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May 8, 2013

MTC-ABAG Plan Bay Area Public Comment
101 8th Street Oakland,
California 94607

Re: Public Comment on Draft Plan Bay Area and Draft Plan Bay Area Draft
Environmental Impact Report

I write on behalf of Sustainable TamAlmonte and myself to comment on the
Draft Plan Bay Area and the Draft Plan Bay Area Draft Environmental
Impact Report (State Clearinghouse No. 2012062029).

Sustainable TamAlmonte is a group of Tam Valley and Almonte residents
who want to preserve and enhance the environmental qualities of their
unique bayside communities. The members of Sustainable TamAlmonte
support truly sustainable land use and development in the Tamalpais
Community Services District and the Almonte Sanitary District of
Unincorporated Marin, and have grave concerns about the environmental,
health and safety impacts that result from poor land use planning, including
environmentally detrimental projects. Therefore, Sustainable TamAlmonte
has a strong interest in enforcing environmental laws to protect the Tam
Valley and Almonte communities' valuable environmental resources, and the
health and safety of current and future residents.

I. INTRODUCTION

CEQA has two basic purposes, neither of which the Draft Plan Bay Area's DEIR satisfies. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project.¹ The EIR is the "heart" of this requirement.² The EIR has been described as "an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return."³ Second, CEQA directs public agencies to avoid or reduce environmental damage when possible by requiring alternatives or mitigation measures.⁴ The Draft EIR fails to satisfy these purposes by improperly deferring the analysis of, and failing to disclose, all potentially significant environmental impacts of the Draft Plan Bay Area, and failing to provide adequate mitigation measures to avoid impacts. As a result, the Draft EIR fails as an informational document and falls short of CEQA's mandates.

II. The Draft Plan Bay Area's DEIR's Assumption Regarding Population And Job Projections For Marin County Is Misguided Because Evidence Shows That The Draft Plan Bay Area Projections Are Unrealistic.

Pg. ES 8 of the Draft Plan Bay Area's DEIR lists "Key EIR Assumptions" and includes the following key assumption:

"The total amount of growth projected for the Bay Area through 2040 is based on ABAG's Plan Bay Area Forecast of Jobs, Population and Housing (the forecasts used to develop the Jobs-Housing Connection) that is available for review on the project website (<http://www.onebayarea.org>); this amount

¹ 14 Cal. Code Regs. ("CEQA Guidelines") § 15002(a)(1).

² *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 84.

³ *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.

⁴ CEQA Guidelines § 15002(a)(2) and (3) (*See also Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564; *Laurel Heights Improvement Ass'n v. Regents of the University of California* (1988) 47 Cal.3d 376, 400.).

of growth is assumed in the proposed Plan, which identifies a land use pattern to accommodate the projected growth.”

As demonstrated below, for Marin County, the above key assumption is misguided because evidence shows that the Draft Plan Bay Area’s forecast of Jobs, Population, and Housing in Marin County is unrealistic.

Population Growth

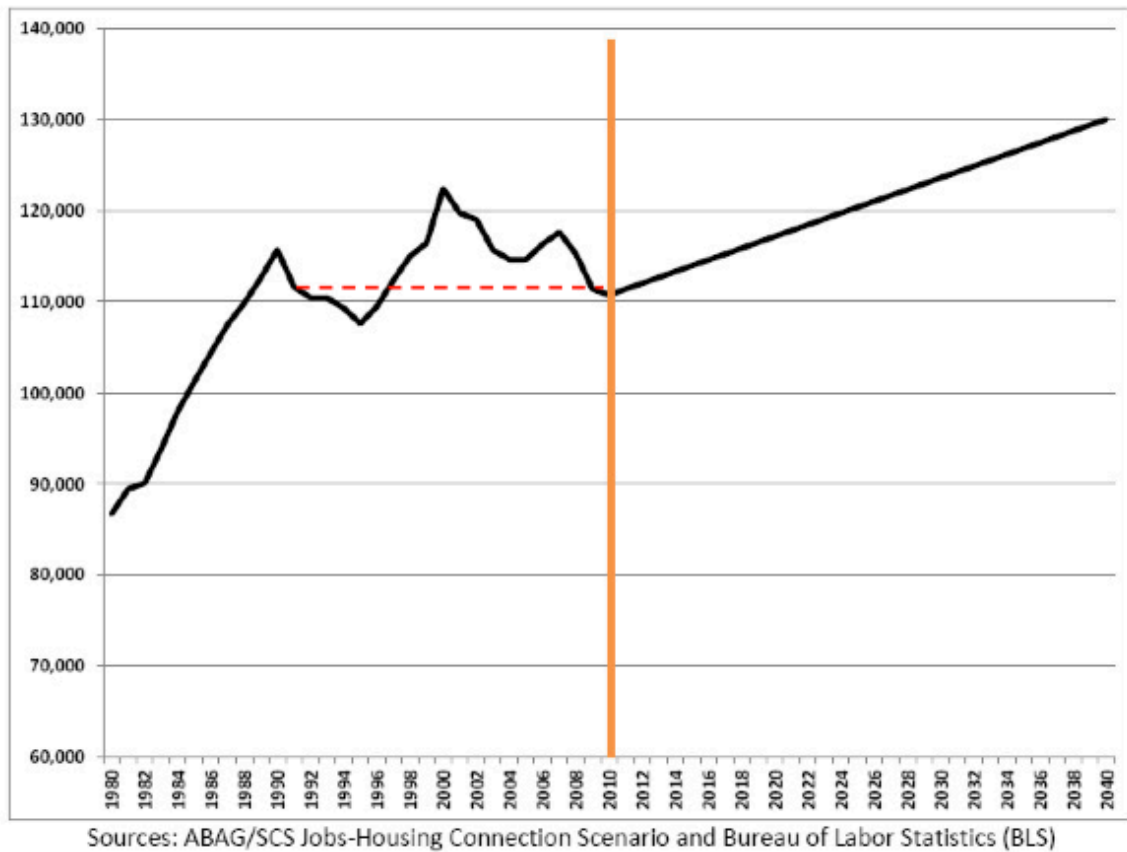
The State Department of Finance is the preeminent authority on population and job projections. The January 2013 release of the State Department of Finance (DOF) projections of Marin County’s population growth are 10% lower than the growth forecast used for Plan Bay Area: Plan Bay Area forecasts a 13% population growth to 2040 (32,914 more people) but DOF projects a 3% population growth (6,818 more people). This is a significant discrepancy. The Plan Bay Area and the DEIR should be revised to reflect realistic population growth based on DOF projections.

Employment Growth

The Draft Plan Bay Area’s Jobs-Housing Connection Scenario forecasts Marin County’s employment growth at 17% by 2040, or about one-half percent per year. Although this appears to be consistent with historical growth of 16% from 1980-2010, in fact, and as pointed out by the Transportation Authority of Marin in its April 26, 2012 letter to ABAG⁵, job growth in Marin was substantial only from 1980 to 1990. In 2011, employment levels were about the same as they were in 1990, as shown below in the dotted line, with a consistent decrease since 2000.

⁵ See Attachment 1: Letter from TAM to ABAG, April 26, 2012

Marin County Payroll Employment 1980-2010 and ABAG/SCS Projections through 2040



Marin County lacks the type of developable land associated with business growth of the 1980s, and has limited availability of water resources. It is unlikely that Marin can match the robust job growth of the 1980s. In addition, the long-term employment forecast is unrealistically high for Marin's growing population of seniors who are retired or not fully employed. An adjustment to the labor participation rate should be made.

The Draft Plan Bay Area's DEIR assumes that the Draft Plan Bay Area's Population and Job Growth projections are correct. However, the above information demonstrates that the plan's population and job growth projections for Marin County are unrealistic. Therefore, assessments made by the Draft Plan Bay Area's DEIR that were based on the Draft Plan Bay Area's Marin County Population and Job Growth projections must be reviewed and revised.

III. The Draft Plan Bay Area DEIR Fails To Adequately Disclose, Analyze, And Mitigate Impact 2.1-3 “Substantial Increase In Per Capita Vehicle Miles Traveled (VMT) On Facilities Experiencing Level Of Service (LOS) F” (Pg. ES-13 Draft Plan Bay Area DEIR)

The Draft Plan Bay Area DEIR only lists mitigation measures 2.1(a), 2.1(b) and 2.1(c) to mitigate Impact 2.1-3 “Substantial Increase in Per Capita VMT on Facilities Experiencing Level of Service (LOS) “F” compared to existing conditions during AM peak periods, PM peak periods, or during the day as a whole (LOS F defines a condition on roads where traffic substantially exceeds capacity, resulting in stop-and-go conditions for extended periods of time).”

Draft Plan Bay Area DEIR (pg. ES-13) mitigation measures 2.1(a) “additional peak period bridgetoll” and 2.1(c) “implementation of ramp metering” are only applicable for freeways with LOS “F” and are not appropriate for smaller busy roadways with LOS “F”, such as Hwy 1 in Unincorporated Mill Valley (LOS “F”), which is located in the Transportation Priority Project (TPP) Corridor and the Hwy 101 Corridor Priority Development Area of Plan Bay Area.

The Draft Plan Bay Area’s DEIR mitigation measure 2.1(b) “commute benefit ordinance” only helps to mitigate a substantial increase in per capita VMT on roadways with LOS “F” that act as commutes to major employers (with more than 50 employees). Many smaller busy highways with an LOS “F”, such as Hwy 1 in Unincorporated Mill Valley, primarily act as a commute to small employers with less than 50 employees.

The Draft Plan Bay Area DEIR is insufficient because it fails to adequately analyze and mitigate Impact 2.1-3 on smaller busy highways with LOS “F”.

IV. The Draft Plan Bay Area DEIR Fails To Adequately Disclose, Analyze And Mitigate Potentially Significant Impacts Associated With Air Quality.

The Draft Bay Area Plan DEIR sites **Impact 2.2.5 (a)** “Localized net increase in sensitive receptors located in Transit Priority Project (TPP) corridors where TACs or fine particulate matter (PM_{2.5}) concentrations results in a cancer risk greater than 100/million or a concentration of PM_{2.5} greater than 0.8 ug/m³” and **Impact 2.2.5(b)** “Localized net increase in

sensitive receptors located in Transit Priority Project (TPP) corridors within set distances to mobile or stationary sources of Toxic Air Contaminants (TACs) or Particulate Matter (PM2.5) emissions.”

A. The Draft Plan Bay Area’s DEIR Fails To Adequately Analyze And Mitigate Impact 2.2-5(a) And Impact 2.2-5(b) On Small Sites & Sites Surrounded By Multiple TAC And PM2.5 Emission Sources.

A number of the mitigation measures incorporated into the Draft Plan Bay Area DEIR to mitigate Impact 2.2.5(a) and Impact 2.2.5(b) are not adequate because they are ineffective on small sites and sites surrounded by multiple sources of TACs and PM2.5 emissions. These include:

- Phasing of residential developments does not mitigate Impact 2.2.5(a) and Impact 2.2.5(b), when the entire site of a residential development is located within the zone of influence of TAC and/or PM2.5 emission sources.
- Designing a site to locate sensitive receptors as far as possible from any freeways, roadways, diesel generators, distribution centers, and railyards, does not mitigate Impact 2.2.5(a) and 2.2.5(b) if the entire site is located within the zone of influence of TAC and/or PM2.5 emission sources.⁶

B. The Draft Plan Bay Area’s DEIR Fails To Adequately Disclose And Analyze The Severity Of Significant Cumulative Health Risks Caused By Impact 2.2-5(a) And Impact 2.2-5(b).

Regarding Impact 2.2.5(a) and 2.2.5(b), the Draft EIR fails to accurately disclose the severity of the significant cumulative health risks to sensitive receptors on sites within the zone of influence of collective TACs and PM2.5 emissions from several significant sources. For instance, Unincorporated Mill Valley sites located in the Transit Priority Project (TPP) corridor and located in the Hwy 101 Corridor Priority Development Area of the Draft Plan Bay Area are simultaneously subject to TACs and

⁶ See Attachment 2: Letter from Geoffrey Hornek to Rachael Koss re: Comments on the air quality analysis for the 2012 Draft Supplemental Environmental Impact Report of the 2012 Draft Marin County Housing Element, February 18, 2013.

PM2.5 emissions from three or four of the following sources: Hwy 101 (LOS “F”), Hwy 1 (LOS “F”), two Dry Cleaners, three Gas Stations and the County of Marin Crest Marin Pump Station Generator.⁷

C. The Draft Plan Bay Area’s DEIR Fails To Adequately Mitigate Impact 2.2-5(a) And Impact 2.2-5(b) Because Mitigation Measures Fail To Protect Sensitive Receptors Outdoors.

The Draft Plan Bay Area’s DEIR fails to adequately mitigate Impact 2.2.5(a) and Impact 2.2.5(b) because it does not provide adequate mitigations to protect sensitive receptors spending time outdoors (E.g. children playing outside or residents gardening) on sites located within the zone of influence of TAC and/or PM2.5 emission sources. Planting trees and/or vegetation between sensitive receptors and the pollution source provides little or no protection to the sensitive receptors spending time outdoors and cannot be carried out when there is little or no room for such trees and/or vegetation or view ordinances restrict the height of the trees.

On Pg. 2.2-79, under Impact 2.2-5(b), the Draft Plan Bay Area’s DEIR states:

“New research on the health effects of TACs and PM2.5 reinforces earlier findings regarding adverse health impacts on both respiratory and cardiovascular health but also a wider range of potential effects, such as diabetes, autism, cognitive functions in older adults, and oxidative damage to DNA. In addition, US EPA has not identified a level of TAC/ PM2.5 concentration where no negative health effects are observed.

In general, the closer one gets to a source of emissions, the higher the pollutant concentrations one will be exposed to. Ideally, sensitive land uses would be set back an appropriate distance such that sensitive receptors would not be exposed to TAC and PM2.5 concentrations that could adversely affect their health. However, this is the central issue surrounding infill development, such as in TPPs and PDAs, where the objective is to locate jobs and housing in close proximity to each other to reduce automobile trips and therefore mobile source emissions. In doing so,

⁷ See Attachment 2: Letter from Geoffrey Hornek to Rachael Koss re: Comments on the air quality analysis for the 2012 Draft Supplemental Environmental Impact Report of the 2012 Draft Marin County Housing Element, February 18, 2013.

sensitive receptors can be located too close to stationary or mobile sources and exposed to unhealthy levels of TACs and PM2.5 concentrations.”

As demonstrated above, implementation of Plan Bay Area would subject sensitive receptors to a significant increased risk of developing life-threatening illnesses from TACs and PM2.5 emissions. Furthermore, the mitigation measures listed to mitigate these significant impacts are inadequate to reduce them to less than significant levels, particularly in regard to protecting sensitive receptors who spend time outdoors.

Consequently, Plan Bay Area’s proposal to target residential development on highly travelled and congested roadways (with LOS “F”) and in close proximity of mobile and stationary sources of TACs and PM2.5 emissions, is nothing short of irresponsible land use planning and conflicts with CEQA. Case law clearly shows that CEQA is intended “to compel government at all levels to make decisions with environmental consequences in mind.”⁸ Plan Bay Area does not heed this mandate.

Moreover, there can be no benefit that would result from implementation of Plan Bay Area that would override the impact of severe illness or loss of life from exposing sensitive receptors to toxic air contaminants (TACs) and/or fine particulate matter (PM2.5) emissions.

The only sensible recourse is to revise Draft Plan Bay Area and remove all proposed residential development from areas that are located within the zone of influence of toxic air contaminants (TACs) and/or fine particulate matter (PM2.5) emission sources⁹ and remove areas situated within the zone of influence of TACs and PM2.5 emissions from Transit Priority Project corridors and Priority Development Areas.

⁸ *Bozung v. Local Agency Formation Com.* (1975) 13 Cal.3d 263, 283, 118; *Laurel Heights*, 47 Cal.3d at p. 393; *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 711.

⁹ See Attachment 2, for e.g. regarding sites located in the Tam Junction area of Unincorporated Mill Valley.

V. The Draft Plan Bay Area DEIR Fails To Adequately Disclose, Analyze And Mitigate Potentially Significant Impacts Associated With Seismic Activity.

A. The Draft Plan Bay Area DEIR Fails To Adequately Disclose, Analyze And Mitigate Potentially Significant Impacts Associated With Ground Shaking.

Draft Plan Bay Area's DEIR incorporates Mitigation Measure 2.7(b) to mitigate Impact 2.7-2 "Exposure of people or structures to substantial risk related to ground shaking".

Mitigation Measure 2.7(b) requires project sponsors and proposed improvements to comply with the most recent version of the California Building Code (CBC) and concludes that by doing so Impact 2.7-2 would be reduced to less than significant.

Although the Unincorporated Marin areas targeted for development in the 2007 Marin Countywide Plan are the same as the Unincorporated Marin areas targeted for development in the Draft Plan Bay Area, the above finding is in conflict with the 2007 Marin Countywide Plan's Environmental Impact Report (EIR).

Excerpts from the 2007 Marin Countywide Plan's Environmental Impact Report (EIR) 4.7 GEOLOGY:

Pg. 4.7-4, 2007 Marin CWP's EIR, **Seismic Ground Shaking:** "Ground shaking is the most potentially devastating geologic hazard in Marin County due to the damage it would be capable of causing."... "In Marin County, the most significant area of potential shaking amplification is the City-Centered Corridor" – where the Transit Priority Project (TPP) corridor and the Hwy 101 Corridor Priority Development Area (PDA) of Plan Bay Area are located.

Pg. 4.7-13, 2007 Marin CWP's EIR, **City-Centered Corridor Housing Sites:** "In general, these sites could experience strong seismic ground shaking and many of the designated areas would likely be subject to hazards related to unstable ground: expansive soils, soil erosion, subsidence and settlement, and seismic-related ground failure." The Transit Priority Project (TPP) corridor and the Hwy 101 Corridor Priority Development Area are

located within the City-Centered Corridor and would experience the same hazards.

Pg. 4.7-20, 2007 Marin CWP's EIR, **Impact 4.7-2 Seismic Ground Shaking**: "Land uses and development consistent with the Draft 2005 CWP Update (AKA 2007 CWP) would expose people, new development and redevelopment to substantial adverse seismic effects, including the risk of loss, injury, or death involving strong seismic ground shaking. This would be a significant impact."

Pg. 4.7-20, 2007 Marin CWP's EIR, Discussion of **Impact 4.7-2 Seismic Ground Shaking**: "The probability of at least one earthquake with a moment magnitude greater than 6.7 before 2032 is 62 percent."... "In Marin County, buildings located near the San Andreas Fault zone and buildings underlain by water-saturated mud and artificial fill could experience the strongest seismic ground shaking. The deposits that will experience the strongest shaking amplification underlie a significant portion of the City-Centered Corridor (Map 2-9 [Seismic Shaking Amplification Hazards] in 2007 Countywide Plan." The Transit Priority Project (TPP) corridor and the Hwy 101 Corridor Priority Development Area are located within the City-Centered Corridor and would experience the same hazards.

Pg. 4.7 – 20, 2007 Marin CWP's EIR, Discussion of **Impact 4.7-2 Seismic Ground Shaking**: "The Marin County Code includes ordinances that would reduce hazards associated with seismic ground shaking. Section 19.04.010, Codes Adopted, states that the County has adopted the 2001 edition of the California Building Code (CBC). Adoption of this Code would ensure that new construction would be based on the seismic design requirements in the CBC."

To mitigate Impact 4.7-2 Seismic Ground Shaking, in addition to compliance with the California Building Code (which is the only mitigation sited in Draft Plan Bay Area's DEIR for Impact 2.7-2 "Ground Shaking" and Impact 2.7-3 "Seismic Related Ground Failure, including liquefaction"), the CWP's EIR incorporates Mitigation Measure 4.7-2, which calls for revision of numerous policies and programs related to seismic safety, retrofit, and location of emergency service facilities and creation a new program to systematically assess damaged and collapsed buildings after a damaging earthquake.

Yet, on Pg. 4.7- 24, the 2007 Countywide Plan's EIR concludes; "Mitigation Measure 4.7-2 would ensure a reduced level of risk compared to existing conditions and reduce adverse effects of mild to moderate seismic ground shaking to a less-than-significant level. Nevertheless, for severe seismic ground shaking this would remain a **significant unavoidable project and cumulative impact.**"

Summary

The 2007 Marin Countywide Plan directs development in the same Unincorporated Marin areas as Plan Bay Area. The Marin Countywide Plan's EIR identifies high seismic ground shaking in the same location as the Transit Priority Project (TPP) corridor and the Hwy 101 Corridor Priority Development Area of Plan Bay Area. The CWP's EIR finds that such seismic ground shaking would result in a significant adverse impact. The CWP's EIR incorporates more mitigation measures than Draft Plan Bay Area's DEIR. Yet, the Draft Plan Bay Area DEIR concludes that its weaker mitigation measure for Seismic Ground Shaking would result in a less-than-significant impact, whereas the 2007 Countywide Plan's EIR concludes that its mitigation measures for Seismic Ground Shaking (which are more rigorous than those in Draft Plan Bay Area's DEIR) would result in significant unavoidable project and cumulative impacts for severe seismic ground shaking.

Moreover, on Pg. 115, the 2012 DRAFT Marin County Housing Element's DSEIR, which also directs development in areas located in the TPP corridor and the Hwy 101 Corridor Priority Development, confirms the CWP's EIR findings: "Mitigation Measure 4.7-2 would reduce impact, but still found significant unavoidable. No change from CWP EIR."

Conclusion

In conclusion, the findings, related to the impact of seismic ground shaking impact, found in the Marin Countywide Plan's EIR and the 2012 Draft Marin County Housing Element's SDEIR conflict with those of the Draft Plan Bay Area's DEIR and prove that the impact after mitigation would remain a significant unavoidable project and cumulative impact. Moreover, there can be no benefit that would result from implementation of Plan Bay Area that would override the impact of severe injury or loss of life from building on ground known to experience severe seismic ground shaking. The only sensible recourse is to revise Draft Plan Bay Area and remove new development from Unincorporated Marin land that is subject to severe

seismic ground shaking and remove Unincorporated Marin areas subject to severe seismic ground shaking from the Transit Priority Project (TPP) corridors and Priority Development Areas (PDAs).

B. The Draft Plan Bay Area DEIR Fails To Adequately Disclose, Analyze And Mitigate Potentially Significant Impacts Associated With Seismic-Related Ground Failure, Including Liquefaction.

Draft Plan Bay Area's DEIR incorporates Mitigation Measure 2.7(b) to mitigate 2.7-3 "Exposure of people or structures to substantial risk from seismic-related ground failure, including liquefaction".

Mitigation Measure 2.7(b) requires project sponsors and proposed improvements to comply with the most recent version of the California Building Code (CBC) and concludes that by doing so Impact 2.7-3 would be reduced to less than significant.

Although the Unincorporated Marin areas targeted for development in the 2007 Marin Countywide Plan are the same as the Unincorporated Marin areas targeted for development in Plan Bay Area, the above finding is in conflict with the 2007 Marin Countywide Plan's Environmental Impact Report (EIR).

Excerpts from the 2007 Marin Countywide Plan's Environmental Impact Report:

Pg. 4.7-7, 2007 Marin CWP EIR's **Liquefaction**: "The geologic materials most susceptible to liquefaction include young stream channel deposits as well as beach deposits and artificial fill overlying Bay Muds. " Map 2-11 Liquefaction Susceptibility Hazards in the 2007 Countywide Plan illustrates areas of deep fill on bay mud, which are subject to high liquefaction. Many of these high liquefaction areas are located within the Transit Priority Project (TPP) corridor and the Hwy 101 Priority Development Area (PDA) of Plan Bay Area.

Pg. 4.7-9, 2007 Marin CWP's EIR, **Subsidence and Settlement**: "In Marin, the most significant subsidence hazard is the young Bay Muds. The placement of fills and structures on Bay Muds has resulted in human-induced subsidence and seismic shaking has caused naturally induced subsidence of Bay Muds." The Transit Priority Project (TPP) corridor and

the Hwy 101 Corridor Priority Development Area of Plan Bay Area includes many areas of deep fill on Bay Mud, which are at very high risk of subsidence.

Pg. 4.7-13, 2007 Marin CWP's EIR, **City-Centered Corridor Housing Sites**: "In general, these sites could experience strong seismic ground shaking and many of the designated areas would likely be subject to hazards related to unstable ground: expansive soils, soil erosion, subsidence and settlement, and seismic-related ground failure." The Transit Priority Project (TPP) corridor and the Hwy 101 Corridor Priority Development Area are located within the City-Centered Corridor and would experience the same hazards.

Pg. 4.7-24, 2007 Marin CWP's EIR, Impact 4.7-3 **Seismic-Related Ground Failure**: "Land uses and development consistent with the Draft 2005 CWP (AKA 2007 Marin Countywide Plan) would expose people and structures to substantial adverse seismic effects, including the risk of loss, injury, or death from seismic-related ground effects. This would be a significant impact."

The 2007 Marin CWP's EIR incorporated Mitigation Measure 4.7-3 to mitigate Impact 4.7-3 Seismic-Related Ground Failure. Mitigation Measure 4.7-3 included revision of programs EH-2.a (Require Geotechnical Reports) and EH-2.b (Require Construction Certification) of the Draft 2005 Countywide Plan Update and the addition of a new program that would continue to create Geologic hazard Area maps based on the most up to date geologic and geotechnical information as it becomes available.

Pg. 4.7-28, 2007 Marin CWP's EIR, **Significance After Mitigation Measure 4.7-3**: "Mitigation Measure 4.7-3 would minimize the exposure of persons or structures to adverse effects of seismic-related ground failure for minor and moderate events to a less- than-significant level. However, implementation of these policies and programs would not eliminate all structural damage, injuries, or death from seismic-related ground failures, especially for severe seismic events. Therefore, this would remain a **significant unavoidable project and cumulative impact.**"

Summary

The 2007 Marin Countywide Plan directs development in the same Unincorporated Marin areas as Plan Bay Area. The Marin Countywide Plan's EIR identifies high seismic-related ground failure in the same

location as the Transit Priority Project (TPP) corridor and the Hwy 101 Corridor Priority Development Area of Plan Bay Area. The CWP's EIR finds that such seismic-related ground failure would result in a significant adverse impact. The CWP's EIR incorporates more mitigation measures than Draft Plan Bay Area's DEIR. Yet, the Draft Plan Bay Area DEIR concludes that its weaker mitigation measure for ground failure would result in a less-than-significant impact, whereas the 2007 Countywide Plan's EIR concludes that its mitigation measures for Seismic-Related Ground Failure (which are more rigorous than those in Draft Plan Bay Area's DEIR) would result in a significant unavoidable project and cumulative impact for seismic-related ground failure.

Moreover, on Pg. 115, the 2012 DRAFT Marin County Housing Element's DSEIR, which also directs development in areas located in the TPP corridor and the Hwy 101 Corridor Priority Development, confirms the CWP's EIR findings: "Mitigation Measure 4.7-3 would reduce impact, but still found significant unavoidable. No change from CWP EIR."

Conclusion

In conclusion, the findings related to the impact of seismic-related ground failure, of the Marin Countywide Plan's EIR and the 2012 Draft Marin County Housing Element's SDEIR conflict with those of the Draft Plan Bay Area's DEIR and prove that the impact after mitigation would remain a significant unavoidable project and cumulative impact. Moreover, there can be no benefit that would result from implementation of Plan Bay Area that would override the impact of severe injury or loss of life from building on ground known to experience seismic-related ground failure. The only sensible recourse is to revise Draft Plan Bay Area and remove new development from Unincorporated Marin land that is subject to seismic related ground failure and remove Unincorporated Marin areas subject to seismic-related ground failure from the Transit Priority Project (TPP) corridors and Priority Development Areas (PDAs).

C. The Draft Plan Bay Area DEIR Fails to Adequately Disclose, Analyze and Mitigate Potentially Significant Impacts Associated with Deterioration of Grounds Surrounding Buildings due to Ground Shaking and Seismic-Related Ground Failure, including liquefaction.

The Draft Plan Bay Area DEIR fails to adequately disclose, analyze and

mitigate potentially significant impacts associated with the deterioration of grounds (E.g. walkways, parking lots, gardens) surrounding buildings due to ground shaking and seismic-related ground failure, including liquefaction.

Unincorporated Mill Valley's Tam Junction shopping area is located within the Transit Priority Project (TPP) corridor and the Hwy 101 Corridor Priority Development Area of the Draft Plan Bay Area. The area is deep (80 to 90 feet deep) landfill on top of bay mud and is designated a very high seismic activity zone. The area is subject to high liquefaction, subsidence, and mud displacement. Newer buildings in the shopping area are protected from low to moderate seismic events due to support pillars reaching down 80 to 90 feet deep to bedrock. According to the 2007 Marin Countywide Plan's EIR, the buildings are not protected from high seismic events. However, each year the walkways and parking lots around the stores crack, move and sink unevenly. There have been reports of pedestrians tripping and seriously hurting themselves from the uneven pavement. The shopping area must repair the walkways and parking lots every year. If repairs are postponed, grounds become excessively dangerous.

The above scenario illustrates the hazards associated with the deterioration of grounds surrounding buildings due to ground shaking and seismic-related ground failure. The Draft Plan Bay Area's DEIR fails to disclose, analyze and mitigate this type of potential significant impact.

VI. The Draft Plan Bay Area's DEIR Fails to Adequately Disclose, Analyze, and Mitigate Potentially Significant Impacts Associated With Sea Level Rise.

A. The Plan Bay Area's Draft EIR Fails To Adequately Disclose, Analyze, and Mitigate Significant Impacts Associated With Sea Level Rise Because Its Analysis Does Not Analyze Potential Century (E.g. 2100) Sea Level Rise, Which Corresponds To The Life Expectancy Of Developments Encouraged By Plan Bay Area.

Pg. 2.5-46 of the Draft EIR states; "The sea level rise analysis provides a program-level assessment of generalized potential impacts associated with future sea level rise in the San Francisco Bay Area utilizing the inundation mapping produced by NOAA for their Sea Level Rise and Coastal Flooding Impacts Viewer. Potential midcentury (e.g., 2050) sea level rise conditions were selected for this analysis, rather than 2040 conditions, as most sea level

rise projections are associated with midcentury and end-of-century conditions.”

According to the above excerpt, the Draft DEIR states that potential midcentury (e.g., 2050) sea level rise conditions were selected for the Draft EIR’s analysis of sea level rise. This time period is totally inadequate for a plan that guides development through Year 2040. Any building developed in 2040 would potentially last until the end of the century (2100), if not longer. Consequently, the Draft DEIR should have based its analysis of sea level rise on century (e.g., 2100) sea level rise conditions, at a minimum.

Therefore, the Draft Plan Bay Area’s Draft EIR fails to adequately disclose, analyze, and mitigate potential significant impacts associated with Sea Level Rise because its analysis does not analyze potential century (E.g. 2100) Sea Level Rise, which corresponds to the life expectancy of developments encouraged by Plan Bay Area.

B. The Draft Plan Bay Area’s DEIR Fails To Adequately Disclose, Analyze And Mitigate The Potential Significant Impact Of A Net Increase In The Number Of People Residing Within Areas Regularly Inundated By Sea Level Rise.

On Pg. 2.5-6, the Draft Plan Bay Area’s Draft EIR sites Impact 2.5-6: “Implementation of the proposed Plan could result in a net increase in the number of people residing within areas regularly inundated by sea level rise by midcentury.”

The Draft Plan Bay Area’s DEIR fails to adequately disclose and analyze the potential significant impact of a net increase in the number of people residing within areas regularly inundated by sea level rise because its analysis is based on potential midcentury (e.g., 2050) sea level rise conditions, which as demonstrated above in my comment **VI. A.**, is insufficient. Analysis should be based on a minimum of potential century (e.g., 2100) sea level conditions, which corresponds to the life expectancy of the development encouraged by the plan.

On Pg. 2.5-71, the Draft EIR incorporates mitigation measures 2.5(b) and 2.5(d) to mitigate Impact 2.5-6:

- 2.5(b) states; “MTC and ABAG shall work with the Joint Policy Committee to create a regional sea level rise adaptation strategy for the Bay Area.”
- 2.5(d) states; “Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to the following. Executive Order S-13-08 requires all state agencies, including Caltrans, to incorporate sea level rise into planning for all new construction and routine maintenance projects; however, no such requirement exists for local transportation assets and development projects. Implementing agencies shall require project sponsors to incorporate the 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. Potential adaptation strategies are included in the Adaptation Strategy sub-section found at the end of this section.”

2.5(b) and 2.5(d) are not adequate mitigation measures to mitigate Impact 2.5-6. To require future analysis and future planning to select or create future adaptation strategies is not a mitigation that can be evaluated now as to whether or not it can mitigate the impact. Rather, these requirements defer adequate analysis, disclosure, and mitigation of the impact to a future date.

The Draft Plan Bay Area’s DEIR approach violates CEQA. The Draft EIR must include mitigations that can be evaluated now as to whether or not they have merit; ABAG and MTC cannot wait until after Project approval. This information is necessary for decision makers to determine if sites identified for housing development are suitable for residential use, besides other determinations. The Draft EIR’s approach undermines the entire point of the CEQA process -- to offer the public and the decision makers the opportunity to weigh-in on a project’s potentially significant impacts and an agency’s proposed measures to mitigate those impacts. It is well- established that CEQA is not meant to be a *post hoc* rationalization of decisions that have already been made. “If post-approval environmental review were allowed, EIR’s would likely become nothing more than post hoc rationalizations to support action already taken.”¹⁰

¹⁰ *Laurel Heights Improvement Assn. v. Regents of University of California*

C. The Draft Plan Bay Area's DEIR Fails To Adequately Disclose, Analyze And Mitigate The Potential Significant Impact Of An Increase In Land Use Development Within Areas Regularly Inundated By Sea Level Rise.

On Pg. 2.5-71, The Draft Plan Bay Area's DEIR sites Impact 2.5-7: "Implementation of the proposed Plan could result in an increase in land use development within areas regularly inundated by sea level rise by midcentury."

The Draft Plan Bay Area's DEIR fails to adequately disclose and analyze the potential significant impact of an increase in land use development within areas regularly inundated by sea level rise because its analysis is based on potential midcentury (e.g., 2050) sea level rise conditions, which as demonstrated above in my comment **VI. A.**, is insufficient. Analysis should be based on a minimum of potential century (e.g., 2100) sea level conditions, which corresponds to the life expectancy of the development encouraged by the plan.

On Pg. 2.5-72, the Draft Plan Bay Area's DEIR sites Mitigation Measures 2.5(b) and 2.5(d) to mitigate Impact 2.5-7:

- 2.5(b) states; "MTC and ABAG shall work with the Joint Policy Committee to create a regional sea level rise adaptation strategy for the Bay Area."
- 2.5(d) states; "Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to the following. Executive Order S-13-08 requires all state agencies, including Caltrans, to incorporate sea level rise into planning for all new construction and routine maintenance projects; however, no such requirement exists for local transportation assets and development projects. Implementing agencies shall require project sponsors to incorporate the 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-

(1988) 47 Cal.3d 376, 394.

specific considerations. Potential adaptation strategies are included in the Adaptation Strategy sub-section found at the end of this section.”

Pg. 2.5-76 of the Draft Plan Bay Area’s DEIR states; “Any increase in land use development within areas projected to be regularly inundated by sea level rise is considered a significant impact. Selection and implementation of the appropriate mitigation measures and adaptation strategies may reduce the impact associated with sea level rise to less than significant. However, the appropriate adaptation strategies will be selected as part of future project-level analysis and planning.”

2.5(b) and 2.5(d) are not adequate mitigation measures to mitigate Impact 2.5-7. To require future project-level analysis and future planning to select or create future adaptation strategies is not a mitigation that can be evaluated now as to whether or not it can mitigate the impact. Rather, these requirements defer adequate analysis, disclosure, and mitigation of the impact to a future date.

The Draft Plan Bay Area’s DEIR approach violates CEQA. The Draft EIR must include mitigations that can be evaluated now as to whether or not they have merit; ABAG and MTC cannot wait until after Project approval. This information is necessary for decision makers to determine if sites identified for development are suitable for such development, besides other determinations. The Draft EIR’s approach undermines the entire point of the CEQA process -- to offer the public and the decision makers the opportunity to weigh-in on a project’s potentially significant impacts and an agency’s proposed measures to mitigate those impacts. It is well- established that CEQA is not meant to be a *post hoc* rationalization of decisions that have already been made. “If post-approval environmental review were allowed, EIR’s would likely become nothing more than post hoc rationalizations to support action already taken.”¹¹

¹¹ *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 394.

VII. The Draft Plan Bay Area's DEIR Fails To Fully Inform The Public Because It Does Not Explain What The Statement After The *Asterisk Means, Which Describes The Significance After Mitigation.

The Draft Plan Bay Area's DEIR repeatedly uses the following clause to describe the Significance After Mitigation: "**Significant and Unavoidable** *CEQA Streamlining Projects Under SB 375 That Implement All Feasible Mitigation Measures: Less than Significant with Mitigation."

The Draft DEIR fails to fully inform the public of the Plan Bay Area's significant impacts because it fails to explain what the above statement after the asterisk means. Under SB375, the Draft Plan Bay Area's DEIR is the program EIR that future projects would rely on for streamlining, so it does not make sense that significant and unavoidable impacts in this EIR would be reduced to a less-than-significant level by relying on mitigation in another EIR. In other words, there is no other EIR to rely on and the streamlining is for specific, future residential/mixed-use projects, not programmatic planning.

As demonstrated above, the statement after the asterisk lacks sufficient detail to ascertain its intent and therefore fails to fully inform the public of the Plan Bay Area's significant impacts.

VIII. No Benefit Could Result From Implementation Of Plan Bay Area That Would Override Thirty-Nine (39) Significant Unavoidable Adverse Impacts, Resulting In Severe Environmental Harm And Serious Illness, Injury And Loss of Life.

The Draft Plan Bay Area's DEIR demonstrates that implementation of Plan Bay Area would cause thirty-nine (39) significant unavoidable adverse environmental impacts, resulting in severe environmental harm and serious illness, injury, and loss of life. The severity, magnitude and number of these impacts are astonishing. They include, but are not limited to, impacts from:

- Insufficient water supply;
- Exposure to hazardous materials;
- Inadequate wastewater treatment capacity;
- Net Increase in Sensitive Receptors located in Transit Priority Project corridors where there are high concentrations of cancer causing Toxic Air Contaminants and fine particulate matter (PM 2.5) emissions;

- Inundation from sea level rise;
- Direct removal, filling or hydrological interruption of habitat; and
- Interference with the movement of native resident or migratory fish or wildlife species.

There could be no benefit from implementation of Plan Bay Area that would override the devastation, suffering and loss of these thirty-nine significant unavoidable adverse environmental impacts.

IX. CONCLUSION

The Draft Plan Bay Area's DEIR cannot be relied on to approve Plan Bay Area. ABAG must prepare a revised EIR that adequately analyzes Plan Bay Area's potentially significant impacts. As it stands, the Draft EIR is a woefully inadequate CEQA document. The Draft EIR's conclusions are not supported by substantial evidence. The Draft EIR's key assumption regarding Population and Job Growth is false. The Draft EIR fails to adequately analyze the Draft Plan Bay Area's potentially significant impacts with respect to air quality, seismic activity, and sea level rise, among others. ABAG cannot approve Plan Bay Area until an adequate EIR is prepared and circulated for public review and comment. Moreover, there could be no benefit from implementation of Plan Bay Area that would override thirty-nine significant unavoidable adverse environmental impacts, resulting in severe environmental harm and serious illness, injury and loss of life.

Finally, substantial evidence shows that to preserve the environment and protect residents' health and safety: 1) ABAG and MTC should recognize that there is an ultimate limit to growth and reduce the total projected build-out of Plan Bay Area to a level that is sustainable; and 2) The boundaries of the Transit Priority Project (TPP) corridors and the Priority Development Areas (PDAs) of Plan Bay Area should be changed to exclude hazardous areas.

Very truly yours,

/s/

Sharon Rushton

Chairperson

Sustainable TamAlmonte

Enclosures

ATTACHMENT 1



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April 26, 2012

Mr. Ezra Rapport
Executive Director
Association of Bay Area Governments
101 Eighth Street
Oakland, CA 94607-4700

Subject: Comments Regarding the Sustainable Communities Strategy
Draft Preferred "Jobs-Housing Connection Scenario"

Dear Director Rapport:

This letter transmits the Transportation Authority of Marin (TAM) Board's comments regarding the region's Sustainable Communities Strategy (SCS) Draft Preferred "Jobs-Housing Connection Scenario."

We recognize the Association of Bay Area Government (ABAG) staff for working with TAM and Marin County's local jurisdictions to adjust housing and employment forecasts to more accurately reflect local character and general plan capacity. We trust that ABAG will continue working closely with jurisdictions that have additional concerns regarding the projections.

We appreciate ABAG's recognition of Marin County's Priority Conservation Areas and agricultural land in the Plan Bay Area SCS. We cannot overstate the importance of these areas to the region.

Since its release on March 9, TAM staff has presented the "Jobs-Housing Connection Scenario" to the TAM Executive Committee, Board, the SCS Ad Hoc Committee, and the Marin County Planning Directors. In general, we received feedback that the current Marin housing and employment projections are more appropriate than previously presented in the Initial Vision Scenario or Alternative Scenarios. However, some jurisdictions continue to have concerns and will provide their comments directly to ABAG.

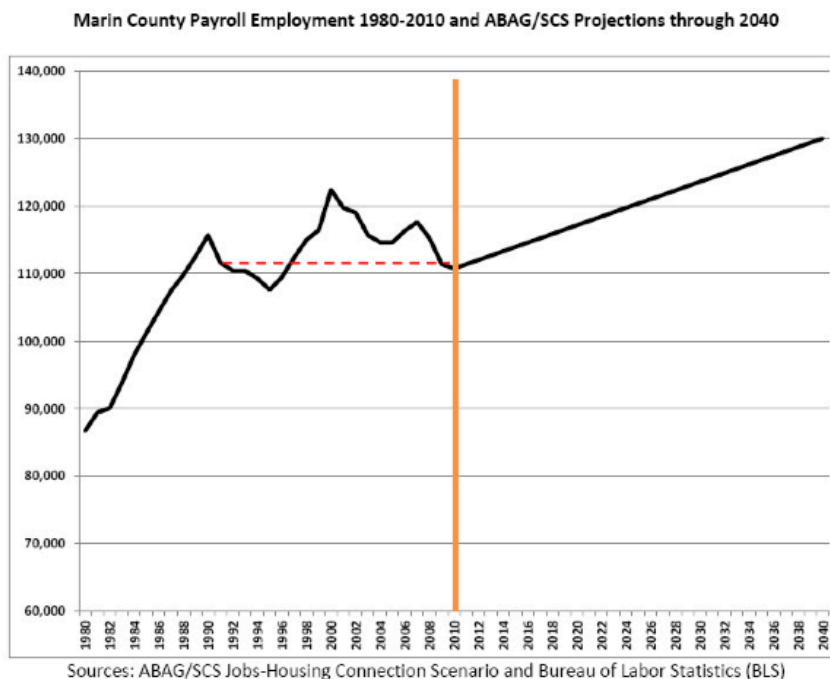
It is our understanding that ABAG has requested a peer-review of its housing and employment projections by the Bay Area Council's Economic Institute. We look forward to hearing the results of that review.

The intent of this letter is to provide county-wide comments on the Jobs-Housing Connection Scenario, based on discussions among our Board members and SCS Ad Hoc Committee. We have continuing concerns about the overall SCS that were stated in previous comment letters. Rather than restate

each point here, we refer you to our letters of June 13, 2011 and January 31, 2012.

Employment

The Jobs-Housing Connection Scenario forecasts employment growth at 17% by 2040, or about one-half percent per year. Although this appears to be consistent with historical growth of 16% from 1980-2010, in fact, and as pointed out by the County of Marin in its April 20 letter to ABAG, job growth in Marin was substantial only from 1980 to 1990. In 2011, employment levels are about the same that they were in 1990, as shown below in the red line, with a consistent decrease since 2000.



Marin County lacks the type of developable land associated with business growth of the 1980s, and has limited availability of water resources. It is unlikely that Marin can match the robust job growth of the 1980s. Therefore, we advise against using the last 30 years as a basis for projecting future growth.

In addition, we are concerned that the long-term employment forecast may be unrealistically high for Marin's growing population of seniors who are retired or not fully employed. Some adjustment may be necessary to the labor participation rate. The SCS should accurately account for the reduction in greenhouse gas production and vehicle miles travelled associated with home-based employment and telecommuting, along the transportation corridors. We ask ABAG

and the Metropolitan Transportation Commission (MTC) to identify and adopt a method to account for these employment locations.

Housing

Senior housing is a crucial and urgent issue for Marin County. The Bay Area's senior population is expected to increase by 131% by 2040. Marin County is expected to have a higher than average proportion of seniors. We are very concerned that the State does not recognize most types of senior and other group housing as "units" that may be counted toward meeting a jurisdiction's Regional Household Needs Assessment (RHNA). If we build units according to existing rules, we risk "crowding out" our senior population by not providing the right type of housing for those who wish to remain in their communities, but not in their single-family home.

ABAG is in a unique position to educate and advocate with the state Department of Housing and Community Development to recognize common types of senior and other group housing for RHNA purposes and thereby meet the population needs projected by the SCS forecasts.

Finally, we want to again emphasize that Marin's unique place and role as a recreational, environmental and agricultural resource in the Bay Area should be a primary consideration in long-term regional planning scenarios.

We look forward to, every four years, ABAG's comparison of the projections with actual growth and subsequent adjustments to the projections, and to working with ABAG, MTC, and the public to lead the Bay Area into compliance with the SB 375 plan for greenhouse gas emissions reduction.

Respectfully,



Alice Fredericks
TAM Board Chair
Transportation Authority of Marin

cc: Steve Heminger, Metropolitan Transportation Commission
Marin County SCS Ad Hoc Committee
TAM Commissioners

ATTACHMENT 2

GEOFFREY H. HORNEK

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February 19, 2013

Rachael E. Koss
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South San Francisco, CA 94080

Subject: Comments on the air quality analysis done for the 2012 Draft Supplemental Environmental Impact Report for the 2012 Draft Marin County Housing Element

Dear Ms. Koss:

Thank you for asking me to review and comment on the air quality analysis done for the *2012 Draft Supplemental Environmental Impact Report for the 2012 Draft Marin County Housing Element* (DSEIR). As a consultant in environmental air quality and acoustics, I have more than 20 years of experience in the preparation and review of environmental technical reports for a wide variety of commercial, transportation, and urban development projects in California. I include at the end of this letter a more complete resume of my qualifications and experience in this field for your consideration.

Since the late 1990s, research studies have increasingly and consistently shown an association between respiratory and other health effects and the proximity of sensitive populations to high-traffic roadways where cars and trucks emit toxic air contaminants (TACs) in large quantities over extended periods of time; diesel exhaust, in particular, has been found to be responsible for much of the overall cancer risk from TACs in California. Other TACs emitted by mobile and stationary sources also contribute substantially to the health burden (e.g., perchloroethylene, a solvent most commonly used by dry cleaners, has been identified as a potential cancer-causing compound). Among the pioneering studies that have led to an increasing focus on TAC exposure abatement in statewide air quality improvement programs are the following:

- Brunekreef, B. et al. *Air pollution from truck traffic and lung function in children living near motorways*. Epidemiology. 1997; 8:298-303
- Lin, S. et al. *Childhood asthma hospitalization and residential exposure to state route traffic*. Environ Res. 2002;88:73-81
- Venn et al. *Living near a main road and the risk of wheezing illness in children*. American Journal of Respiratory and Critical Care Medicine. 2001; Vol.164, pp. 2177-2180

- Kim, J. et al. *Traffic-related air pollution and respiratory health: East Bay Children's Respiratory Health Study*. American Journal of Respiratory and Critical Care Medicine 2004; Vol. 170. pp. 520-526

These findings and others were taken under consideration by the California Air Resources Board (CARB) in developing the *Air Quality and Land Use Handbook: A Community Health Perspective* (April 2005). In this document, the CARB made recommendations for consideration by local planning agencies when siting new residences and other sensitive uses (i.e., schools, day care centers, playgrounds, and medical facilities, etc.). These sensitive land uses deserve special attention because children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to air pollutants.

Research in the field of TAC exposures and health outcomes has increased since the CARB *Handbook* was issued and the findings have confirmed earlier results and identified new adverse health effects that significantly correlate with TAC exposures. A recent cursory search of the National Center for Biotechnology Information's PubMed database brought up the following sample of research papers that continue to raise and deepen concerns about TACs (abstracts for these are attached; many other similar papers issued since the *Marin Countywide Plan* was adopted in 2007 can easily be found by a more extensive PubMed search):

- Patel, MM et al. *Traffic-related air pollutants and exhaled markers of airway inflammation and oxidative stress in New York City adolescents*. Environ Res. 2012 Nov 22
- Dadvand, P et al. *Maternal Exposure to Particulate Air Pollution and Term Birth Weight: A Multi-Country Evaluation of Effect and Heterogeneity*. Environ Health Perspect. 2012 Feb 6.
- Brunekreef, B et al. *Effects of long-term exposure to traffic-related air pollution on respiratory and cardiovascular mortality in the Netherlands: the NLCS-AIR study*. Res Rep Health Eff Inst. 2009 Mar.
- Padula, AM et al. *Exposure to traffic-related air pollution during pregnancy and term low birth weight: estimation of causal associations in a semiparametric model*. Am J Epidemiol. 2012 Nov.
- Gan, WQ et al. *Associations of Ambient Air Pollution with Chronic Obstructive Pulmonary Disease Hospitalization and Mortality*. Am J Respir Crit Care Med. 2013 Feb 7.
- Yackerson, NS et al. *The influence of air-suspended particulate concentration on the incidence of suicide attempts and exacerbation of schizophrenia*. Int J Biometeorol. 2013 Jan 16.
- Faustini, A et al. *Air pollution and multiple acute respiratory outcomes*. Eur Respir J. 2013 Jan 11.
- Zora, JE et al. *Associations between urban air pollution and pediatric asthma control in El Paso, Texas*. Sci Total Environ. 2013 Jan 8.
- Willers, SM et al. *Fine and coarse particulate air pollution in relation to respiratory health in Sweden*. Eur Respir J. 2013 Jan 11.
- Lewis, TC et al. *Air pollution and respiratory symptoms among children with asthma: Vulnerability by corticosteroid use and residence area*. Sci Total Environ. 2012 Dec 26.

Locally, the Bay Area Air Quality Management District (BAAQMD) has made TACs a centerpiece of its air quality planning efforts. The Community Air Risk Evaluation (CARE) program was initiated in 2004 to evaluate and reduce health risks associated with exposures to TACs in the Bay Area. And more recently, the BAAQMD has revised its TAC assessment methodologies and significant thresholds in its *California Environmental Quality Act Air Quality Guidelines* (May 2011). Of particular use for my review of the DSEIR are the health risk screening tools in the BAAQMD Guidelines that present the major roadway and stationary sources in the Bay Area and allow preliminary conclusions to be drawn about the risks they pose to new sensitive uses proposed

for development nearby, based on recommended significance thresholds for cancer risk, other chronic health effects, and exposure to airborne fine particulate matter (PM_{2.5}).

Although the *Marin County Housing Element* identifies 52 sites for residential development, I focused my review of the DSEIR air quality findings on the potential TAC health risks to future residents on the following sites in Tamalpais Valley:

- Site #4 - Old Chevron Station (21 units proposed at 204 Flamingo Road);
- Site #9 - Manzanita Mixed Use (3 units proposed at 150 Shoreline Highway);
- Site #14 - Armstrong Nursery (53 units proposed at 217 & 211 Shoreline Highway);
- Site #18 - Around Manzanita (45 units proposed at 150 Shoreline Highway); and
- Site #19 - Tam Junction Retail (60 units proposed at 237 Shoreline Highway).

In general, the DSEIR air quality analysis references the BAAQMD *Guidelines* TAC screening tools and significance thresholds, but is not very precise in the application of the TAC screening criteria to all sites, nor very clear in identifying sites that would experience significant TAC impacts and all sources responsible, nor very specific about the limitations of its generic mitigation strategies when applied to the specific character of each identified significantly-impacted site. I did an independent health risk screening analysis by applying the BAAQMD exposure levels from roadways and stationary sources within each of the Tamalpais Junction sites' zones of influence (i.e., within 1000 feet of each site boundary) and drew my own conclusions based on estimated TAC levels and their comparisons with BAAQMD significance criteria for cancer risk, non-cancer hazard and PM_{2.5} level.¹

As shown in Table 1, all of the Tamalpais Junction sites are located within the zone of influence of a number of strong roadway and stationary TAC sources as identified in the BAAQMD's listings. With regard to the Tamalpais Valley sites, the DSEIR identifies Sites #4 and #19 as subject to a potentially significant cancer risk to future residents from TACs emitted from one stationary source, Shoreline Cleaners (DSEIR, pp. 82 - 84, Exhibit 3.0-4.), but the DSEIR does not disclose the severity of this risk. Shoreline Cleaners poses a cancer risk of 73.4, compared to the BAAQMD threshold of 10. In addition, the DSEIR fails to disclose another significant source of TACs, the County of Marin Crest Marin Pump Station Generator, which poses an additional risk of 52.7, also well above the BAAQMD threshold of 10. The DSEIR also fails to report that Site #14 would also be subject to the same potential significant cancer risks from these same two stationary sources, and that all three sites could experience a significant cumulative cancer risk (143.6, compared with the significant cumulative BAAQMD threshold of 100) from collective TAC emissions from all roadway and stationary sources in their zone of influence. Finally, the DSEIR also fails to report that Sites #9 and #18 would also be subject to potential significant cancer risk from TACs emitted by Highway 1 traffic (13.5, compared the BAAQMD threshold of 10) and by the Sausalito Marin City Sanitary District Generator (14.7, compared the BAAQMD threshold of 10).

¹ For a less-than-significant project-level TAC impact, a cancer risk should be less than 10 chances of cancer death from a lifetime exposure at the specified TAC concentration, a non-cancer hazard index should be less than 1.0, and an annual PM_{2.5} concentration should be less than 0.3 micrograms per cubic meter.

For a less-than-significant cumulative TAC impact, a cancer risk should be less than 100 chances of cancer death from a lifetime exposure at the specified TAC concentration, a non-cancer hazard index should be less than 10.0, and an annual PM_{2.5} concentration should be less than 0.8 micrograms per cubic meter.

Table 1: Toxic Air Contaminant (TAC) Health Risk Screening Analysis – Estimated Health Risks at Proposed Marin County Housing Sites in the Vicinity of Tamalpais Valley

Housing Site(s)	TAC Source in Zone of Influence	Cancer Risk (Chances of Cancer Death per Million Exposed)	Chronic Hazard Index	PM2.5 Concentration
#9 Manzanita Mixed Use (150 Shoreline Highway)	Highway 101	8.3*	0.008*	0.087*
	Highway 1	13.5*	0.013*	0.156*
# 18 Around Manzanita/ Manzanita Mixed Use (150 Shoreline Highway)	Sausalito Marin City Sanitary District Generator (15 Shoreline Highway)	14.7	0.005	0.026
	All Sources	36.5	0.026	0.269
#4 Old Chevron Station (204 Flamingo Road)	Highway 1	9.7*	0.013*	0.117*
	County of Marin, Crest Marin Pump Station Generator (290 Tennessee Valley Road)	52.7	0.019	0.012
#14 Armstrong Nursery (217/ 221 Shoreline Highway)	European Tailoring & Cleaners (237 Shoreline Highway)	7.8	0.021	0.0
#19 Tam Junction Retail (237 Shoreline Highway)	Shoreline Cleaners (203 Flamingo Road)	73.4	0.195	0.0
	All Sources	143.6	0.248	0.129
Source: California Environmental Quality Act Air Quality Guidelines (BAAQMD, Updated May 2011) & Recommended Methods for Screening and Modeling Local Risks and Hazards (BAAQMD, May 2010). * Estimated health risks from identified roadways at the on-site location of closest approach to the roadways. Exceedances of BAAQMD project or cumulative thresholds shown in red.				

The DSEIR states that potentially significant impacts related to TACs could occur on certain housing sites identified by the DSEIR screening analysis, but concludes that additional site-specific health risk assessments conducted at these sites, once specific development plans are finalized, would propose site-specific mitigations that would reduce TAC impact to a less-than-significant level (DSEIR, p. 81). While additional site-specific analyses for the Tamalpais Junction sites would be essential for specific residential development plans

proposed for any of the sites in the future, it is not clear that any proposed mitigations identified by such studies would be able to guarantee that TAC impacts would be reduced to a less-than-significant level for all possible exposure circumstances. The best solution for sites that have high TAC exposures would be to situate the proposed housing units on each site so that they are outside the zones of influence of all proximate roadway and stationary sources. But this is not feasible for any the Tamalpais Valley sites; all are relatively small and the entire sites are located within the zones of influence of significant TAC sources. The only possible mitigation measure for the Tamalpais Junction sites would be to fit the proposed residential buildings with air filtration systems to reduce indoor risk to acceptable levels. The problem with this is that there would be no assurance that these systems would be maintained sufficiently to assure acceptable long-term exposures to the future residents (i.e., commonly assumed to be 30-70 years for the purposes of residential health risk assessment). Moreover, indoor air filtration fails to address outdoor exposures to TACs. Children playing outside, or residents gardening, would have no protection from the high levels of TACs, which would pose cancer and other chronic and acute risks that would be additive to the risk imposed by their indoor exposure.

My conclusion is that the DSEIR screening risk assessment is inadequate to assure that future residents of any housing units built on any of the Tamalpais Junction sites would not be exposed to unacceptable TAC levels. Further, there is no evidence that future, in-depth health risk assessments could assure that TAC exposures would meet BAAQMD standards. Therefore, the County should remove sites 4, 9, 14, 18 and 19 from the Housing Element list and focus future County residential planning on sites that clearly meet BAAQMD screening criteria with a healthy margin of safety.

Sincerely,

/s/

Geoffrey H. Hornek