los Angeles* (2004) 126 Cal.App.4th 1180, 1206-1207 [CEQA challenges to population projections in an EIR reviewed under the substantial evidence standard].) MTC’s and ABAG’s population projections are based on sound methodology, incorporate current data and trends, and were developed by experts in consultation with other relevant agencies through a transparent public process. All three agencies, ABAG, DOF, and HCD, agree that the methodology used by MTC and ABAG are appropriate for the SCS. (Population Memo.)

Master Response B.2: Feasibility of the Proposed Plan’s Priority Development Areas

Some commenters expressed concern regarding the feasibility of the proposed Plan. In expressing this concern, some commenters cited the March 29, 2013 Priority Development Area Development Feasibility and Readiness Assessment Report commissioned by MTC and prepared by Economic & Planning Systems, Inc (EPS).

ABAG forecasts that by 2040 the Bay Area’s population will grow another 30 percent from the 2010 level (over 2.1 million more residents) and employment will increase by 33 percent (over 1.1 million additional jobs). To house this population growth, it is estimated that 660,000 new housing units will need to be built in the same timeframe to meet the forecasted demand of 700,000 new housing units (the other 40,000 units will be supplied from currently projected vacant and foreclosed units). (Draft EIR, p. 1.2-6.)

Pursuant to SB 375, MTC and ABAG are required to develop as part of the RTP an SCS that identifies areas within the region sufficient to house all the population of the region, including all economic segments of the population, which, when integrated with the transportation network, and other transportation measures and policies, will reduce the greenhouse gas emissions from automobiles and light trucks to achieve the greenhouse gas emission reduction targets established for the region. SB 375 acknowledges that achieving a region’s greenhouse gas target will require metropolitan planning organizations to adopt “*changed* land use patterns” that depart from the business-as-usual model.

⁵ Draft Technical Evaluation of the Greenhouse Gas Emissions Reduction Quantification for the Association of Bay Area Governments’ and Metropolitan Transportation Commission’s SB 375 Sustainable Community Strategy (“Technical Evaluation”), June 2013, p. 34.

To depart from the business-as-usual development pattern, both political- and market- based changes must take place. Based on a sample of 20 Priority Development Areas (PDAs), the Priority Development Area Development Feasibility and Readiness Assessment Report⁶ (PDA Development Feasibility Report) concludes that without any rezoning or change in land use policies, 62 percent of the housing growth identified within the PDAs included in the sample could be developed. The “readiness” analysis included in the PDA Development Feasibility Report should not be interpreted to suggest that successful implementation of the proposed Plan is infeasible. In fact, the “readiness” analysis of constraints to development within PDAs including policy, market, infrastructure, financing, and related factors demonstrated that 62 percent of the housing growth allocated to the PDAs included in the sample could currently be accommodated with no changes to existing land use controls (e.g. General Plans and zoning). Relatively straightforward policy actions at the local, regional, state, and federal levels would allow these PDAs to accommodate 80 percent or more of the housing growth allocated to them by 2040.

The PDA Development Feasibility Report does note that implementation of certain policies could allow “PDA housing production [to] exceed the amounts estimated,” however. For example, housing demand is positively correlated with lower crime, better schools, and distance from environmental contamination. While these factors were considered as constraints affecting development, the PDA Development Feasibility Report did not recommend any specific policies and strategies to improve local “readiness”.

The PDA Development Feasibility Report, therefore, supports the conclusion that the proposed Plan, on average, requires a relatively minor amount of rezoning and related land use policy changes in order to accommodate the densities envisioned in the PDAs by the proposed Plan. For this reason, the PDA Development Feasibility Report provides support for the conclusion that the proposed Plan is feasible.

The focus of SB 375 is to require metropolitan planning organizations to “identify areas within the region sufficient to house all the population of the region”; SB 375 was not drafted to provide metropolitan planning organizations with a mechanism to ensure that all local municipalities are committed to achieving the land use pattern proposed within the applicable RTP/SCS. In fact, SB 375 expressly prohibits metropolitan planning organizations from using an RTP/SCS to regulate the use of land or to “supersede the exercise of the land use authority of cities and counties within the region.” (Gov. Code, § 65080, subd. (b)(2)(K).) Therefore, the success of an RTP/SCS inherently relies on numerous independent actions by local agencies with land use authority as well as other actions by regional, state and federal stakeholders.

Consistent with SB 375, the proposed Plan is designed to provide a broad array of incentives and voluntary measures and strategies that can be adapted to local circumstances, rather than compel local agencies and project proponents to pursue projects that are consistent with the proposed Plan’s objectives. For example, the transportation projects in the proposed Plan were selected to complement a certain type of land development (balanced and compact within previously developed areas) and discourage another type of development (imbalanced, sprawling, and on greenfields). Similarly,

⁶ http://onebayarea.org/pdf/Draft_Plan_Bay_Area/Draft_PBA_PDA_Development_Feasibility_and_Readiness.pdf

the proposed Plan encourages localities to adopt land use policies and programs that promote focused growth rather than growth beyond targeted areas. These may include urban growth boundaries and reduced parking requirements, which already have been embraced by many local governments, in some cases with supportive votes of residents at the ballot box. Moreover, the CEQA streamlining provisions included in SB 375 – which will be activated by adoption of Plan Bay Area – are designed to reduce the time and cost associated with developing projects consistent with the RTP/SCS.

In short, while the Report demonstrates that future policy- and market- based changes will be required to achieve the development pattern in the proposed Plan, the Report does not conclude such policy and market changes are infeasible. Therefore, MTC and ABAG do not interpret the Report to suggest that implementation of the proposed Plan is infeasible.

MTC and ABAG’s interpretation of the Report is further supported by a May 10, 2013 letter from EPS to MTC.⁷ In that letter, EPS explains that while “development of the planned housing growth is likely to face significant challenges, we do not arrive at or accept the conclusion that housing growth in the PDAs cannot possibly grow beyond the figures that we’ve deemed reasonable to expect.” In short, EPS concluded that “the growth allocation in Plan Bay Area represent an achievable, if not easy, outcome consistent with the scope and purpose of any comprehensive regional plan.”

Finally, accommodating the substantial growth within the region will be challenging no matter the land use pattern proposed. EPS’s May 10, 2013 letter states that “many of the same political, regulatory, market, and infrastructure challenges [that must be addressed in PDAs] will constrain growth outside the PDAs.” For example, EPS notes that non-PDAs typically have less existing infrastructure to accommodate new growth, and new suburban subdivisions frequently carry significant costs to install new roadways, utility extensions, parks, schools, etc.

These costs, paired with typically lower home values in new “greenfield” development areas as compared to existing urbanized areas (such as the PDAs), represent additional financing obstacles for new subdivision developments as compared to infill development. Regulatory, market, and infrastructure planning changes are required to overcome such obstacles. Moreover, affordable housing is also more difficult to achieve in non-PDA areas. The federal Low Income Housing Tax Credit program, often critical to financing affordable housing projects, prioritizes development of rental housing and provides preference to projects near urban services such as transit, healthcare facilities, schools, etc. Suburban “greenfield” development is less likely to have the attributes necessary to make an affordable housing project competitive for grant funding under the program. EPS’s letter, therefore, concludes that “it is not at all certain that non-PDA areas are ‘ready’ (as we have measured it for the sample PDAs) for significantly more growth than has been allocated to them under Plan Bay Area.”

In short, based on information prepared by EPS and all other evidence in the record, MTC and ABAG believe that the proposed Plan includes a reasonable and potentially feasible land use development pattern that can both house the region’s projected population growth and achieve the sustainable development goals associated with SB 375.

⁷ http://onebayarea.org/pdf/Draft_Plan_Bay_Area/EPS_ltr051013_1.pdf

MASTER RESPONSE C: REQUESTS FOR EXTENSIONS OF THE PUBLIC COMMENT PERIOD

MTC and ABAG received multiple written and oral comments requesting an extension of the public comment period for the Draft EIR. On May 10, 2013, the MTC Planning Committee and ABAG Administration Committee considered the request for an extension and both voted unanimously against extending the public comment period.⁸ MTC and ABAG did so for two main reasons: (1) the comment period was adequate and complied with CEQA's requirements; and (2) any additional delay would result in significant consequences for the agencies and the communities they serve without providing additional environmental protection.

The comment period on the Draft EIR commenced on April 2, 2013 and closed on May 16, 2013, in compliance with CEQA's 45-day statutory requirement. (Pub. Resources Code § 21091.) The public comment period on the Draft EIR followed an extensive public participation process that began in 2010 to gather input on the proposed Plan. During the public comment period, the public was able to submit comments on the Draft EIR during public meetings, including three public hearings on the Draft EIR, as well as nine public hearings held on the Draft Plan, one in each county of the region, throughout April and May 2013 (see details below), via e-mail, regular mail, or in-person. Approximately 1,250 residents attended the public hearings, with 385 speaking.⁹ MTC and ABAG received 342 written comments on the Draft EIR, in addition to numerous oral and written comments during open public hearings. This large volume of comments demonstrates that the legally prescribed comment period was sufficient to produce a robust level of public review of the Draft EIR.

Following is a list of open houses and public hearings:

Draft EIR Public Hearings

- April 16, 2013, 10 a.m. to 12 noon, San Rafael
- April 16, 7 p.m. to 9 p.m., Oakland
- April 17, 2013, 1 p.m. to 3 p.m., San Jose

Draft Plan Bay Area Open Houses and Public Hearings

- April 8, 6 p.m. to 9 p.m., Napa
- April 8, 6 p.m. to 9 p.m., Santa Rosa
- April 11, 6 p.m. to 9 p.m., San Francisco
- April 22, 6 p.m. to 9 p.m., Vallejo

⁸ http://apps.mtc.ca.gov/meeting_packet_documents/agenda_2051/5_Draft_PBA_Draft_EIR_Ext_Request_memo.pdf

⁹ Transcripts and comment forms are available online here:

<http://www.onebayarea.org/regional-initiatives/plan-bay-area/meetings-events/What-We-Heard.html>

- April 22, 6 p.m. to 9 p.m., Walnut Creek
- April 29, 6 p.m. to 9 p.m., Foster City
- April 29, 6 p.m. to 9 p.m., San Rafael
- May 1, 6 p.m. to 9 p.m., Fremont
- May 1, 6 p.m. to 9 p.m., San Jose

The April 2 – May 16, 2013 public comment period for the Draft Plan and Draft EIR capped off more than three years of dialogue and consultation on this planning effort. To date, some 250 meetings—including public workshops, policy board meetings and other public engagement activities—have been conducted since the process commenced in the spring of 2010.

Other public engagement during spring of 2013 surrounding the Draft Plan and Draft EIR included: MTC and ABAG staff made presentations at public meetings to local elected officials in all nine counties; notices of all meetings were mailed to the clerks of the board of all local jurisdictions for posting. A series of 12 focus groups were conducted in early spring 2013 in partnership with community-based organizations working in low-income communities and communities of color, drawing a total of 181 participants. One session each was conducted in Spanish and Cantonese. Presentations on the Draft Plan and Draft EIR were made to ABAG’s Regional Planning Committee, consisting of stakeholders and elected officials, and two presentations to MTC’s Policy Advisory Council, which represents a broad range of interests, including seniors, people with disabilities, low-income residents and residents from communities of color, as well as representatives from the business community and environmental organizations. MTC and ABAG staff held a consultation workshop with Native American tribal government leaders in Sonoma County. A statistically valid telephone poll of over 2,500 Bay Area residents was conducted during March, April and early May 2013 measuring the general public’s opinion on issues relating to Plan Bay Area. A brown-bag lunch for news reporters provided information to encourage media coverage of the Plan and open houses/public hearings, and two news releases issued during the public comment period encouraged media coverage promoting public participation in the planning/public comment process. A direct mail piece and five email blasts notifying residents about the release of the draft and opportunities to comment.

Newspapers in all nine Bay Area counties published legal notices, and display ads were purchased in smaller community newspapers in ethnic and minority communities, including display ads and legal notices in Spanish and Chinese language newspapers. See Section 1 of the Final EIR for more details of the legal notices distributed to newspapers throughout the region. Additional information on the public outreach process was presented to the Joint MTC Planning Committee and ABAG Administrative Committee in June.¹⁰

Based upon input gathered through written public comments and at public meetings related to the draft Plan and Draft EIR, MTC and ABAG are considering changes to the Draft Plan and the Draft EIR. Discussions about these potential changes necessarily could not commence in earnest until the formal comment period closed. Staff then needed sufficient time to adequately summarize and respond to comments and identify key issues for MTC and ABAG policymakers.

¹⁰ http://apps.mtc.ca.gov/meeting_packet_documents/agenda_2070/Item_3a_Summary_of_Public_Input.pdf

The schedule to develop Plan Bay Area has been extended several times over the past three years in response to input from stakeholders and local jurisdictions. There was no additional time in the schedule for further extension without impacting federal air quality conformity requirements and the Transportation Improvement Plan (TIP), which are directly tied to the schedule for the adoption of Plan Bay Area following certification of the EIR.

Air Quality Conformity Lapse and the TIP

Under federal regulations, the Air Quality conformity for the Regional Transportation Plan (RTP) and related short-term Transportation Improvement Plan (TIP) is valid for 4 years. MTC's Air Quality conformity determination for the current RTP and TIP was approved on May 29, 2009. Upon this lapse, the region entered a one-year lapse grace period. During this period, the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) can continue to authorize projects and approve environmental documents for projects already in the 2011 TIP. No amendments to the TIP may be approved (for either exempt or non-exempt projects), however, until the Air Quality Conformity determination for the 2013 TIP is approved. The Air Quality Conformity determination is anticipated to be approved by FHWA within two months following approval of Plan Bay Area and the Air Quality Conformity Analysis for Plan Bay Area and the 2013 TIP. Thus, the current schedule will involve a “freeze” on TIP amendments for new projects of about four months. Any additional delay in approving the Plan compounds and extends that freeze.

The region processes roughly one TIP revision each month with each revision on average affecting roughly 60 projects for \$90 million in funding changes. The first amendment for the new TIP will contain the new OneBayArea Grant (OBAG) projects. The Congestion Management Agencies have submitted their OBAG programs and are in the process of including these in the new TIP through the first amendment. Over \$230 million in OBAG funds, and over 100 projects are anticipated to be part of this first amendment. Sponsors cannot proceed until the projects are in the TIP, with most of these projects scheduled for delivery over the next couple years. As it stands now, it is extremely challenging for sponsors to perform the environmental and design elements of the projects and have the projects ready for construction in the next summer construction season. Any further delay jeopardizes the ability for sponsors to deliver these projects next summer. A delay of more than two months essentially causes the sponsors to miss next year's construction season and thus delay these projects a full year.

MTC and ABAG extended the Plan development process as much as possible in order to consider and respond to the input received on the Plan. MTC and ABAG complied with the statutory requirements for public comment on the Draft EIR. The public process allowed for a robust discussion of important issues that have been identified in the comment period and ensured compliance with the state and federal statutory requirements described above. The responses to comments included in this Final EIR allow the dialogue to continue through the final public review and adoption process.

D: GHG IMPACTS

Master Response D.1: Regional Greenhouse Gas Emissions Reductions for Land Use and Transportation Planning Sectors Under SB 375

MTC and ABAG received multiple comments regarding the SB 375-related greenhouse gas (GHG) analysis contained in Section 2.5 of the Draft EIR. Many comments questioned why the analysis focused on emissions reductions from the land use and transportation planning sector, while not factoring in emissions reductions from other statewide GHG emissions reductions efforts, such as the California Light-Duty Vehicle Greenhouse Gas Standards adopted under AB 1493 (Pavley) and low carbon fuel standards (LCFS). Commenters also questioned why a baseline year of 2005 was used for the GHG analysis.

As described in greater detail below and on Draft EIR pages 2.5-41 through 2.5-45, MTC and ABAG focused solely on land use and transportation planning GHG reduction measures and used a 2005 baseline for their analysis of GHG emissions reductions under the Plan because that is what SB 375 and CARB require. Pavley and LCFS are separate components of the State's GHG emissions reduction efforts. MTC and ABAG would be impermissibly double-counting the reductions from Pavley and LCFS if they were to take credit for those emissions reductions in this EIR. CARB selected the year 2005 as a baseline (see pp. 6 in the *Recommendations of the Regional Targets Advisory Committee*¹¹) in September 2009. The purpose of developing the SCS as a component of the RTP is to provide a tool for regional governing bodies, such as MTC and ABAG, to meet CARB's GHG reductions targets specific to the land use and transportation planning sector.

CARB's Scoping Plan calls for a reduction of 31.7 million metric tons (MMT) per year of carbon dioxide equivalent (CO₂e) from Pavley, 15 MMT CO₂e from LCFS, and 5 MMT CO₂e from Regional Transportation-Related GHG Targets. (Scoping Plan, p. 17.) The land use and transportation planning sector accounts for a small portion of overall Scoping Plan GHG reductions, but it is still an important contribution to the State's GHG emissions reduction efforts and is entirely separate and in addition to other Scoping Plan measures.

As outlined in the Draft EIR, pages 2.5-24 through 2.5-26, the SB 375 GHG reductions targets are mandates that result from a multi-year process of legislative and state agency action. AB 32, the California Global Warming Solutions Act, enacted in September 2006, requires the reduction of statewide GHG emissions to 1990 levels by 2020. The Act directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources and address GHG emissions from vehicles. SB 375 tasked CARB with setting GHG emissions reductions targets for regional agencies to achieve through integrated land use and transportation planning.

In response to AB 32, CARB developed and adopted its Climate Change Scoping Plan as a roadmap of the CARB's plans to achieve GHG reductions. The Scoping Plan assigns various amounts of GHG reductions for each sector of the state's GHG inventory. Pavley, LCFS, and other vehicle efficiency measures are separate statewide GHG emissions reductions strategies that complement, but do not supplant efforts to reduce GHG emissions through regional land use and transportation planning. (CARB Scoping Plan, pp. 38, 46, 51.) Pursuant to SB 375, the Scoping Plan identifies SCS

¹¹ <http://www.arb.ca.gov/cc/sb375/rtac/report/092909/finalreport.pdf>

implementation as the primary action required to obtain the necessary reductions from the regional land use and transportation planning sectors. (Scoping Plan, pp. 47-51.) Therefore, GHG emissions reductions targets through improved regional land use and transportation planning are independent from statewide vehicle efficiency measures implemented by CARB.

CARB established GHG emissions reductions targets for the land use and transportation sectors for each region in the state for 2020 and 2035 relative to a year 2005 baseline. The CARB targets for the San Francisco Bay Area are a 7 percent per capita reduction by 2020, and a 15 percent per capita reduction by 2035. Other emissions, such as small particulate matter (PM 2.5), are not subject to the SB 375 targets.

Under SB 375 and the Scoping Plan, MTC and ABAG must plan to meet regional land use and planning sector GHG emissions reductions. Other agencies are responsible for implementing emissions reductions measures through vehicle and fuel technology. To meet these GHG emissions reductions targets for the land use and transportation sectors, MTC and ABAG followed CARB direction (Scoping Plan, pp. 47-51) to exclude other policy initiatives in its GHG modeling. Otherwise, as commenters have pointed out, MTC and ABAG could have simply stated that the Bay Area meets its emissions reduction targets solely through statewide clean technology initiatives, but this would completely undermine the mandate from SB 375 and CARB to achieve regional GHG emission reduction targets through improved regional land use and transportation planning policies. In other words, to account for Pavley and LCFS GHG reductions in the modeling for the proposed Plan would result in double counting in the Scoping Plan – vehicle and fuel measures would be credited under the Regional Transportation-Related GHG Targets as well as the California Light-Duty Vehicle Greenhouse Gas Standards (Pavley) and the LCFS. (Scoping Plan, p. 17.) Such double-counting would be contrary to SB 375 and the Scoping Plan.

SB 375 requires regional planning agencies in the state to include an SCS in their RTP that demonstrates how the region could achieve the GHG emissions reduction targets for the land use and transportation planning sectors through integrated land use and transportation planning. The Scoping Plan specifically charges CARB, not MTC and ABAG, with implementing GHG reduction strategies related to clean vehicles and fuel efficiency. Therefore, as stated in the method of analysis for the Draft EIR Chapter 2.5 Criterion 1, the SB 375 targets analysis does not include the GHG emissions reductions that are anticipated as the result of the Pavley fuel efficiency standards and the LCFS, as those benefits are identified in the Scoping Plan as being CARB-led emissions sectors.

At a recent CARB hearing evaluating Plan Bay Area's GHG reduction methodology, CARB's Air Pollution Specialist Jennifer Gray explained that CARB reviewed the methodology with a focus "on the accounting of greenhouse gas emissions reductions as described in our July 2011 technical methodology paper," which CARB also used to evaluate the five other SCS.¹² CARB looked at four key components of the travel demand modeling system, including technical methodologies, data inputs and assumptions, model sensitivity analysis, and performance indicators.¹³ After conducting a thor-

¹² Hearing Transcript, California Air Resources Board hearing on Plan Bay Area's GHG reduction methodology, June 27, 2013, p. 25, lines 15-18.

¹³ Id. at pp. 25-26 lines 19-2.

ough analysis of the Plan's methodology, CARB staff concluded that the Plan's methodology is sound and, if implemented, the Plan would meet CARB's 2020 and 2035 GHG reduction targets.¹⁴ CARB's Technical Evaluation (p. 21) states:

ABAG/MTC has appropriately not included GHG emissions reductions from the technology and fuel programs adopted by ARB, such as the Low Carbon Fuel Standard and the Advanced Clean Cars program. This is because the targets adopted by ARB in 2010 do not include reductions from these statewide technology and fuel programs, but rather focus on reductions from strategies implemented at the regional and local level.

Some of the comments questioned the cost-effectiveness of land use strategies to reduce greenhouse gas emissions, as opposed to technology strategies (such as more efficient vehicles and cleaner fuels). MTC and ABAG agree that technological strategies are certainly an essential part of the multi-faceted effort to combat climate change. Technological improvements in vehicles and fuels, however, are likely to be offset by the growth in VMT expected to occur as the United States recovers from a period of economic recession. Without efforts such as more efficient land use patterns and more extensive public transit systems, it will be difficult to reduce VMTs and maximize GHG reductions.¹⁵ (Scoping Plan, pp. 49-50.)

Technology strategies are largely within the purview of federal and state agencies. SB 375 tasked regional agencies, including MTC and ABAG, to address the fundamental land use and transportation challenges on a more localized level. Reducing per-capita VMT is the primary strategy for regional agencies to achieve the GHG reduction required under SB 375; the emissions reductions from the Plan's land use pattern and transportation investment package will complement the technology-based emissions reductions expected from federal and state regulatory actions.

Master Response D.2: The Connection between Higher-Density Housing near Transit and Reduced Greenhouse Gas Emissions

Plan Bay Area relies on a strategy of focusing growth around the region's existing and planned public transit system (Draft EIR, pp. 1.2-25), primarily through the Priority Development Area (PDA) framework. Due to this focused growth pattern and the associated investments into the public transit system, the proposed Plan is forecasted to result in 93 percent more transit boardings and 6 percent fewer vehicle miles traveled per capita by year 2040 (Draft EIR, pp. 2.1-28). These changes in passenger travel patterns, along with the land use pattern and other transportation and climate program investments, are expected to reduce per-capita light-duty vehicle greenhouse gas (GHG) emissions by 16% between 2005 and 2035 (Draft EIR, pp. 2.5-50). The success of this strategy can be compared

¹⁴ Id. at p. 107, lines 15-16. See also, Draft Technical Evaluation of the Greenhouse Gas Emissions Reduction Quantification for the Association of Bay Area Governments' and Metropolitan Transportation Commission's SB 375 Sustainable Community Strategy ("Technical Evaluation"), June 2013, p. 5.

¹⁵ Ewing, R., Bartholomew, K., Winkleman, S., Walters, J., & Chen, D. Urban Land Institute (2007). Growing cooler: The evidence on urban development and climate change. Retrieved from website: <http://www.smartgrowthamerica.org/documents/growingcoolerCH1.pdf>

to a more dispersed land use pattern by examining the relative performance of the No Project alternative (Alternative 1). The No Project alternative results in lower levels of residential and employment density than the Draft Plan due to a greater share of regional growth being directed to green-field locations outside of PDAs (Draft EIR, pp. 3.1-15). This alternative exhibited 21% fewer transit boardings and effectively yielded no reduction in per-capita vehicle miles traveled over the time horizon of the proposed Plan (Draft EIR, pp. 3.1-24). Those trends contribute to the No Project alternative's failure to achieve the GHG reduction target (Draft EIR, pp. 3.1-59). The EIR alternatives analysis demonstrates the comparative strength of a focused growth land use approach.

In response to the Draft EIR's conclusion that focused growth alternatives support transit ridership and reduce per-capita GHG emissions, a number of comments received during the Plan Bay Area Draft EIR public review period challenged this linkage between greater development densities, particularly in close proximity to transit stations, and reduced greenhouse gas (GHG) emissions. These comments stated that no correlation exists between denser development and reduced GHG emissions and that, even if any increased transit utilization does occur, it will have a negligible or adverse effect on emissions. Furthermore, these comments asked for further justification of the focused growth GHG reduction strategy and the forecasted benefits from transit-oriented growth. As discussed in detail below, there is voluminous peer-reviewed, credible research to support the GHG reduction benefits of transit oriented development. Furthermore, GHG reductions from the integration of land use and transportation planning are confirmed by the results of the GHG analysis of this project, as compared to the No Project alternative.

In general, these comments reflect a misperception that urban areas have greater environmental impacts than suburban or rural areas. Because of higher population levels in urban areas, total GHG emissions in these locations tend to be higher than sparsely populated suburban or rural locations. On a per-capita basis, however, emissions are significantly lower for residents of urban areas compared to residents elsewhere in the same country; the availability of public transit alternatives, reduced driving distances, and greater residential densities are some of the primary causes of this important finding.¹⁶ Dodman (2009) establishes that "there is no fundamental link between urbanization and high levels of greenhouse gas emissions – rather, it appears that well-planned, well-managed cities can play a central role in helping to mitigate against climate change."¹⁷ As the CARB target (discussed in detail in Master Response D.1) is also set on a per-capita basis, increasing the proportion of the regional population in denser areas (where per-capita GHG is lower) contributes directly to achieving the per-capita GHG reduction target.¹⁸

In order to demonstrate that higher-density development supports greenhouse gas emission reductions, this response addresses the key questions listed below:

¹⁶ Dodman, D. (2009). Blaming cities for climate change? An analysis of urban greenhouse gas emissions inventories. *Environment and Urbanization*, 21(185), 185-201. Retrieved from <http://eau.sagepub.com/content/21/1/185.full.pdf>

¹⁷ Id.

¹⁸ See Scoping Plan, Appendix C, pp. C-74 to C-84 for a detailed description of the CARB targets for regional planning agencies. Appendix C can be found online at: http://www.arb.ca.gov/cc/scopingplan/document/appendices_volume1.pdf

- How does increased housing density affect automobile vehicle miles traveled (VMT) and GHG emissions?
- How does increased housing density near transit affect public transit utilization?
- How do changes in public transit utilization affect GHG emissions?

Impact of Density on Demand for Auto Travel and GHG Emissions

Housing density plays a critical role in affecting travel demand, regardless of travel mode. By bringing travel origins (typically a place of residence) and destinations (employment, retail, etc.) closer together, travel distances are reduced and non-auto modes become increasingly viable.¹⁹ Transportation Research Board (TRB) Special Report 298²⁰, which examined the connections between the built environment and travel behavior, identified that densification even in lower-density urban fringe areas (a shift from 1 acre residential lots to ¼ acre residential lots) reduces trip distances and total VMT. This effect is multiplied in denser suburban and urban areas where supportive infrastructure, such as sidewalks, bike lanes, and transit access, allow for greater VMT reduction.

TRB Special Report 298 also identified that doubling residential densities could lead to per-household VMT reductions of 5 to 12 percent, a substantial impact on the demand for automobile travel. If implemented in coordination with denser employment centers, public transit improvements, and demand management measures, the study forecasted that VMT reductions could reach 25 percent. This conclusion is supported by numerous other research efforts, all supporting per-capita VMT reduction as a result of increased residential densities.^{21, 22, 23, 24, 25}

¹⁹ Bailey, L., Mokhtarian, P., & Little, A. American Public Transportation Association (2008). The broader connection between public transportation, energy conservation and greenhouse gas reduction. Retrieved from website: [http://www.equinoxcenter.org/assets/files/broader connection between pub trans, energy conservation and GHG reduction.pdf](http://www.equinoxcenter.org/assets/files/broader%20connection%20between%20pub%20trans,%20energy%20conservation%20and%20GHG%20reduction.pdf)

²⁰ Transportation Research Board, Board on Energy and Environmental Systems (2009). Driving and the built environment: The effects of compact development on motorized travel, energy use, and CO2 emissions (Special Report 298). Retrieved from website: <http://onlinepubs.trb.org/Onlinepubs/sr/sr298.pdf>

²¹ Chatman, D. (2003). The influence of workplace land use and commute mode choice on mileage traveled for personal commercial purposes. Presented at the Transportation Research Board Annual Meeting. Retrieved from http://www.ltrc.lsu.edu/TRB_82/TRB2003-002473.pdf

²² Dunphy, R., & Fisher, K. (1996). Transportation, congestion, and density: New insights. Transportation Research Record: Journal of the Transportation Research Board, 1552, 89-96. Retrieved from <http://trb.metapress.com/content/a1122u077238q212/>

²³ Ewing, R., Pendall, R., & Chen, D. Smart Growth America (2002). Measuring sprawl and its impact. Retrieved from website: <http://landuselaw.wustl.edu/Articles/measuringsprawl.pdf>

As each mile traveled by automobile emits additional GHG emissions, shorter trip lengths resulting from greater densities on average lead to lower per-capita GHG emissions. Lifecycle GHG emissions analyses – which include GHG emissions from construction, operation, and transportation associated with development patterns – show that low-density suburban development is at least twice as GHG-intensive as high-density development.²⁶ While this result is partially due to more efficiently-sized residential units, higher VMT required to access suburban dwellings plays a major role in the results; when transportation GHG emissions are isolated, low-density suburban development is four times as GHG-intensive per capita, and two times as GHG-intensive per square foot, as high-density development.²⁷ MTC’s analysis presented in this EIR demonstrates that this conclusion holds true under the proposed Plan as well, confirming the conclusions from the research reviewed for the EIR even when expected vehicle efficiency gains, as mandated by law, are completely factored in, as they were in the analysis.

Density & Utilization of Public Transit

Focused growth is a key principle of Plan Bay Area, as it minimizes impacts on open space and agricultural areas while at the same time making more effective use of the region’s public transportation network. In order to achieve a focused growth land use pattern and meet SB 375’s GHG emissions reduction targets, the Plan utilizes Priority Development Areas (PDAs) to locate moderate- and higher-density housing near the region’s public transit network. This type of development is often referred to as “transit-oriented development” (TOD) as it is designed to provide multimodal mobility to residents in high-density areas.

When multi-family housing is developed in close proximity to frequent transit service, the auto trip reduction benefits, discussed above, become even greater as the transit service provides an alternative transportation mode that reduces VMT per capita to a greater extent than high density development

²⁴ Ewing, R., & Cervero, R. (2001). Travel and the built environment: A synthesis. *Transportation Research Record: Journal of the Transportation Research Board*, 1780, 87-114. Retrieved from <http://trb.metapress.com/content/a1w1712rw1225372/>

²⁵ Bartholomy, P., Barkalow, G., Bemis, G., McKeever, N., Phinney, S., Silvas, J., & Vinton, J. California Energy Commission, (2007). The role of land use in meeting California’s energy and climate change goals (CEC-600-2007-008-SF). Retrieved from website: <http://www.energy.ca.gov/2007publications/CEC-600-2007-008/CEC-600-2007-008-SF.PDF>

²⁶ Norman, J., MacLean, H., & Kennedy, C. (2006). Comparing high and low residential density: Life-cycle analysis of energy use and greenhouse gas emissions. *Journal of Urban Planning and Development*, 132(1), 10-21. Retrieved from <http://users.rowan.edu/~everett/courses/STBE/docs/Normal et al 2006.pdf>

²⁷ Norman, J., MacLean, H., & Kennedy, C. (2006). Comparing high and low residential density: Life-cycle analysis of energy use and greenhouse gas emissions. *Journal of Urban Planning and Development*, 132(1), 10-21. Retrieved from <http://users.rowan.edu/~everett/courses/STBE/docs/Normal et al 2006.pdf>

that is not located near public transit.^{28,29} Transit Oriented Developments (TODs) decrease VMT and produce significantly lower traffic impacts than a typical auto-oriented development project due to greater proximity to daily services and public transit options. On average, 44 percent fewer auto trips were observed entering/exiting TODs than from traditional auto-oriented developments of the same size.³⁰

High-density housing near transit hubs leads to notable increases in transit ridership. Population density has been shown to be one of the strongest factors in determining transit mode choice, with an effect ten times greater than land use mix.³¹ TCRP Report 128³² identified that TOD residents are twice as likely to not own a car and two to five times more likely to use transit for both commute and non-commute purposes. That study also identified that transit stations in close proximity to high density housing had increasing transit ridership between 1970 and 2000, even as transit ridership in surrounding metropolitan areas declined as a result of job sprawl.

National studies linking dense housing near transit and higher transit ridership are supported by California-specific studies; in fact, the Bay Area's vital job centers with excellent transit access lead to TOD benefits above and beyond the national average.³³ Residents around Bay Area Rapid Transit (BART) TOD projects reported a significant shift to transit, walking, biking, and carpooling.³⁴ Analysis of the year 2000 Bay Area Travel Survey results showed that Bay Area residents living within ½ mile of a rail or ferry station are four times more likely to use transit than residents living more than

²⁸ Haas, P., Miknaitis, G., Cooper, H., Young, L., & Benedict, A. Center for Transit-Oriented Development, (2010). Transit oriented development and the potential for VMT-related greenhouse gas emissions growth reduction. Retrieved from website: <http://www.cnt.org/repository/TOD-Potential-GHG-Emissions-Growth.FINAL.pdf>

²⁹ Gossen, R. Metropolitan Transportation Commission, Planning Section (2006). Characteristics of rail and ferry station area residents in the San Francisco bay area: Evidence from the 2000 bay area travel survey. Retrieved from website: http://www.mtc.ca.gov/planning/smart_growth/stars/_BATS2000_Station_Area_Residents_Study_Vol_I.pdf

³⁰ U.S. Department of Transportation, Federal Transit Administration (2010). Public transportation's role in responding to climate change. Retrieved from website: <http://www.fta.dot.gov/documents/PublicTransportationsRoleInRespondingToClimateChange2010.pdf>

³¹ Davis, J., & Seiskin, S. (1997). Impacts of urban form on travel behavior. *The Urban Lawyer*, 29(2), 215-232. Retrieved from <http://heinonline.org/HOL/LandingPage?collection=journals&handle=hein.journals/urban29&div=21&id=&page=>

³² Cervero, R., & Arrington, G. Transportation Research Board (2008). Effects of TOD on housing, parking, and travel (TCRP Report 128). Retrieved from The National Academies Press website: https://download.nap.edu/catalog.php?record_id=14179

³³ Lund, H., Cervero, R., & Willson, R. California Department of Transportation (2004). Travel characteristics of transit-oriented development in California. Retrieved from website: http://www.bart.gov/docs/planning/travel_of_tod.pdf

³⁴ Lund, H., Cervero, R., & Willson, R. California Department of Transportation (2004). Travel characteristics of transit-oriented development in California. Retrieved from website: http://www.bart.gov/docs/planning/travel_of_tod.pdf

½ mile from a rail or ferry station.³⁵ Furthermore, Bay Area residents who live and work within ½ mile of a rail or ferry station use transit for 42 percent of their commute trips, compared to 4 percent for individuals who do not live and work within ½ mile of a station.³⁶ Under the proposed Plan, VMT will decrease as opportunities to ride transit, bike or walk increase.

CARB reaches similar conclusions. In the Technical Analysis of the proposed Plan, CARB states:

Transit ridership sharply increases as housing and employment increases within a one mile radius of transit stations (Kolko 2011). Other studies show significant VMT reductions for placement of housing and employment closer to rail stations and bus stops (Tal, et al 2010). In the ABAG/MTC region, the percentage of housing units in PDAs was more than 26 percent in 2010. ABAG/MTC projects that this will increase to 30 percent in 2020 and 35 percent in 2035 (Figure 15). The anticipate increase in housing units near transit stations/stops provides additional supportive evidence for the reported reduction trend in GHG emissions in the region.³⁷

Lower levels of VMT and higher levels of transit ridership resulting from higher-density housing near transit are a result of multiple factors, including the presence of walkable retail development near the transit stations (which is made more commercially viable by proximate dense housing) and the tendency to reduce auto ownership when relocating to an efficient, transit-served location.³⁸

Impact of Increased Utilization of Public Transit on GHG Emissions

Public transit has the potential to affect greenhouse gas emissions in two ways: by shifting individuals from cars to transit vehicles and by reducing overall traffic congestion levels (i.e. improving vehicle speeds and therefore reducing auto emissions). The EIR documents this in the analysis of changes in mode of travel under the proposed Plan (see Table 2.1-13), reduced travel times for commuting and other trip purposes (Tables 2.1-14 and 15), and daily vehicle miles of travel per capita (Table 2.1-17). As of 2007, public transit is estimated to reduce U.S. travel by 102.2 billion VMT annually, a 3.4 percent reduction, just from the modal shift alone; this correlates with a savings of 6.9 million metric

³⁵ Gossen, R. Metropolitan Transportation Commission, Planning Section (2006). Characteristics of rail and ferry station area residents in the San Francisco bay area: Evidence from the 2000 bay area travel survey. Retrieved from website: http://www.mtc.ca.gov/planning/smart_growth/stars/_BATS2000_Station_Area_Residents_Study_Vol_I.pdf

³⁶ Gossen, R. Metropolitan Transportation Commission, Planning Section (2006). Characteristics of rail and ferry station area residents in the San Francisco bay area: Evidence from the 2000 bay area travel survey. Retrieved from website: http://www.mtc.ca.gov/planning/smart_growth/stars/_BATS2000_Station_Area_Residents_Study_Vol_I.pdf

³⁷ Draft Technical Evaluation of the Greenhouse Gas Emissions Reduction Quantification for the Association of Bay Area Governments' and Metropolitan Transportation Commission's SB 375 Sustainable Community Strategy ("Technical Evaluation"), June 2013, p. 76.

³⁸ Cervero, R., & Arrington, G. Transportation Research Board (2008). Effects of TOD on housing, parking, and travel (TCRP Report 128). Retrieved from The National Academies Press website: https://download.nap.edu/catalog.php?record_id=14179

tons of CO₂. With secondary effects of congestion relief and land use changes, the total effect is estimated to be a 37 million metric ton reduction just from operating today's transit systems.³⁹ The public transit expansions funded in Plan Bay Area are forecasted to yield an additional regional travel mode shift towards transit that will produce secondary effects such as reduced levels of congestion and greater potential for densification in Priority Development Areas.

When examining pounds of CO₂ emissions per passenger-mile, and these emissions expressed in terms of CO₂e, public transit performs significantly better than a single-occupant motor vehicle (SOV)⁴⁰, with BART's emissions just 9 percent of an SOV, Muni Metro's emissions 31 percent of an SOV, and Muni bus emissions 68 percent of an SOV.⁴¹ These results, in fact, reflect a conservative estimate of transit's GHG reduction potential. Greater transit utilization, which boosts the number of seats filled on a given bus, reduces the pounds CO₂ emitted per passenger-mile and makes it even more competitive with the automobile.⁴² Dense developments around transit take advantage of excess transit capacity that is often already available, producing zero net increase in CO₂ emissions from the transit vehicles, while at the same time eliminating or reducing CO₂ emissions from travelers' automobiles.

A shift to transit has been shown to be a significant way to reduce GHG emissions because it could lead to an 8.1 percent household CO₂ emissions reduction compared to continued reliance on SOVs. As automobiles continue to become more energy-efficient over the coming years, so too will public transit vehicles. Diesel buses are rapidly being replaced by lower-emission hybrid and alternative-fuel buses, which produce significantly lower levels of CO₂ emissions.⁴³ Therefore, while technological advancements will likely lessen automobile CO₂ emissions over the coming decades, similar ad-

³⁹ Bailey, L., Mokhtarian, P., & Little, A. American Public Transportation Association (2008). The broader connection between public transportation, energy conservation and greenhouse gas reduction. Retrieved from website: [http://www.equinoxcenter.org/assets/files/broader connection between pub trans, energy conservation and GHG reduction.pdf](http://www.equinoxcenter.org/assets/files/broader%20connection%20between%20pub%20trans,%20energy%20conservation%20and%20GHG%20reduction.pdf)

⁴⁰ Chester, M., & Horvath, A. (2009). Life-cycle energy and emissions inventories for motorcycles, diesel automobiles, school buses, electric buses, Chicago rail, and New York City rail. Informally published manuscript, UC Berkeley Center for Future Urban Transport, University of California, Berkeley, Berkeley, CA. Retrieved from <http://www.its.berkeley.edu/publications/UCB/2009/VWP/UCB-ITS-VWP-2009-2.pdf>

⁴¹ U.S. Department of Transportation, Federal Transit Administration (2010). Public transportation's role in responding to climate change. Retrieved from website: <http://www.fta.dot.gov/documents/PublicTransportationsRoleInRespondingToClimateChange2010.pdf>

⁴² U.S. Department of Transportation, Federal Transit Administration (2010). Public transportation's role in responding to climate change. Retrieved from website: <http://www.fta.dot.gov/documents/PublicTransportationsRoleInRespondingToClimateChange2010.pdf>

⁴³ U.S. Department of Transportation, Federal Transit Administration (2006). Alternative Fuels Study: A Report to Congress on Policy Options for Increasing the Use of Alternative Fuels in Transit Vehicles. Retrieved from website: [http://www.fta.dot.gov/documents/Alternative Fuels Study Report to Congress.pdf](http://www.fta.dot.gov/documents/Alternative_Fuels_Study_Report_to_Congress.pdf)

vancements in transit technologies are likely to preserve transit's competitive edge with regards to CO₂ emissions.

MASTER RESPONSE E: SEA LEVEL RISE

The Draft EIR addresses sea level rise within the Climate Change and Greenhouse Gases Chapter. (See Draft EIR, pp. 2.5-7 to 2.5-17, 2.5-32 to 2.5-37, 2.5-46 to 2.5-49, 2.5-61 to 2.5-84.) The Draft EIR evaluates potential sea level rise impacts caused by projected sea level rise by mid-century. The projections were used to evaluate potential flooding impacts at mid-century from sea level rise, including: (1) an increase in transportation investments in areas projected to be regularly affected by sea level rise by midcentury, (2) a net increase in the number of people projected to be residing within areas regularly inundated by sea level rise by midcentury, and (3) an increase in land use development within areas projected to be regularly inundated by sea level rise by midcentury. (Draft EIR, pp. 2.5-61 to 2.5-76; see also Draft EIR, pp. 2.5-62 to 2.5-67 (Tables 2.5-11 and 2.5-12 [listing transportation projects located within the midcentury sea level rise inundation zone and low-lying hydraulically disconnected zone]), 2.5-69 to 2.5-70 and 2.5-73 to 2.5-75 (Tables 2.5-13 to 2.5-21 [listing total 2040 population, employment, and household projections within the midcentury sea level rise inundation zone for priority development areas, transit priority projects, and each county overall]).) The methodology for the sea level rise analysis was developed in close consultation with the Bay Conservation and Development Commission (BCDC), and BCDC reviewed all of the findings and conclusions of the analysis and the adaptation strategies presented in this EIR with MTC and ABAG's technical consultants, and BCDC's comments are fully reflected in this EIR. This close working relationship on the EIR is similar to BCDC's contributions to the proposed Plan itself.

The Draft EIR proposes a number of mitigation measures and adaptation strategies that may reduce project-specific sea level rise impacts to a less than significant level. (Draft EIR, pp. 2.5-67 to 2.5-68, 2.5-71, 2.5-76.) Because MTC and ABAG cannot require local implementing agencies to adopt the mitigation measures proposed in the Draft EIR, and site-specific or project-specific conditions may preclude adoption of the mitigation measures proposed in the Draft EIR for at least some future land use development projects, however, the Draft EIR concludes that sea level rise impacts may be significant and unavoidable. (Draft EIR, pp. 2.5-68, 2.5-71, 2.5-76.)

Some public comments requested that the EIR evaluate the significance of sea level rise impacts for 2100 rather than 2050. The extent of the future potential sea level rise inundation area is uncertain. The sea level rise inundation extents used in the EIR do not account for future changes in bay morphology, land use, or shore protection upgrades that may occur over time, in part because this information is not available. Over time, the extent of potential inundated areas will be dependent on the response of bay hydrodynamics and other relevant processes (such as erosion, accretion, and subsidence) to sea level rise. Future shoreline protection upgrades and other land use changes such as wetland restoration that may occur in response to sea level rise would also affect the extent of the potential future inundated area. Sea level rise projections beyond midcentury- and the associated sea level rise inundation extent- have more uncertainty, which is one reason sea level rise impacts were evaluated at midcentury, rather than the year 2100. The EIR evaluates sea level rise impacts at midcentury, however, the EIR also discloses potential sea level rise projections within the region both at midcentury and the year 2100. (See, e.g., Draft EIR, pp. 2.5-7 to 2.5-10.) As individual projects are designed and implemented, they may need to consider sea level rise impacts beyond 2050 as appropriate.

Additionally, the significance criteria used for sea level rise is whether areas within the region projected to be regularly inundated by sea level rise will by midcentury experience (1) a net increase in transportation investment, (2) a net increase in the number of people residing therein, or (3) an increase in land use development. (Draft EIR, p. 2.-42.) The EIR concludes that any increase in transportation investment, residential populations, or land use development within areas regularly inundated by sea level rise is considered a potentially significant impact before mitigation. (Draft EIR, pp. 2.5-61, 2.5-68, 2.5-71, 2.5-76.)

Sea level rise impacts of the proposed Plan are potentially significant before mitigation at midcentury because the proposed Plan will result in increases in transportation investment, residential populations, and land use development within areas projected to be regularly inundated by sea level rise by midcentury. (Draft EIR, pp. 2.5-61, 2.5-69, 2.5-72.) Sea level rise impacts of the proposed Plan in the year 2100 will also be potentially significant because increases in transportation investment, residential populations, and land use development projected to occur before midcentury necessarily occur before the year 2100.

The EIR proposes mitigation measures to reduce or avoid sea level rise impacts projected both at midcentury and the year 2100. Mitigation Measure 2.5(d), for example, directs implementing agencies to require project sponsors to comply with Executive Order (EO) S-13-08 by incorporating an appropriate adaptation strategy or strategies to reduce the impacts of sea level rise on specific transportation and land use development projects, where feasible, based on project and site-specific considerations. (Draft EIR, pp. 2.5-67 to 2.5-68.) The EIR includes a detailed list of potential adaptation strategies, including raising future project elevations, building levees, floodwalls, and berms, waterproofing structures, developing project-specific emergency management plans, improving drainage systems, and creating, restoring or enhancing wetlands and beaches. (Draft EIR, pp. 2.5-76 to 2.5-82.) By its terms, EO S-13-08 only applies to projects proposed by state agencies. The Draft EIR, however, directs all implementing agencies to comply with the EO in approving future transportation or land use projects within the Plan area. The EO requires agencies to evaluate and reduce the potential risks of, and increased resiliency to, sea level rise based on a range of sea level rise scenarios for 2050 and 2100. (Draft EIR, p. 2.5-27.) Therefore, mitigation measures included in this EIR are proposed to reduce or avoid sea level rise impacts, to the extent feasible, projected both in 2050 and 2100.

Comments stating land use projects developed in the future may need to be abandoned and that residents will need to be relocated as a result of sea level rise are speculative. The EIR provides the public and the decision-makers with a detailed analysis of potential sea level rise impacts and sets forth mitigation measures that may reduce this impact to a less than significant level for future projects. The SCS does not vest MTC and ABAG with new enforceable land use authority. (Gov. Code, § 14522.2(b)(2)(J).) Because the SCS does not supersede the authority of cities and counties within the region with respect to land use decision-making, successful implementation of the sea level rise mitigation measures proposed in the EIR are contingent on future actions taken by implementing agencies as well as site- and project- specific considerations. The EIR acknowledges these uncertainties. At the same time, these implementing agency actions are likely to be influenced by the fact that a considerable portion of the Bay Area's existing built environment lies within potential inundation zones. In conclusion, the sea level rise mitigation measures proposed in the EIR fully comply with CEQA's requirements for a first-tier plan of this nature.

Under either the proposed Plan or the other alternatives analyzed in the EIR, implementing agencies will evaluate potential sea level rise impacts associated with specific transportation and land use projects as they are proposed. The EIR sets forth mitigation measures that may avoid or substantially reduce potential sea level rise impacts of future transportation and land use projects. The EIR, however, does not limit the discretion of implementing agencies to adopt mitigation measures not otherwise identified in the EIR. Similarly, neither the proposed Plan nor any other alternative analyzed in the EIR limits an implementing agency's ability to deny a project on the basis of significant and unavoidable sea level rise impacts. Therefore, while the proposed Plan and other alternatives included in the EIR contemplate development in areas, which in consideration of project- and site- specific considerations may be subject to significant sea level rise impacts, the EIR provides a detailed discussion of adaptation strategies to enable implementing agencies to avoid such impacts where feasible. Moreover, implementing agencies also retain the discretion to deny future projects in consideration of impacts such as sea level rise.

It is important to note that many areas that are projected to be regularly inundated already include significant land use development, population, and transportation infrastructure. While adaptation planning is still in its early stages, it is reasonable to assume that adaptation strategies that will be developed to protect the existing population, employment centers and infrastructure will also benefit the new people, transportation projects and land use development identified in the Draft EIR as being at risk.

Moreover, transportation investments, population increases, and land use development in areas that may regularly be inundated by sea level rise in the future are a byproduct of achieving the fundamental project objective, as established by SB 375, of reducing CO₂ emissions from cars and light-duty trucks by 15 percent below baseline levels by 2020 while housing the region's projected population growth through 2040 within the Year 2010 urban footprint in the region.

Each of the alternatives analyzed in the Draft EIR would result in a potentially significant and unavoidable sea level rise impact. (Draft EIR, pp. 3.1-128 to 3.1-130.) No potentially feasible alternatives capable of attaining the basic objectives of the project have been identified that could avoid this potentially significant and unavoidable impact. Therefore, pursuant to Public Resources Code section 21081, in order to adopt the proposed Plan or any of the alternatives analyzed in the EIR, MTC and ABAG will be required to first adopt findings concerning sea level rise as well as a statement of overriding considerations before certifying this EIR and acting on the proposed Plan itself.

A recently published CEQA decision opines that sea level rise impacts "do not relate to environmental impacts under CEQA" and are not required to "be analyzed in an EIR." (*Ballona Wetlands Land Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, 475 (*Ballona*).) Sea level rise constitutes an impact of the environment on the proposed Plan (as opposed to impacts of a project or plan on the environment). In *Ballona* the court explicitly concluded that an EIR was not required to consider sea level rise impacts. (*Ibid.*) The court reached this conclusion because "the purpose of an EIR is to identify the significant effects of a project on the environment, not the significant effects of the environment on the project." (*Id.* at p. 473.)

Notwithstanding that a court has concluded that a sea level rise analysis is not required by CEQA, MTC and ABAG included a detailed discussion of sea level rise within the EIR for informational

purposes in an effort to foster a robust public discourse regarding the proposed Plan. Therefore, the EIR exceeds the requirements of CEQA with respect to sea level rise.

MASTER RESPONSE F: DISPLACEMENT

The Draft EIR concluded the proposed Plan’s impacts on regional displacement will be less than significant; however, the proposed Plan could have potentially significant localized displacement impacts. (Draft EIR, pp. 2.3-35 to 2.3-36.) It is important to recognize from the outset that displacement pressure is a function of population growth; it is not an environmental impact that is caused by the Plan. The Plan will not, in itself, create population growth. On the contrary, the Plan is the regional strategy to accommodate the projected population and job growth in an equitable and efficient manner in partnership with local governments who retain local land use authority.

CEQA only requires analysis and mitigation of potentially substantial adverse changes in the physical environment. (Pub. Resources Code §§ 21151, 21060.5, 21068.) “Economic and social changes resulting from a project are not treated as significant environmental effects [citation] and, thus, need not be mitigated or avoided under CEQA.” (*San Franciscans for Reasonable Growth v. City and County of San Francisco* (1984) 209 Cal.App.3d 1502, 1516.) Physical changes in the environment caused by economic or social effects of a project may constitute significant environmental effects and economic and social effects of a project may be factors in determining the significance of physical changes in the environment. (CEQA Guidelines §§ 15131, 15064(e).) Social and economic effects in and of themselves, however, are not significant environmental effects on the environment under CEQA. (*Melom v. City of Madera* (2010) 183 Cal.App.4th 41, 55.) Therefore, the socio-economic impacts of displacement are addressed in the proposed Plan as part of the Equity Analysis, rather than in this EIR. (Draft EIR, p. 2.3-32)

Some commenters raise socio-economic policy issues arising out of the displacement of residents due to affordability; however, the potential environmental impacts of these policy concerns are unspecified and speculative. (CEQA Guidelines § 15145; *Fort Mojave Indian Tribe v. Department of Health Services* (1995) 38 Cal. App. 4th 1574, 1600 [“speculation does not establish... a deficiency in [an] EIR”].) While the EIR concludes it is likely that there may be some localized displacement as a result of investment in certain areas, the EIR also concludes that because the Plan “houses all the population,” regional displacement will be less than significant. The qualitative conclusion that there may be some localized displacement cannot be computed into quantitative environmental impacts as a model cannot predict whether a displaced household will relocate next door, one block away, or one county away. Therefore, a qualitative threshold of significance was used in the EIR to determine whether the Plan could result in “displacement of substantial numbers of existing population and housing.”⁴⁴

⁴⁴ Under CEQA, the lead agency has considerable discretion to decide which significance threshold to apply to an impact. If supported by substantial evidence, that threshold is adequate, regardless of whether a petitioner proposes an alternative threshold. (*Citizens for Responsible Equitable Environmental Development v. City of Chula Vista* (2011) 197 Cal.App.4th 327, 335-336 (CREED) [rejecting petitioner’s argument that the City erred by failing to apply a different significance threshold]; *California Oak Foundation v. Regents of University of Cal.* (2010) 188 Cal.App.4th 227, 282 [rejecting argument that a lead agency used the incorrect significance threshold]; *National Parks & Conservation Assn. v. County of Riverside* (1999) 71 Cal.App.4th 1341, 1356-1357 [upholding the County’s biological significance threshold as supported by substantial evidence].) Here, MTC operated within its discretion when it adopted the displacement significance threshold identified in the EIR. (See also *N. Coast Rivers Alliance v. Marin Municipal Water District Bd. of Dirs.* (2013) 216 Cal.App.4th 614.)

(Draft EIR, p. 2.3-35.) None of the comments refute the Draft EIR conclusion that regional displacement of residents, in and of itself, may have some impacts on the physical environment but that such impacts are insignificant at the regional level. (Draft EIR, pp. 2.3-35-36.)

On a regional basis, the EIR's analysis of environmental impacts - in particular impacts on transportation, air quality, and GHG emissions - looks at the projected changes in the Bay Area's land use pattern. (Draft EIR, p. 2.3-36.) MTC and ABAG predict changes in demographics and land use patterns in the draft Summary of Predicted Land Use Responses (pages 14-16) and the draft Forecast of Jobs, Population, and Housing (pages 23-24). MTC and ABAG's demographic projections include changes in concentrations of people and households based on income. MTC's travel model then incorporates these demographic projections in order to evaluate the potential impacts of Plan implementation. Thus, the transportation modeling of the Plan takes into account projected demographic shifts from the draft Forecast of Jobs, Population, and Housing and is useful for understanding environmental impacts, and was a factor in determining the significance of physical changes in the environment, as required by CEQA. (CEQA Guidelines §§ 15131, 15064(e).)

The analysis does not provide specific information about the causes of changing demographics, however. For example, the draft Forecast of Jobs, Population, and Housing can show where a new concentration of low-income households arises in 2040, but it does not tell us whether that concentration is a result of displacement from within the region, or from new migration from outside the region. The socio-economic causes of displacement and efforts to alleviate displacement pressure are properly addressed in the Plan's Draft Equity Analysis Report ("Equity Report").

The Equity Report assessed the potential risk of displacement by location based on areas of major planned growth where people pay more than half their income in rent. Thus, the fact that the Plan has a higher potential for displacement than other alternatives simply reflects the fact that the Plan directs more resources to historically neglected communities. This may create a potential for displacement, but the Plan is also designed to house all the population and to provide housing for all economic segments of the population. The Equity Report concluded there were about 30,000 at risk households or about 1% of total Bay Area households. Given that the Plan's sustainability strategy is to increase affordable housing near transit, and that low-income workers are more likely to commute to work by transit (Equity Report, p. 3-7), the Plan encourages the creation of more affordable units in locations that address these issues. The effectiveness of the Plan relies on the social, economic and cultural vitality of our existing neighborhoods, which could be disrupted through displacement. But the same private and public investment that might increase displacement risk also might create greater economic opportunities for residents who seek to remain in the communities receiving the investment. A balanced equity analysis of these issues must consider both the potential burdens and benefits of the proposed Plan.

Displacement risk can be addressed both by the distribution of housing and increasing resources for the creation and preservation of affordable housing and by improving economic opportunities for current, at-risk households so they can afford to absorb higher housing costs. Plan Bay Area does both.

The Plan's housing distribution strategically identifies locations to house the region's entire population including all economic segments. Specifically, of the 660,000 new units accommodated by the Plan through 2040, ABAG and MTC staff and consultants forecast that, with foreseeable and neces-

sary planning support, coordination of regulations, and increases in public funding, 26 percent will be affordable to very low income households, 17 percent to low income households, 17 percent to moderate income households, and 39 percent to above moderate income households. (Draft EIR, p. 1.2-53; Jobs Housing Connection Strategy, pp. 26-55.) The Bay Area is projected to have a slightly higher share of very low and low income households and slightly lower shares of moderate and above moderate income households in 2040. The Plan's housing distribution is directly informed by projected household income and related housing need through 2040. (*Ibid.*) The Plan provides for the development of affordable housing in locations served by transit and proximate to employment and an increased demand for multi-family housing at a variety of densities as well as attached town-houses. The locations for new housing growth including Priority Development Areas provide for the range of densities and housing types needed to meet the region's housing need across all economic segments. The housing distribution also recognizes major demographic changes through 2040 including a significant increase in the senior population.

The Plan's housing distribution is significantly focused in Priority Development Areas (PDAs), but also allots over 130,000 housing units across the region including every suburban and rural community. PDAs are locally nominated areas, which increases the likelihood of the Plan's success, where growth is anticipated to occur and the area is well served by transit. PDAs offer existing and future residents, including economically disadvantaged households, with easy access to transit, services, and the region's existing and future job base. PDAs offer several key advantages relative to the production of affordable housing. Most have existing neighborhood plans and zoning to accommodate multi-family housing at a variety of densities. Many PDAs have existing neighborhood or specific plans that are accompanied by programmatic environmental documents that ease project delivery and entitlement as well as local policies that require the inclusion of affordable housing.

Affordable Housing is typically multi-family housing, to provide for shared services for future residents, economies of scale needed for project feasibility, and efficient and cost effective site management. Plan Bay Area's housing distribution pattern recognizes the need for appropriate zoning and densities to accommodate the development of affordable housing. The Plan's housing distribution is linked to existing jurisdiction-level general and neighborhood plans and provides a strong nexus to the Plan's investments and advocacy platform. This connectivity provides a basis to significantly increase the supply of affordable housing in the region. In the wake of the recent housing crisis and economic downturn and the related impacts on low and moderate income households in the region, as well as the loss of redevelopment-related affordable housing funding the Plan sets the stage for expanded housing opportunities for all economic segments.

The Plan's investment strategy is also designed to alleviate displacement risk. The Equity Report identified three additional initiatives that MTC and ABAG are implementing to "incentivize community stabilization and minimize existing and future displacement pressures on low-income households." (Equity Report, p. 4-20.) All three initiatives address the need to increase resources for the creation and preservation of affordable housing while the third also involves developing ways to connect at-risk low income households with middle-income jobs. These initiatives include:

1. **OneBayArea Grant (OBAG) program guidelines.** Using regional discretionary transportation funding available to MTC, OBAG incentivizes local community stabilization efforts to combat displacement pressures in two ways: (1) local jurisdictions must have a general plan housing element adopted and certified by the California Department of Housing and Com-

munity Development (HCD) for the 2007-14 Regional Housing Needs Allocation (RHNA) for their general plans to be eligible for OBAG funds, which is expected to increase the availability of affordable housing in the future; and (2) the OBAG distribution formula rewards jurisdictions based on the construction of housing for very low- and low-income households as well as the current RHNA distribution of very low- and low-income units.

2. **Bay Area Transit Oriented Affordable Housing (TOAH) Fund.** In 2010, MTC launched the Bay Area Transit Oriented Affordable Housing Fund with a \$10 million commitment to establish a revolving loan fund of \$50 million to finance land acquisition for affordable housing development in select locations near rail and bus lines throughout the Bay Area. Other investors include major banking institutions, national and regional foundations, and six community development financial institutions. In December 2012, the U.S. Environmental Protection Agency awarded MTC a 2012 National Award for Smart Growth Achievement for using creative approaches to build strong, sustainable communities while protecting human health. In February 2013, MTC approved an additional \$10 million to support TOAH through the regional PDA Planning Grant program as part of the One-BayArea Grant program, which combined with matching funds will grow this fund to at least \$90 million. Additional funding is anticipated from a number of sources.
3. **Bay Area Regional Prosperity Plan.** In recognition of ongoing concern about current and future displacement pressures in the region, in 2011 MTC and ABAG sought and received \$5 million in funding from the U.S. Department of Housing and Urban Development Sustainable Communities Program to develop a Regional Prosperity Plan. The main goal of this Plan is to refine and implement the elements of the overall regional growth strategy (including Plan Bay Area) to help create middle-income jobs and develop and preserve affordable housing in transit-served communities. Among a variety of other activities (described further in Chapter 6, Next Steps), the Plan will build on past equitable-development work conducted by ABAG as part of the FOCUS program specifically to address risks of displacement for low-income communities and small business by: (1) providing community-response grants to grass-roots organizations; (2) developing a regional displacement "early warning system"; and (3) identifying strategies that can prevent displacement in at-risk communities. MTC and ABAG will consider implementing and funding best practices with regard to neighborhood stabilization and anti-displacement efforts emerging from HUD Regional Prosperity Grant. (Equity Report, pp. 4-20 to 4-21.)

In addition to the three initiatives discussed in the Equity Report, regional PDA planning efforts also include anti-displacement elements. MTC and ABAG are committed to the continued use of Regional PDA Planning funds to facilitate the entitlement of affordable housing in transit corridors. OBAG dedicates \$30 million to MTC and ABAG congestion management agencies to continue funding support for the PDA Planning Grant program. This program encourages inclusive and comprehensive community planning for new, transit-served development. A key component of this program is the need to plan for more affordable and market rate housing, while also conducting an inventory of current residents. This planning can allow for the addition of new development alongside policies to protect existing residents from the risk of possible displacement.

A fifth potential source of additional funding for the Plan's initiatives to alleviate displacement risk is ARB's Cap and Trade program. Although not available in the next fiscal year, going forward reve-

nues from the Cap and Trade program may be available to support implementation of Sustainable Communities Strategies. While there will be many competing uses for cap and trade, it is estimated that there will be approximately \$3.1 billion over the life of the Plan in cap and trade revenues in the region. The inclusion of affordable housing as an eligible cap and trade-related funding category further strengthens the link between the Plan's housing distribution and investment strategy. Cap and Trade funds are currently included in the proposed Plan as a reserve.

Plan Bay Area's anti-displacement design and the additional initiatives discussed above are key components of the Plan itself, and not simply mitigation measures for this EIR. These components of the Plan address the potential for displacement and support the Draft EIR's conclusion that the regional displacement impact is less than significant. While these programs will reduce displacement pressure, their effects are difficult to quantify in the Equity Report's measurement of Potential for Displacement. (Equity Report, p. 4-20.) Regardless, while not a CEQA requirement, the Draft Plan Bay Area and associated Equity Analysis assesses and addresses the risk of neighborhood level displacement based on feedback from dozens of stakeholder groups and hundreds of comments on the issue.

In addition to the Plan's anti-displacement components, the primary responsibility for reducing displacement risk rests with local jurisdictions. Notably, regarding potential displacement from certain cities within the region to other cities within the region, the cities with low-income populations and future displacement potential tend to be high density cities in Alameda, San Francisco, and Santa Clara counties. (Equity Report, p. 4-19.) The major cities in those counties "already have some of the strongest anti-displacement policies and regulations in the region (including eviction protections and/or rent control)." (Ibid.)

The Equity Report's study of displacement risk was conducted in close cooperation with the Regional Equity Working group which met 20 times over the course of the plan development to discuss the methods of analysis as well as the implications of the analysis. The Working Group included participation by members of MTC's Policy Advisory Council and the MTC and ABAG Regional Advisory Working Group which convened in February 2011 and met throughout development and analysis of Plan Bay Area. Drawing from these two MTC and ABAG advisory bodies the Working Group brought together stakeholders from around the region representing low-income and minority communities; seniors and persons with disabilities; staff representing local jurisdictions, local public health departments, county congestion management agencies, and transit agencies; and community-based organizations and advocacy groups. Some of the non-profit organizations that actively participated in the Regional Equity Working Group included Public Advocates, Breakthrough Communities, Urban Habitat, and the Bay Area Health Inequities Initiative. All Regional Equity Working Group meetings were open to the public and members of the public were encouraged to participate in the group's discussions. In addition to these meetings, MTC and ABAG worked with Community Based Organizations to host focus groups and community meetings throughout the region to discuss key issues of Plan Bay Area, including the issues of decreasing affordability and the risk of displacement. The policies outlined above reflect feedback from these meetings as well as dozens of comments on the scenarios and the Draft Plan.

In part, the risk of neighborhood level displacement is a function of the Plan's emphasis on reinvesting in historically low income communities around the region as well as other demographic trends noted above. Specifically, the plan invests 39% of all funding in low-income communities which ac-

count for 31% of the region's population. The financial analysis from the Draft Equity Analysis notes:

In most cases, low-income and minority populations and travelers are receiving a similar or greater share of Plan investments relative to their overall share of the region's population and trips.

While some displacement may occur on a localized basis, many benefits accrue to neighborhoods where significant investments are made. Not only is the housing stock often significantly improved, but investment in infrastructure, parks, schools, community centers, markets, and grocery stores often improve the quality of life in lower income neighborhoods. These benefits outweigh the potential burdens of the displacement that might occur under the Plan.

Finally, in addition to planning for a distribution of housing that meets the needs of all income segments of the population and investing in anti-displacement initiatives, the Plan's advocacy platform identifies the provision of affordable housing as a top priority. The advocacy platform recognizes that to make steady progress toward Plan Bay Area's performance targets State and Federal reforms are needed, including the restoration of some type of redevelopment authority and financing mechanism; CEQA modernization for infill housing in part to reduce the burden on affordable housing providers, and increasing federal funding for HUD affordable housing.

Plan Bay Area's approach to distributing housing to support the development of housing for low and moderate income households linked to transit and jobs is arguably the most progressive SCS-related housing distribution that California has seen to date. The link between the housing distribution and investments, such as OBAG and TOAH, is seen as a national model. TOAH received the U.S. Environmental Protection Agency's 2012 National Award for Smart Growth Achievement for using creative approaches to build strong, sustainable communities while protecting human health. In reference to the award for TOAH, EPA Administrator Lisa P. Jackson stated: "[t]he 2012 winners of the National Award for Smart Growth Achievement are taking innovative steps to realize a vision of American communities that are clean, healthy, environmentally responsible, and economically resilient."

The Draft EIR takes the environmental impacts of shifting demographics over the life of the Plan into account by incorporating those shifts into MTC's travel model. The EIR properly concludes that regional displacement will be less than significant, while acknowledging potentially significant localized displacement impacts. The EIR's conclusions are supported by the Plan's housing distribution, investment strategy, and advocacy platform. The socio-economic impacts of potential displacement are appropriately addressed in greater detail in the Equity Report. The Plan's innovative approach to linking jobs, housing, and transit is a significant step forward for the environment, the economy, and social equity in the Bay Area.

MASTER RESPONSE G: WATER SUPPLY

Plan Bay Area is a programmatic document and the EIR includes a program-level assessment of impacts related to water supply. The Draft EIR demonstrates the region faces questions regarding water supply deficiencies particularly during drought years in some but not all water service areas. (See, e.g., Draft EIR, pp. 2.12-2 to 2.12-19, 2.12-46 to 2.12-50.) For the purposes of CEQA, however, “[t]he mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project’s incremental effects are cumulatively considerable.” (CEQA Guidelines, § 15064, subd. (h)(4).) In fact, this EIR notes that water shortages over the planning horizon studied are not expected in the areas served by Marin Municipal Water District, San Francisco Public Utilities Commission, Santa Clara Valley Water District, Solano Water District and Zone 7 Water Agency. (See Table 2.12-4.) Moreover, some water purveyors, such as the San Francisco Public Utilities Commission which will serve over 3 million people in 2035, are planning for a drought of up to eight years. Multiple drought years could affect water supplies, however. The EIR also notes that because future growth will not occur evenly through the region, the proposed Plan may result in population or job growth beyond what is assumed in some local urban water management plans, leading to insufficient water supplies. For this reason, this impact is considered significant and unavoidable.

The analysis in this Draft EIR and the conclusions presented should be interpreted in a larger context, based on case law in California.

“CEQA should not be understood to require assurances of certainty regarding long-term future water supplies at an early phase of planning for large land development projects.” (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 432.) This is because other statutes addressing the coordination of land use and water planning demand that water supplies be identified with more specificity at each step as land use planning and water supply planning move forward from general phases to more specific phases. (*Id.* at pp. 432-434, citing Gov. Code, § 66473.7 and Wat. Code, §§ 10910-10912.) Plans that must be updated on a periodic basis provide ample opportunity for agencies to address and respond to maturing risks to long-term water supply projections. (*Sonoma County Water Coalition v. Sonoma County Water Agency* (2010) 189 Cal.App.4th 33, 56.)

In *In re Bay-Delta* (2008) 43 Cal.4th 1143 (*Bay-Delta*), the California Supreme Court explained both the practical limitations to, and CEQA requirements for, addressing water supply impacts in a first-tier programmatic Draft EIR. “[W]ater supply plans must remain flexible as they are subject to changing conditions, such as changes in population projections, demographics, new or revised environmental restrictions, pollution of sources, or water supply effects from prolonged droughts. As a result, one cannot be certain that a particular future water source identified at the first-tier stage will ever materialize, or that the source will even be suitable 10 or 20 years later as changed conditions may make another source more advantageous.” (*Bay-Delta, supra*, 43 Cal.4th at pp. 1172-1173.) The Court concluded that “identification of specific [water supply] sources is required only at the second-tier stage when specific projects are considered. Similarly, at the first-tier program stage, the environmental effects of obtaining water from potential sources may be analyzed in general terms, without the level of detail appropriate for second-tier, site-specific review.” (*Id.* at p. 1169.)

Bay-Delta concerned the adequacy of a Program EIR for a 30 year plan adopted to restore the Bay-Delta's ecological health and to improve management of the Bay-Delta water for the various beneficial uses. Like the plan in *Bay-Delta*, the proposed Plan is a first-tier plan with a planning horizon set several decades into the future (2040). The Draft EIR includes an analysis of the proposed Plan's potential impacts on water supply that is commensurate with the Plan's first-tier nature. Specifically, the Draft EIR includes a discussion of existing and potential future ground water use (see, e.g., Draft EIR, pp. 2.8-26 to 2.8-27), the watersheds located in the region (see, e.g., *id.* at pp. 2.12-2 to 2.12-3), the major water supply agencies located within the region and the sources of water relied on by those agencies (see, e.g., *id.* at pp. 2.12-4 to 2.12-9), the water supply infrastructure relied on to transport surface waters to the region (see, e.g., *id.* at pp. 2.12-14 to 2.12-17), and future water supply projections made by the major water supply agencies located within the region (see, e.g., *id.* at pp. 2.12-20 to 2.12-23). At this first-tier stage, CEQA requires nothing more.

Moreover, based on the region's existing and projected future population, significant water supply issues exist within the region. The EIR discloses and discusses the region's existing water supply issues. The proposed Plan will not resolve the region's pre-existing water supply issues. The proposed Plan, however, has the potential to lessen significant water supply issues within the region. Specifically, the proposed Plan focuses future growth within already developed areas. This development pattern has two distinct benefits. First, the proposed Plan should help protect the region's water supply by reducing development pressure in rural areas; areas where per capita water use is typically higher. Second, approximately two-thirds of the water used by Bay Area water agencies comes from non-local sources, primarily the Sierra Nevada and the Sacramento-San Joaquin Delta (Delta). As a result, the region relies on a diverse network of water infrastructure including aqueducts and storage facilities to convey supplies to its residents. By concentrating future growth within already developed areas, the proposed Plan benefits from existing water supply infrastructure and reduces the need for new water infrastructure to be developed to service new areas.

Finally, while the region's population grew by approximately 23 percent between 1986 and 2003, total water use increased by less than one percent. (See Draft EIR, Figure 2.12-5.) In other words, per capita water use has substantially declined in the region over the last quarter century. The continued urban densification promoted by the proposed Plan – in addition to the continued implementation of water conservation, reuse and recycling programs by local water agencies and municipalities – will help to continue the downward trajectory of per capita water consumption within the region resulting from the California Water Conservation Act of 2009, which calls for a 20 percent reduction in per capita water use by 2020, the California Urban Water Management Planning Act, water efficiencies in landscaping and local water conservation measures, including tiered pricing.

Notwithstanding the proposed Plan's water supply benefits, the Draft EIR concludes the proposed Plan's water supply impact is potentially significant and unavoidable without implementation of project-level mitigation because population growth forecasted in the region has the potential to result in a significant water supply impact. As the proposed Plan does not promote new growth and merely accommodates future population growth already projected to occur within the region in a manner that is anticipated to reduce additional water supply demands created by that growth, the analysis and conclusion reached in the Draft EIR are conservative. The water supply analysis included in the EIR complies with the requirements of CEQA.

MASTER RESPONSE H: URBANSIM MODELING AND SUBSIDIES

Some commenters questioned the modeling methodology used to compare and contrast the impacts and land use patterns of the Draft EIR alternatives. As described in detail below and in the draft “Summary of Predicted Land Use Responses” included in Appendix 1 to the proposed Plan, MTC and ABAG used industry standard modeling methodologies that are consistent with California Transportation Commission guidelines. MTC and ABAG calibrated the models through the use of subsidies and policy levers to ensure the modeling accurately reflects the EIR alternatives and provides a meaningful and consistent comparison of the alternatives.

UrbanSim predicts future patterns of development by modeling the interaction between the supply of buildings and the demand of households and firms to occupy those buildings. Models simulate the selection of structures in particular locations made by households and firms using information on both the decision-maker (i.e., households and firms) and the potential options (i.e., buildings). In the model’s simulation (as in reality), some locations are more popular than others. In the short term, supply is static (i.e., it takes time to construct new buildings), which cause prices in popular areas to increase. When demand exceeds supply, the opportunity may exist for additional space to be developed at a profit. UrbanSim simulates the construction of profitable projects within the planning constraints (e.g., allowable uses and densities) for each area and the aggregations of profitable projects describe the region’s potential future development.

In each of the Draft EIR Alternatives, UrbanSim considers a number of explicit policy levers that directly influence the profitability of new structures in various locations and change the spatial distribution of the future Bay Area. Policy levers are described in detail on pages 22-27 of the draft Summary of Land Use Responses. The alternatives and policy levers are also listed on pages 3.1-4 through 3.1-10 of the Draft EIR.

Subsidies are added to the UrbanSim model to act as policy instrument that then encourage development in particular areas. In the proposed Plan, the subsidies were primarily applied to encourage development in the Priority Development Areas (PDAs); in Alternative 4, Enhanced Network of Communities, the subsidies were primarily applied to encourage growth consistent with the Current Regional Plans land use the alternative was based on; and in Alternative 5, Environment, Equity and Jobs, the subsidies were primarily used to encourage growth in the “communities of opportunity” identified by the crafters of the alternative. Unlike Alternatives 2, 4, and 5, Alternative 3, Transit Priority Focus, did not require net subsidies, as regional development fees for high-VMT areas were simply transferred to encourage urban core development (i.e. the alternative’s revenue-generating policies directly funded all subsidies provided).

The scale of the resulting subsidy can be viewed as (a) a rough estimate of the funding needed to realize the Alternative or (b) a proxy for additional non-monetary interventions that may encourage development in specific locations. The amounts arrived at for each alternative should be view as rough estimates; however, taken as a range they provide insight into the relative feasibility of achieving each of these alternatives within the Bay Area’s real estate market. For the proposed Project, the estimated annual “subsidy” was roughly \$800 million per year; for Alternative 4 the estimated annual “subsidy” was roughly \$400 million; and for Alternative 5, the estimated annual “subsidy” was \$2.4 billion.

These results are consistent with the PDA Feasibility and Readiness Report, which noted that additional interventions (policy or investments) would be needed to achieve the forecast growth in the PDAs, and that growth in areas outside of PDAs was also likely to require additional support. (See Master Response B.2 for more information on the PDA Feasibility and Readiness Report.) The PDA Feasibility and Readiness Report is a more detailed analysis of specific applications of the general principles identified by the regional modeling done with UrbanSim. Below is a discussion of the types of programs and policies that can act as “subsidies” and support the growth pattern assumed in the proposed Plan. The revenues estimated to be generated by the programs and policies noted below would be sufficient to cover the potential subsidy identified by UrbanSim. MTC and ABAG therefore believe the growth pattern and level of growth in the proposed Plan is feasible. Similar programs and policies would be expected to benefit the other alternatives to varying degrees.

1. **Redevelopment Funds:** If viewed as a monetary subsidy, UrbanSim suggests that for the proposed Plan, an amount similar to funds historically available from Redevelopment Agencies in the Bay Area would be sufficient to implement the Plan. Redevelopment historically generated approximately \$1 billion in the Bay Area. While the full reinstatement of redevelopment funds is unlikely, MTC and ABAG expect some level of redevelopment-like support for local jurisdictions will be available over the life of the Plan. The California legislature is considering various bills, discussed in greater detail below, that replace redevelopment dollars for high-frequency transit locations, which include a subset of the PDAs in the proposed Plan. As noted above, the differences in additional subsidies under the Alternatives are listed in Table 3.1-1 of this EIR.
 - SB 1 (Steinberg) - This bill would permit a city, a county or a city and a county to establish a Sustainable Communities Investment Authority (SCIA) in order to be able to use tax-increment financing (TIF) to fund improvements in a Sustainable Communities Investment Area. Unlike California’s now defunct redevelopment program, however, SB 1 does not allow diversion of property taxes from schools, resulting in approximately 50 percent less available funding.
 - SB 391 (DeSaulnier) – SB 391 would impose a \$75 fee on the recording of every real estate document (excluding those related to the sale of a property) to provide ongoing funding to support the development, acquisition, rehabilitation and preservation of affordable homes of all kinds. The fee is projected to raise approximately \$525 million per year For the Bay Area, based on the region’s population share, this would typically result in about \$100 million per year.
 - SB 628 (Beall) — SB 628 would make it easier for a local government to create infrastructure financing districts (IFDs) to help pay for a transit priority project by eliminating the voter approval requirement to establish a district and issue bonds. Similar to redevelopment law, it would require that at least 20 percent of the funds generated in the IFD be dedicated to increasing, improving and preserving the supply of lower and moderate income housing in the district and occupied by low-income households. MTC estimates this may generate approximately \$125 million per year based on previous redevelopment estimates, although jurisdictions would not necessarily take advantage of the new program simply because it used redevelopment prior to its elimination.
 - AB 431 (Mullin) – Although too early in the process to estimate potential revenues from AB 431, this bill, which is now a two-year bill, would authorize metropolitan planning organization to impose a sales tax within all or a part of its jurisdiction upon approval of an ordinance and subject to voter approval. It required that no less than 25% of net rev-

enue be spent on three categories, including 1) affordable housing 2) transportation and 3) parks and open space. The bill sponsor is considering alternative fund sources that could substitute for the sales tax when the bill is reconsidered next year. While the exact revenue amounts are unknown at this time, the region would typically not pursue a voter initiative that would result in less than \$200 million per year revenue stream.

2. **CEQA Reform for infill development:** In terms of non-monetary interventions, efforts currently being discussed in the California legislature to reform CEQA for infill projects have the potential to reduce transactional costs for projects within PDAs and thus increase the probability of profitability. A wide range of additional local policies currently in place to varying degrees or being considered in the region could also serve to fill the profitability gap without monetary subsidy. Any efforts that decrease uncertainty in regards to project timing, composition, and eventual completion can drive down costs significantly. These efforts range from a streamlined planning process to more proactive efforts to build community support for particular types of development. In addition, to the extent that such development requires less parking or uses less public service, lower development impact fees can be charged.
3. **Existing Programs in Plan Bay Area:** The One Bay Area Grant (OBAG) and Transit Oriented Affordable Housing (TOAH) Fund currently included in the proposed Plan will help support development in PDAs and affordable housing production. Should either of these programs grow to levels higher than funded in the current proposed Plan, the additional investment will act as a “subsidy” in support of achieving the proposed Plan’s land use pattern. OBAG includes \$320 million over the next 4 years and \$14.6 billion over life of the Plan to support jurisdictions that focus housing growth in PDAs through their planning and zoning policies and the production of housing units. The TOAH fund was launched in 2010 with a \$10 million commitment to establish a revolving loan fund to finance land acquisition for affordable housing development in select locations near rail and bus lines throughout the Bay Area, creating a \$50 million fund total. Other investors include major banking institutions, national and regional foundations, and six community development financial institutions. In February 2013, MTC approved an additional \$10 million to support TOAH and additional funding is anticipated from a number of sources over the life of the Plan.
4. **Cap and Trade:** Revenues from ARB’s Cap and Trade program may be available to support implementation of Sustainable Communities Strategies. While there will be many competing uses for cap and trade, it is estimated that there will be approximately \$3.1 billion over the life of the Plan in cap and trade revenues in the region. Those funds are currently included in the proposed Plan as a reserve.
5. **Local Programs:** Local jurisdictions have a number of tools at their disposal to encourage and support growth, both market rate and affordable. One example of local programs that support affordable housing is housing impact fees, which are typically charged on residential development, on a per-unit or per-square foot basis, with the revenues dedicated to affordable housing. Based on an average 2000-square foot new home, the per unit fees of Mountain View (\$20,000), Fremont (\$40,000), San Carlos (\$47,000), Marin County (\$10,000 and Napa (\$3,800), MTC and ABAG estimate that an average \$24,000 per unit fee on market rate housing would generate \$4.4 billion if charged on the roughly 28 percent of new housing assumed in the proposed Plan to be above moderate housing unit (Draft Plan page 36). Additional examples of local programs include tax increment financing, commercial linkage fees, and public benefit zoning.

Local jurisdictions can also support growth in non-monetary ways. Examples include reforming and coordinating permitting processes, allowing for shared parking to reduce development costs, and completing programmatic EIRs for PDAs local projects can utilize to streamline environmental review. While there is not a monetary estimate of the benefits such local policies would have, they can be part of the overall package supporting development.

MASTER RESPONSE I: PRIORITY DEVELOPMENT AREA DESIGNATION PROCESS

A number of comments focused on the Priority Development Area (PDA). This response seeks to provide clarity regarding how PDAs were developed, requirements for PDAs, and changes to PDAs. PDAs are identified by jurisdictions as places where there is a local commitment to developing more housing along with amenities and services to meet the day-to-day needs of residents in a pedestrian-friendly environment served by transit. PDAs are nominated by local jurisdictions on a voluntary basis. More than half of the Bay Area's local jurisdictions have at least one Priority Development Area.

The process for nominating and adopting a PDA includes the following steps:

1. **Local identification.** A jurisdiction identifies an area with for new homes and jobs in close proximity to transit. In some cases, a Specific Plan or other plan facilitating new development has been adopted for this area; in others, the jurisdiction may be contemplating a planning process for the area.
2. **Local review of criteria.** To be eligible for designation as a Priority Development Area, a place must meet several criteria adopted by the ABAG Executive Board. These include:
 - Within the region's existing urbanized area;
 - Within ½ mile of a rail station or ferry terminal or has frequent bus service with peak minimum headways of 20 minutes; and
 - An average existing or planned housing density of at least 20 dwelling units/net acre.

If an area meets these criteria, the jurisdiction also selects a Place Type. Place Types are categories for different kinds of neighborhoods, main streets, corridors, and downtowns. The *2007 MTC Station Area Planning Manual* provides general density, land use, and design guidelines for each Place Type. Jurisdictions are not mandated to change local plans to meet these guidelines. In addition to designating a Place Type, jurisdictions identify whether a PDA is planned or potential. Planned PDAs have an adopted plan supporting growth at transit-supportive densities, while potential PDAs do not have an adopted neighborhood-level plan, but, are anticipating future planning efforts.

3. **Local Nomination.** After reviewing eligibility and finalizing the geographic boundaries of the PDA, the city council or board of supervisors for the jurisdiction in which a proposed PDA is located adopts a resolution supporting the PDA nomination. The jurisdiction then submits an application to ABAG that includes the geographic boundaries, current and planned land uses, and implementation actions for the proposed area.
4. **ABAG Review and Adoption.** Local PDA applications are reviewed by ABAG staff, who then make a recommendation to the ABAG Regional Planning Committee and the ABAG Executive Board.

Local jurisdictions can remove or modify a PDA within its boundaries by a request to ABAG staff. Requests to remove a PDA should be supported by resolution from the local governing body (e.g. city council or board of supervisors). Removal of PDAs is at the discretion of local jurisdictions, and does not require action by the ABAG Executive Board.