Caldecott Improvement Project EA/EIR Comments
July 10, 2006
Page 12 of 12

Please feel free to call me at 510 849-2354 if you have any questions regarding these comments.

Sincerely;

Richard Grassetti

1- Bullets 1-7 of the Grassetti Environmental Consulting are identical to comments 1-7 in the letter of the Mayer Luce Development. Please see Mayer Luce Development responses 1-7.

Bullets 8-9 of the Grassetti Environmental Consulting are identical to comments 13-14 in the letter of Mayer Luce Development. Please see Mayer Luce Development responses 13-14.

2- The Berkeley Keep Jets Over the Bay vs. Board of Port Commissioners case states that arbitrary noise metrics may not be adequate descriptors of noise impacts and that noise must be considered in the context of the disturbance that it causes. Caltrans uses an hourly Leq, as the noise descriptor and believes that this is the appropriate descriptor in evaluating traffic noise and any resulting impacts. On State Route 24 the highest single event noise producers (with the exception of the sirens of police and emergency vehicles) are heavy-duty trucks. Though they may produce noise at higher levels than the peak averaged hourly noise level, their frequency of passbys is irregular and unpredictable, and, unlike the sound of a jet flying by, the sound level is not much higher than the peak hourly level of the traffic that it is mixed with. Since freeway traffic noise is continuous, with irregular peaks, it would not be an accurate representation of the noise environment to describe the freeway only by the peaks caused by these individual truck passbys so Caltrans and the FHWA use a time averaged noise descriptor. When Caltrans performs its noise studies the percentage of heavy-duty trucks is factored into the model, though the volume of heavy-duty truck traffic is not expected to increase.

3- The scoping comments were not found to be attached to the letter above. Please see essay on “Scoping Period Comments” in Chapter 1.

4- Please see response #2 in the essay on “Traffic Modeling/Forecasting” in Chapter 1.

The commenter is correct that the congestion in the peak direction might discourage short-duration trips one of whose legs will need to travel through the long queues approaching the Caldecott Tunnel in the peak period in the peak direction. The travel demand model used to forecast traffic for this project does consider the effect of congestion upon route choice. However, it does not account for the phenomenon the commenter pointed out.

The model may, therefore, overestimate the number of these trips. It is important to keep in mind that most trips making use of the fourth bore will not return during the peak direction so this effect should not be overly large. In addition, travelers making these short trips will, by definition, be traveling to Oakland or Berkeley so they would enter State Route 24 near the tunnel and would not experience the full peak direction delay on State Route 24 approaching the tunnel.

If the traffic forecasts in the off-peak direction are therefore slightly higher than they should be, it will only mean that the impacts in the environmental document are somewhat overstated. Even if this effect was large, it would not mean that the actual off-peak volumes will be so low that the fourth bore is not needed and will not provide a considerable benefit. Even today, there are considerable queues in the off-peak direction.

5- Comment 5 of the Grassetti Environmental Consulting is identical to comment 13 in the letter of the Rockridge Community Planning Council. Please see Rockridge Community Planning Council response 13.

6 through 11- Comments 6-11 of the Grassetti Environmental Consulting are identical to comment 14 in the letter of the Rockridge Community Planning Council. Please see Rockridge Community Planning Council response 14.

12- The Preferred Alternative (Alternative 2N) will operate with two lanes of travel only. There are no plans to convert the shoulders to travel lanes in the future.

13- Please see the essay on "Alternatives Considered in the Draft Environmental Assessment/Environmental Impact Report (DEA/EIR)" in Chapter 1.

14- Please see the essay on "Alternatives Considered in the Draft Environmental Assessment/Environmental Impact Report (DEA/EIR)" in Chapter 1.

15- Tunnel excavation will utilize the New Austrian Tunneling Method. The nature of tunnel construction necessitates around the clock construction activity to control cost and schedule. When constructing a tunnel, construction work can proceed only in limited areas. For example, tunnel excavation can occur at only one location for each portal. Because of this limitation, the cost and schedule of a tunnel project will increase dramatically if the hours of construction are limited. In addition when the advance of a tunnel is delayed, additional support measures are required to assure that the face of the tunnel remains stable. Under the current plan, which involves tunnel construction 5 days per week, 24-hours per day, these additional support measures will only be required over the weekend. However, if tunnel construction were limited to one shift per day, these additional support measures would have to be installed every day, which would have significant cost implications. At this time it is anticipated that only tunnel excavation will be performed on a 24 hour per day schedule. The estimated duration for the work hours for each major stage of construction is summarized below:

Activity	Duration	Shifts
Mobilize/Portal Development	8 months	10-hour
Tunnel Excavation	18 months	24-hour
Final Lining	8 months	10-hour
Tunnel Systems	7 months	10-hour
Tunnel Approaches	7 months	10-hour
Other Activities	6 months	

Some nighttime work will be required during each construction phase. The schedule does not include risks and contractor could elect to work more shifts.

Please see the essay on "Constructing The Tunnel from the East Side Only" in Chapter 1.

16-Shotcrete batch plants will be located at both the east and west staging areas. The batch plants will be operated on a 24-hour per day basis during tunnel excavation. The batch plant at the west portal will be enclosed in a building to help mitigate dust and noise associated with this operation.

17- Please see response #4 in the essay on "Traffic Modeling/Forecasting" and response #4 in the essay on "Traffic Operations" in Chapter 1.

18- The statement that "the cut and cover structures will generate little additional noise and vibration compared to other tunnel operations…" is comparing the construction activities for the cut and cover structures to other construction activities for construction of the fourth bore and not to other tunnels.

19- FROG Park and Ayala Park are outside the study areas. Please see response to California Shakespeare Theater, July 5, 2006, #1 and #2, and response to Claremont Elmwood Neighborhood Association, July 17, 2006, #19 as well as response to Friends of the Rockridge-Temescal Greenbelt July 29, 2006, #1-3. Also see essay on "Project Study Area Boundaries" in Chapter 1.

20- The Mayer-Luce & Baca Developments you refer to do not have environmental documents available for review. Caltrans has requested information on these developments from the City of Oakland, but the information the City has is very preliminary. Thus there is no basis for analysis in the context of the Caldecott Improvement Project EA/EIR.

21- The State's approach to operational noise abatement is to determine the receptor that would be most likely to exceed the noise abatement criteria or reach a predicted noise level determined to be significant. The rationale is that once we have determined the existence or non-existence of traffic noise impacts at these critical

receptors in a given area it becomes unnecessary to analyze all the other receptors, which are physically less exposed to the freeway, and thus will have lower predicted noise levels. #320 Parkwoods has a greater exposure to the freeway than #180 Parkwoods. Our mid-day noise readings at #180 Parkwoods were substantially lower than those at #320 Parkwoods. Since traffic noise impacts have been determined at #320 Parkwoods, we do not have to analyze the noise at #180 Parkwoods as we know those predicted noise levels will be lower. It is not necessary to show traffic noise impacts at #180 Parkwoods because traffic noise impacts have already been determined to exist in the area and the next step is to analyze appropriate abatement.

In regards to the analysis of appropriate abatement, the State determines critical receptors in any given area to represent those areas. Again, as in the determination of traffic noise impact, the State does not analyze every single receptor and federal guidance does not require that every single receptor be analyzed. The fact that #180 Parkwoods was not included in the analysis does not mean that abatement is not being considered for that building, just that under the federal guidelines, if noise abatement has been shown to qualify for #320 Parkwoods, it becomes unnecessary to further analyze other residences that are more shielded from freeway noise. Please also see the essay on "Methodologies Used for the Impact Assessments/Local Ordinances" in Chapter 1.

22- Please see the essay on "Methodologies Used for the Impact Assessments/Local Ordinances" in Chapter 1.

23- Caltrans is not required to comply with the standards set by the general plans of local agencies. Please see the essay on "Methodologies Used for the Impact Assessments/Local Ordinances" in Chapter 1.

The commenter misstates the facts in regards to perceptible noise. It is widely accepted that a 3 dBA increase in traffic noise is the limit of what an average person can detect. In fact meteorological conditions can change traffic noise levels at some residences by far more that this, though the weather is generally not attributed to causing a significant impact. As stated earlier the highest single event noise producer would be the passby of heavy duty trucks and the frequency of passbys is not expected to increase. Nonetheless, the project is predicted to increase noise levels by no more than 2 dBA, which would not be considered significant even if the City of Oakland or Berkeley CEQA standards were applied.

In regards to construction noise impact, hourly (Leq(h)), as well as maximum(Lmax), noise level descriptors were used to analyze impact. Measurements of existing ambient noise levels have been made at several locations adjacent to the Caldecott Tunnel. The locations were chosen based on their exposure to the construction noise. These measurements included both daytime and nighttime noise. Ambient noise levels vary throughout the day. Peak noise levels were recorded from single events (as measured by the descriptor Lmax) such as vehicular back firing (e.g., trucks, motorcycles). The ambient noise levels were then compared to expected noise levels from construction activities.

For the construction staging area the west portal, the analysis indicates that if noise from construction activities (including single events) does not exceed 86 dBA at a distance of 50 feet and a temporary noise barrier is constructed, construction noise at the measurement locations is expected to be no louder than existing ambient noise. Put another way, no single construction noise event will create noise higher than the single noise events that are occurring now, hence there will be no significant impact due to construction noise. For this project the contract will require that noise from equipment be kept under the noise level of 86 dBA at 50 feet. This is a standard currently being used on other state projects and has been shown to be consistently attainable.

For the analysis of construction noise at the east portal, ambient noise readings were taken on Grizzly Terrace Drive, the neighborhood with the most exposure to the construction noise. The construction noise limit of 86 dBA at 50 feet will also apply to this staging area. The analysis indicates that with normal dissipation in noise over distance (with no temporary soundwall), construction noise, whether continuous or single event, will not reach levels higher than those that are now occurring.

24- The FHWA is mandated by the Federal-Aid Highway Act of 1970 to develop standards for addressing traffic noise. These standards were developed with the intent of best serving the public in terms of protection and reasonable cost. They were not determined through any health based study but through an analysis of what can reasonably be achieved and at what cost. The Code of Federal Regulation 23CFR772 specifies at least a 5dBA attenuation because 5dBA is considered the level that is easily perceptible to persons with average hearing and it can readily be achieved with a sound wall.

25- The Preferred Alternative (Alternative 2N) of this project is included in the 2007 Transportation Improvement Program (TIP) (which conforms to the State Implementation Plan (SIP)) and the 2005 Regional Transportation Plan (RTP), and thus is in conformance with all related federal air quality requirements. Air district thresholds are not enforceable on Caltrans unless adopted as a regulation.

26- Please see response #1 in the essay on "Traffic Modeling/Forecasting" and response #3 in the essay "Traffic Operations" in Chapter 1.

27- Please see response #23 above. Charles Salter Associates was retained by the Contra Costa Transportation Authority, under a contract with Parsons Transportation Group to assist the design team in determining detailed design aspects of the project, such as the height of the temporary sound wall along westbound State Route 24, adjacent to Caldecott Lane. No additional information developed by Charles Associates requires public review. Please see the essay on "Construction Impacts" in Chapter 1.

28- Noise impacts are assessed with freeway traffic at its noisiest hour. Due to the transitory nature of noise in single events, they cannot be used as the basis for evaluation or design, though abatement measures designed for the noisiest hourly traffic would alleviate noise in single events as well.

29- Both the Build and No-Build Alternatives show levels of service E and F at the limits of the zone subject to operational analysis. However, the levels of traffic are so similar that there should be no significant impact upon the highway operations. Therefore, extending the analysis further would only show there is no significant difference between the Build and No-Build alternatives. Please see also response #1 in the essay "Traffic Operations" in Chapter 1.

30- The travel demand model used was the CCTA model. However, in order to improve its performance in Alameda County along State Route 24 the zonal structure and roadway network from the Alameda County Congestion Management Agency's travel demand model was copied into it for a large area around State Route 24.

31- Please see response #4 in the essay on "Traffic Modeling/Forecasting" in Chapter 1.

32- The change in travel time associated with tunnel capacity and travel speed increases was specifically addressed in the growth inducement analysis reported in the DEA/EIR, Section 2.1.2.

33- The construction specifications will prohibit the use of public streets for storing of construction equipment. In addition, the contract specifications will prohibit parking of construction worker vehicles and the staging of trucks on Caldecott Lane. One of the first activities that will be performed is clearing of flammable vegetation within the construction sites. The contract specifications will require that construction equipment be well maintained and all equipment outside the cleared areas will be fitted with spark arrestors. In addition, the contract specifications will prohibit smoking within the construction sites. Construction sites will be wetted down on a regular basis to control dust, which will also help mitigate any fire hazard. Construction will not result in road closures that would block egress from the area around the tunnel construction sites in the event of a fire. Limited road closures will occur during construction but in all cases detours would be available in the event of an emergency.

The local jurisdictions, such as the local fire department, ambulance services and police, are responsible for responding to any emergencies. Caltrans, however, will facilitate "coordinated" emergency responses, by closely working with all local jurisdictions during an event. Caltrans will also make every effort to maintain local access via its facilities. Caltrans has various emergency response plans in place, and periodically performs "emergency response mock drills" with various local entities, such as the Metropolitan Transportation Commission (MTC). As part of the coordinated effort with local jurisdictions, if required, Caltrans will close portions of the tunnel to provide emergency vehicle access only. Based on the above discussion, Caltrans does not prepare and maintain emergency response maps or escape routes for each local jurisdiction, within the local boundaries. However, Caltrans will coordinate and support the local plans and emergency responses by maintaining access via its facilities.

34- Photo simulations depict the appearance of major features of the project and assist in the analysis and documentation of changes to visual resources. The same viewpoints that were selected to represent the study area were used for simulating the proposed project in "before" and "post construction" photographic comparisons. Landscaping is a major component used to mitigate the effects of transportation projects. If only

those simulations representing the reestablishment of vegetation at 10-15 years were included in the environmental document, then we would agree that it could be construed as misleading. However, simulations are included that depict the physical change from existing conditions to conditions immediately post construction with no landscaping. The reader can render his/her own assessment of impacts based on subjective viewer perception. Since the re-establishment of trees will take 15-20 years and shrubs 5-10 years, there is no question that to some viewer groups the effects will be substantially adverse. The intent of depicting a landscape 10-15 years into the future is to show that although the short-term effects of a project may be adverse they can and will be mitigated so that over time the residual effects will be substantially diminished.

35- Residents residing along or who utilize Caldecott Lane for access, currently experience adverse visual impacts resulting from freeway traffic. Although their views of the freeway would be blocked by any of the sound wall options, the effects are considered to be beneficial.

Originally, the 4.8-m (16-ft) high sound wall at shoulder alternative (Option A) and the berm with 2.4-m (8-ft) high sound wall (Option B) were the only options considered and evaluated. Option C, a variant of sound wall Option B was developed to save approximately 16 trees located adjacent to the Parkwoods Condominiums entrance. Of the three options presented to the Parkwoods Board meeting on January 19, 2007, sound wall Option B was subsequently selected as being the most aesthetically pleasing and beneficial to the Parkwoods residents. Caltrans has selected Option B for the following reasons: 1) The sound wall would be 2.4-m (8-ft) in height and less of a visual encroachment than the 4.8-m (16-ft) high sound wall options; 2) For adjacent residents, a fully landscaped berm would provide an attractive and pleasant buffer from the visual influence of freeway traffic. Caldecott Lane would appear more secluded and private while the visual influence of the freeway traffic would be immediately screened from much of the ground-plane and to some extent second story views; 3) In terms of mitigation, landscaping would provide immediate benefits under Option B. When planted, typical 15-gallon-size trees would exceed the height of the sound wall and would mitigate the perceived surface plane of the sound wall structure. Shrub plantings could obscure the 2.4-m (8-ft) sound wall within 5-8 years. Trees planted on top of the berm would begin to screen freeway views from the upper Parkwood residences in 10-12 years as opposed to 18-20 years under the other two options.

36- Section 13.16.020 of the City of Oakland (City) Municipal Code (Code), states that its intent is "to protect and enhance the water quality of our watercourses, water bodies, and wetlands in a manner pursuant to and consistent with the federal Clean Water Act." The Department has been issued a National Pollutant Discharge Elimination System (NPDES) Permit by the State Water Resources Control Board (SWRCB), which complies with the Clean Water Act (CWA). Thus, compliance with the CWA serves as compliance with the Code. Please also see the essay on "Methodologies Used For The Impact Assessments/Local Ordinances" in Chapter 1.

37- A preliminary analysis based on the percentage of added impervious area suggests that no significant impacts will occur. The existing area tributary to the highway drainage system is about 13.4 hectares, with about 6 hectares of paved highway and ramp surfaces. The 2N Alternative would add about 0.26 hectares of new pavement. The 3N Alternative would generate about 0.34 hectares of new pavement. The additional pavement areas for the 2N and 3N alternatives represent about 1.9% and 2.5% of the highway drainage system's watershed, respectively. The State Route 24 drainage system connects to an ACFC&WCD storm drain system downstream of Lake Temescal near Chabot Road. No State Route 24 pavement runoff or tunnel wash water drains to the Lake. The existing State Route 24 drainage system will be analyzed during the design phase of the project. That analysis will incorporate updated rainfall intensities for the project site. The State Route 24 drainage system, upstream of Lake Temescal, is independent of the storm drain system that collects and conveys storm runoff from the hillside areas above the highway to Lake Temescal. The proposed project will not impact the storm drain systems that drain the hillside areas. The City and the Regional Water Quality Control Board should address mudslides and landslides caused by inappropriate grading activities for residential developments above the highway. The City of Oakland, as the permitting body, has the responsibility to ensure that appropriate erosion control measures are implemented to prevent excessive sediment deposition in Lake Temescal, and that mitigation for increased runoff is implemented.

38- The Department does not have a C.3 requirement. Permanent Treatment BMPs are considered to the Maximum Extent Practicable (MEP) for all major reconstruction projects, such as the Caldecott Tunnel Project, according to the Department's NPDES Permit with the SWRCB. The applicable and potentially feasible permanent Treatment BMPs are mentioned in the Draft Environmental Impact Report (DEIR). There is limited information available in the environmental phase to provide more detailed information.

39- Additional studies to assess potential impacts of light and glare have been completed by Mr. Dan F. Dibble, PE of Light Endeavor and are incorporated into the FEA/EIR (Vol. 1). His assessment concluded that "permanent lighting installations, based on contemporary recommended lighting practice will not produce negative impacts for light trespass, glare or surface brightness in either the West or East Viewshed." Permanent lighting would include safety and security lighting for electrical substations, site lighting for the Operations and Maintenance Center (OMC), new tunnel lighting and on-off ramp lighting. The technical report also concluded that temporary flood lighting and site lighting systems for construction staging areas could potentially generate adverse lighting impacts, including light trespass, glare, artificial sky glow and extreme surface brightness. However, these could be effectively mitigated through the proper use, shielding, placement and orientation of the lighting equipment.

40- The Department has performed monitoring statewide to characterize pollutants generally found in stormwater runoff from transportation facilities and the report can be found on the following website: http://www.dot.ca.gov/hq/env/stormwater/pdf/CTSW-RT-03-065.pdf. The Department acknowledges your comment, and provides the following information concerning analysis of potential water quality impacts. In comparison with the overall watersheds of San Pablo Creek or Temescal Creek, the increase in flow volume and velocity from the proposed highway improvements are minimal, and therefore, these are anticipated to have minimal downstream effects on San Pablo Creek and Temescal Creek. The net impact of these changes on water quality and pollutant loading will be minimized with the use of temporary Construction Site BMPs, permanent Design Pollution BMPs, and permanent Treatment BMPs. The proposed additional impervious area for the Contra Costa County side of the tunnel for the 2N, the Preferred Alternative, and 3N Alternative are approximately 0.46 hectares (1.1 acres) and 0.72 hectares (1.8 acres), respectively. The proposed additional impervious area for the Alameda County side of the tunnel for the 2N and 3N Alternatives are approximately 0.26 hectares (0.6 acres) and 0.34 hectares (0.8 acres), respectively. The drainage trunk line within the median of State Route 24 from the East Tunnel Portals to the eastbound Off-ramp to Orinda conveys the West Branch of San Pablo Creek to its confluence with San Pablo Creek at Moraga Avenue in Orinda. The West Branch of San Pablo Creek watershed area tributary to the median system is about 750 hectares (1853 acres). The area of the existing highway and ramps total about 13 hectares (32 acres), or 1.73% of the total watershed. The tributary paved area for Tunnel Road, Fish Ranch Road, and Gateway Blvd. is not included in the 13 hectares of paved highway surface. The additional impervious areas for the 2N and 3N Alternatives represent approximately 0.06% and 0.10%, respectively, of the watershed for the West Branch of San Pablo Creek. The additional runoff associated with the added impervious area is minimal, and would have negligible effect on flow volume, flow velocity, or additional pollutant loading within the median system. The total watershed area tributary to the San Pablo Creek arch culvert under State Route 24 is about 1700 hectares (4200 acres). The additional paved area for the 2N and 3N Alternatives represent approximately 0.03% and 0.04%, respectively, of the watershed for the arch culvert. The additional runoff for the 2N and 3N Alternatives would have no significant effect on flow volume and velocity within the San Pablo Creek arch culvert and San Pablo Creek proper. On the Alameda County side, the State Route 24 drainage system, upstream of Lake Temescal (Lake), is independent of the storm drain system that conveys storm runoff from the hillside areas above the highway to the Lake. The existing area tributary to the highway drainage system from the State Route13/24 interchange to the Tunnel Portals is about 13.4 hectares (33 acres), with about 6 hectares (14.8 acres) of paved highway and ramp surfaces. The additional pavement areas for the 2N and 3N alternatives represent about 1.9% and 2.5% of the highway drainage system's watershed, respectively. The State Route 24 drainage system connects to an Alameda County Flood Control and Water Conservation District (ACFC&WCD) storm drain system downstream of the Lake near Chabot Road. The additional runoff associated with the added impervious area is minimal, and would have negligible effect on flow volume, flow velocity, or additional pollutant loading within the system.

41- This issue is discussed in Section 2.2.3.3 Impacts and 2.2.3.4 Avoidance, Minimization and/or Mitigation Measures in Volume I.

The landslide mentioned is on the southwest quadrant well above the first bore and will not come into play on the fourth bore. The landslide hazard is handled in more detail in the Geotechnical Design Reports after completion of a detailed geotechnical investigation. Landslides are a very important issue and their potential is thoroughly analyzed. The main area with the majority of landslides is in the northeast quadrant adjacent to State Route 24. We are planning a series of walls for this section of widening and landslide failures will be thoroughly analyzed.

42- In regards to threshold of significance, BAAQMD thresholds do not apply to Caltrans projects. Caltrans conforms to local guidelines to the extent practicable and feasible. However, the state of California is not required to adhere to local ordinances in preparation of environmental documents, but follows the environmental analysis requirements set forth in both the National Environmental Policy Act and California Environmental Quality Act.

43- Air district thresholds are not enforceable on Caltrans unless adopted as a regulation. The CO was analyzed using the "Transportation Project-Level Carbon Monoxide Protocol". This protocol was approved by MTC in Resolution No. 3075 on June 24,1998 and its use was recommended by the Bay Area Interagency Conformity Task Force, which is the interagency consultation group established pursuant to EPA's conformity regulation and the Bay Area's conformity State Implementation Plan.

44- The description of the CO analysis was mistakenly located in the particulates section. It has been moved to its proper location in the final document. The BAAQMD CEQA guidelines for feasible control measures will be incorporated into the project. Said guidelines do not require quantification of PM10 emissions during construction and state that emissions would be less than significant if the measures are implemented.

45- Air District thresholds do not apply to Caltrans projects.

46- The BAAQMD CEQA guidelines for feasible control measures will be incorporated into the project to the extent possible.

Construction staging areas and stockpiles of excavated material will be wetted down to control dust. Ventilation fans will be equipped with filtration systems to trap dust emanating from the tunnel during construction. The shotcrete batch plant at the west portal will be enclosed to control dust.

47- Please see the essay on "Construction Impacts" in Chapter 1.

48- Please see response #23 above.

49- The State's approach to operational noise abatement is to determine the receptor that would be most likely to exceed the noise abatement criteria or reach a predicted noise level determined to be significant. The rationale is that once we have determined the existence or non-existence of traffic noise impacts at these critical receptors in a given area it becomes unnecessary to analyze all the other receptors, which are physically less exposed to the freeway, and thus will have lower predicted noise levels. #320 Parkwoods has a greater exposure to the freeway than #180 Parkwoods. Our mid-day noise readings at #180 Parkwoods were substantially lower than those at #320 Parkwoods. Since traffic noise impacts have been determined at #320 Parkwoods, we do not have to analyze the noise at #180 Parkwoods as we know those predicted noise levels will be lower. It is not necessary to show traffic noise impacts at #180 Parkwoods because traffic noise impacts have already been determined to exist in the area and the next step is to analyze appropriate abatement.

In regards to the analysis of appropriate abatement, the State determines critical receptors in any given area to represent those areas. Again, as in the determination of traffic noise impact, the State does not analyze every single receptor and federal guidance does not require that every single receptor be analyzed. The fact that #180 Parkwoods was not included in the analysis does not mean that abatement is not being considered for that building, just that under the federal guidelines, if noise abatement has been shown to qualify for #320 Parkwoods, it becomes unnecessary to further analyze other residences that are more shielded from freeway noise. Please also see the essay on "Methodologies Used for the Impact Assessments/Local Ordinances" in Chapter 1.

Ozone impacts are regional in nature and cannot be ascribed to any single project. Projects that are included in the Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP) have already been included in a regional conformity analysis and require no further analysis for ozone. The Preferred Alternative for this project is included in the 2007 Transportation Improvement Program (TIP) (which conforms to the SIP) and the 2005 Regional Transportation Plan (RTP).

In regards to particulates, the Bay Area is in attainment for PM2.5 (Annual Arithmetic Mean and 24-hour) and PM10 (Annual Arithmetic Mean). It is unclassified for PM10 (24-hour). No quantification of PM2.5 is required and there currently is no approved methodology for quantification of PM10.

In regards to thresholds of significance, BAAQMD thresholds do not apply to Caltrans projects.

50- In regards to construction noise impact, hourly (Leq(h)), as well as maximum (Lmax), noise level descriptors were used to analyze impact. Measurements of existing ambient noise levels have been made at several locations adjacent to the Caldecott Tunnel. The locations were chosen based on their exposure to the construction noise. These measurements included both daytime and nighttime noise. Ambient noise levels vary throughout the day. Peak noise levels were recorded from single events (as measured by the descriptor Lmax) such as vehicular back firing (e.g., trucks, motorcycles). The ambient noise levels were then compared to expected noise levels from construction activities.

For the construction staging area the west portal, the analysis indicates that if noise from construction activities (including single events) does not exceed 86 dBA at a distance of 50 feet and a temporary noise barrier is constructed, construction noise at the measurement locations is expected to be no louder than existing ambient noise. Put another way, no single construction noise event will create noise higher than the single noise events that are occurring now, hence there will be no significant impact due to construction noise. For this project the contract will require that noise from equipment be kept under the noise level of 86 dBA at 50 feet. This is a standard currently being used on other state projects and has been shown to be consistently attainable.

For the analysis of construction noise at the east portal, ambient noise readings were taken on Grizzly Terrace Drive, the neighborhood with the most exposure to the construction noise. The construction noise limit of 86 dBA at 50 feet will also apply to this staging area. The analysis indicates that with normal dissipation in noise over distance (with no temporary soundwall), construction noise, whether continuous or single event, will not reach levels higher than those that are now occurring.

In regards to dust, the BAAQMD requires feasible control measures that will abate particulates. These measure will be included in the project to the extent possible. The project will benefit the residents on both the east and west side of the tunnel, by eliminating the daily reversals of the bores, and adding the two-lane bore (the preferred alternative), congestion will be relieved especially in the non-peak direction.

Please see essay on “Construction Impacts” in Chapter 1.

51- Proposed measures were listed on page 168 of the DED. Construction noise is temporary and therefore not considered significant. Please see essay on “Construction Impacts” in Chapter 1.

52- Alameda whipsnake studies and Section 7 Consultation with the United States Fish and Wildlife Service (USFWS) have been completed. The USFWS issued a No-Jeopardy Biological Opinion and Incidental Take Statement for the Alameda whipsnake on August 8, 2007, and subsequently issued an amendment to the Biological Opinion on August 17, 2007. The project includes measures to avoid and minimize impacts to the Alameda whipsnake. Habitat that itself is not prime Alameda whipsnake habitat, but is contiguous with prime Alameda whipsnake habitat, will be impacted by the proposed project. Temporary impacts to this habitat will be compensated through adequate on-site restoration of temporarily affected Alameda whipsnake habitat and through the purchase of credits at a USFWS-approved conservation bank or contribution to habitat acquisition that complies with Federal Highway Administration (FHWA) policy for federal aid participation. This is dependent on which of these two options is available at the time of purchase. Permanent impacts to the habitat will also be compensated through either the purchase of credits at a USFWS-approved conservation bank or contribution to habitat acquisition that complies with FHWA policy for federal aid participation.

53- The disposal of excavated material will be determined by the Contractor. The Contractor will be able to explore potential uses for the excavated material and disposal sites. The Contractor will be required to adhere to all state and federal regulations in disposal or use of the excavated material.

It is expected that the material resulting from the tunnel excavation will be free of anthropogenic contamination, thereby making it a very likely candidate for unrestricted reuse at other developments in need of imported fill. There is a chance that a small percentage of the excavation spoils will be impacted by the naturally occurring hydrocarbons (e.g., tar) observed in the geologic formations during the boring of the earlier tunnels. The excavation spoils will be screened for the presence of hydrocarbons and other chemicals (e.g., metals) to fully characterize the spoils' constituents and determine suitability for types of reuse.

Whether the spoils are reused as imported fill or disposed of at a landfill, the material will be handled in accordance with all applicable laws and regulations promulgated by federal, state, and local agencies. For example, landfill waste characterization will be governed by Title 22 of the California Code of Regulations and

the federal parameters defined under the Resource, Conservation and Recovery Act (RCRA); additionally, reuse as imported fill should satisfy guidelines established by, amongst others, the State Water Resources Control Board acting through its regional water quality control boards.

54- The contract specifications will prohibit disposal trucks from using Tunnel Road, Claremont Avenue, Ashby Avenue, and College Avenue. The construction specifications will prohibit the use of public streets for storing of construction equipment. In addition, the contract specifications will prohibit parking of construction worker vehicles and the staging of trucks on Caldecott Lane.

Generally, a contractor will elect to use a highway in lieu of residential routes to avoid congestion and narrow roads. The project specifications will prohibit construction off haul trucks and equipment from using Tunnel Road, Claremont Avenue and College Avenue. No suitable local muck disposal site has been identified and therefore the contract specifications will allow the contractor to select the disposal site.

55-The contractor is required to prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) for approval by the Department. The SWPPP shall include BMPs to address any, or all, of the following to the MEP: soil stabilization, sediment control, tracking control, wind erosion control, non-stormwater management, and waste management and materials pollution control. Hazardous Waste, Solid Waste, Liquid Waste, and Contaminated Soil Management Construction Site BMPs shall also be required. In general, the choice of methods of construction and materials used would be dictated by the contractor, thus, it is not possible for the Department to list such items. Department site inspections would ensure adequate implementation of those BMPs identified within the SWPPP. Further, a sampling and analysis plan shall be prepared as part of the SWPPP to verify and ensure that no materials or wastes may be released from the construction site, effectively monitoring and protecting downstream water resources.

56- One of the first activities that will be performed is clearing of flammable vegetation within the construction sites. The contract specifications will require that construction equipment be well maintained and all equipment outside the cleared areas will be fitted with spark arrestors. In addition, the contract specifications will prohibit smoking within the construction sites. Construction sites will be wetted down on a regular basis to control dust, which will also help mitigate any fire hazard. Construction will not result in road closures that would block egress from the area around the tunnel construction sites in the event of a fire. Limited road closures will occur during construction but in all cases detours will be available in the event of an emergency.

57- See response #46 above.

58- It is anticipated that blasting will be required only in limited areas along the tunnel. The construction specifications will include limits on the peak vibrations associated with blasting and these limits will be established to prevent damage to any residential structure. Blasting will not be permitted during nighttime hours.

59- See response to No. 10.

60- It is discussed in section 2.2.3.3 Impacts and 2.2.3.4 Avoidance, Minimization and/or Mitigation Measures. Temporary cuts will need to be made during construction as well as perhaps small permanent cuts. Standard mitigation measures will be employed during construction to ensure slope stability. These include providing appropriately designed excavation support systems, limiting the maximum cut slope inclinations, covering finished slopes with erosion control, providing adequate drainage at the top of the slopes to avoid sheet flow on slope faces, and revegetating the slopes. Walls will be placed to avoid large cuts."

61- The growth inducement analysis was carefully crafted to address the CEQA growth criteria. The comment contributor is referred to the referenced technical report on growth inducement and the detailed analysis documented therein and incorporated by reference into the environmental document. Also see the response to BAAQMD, July 28, 2006, Comment #1. The growth study summarized in Section 2.1.2, Growth, in the DEA/EIR, found that while the projected time savings of the fourth bore would theoretically increase the growth pressures in residential study areas to the west of the tunnel, such as Berkeley, Oakland or Piedmont, there were other factors present that would prevent unplanned growth. These factors include the fact that all of the communities close enough to the tunnel to be affected by delay savings are relatively built out and plan to rely on carefully controlled infill growth to provide more housing over the next 20 or 30 years. The expert panel agreed with these findings.

62- The response to any impacts to waters or wetlands is referenced in Section 2.3.2.4, "Avoidance, Minimization and/or Mitigation Measures," of the DEA/EIR.

As noted in the DEA/EIR, mitigation requirements for both temporary and permanent impacts to wetlands and other waters will be determined through consultation with the United States Army Corps of Engineers (USACE). Permanent impacts to wetlands will be compensated through purchase of wetland mitigation credits at an appropriate mitigation bank approved by the USACE, and the San Francisco Bay Regional Water Quality Control Board prior to the start of construction.

63- Please see response to Grassetti comment no. 38.

64- At the time the *Paleontological Resources Identification (PIR) and Evaluation Report for the Caldecott Improvement Project, Alameda and Contra Costa Counties, California* (July 2004) was written, and as stated in the DEA/EIR, it was assumed that grinding rock material to dig the tunnel would destroy any paleontological resources in the rock. However, the tunnel boring equipment that will be used in the project will produce blocks of rock up to eighteen (18) inches in diameter. Therefore, additional paleontological monitoring of tunnel spoils is now proposed.

Subsequent to the circulation of the DED a draft Paleontological Mitigation Plan (PMP) has been completed and the Paleontology section of the FEA/EIR has been revised. The draft PMP provides guidance for protecting and preserving paleontological resources during construction in order to reduce potential impacts on paleontological resources to a less-than-significant level as required by CEQA. Avoidance, minimization/and or mitigation measures will include the monitoring of earth moving, fossil site avoidance, fossil treatment and a curation agreement. Please see Section 2.2.4 "Paleontology" in the FEA/EIR.

65- Please see the essay on "Constructing the Tunnel from the East Side Only" in Chapter 1.

66- The FEA/EIR commits to avoidance, minimization and/or mitigation measures for potential project impacts.

67- The reasonableness criteria are established for abatement measures under Code of Federal regulations 23CFR772.

68- Please see response #53.

69- The staging areas were included in the technical studies for the proposed project. They have been evaluated and there are no identified potential significant impacts in the proposed staging areas. To clarify what was meant in the DEA/EIR on pg. 198, is that additional evaluation of the staging areas for permits may be required by the permitting agencies.

70- The FEA/EIR commits to avoidance, minimization and/or mitigation measures for potential project impacts.

Please see essay on "Construction Impacts" in Chapter 1.

71-Page 203 refers to temporary traffic impacts during the construction of tie-ins from the new tunnel to the existing freeway lanes and from interchange work, since lane closures are required for the tie-ins and interchange work. During the design phase, a Traffic Management Plan (TMP) will be prepared with the input from the cities of Oakland and Orinda to minimize traffic impacts during these operations. Measures, to be agreed by local agencies, may include installation of advance warning signs, traffic detours and public outreach to inform drivers of closures.

We estimate that the maximum traffic generated by tunnel construction activities over a four-hour period will be between approximately 40 and 50 trucks. Traffic assessments indicate that this added volume of traffic would not have serious adverse traffic impacts.

72- FHWA and the Department as the lead agencies for NEPA and CEQA have determined that the project will not have any significant environmental effects. See the essay on "The Environmental Process: Environmental Impact Statement/Environmental Impact Report (EIS/EIR) Versus an Environmental Assessment/Environmental Impact Report (EA/EIR); and Criteria for Significance" in Chapter 1.

73- See response to #20, above.

74- In our discussions with the City of Oakland Planning department we were informed that there were plans for 38 single family units in the location described by the commenter. We were informed that the plans were in pre-approval and any building permits would be years away. This proposed project has no environmental document. Should the building permit be approved before the final environmental document is approved the noise study will be revised.

Hypothetically, a perfect surface that can reflect 100% of the sound energy would raise the noise level by 3dBA. In real situations, sound reflecting off the walls is a much weaker noise source than the originating traffic noise and would be masked by it. The reflective noise would not be detectable in this environment.

75- See response #20, above.

76- The Department and FHWA disagree with the commenter's assertion that the DEA/EIR is a substandard document that fails to meet CEQA and NEPA's purposes of disclosure and environmental protection. We believe it does provide adequate information upon which to base informed decisions. Specific avoidance, minimization and/or mitigation measures have been refined in the FEA/EIR and are discussed in Vol. I, Chapter 2, Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures.

Please also see the essay on "The Environmental Process: Environmental Impact Statement/Environmental Impact Report (EIS/EIR) Versus an Environmental Assessment/Environmental Impact Report (EA/EIR); and Criteria for Significance" in Chapter 1.

Transportation Solutions Defense and Education Fund

Transportation Solutions Defense and Education Fund

16 Monte Cimas Avenue Mill Valley, CA 94941 415-380-8600

July 12, 2006
By E-Mail

Gregory C. McConnell, Senior Environmental Planner
Attention: Sheryl Dorado, Associate Environmental Planner
Dept. of Transportation, District 4, Environmental Analysis
Mail Station 8B
P.O. Box 23660
Oakland, CA 94623-0660

Re: Caldecott Tunnel DEA/EIR

Dear Mr. McConnell:

The Transportation Solutions Defense and Education Fund, TRANSDEF, is a Bay Area environmental advocacy organization active in regional transportation, land use and air quality planning. Upon review of the draft environmental document, we have concluded that it is inadequate in the following ways:

1. It fails to identify the increase in VMT that will result from the proposed project. Amidst the hundreds of data points, this critical data was not available in a concise table, comparing alternatives. 1

2. It fails to identify the effect this increase will have on motor vehicle air emissions. 2

3. It fails to identify the effect this increase will have on global climate change. (See attached Opinion of the Attorney General for a complete explanation of the responsibility of the lead agency to study the impacts on climate change.) 3

4. It fails to identify the impact the project will have on transit operations, by inducing reverse-commute transit passengers to shift their mode to single-occupant auto. 4

5. It fails to explain in its Purpose and Need why this project is needed, when the peak direction backup is many times longer than the one this project is intended to improve. It seems ludicrous to be spending hundreds of millions of dollars to fix something that is relatively minor, when a gigantic backup exists, for which the proposed project does nothing. Is the real Purpose and Need "to have something for the construction industry to do"? 5

We look forward to the Response to Comments. Thank you for this opportunity to comment on the Draft Environmental Assessment/ Environmental Impact Report.

Sincerely,

/s/ DAVID SCHONBRUNN

David Schonbrunn,
President

Attachment
3/30/06 Letter to OCTA from Attorney General

BILL LOCKYER
Attorney General

State of California
DEPARTMENT OF JUSTICE

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March 30, 2006

VIA OVERNIGHT MAIL AND U.S. MAIL

Glenn Campbell, Principal Transportation Analyst
Orange County Transportation Authority
550 South Main Street
P.O. Box 14184
Orange, CA 92863-1584

RE: Orange County Transportation Authority 2006 Long-Range Transportation Plan Draft Program Environmental Impact Report

Dear Mr. Campbell:

The Attorney General of the State of California submits the following comments regarding the Orange County Transportation Authority ("OCTA") 2006 Long-Range Transportation Plan ("Plan") Draft Program Environmental Impact Report ("DPEIR"). The Attorney General provides these comments pursuant to his independent power and duty to protect the natural resources of the State from pollution, impairment, or destruction in furtherance of the public interest. (*See* Cal. Const., art. V, § 13; Cal. Gov. Code, §§ 12511, 12600-12; *D'Amico v. Board of Medical Examiners*, 11 Cal.3d 1, 14-15 (1974).) These comments are made on behalf of the Attorney General and not on behalf of any other California agency or office. While these comments focus on some of the primary issues raised by the Draft PEIR, they are not an exhaustive discussion of all issues.

I. Introduction

The Plan is described as being OCTA's "blueprint" for maintaining and improving Orange County's transportation network, including freeways, roadways and bus and rail systems through 2030. The Plan focuses much of its attention and planned spending on freeways and roadways, with a much smaller emphasis on public transit. Consequently, the Plan forecasts huge increases (approximately 45%) in vehicle miles traveled ("VMT") per day in the coming years. The environmental analysis in the DPEIR fails to adequately analyze air quality impacts and contains no analysis at all of the impact of the Plan on climate change, both in violation of the California Environmental Quality Act ("CEQA"), Pub. Resources Code §§ 21000, et seq. Orange County is one of the most populous counties in the State, in one of the worst air quality

Glen Campbell
March 30, 2006
Page 2

regions in the country. The environmental and public health concerns raised by the projected increases in vehicular travel under the proposed plan deserve, and CEQA requires, serious and thorough environmental analysis.

II. The DPEIR Should Discuss The Plan's Impact On Climate Change.

Despite the Plan's heavy reliance on vehicular travel and improvements to freeways, roads and streets, and the acknowledged increase in vehicle travel that the Plan will encourage, the DPEIR never analyzes one of the most important environmental impacts of vehicle emissions--greenhouse gases and resulting climate change

Climate change results from the accumulation in the atmosphere of "greenhouse gases" produced by the burning of fossil fuels for energy. Because greenhouse gases (primarily, carbon dioxide("CO_2"), methane and nitrous oxide) persist and mix in the atmosphere, emissions anywhere in the world impact the climate everywhere. The impacts on climate change from greenhouse gas emissions have been extensively studied and documented. (*See* Oreskes, Naomi, *The Scientific Consensus on Climate Change*, 306 Science 1686 (Dec. 3, 2004) [review of 928 peer reviewed scientific papers concerning climate change published between 1993 and 2003, noting the scientific consensus on the reality of anthropogenic climate change]; J. Hansen, *et al.*, *Earth's Energy Imbalance: Confirmation and Implications,* Sciencexpress (April 28, 2004) (available at http://pubs.giss.nasa.gov/abstracts/2005/HansenNazarenkoR.html) [NASA and Department of Energy scientists state that emission of CO_2 and other heat-trapping gases have warmed the oceans and are leading to energy imbalance that is causing, and will continue to cause, significant warming, increasing the urgency of reducing CO_2 emissions].)

In California, the state government has acknowledged the true environmental impacts of greenhouse gas emissions on climate change. Governor Schwarzenegger, in his Executive Order S-3-05 issued on June 1, 2005, recognized the significance of the impacts of climate change on the State of California, noting that "California is particularly vulnerable to the impacts of climate change." The Order goes on to itemize a litany of the direct impacts that climate change and the increased temperatures resulting from the increased presence of greenhouse gases in the atmosphere, will have on the state:

- "[I]ncreased temperatures threaten to greatly reduce the Sierra snowpack, one of the State's primary sources of water;"
- "[I]ncreased temperatures also threaten to further exacerbate California's air quality problems and adversely impact human health by increasing heat stress and related deaths;"

Glen Campbell
March 30, 2006
Page 3

- "[R]ising sea levels threaten California's 1,100 miles of valuable coastal real estate and natural habitats;" and

- "[T]he combined effects of an increase in temperatures and diminished water supply and quality threaten to alter micro-climates within the state, affect the abundance and distribution of pests and pathogens, and result in variations in crop quality and yield."
  Executive Order S-3-05, June 1, 2005.

The California legislature, also recognized all of these severe impacts resulting from climate change, as well as a "projected doubling of catastrophic wildfires due to faster and more intense burning associated with drying vegetation." (Stats. 2002, ch, 200, Section 1, subd. (c)(4), enacting Health & Saf. Code § 43018.5) In the particular realm of vehicular travel and emissions from cars and truck, the California legislature went on to recognize that "passenger vehicles and light-duty trucks are responsible for *40 percent of the total greenhouse gas pollution in the state*." (*Ibid*., subd. (e)(emphasis added).)

Despite the increasing attention that governments, climate scientists, environmentalists, and other members of the public are rightfully directing to the issue of climate change, OCTA does not even mention the issue in its long term transportation plan, which is meant to cover the next quarter century. The DPEIR never once mentions carbon dioxide, climate change or global warming, and mentions greenhouse gases only by passing reference, when discussing other emissions, without explaining either the importance, or the projected impacts, of greenhouse gases.

Under CEQA, an environmental impact report must identify and focus on the "significant environmental effects" of a proposed project. (Pub. Res. Code § 21100(b)(1); Cal. Code Regs., Title 14, §§ 15126(a), 15126.2(a), 15143.) "'Significant effect on the environment' means a substantial, or potentially substantial, adverse change in the environment." (Pub. Res. Code § 21068). CEQA also provides that the CEQA guidelines "shall" specify certain criteria that *require* a finding that a project may have a significant effect on the environment:

> "(1) A proposed project has the potential to degrade the quality of the environment, curtail the range of the environment, or to achieve short-term, to the disadvantage of long-term, environmental goals.
>
> (2) The possible effects of a project are individually limited but cumulatively considerable. As used in this paragraph, "cumulatively considerable" means that

Glen Campbell
March 30, 2006
Page 4

> the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.
>
> (3) The environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly."
> (Pub. Res. Code § 21083(b).)

In other words, if these criteria are present with regard to a project's impacts on the environment, they must be considered in an EIR. The Plan under consideration in this DPEIR, with its projected 45% increase in vehicular miles traveled by the year 2030, when considered in light of the severe impacts cars and trucks have on the level of greenhouse gas emissions in this state, clearly "has the potential to degrade the environment." (*See ibid.*, subd. (b)(1).) Moreover, the cumulative effects of this project on greenhouse gas emissions, when taken in consideration with the impacts statewide of increased population and vehicular travel over the next quarter century, are undeniable. (*See ibid.*, subd. (b)(2).) When considering the impacts of climate change on California, it is impossible to ignore that the impacts of this project will have either direct or indirect effects on human beings. (*See ibid.*, subd. (b)(3).) Given the scope of the Plan (both in years, and geographically), the projected increase in vehicle travel it calls for, and the fact that it covers one of the most heavily populated regions in the State, there is no question that the impacts of this Plan on greenhouse gas emissions and climate change may, and likely will, have significant cumulative environmental impacts for California. These impacts should have been considered and analyzed in the DPEIR.

There *could* be such analysis in the DPEIR; the data is obtainable. Carbon dioxide emissions from cars can be quantified. The California Air Resources Board has information that could be applied to the projected increase in VMT. The impacts could be assessed as to their cumulative impact on climate change, assuming (as is highly probable in this Plan) that there would be a considerable impact from the increase in CO_2 resulting from the increased VMT. (*See* Cal. Code Regs., title 14, § 15130(a) ["an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable.] *See also* Cal. Code Regs., title 14, § 15065(a)(3) ["'Cumulatively considerable' means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probably future projects."].)

Moreover, the Plan could include mitigation for these impacts. The Governor has recognized, "mitigation efforts will be necessary to reduce greenhouse gas emissions and adaptation efforts will be necessary to prepare Californians for the consequences of global warming." (Executive Order S-3-05, June 1, 2005.) Increased public transportation, increased

support of alternative fuels and technologies, the purchase of carbon offsets (or mitigation "credits"), installation of electric vehicle charging stations, and other affirmative steps to reduce the transportation impacts of CO_2 could be considered as potential mitigation projects. These are real, achievable and available mitigation measures that could be considered when OCTA recognizes its obligations to analyze greenhouse gas emissions and their impact on climate change as part of its long term transportation planning.

III. The DPEIR Does Not Adequately Discuss The Plan's Impact On Air Quality.

The DPEIR's discussion of air quality fails to address potentially serious impacts on Orange County and the South Coast air basin. In the DPEIR chapter on air quality the drafters concluded that there would be no significant unavoidable adverse long-term air quality impacts from the Plan (see DPEIR, 4.1-17 through 4.1-20), that the plan would have a neutral effect on air quality (see id.), and that the only potentially significant impacts relate solely to regional and local short term impacts from the construction of individual projects (e.g., construction of individual road widening, or lane building projects anticipated under the Plan). (*See id.* at 4.1-21 through 4.1-23)[1]. The DPEIR bases these optimistic conclusions on a comparison of the future, year 2030, emissions under the Plan to the emissions budgets of the federally mandated, local Air Quality Management Plan (AQMP), prepared by the South Coast Air Quality Management District (SCAQMD) and projected for 2030. The DPEIR finds that the Plan's emissions are within the projected emissions for the AQMP in 2030, and thus there are no significant impacts. The fundamental basis on which all of the DPEIR's assumptions rests, however, is that by the year 2030, "better fuels" and "improved emission controls" will result in overall emission reductions from vehicles. (See DPEIR at 4.1-18.) There are a number of things wrong with this analysis.

First, the comparison fails to analyze all phases of this 24-year project. The CEQA Guidelines require that an EIR consider "all phases of a project when evaluating its impact on the environment." (Cal. Code Regs., title 14, §15126.) The huge emission reductions anticipated in the Plan by the year 2030 as an anticipated result of "better fuels" and "improved emission controls" will surely take some time. The DPEIR must look at the all phases of the 24-year project time frame, not just 2030, to discern if the project will have significant impacts on health and air quality. The DPEIR contains no analysis of whether the impacts on air quality in the "in between" years, before all of the "better fuels" and "improved emission controls" have been implemented, will be significant; there is no way to discern, from the information available in the DPEIR what the emissions during those years will be.

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1. These impacts, according to the DPEIR, would be addressed through mitigation measures, but the mitigation measures include no monitoring requirements.

Glen Campbell
March 30, 2006
Page 6

Second, there is no detailed comparison of the project with the emissions budgets of the AQMP. The DPEIR states that "[c]umulative impacts were assessed by comparing projected vehicle emissions in 2030 to the emission budgets established in the local AQMP." (DPEIR at 4.1-16.) Nowhere in the document, however, is a detailed comparison shown to the public, nor is there any indication of how the project emission budgets compare year by year with the AQMP emission budgets. This failing is linked to the failure to consider "all phases" of the project, but displays as well the fundamental lack of detailed information in this DPEIR. The conclusory statement that "the impacts were assessed," without any backup, is not sufficient disclosure for the public to make its own evaluation, and, in fact, this lack of information precludes the informed decision making and public participation required by CEQA. (*See* Pub. Res. Code § 21061; Cal Code Regs, title 14, § 15121(a) [an EIR is an informational document which will inform public agency decision-makers and the public generally].) The purpose of an EIR, inter alia, is to provide public agencies and the public in general with detailed information about the effect of the proposed project on the environment. (Pub. Resources Code § 21061; *Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal.3d 376, 391.) An EIR should, when viewed as a whole, provide a reasonable, good faith analysis of known environmental impacts. (*Al Larson Boat Shop, Inc. v. Board of Harbor Commissioners* (1993) 18 Cal.App.4th 729, 749.)

Third, the air quality appendix does not contain any actual useful emissions data or modeling to allow the public to evaluate the accuracy or appropriateness of the model. Appendix B, Air Quality, contains only summary tables of the results of some computer modeling performed by OCTA for criteria pollutant emissions. The tables may represent various alternative scenarios (perhaps for the proposed Plan and for some plan alternatives; it is not clear), but there are no explanations of the assumptions and data (or "inputs") that went into the modeling program that produced these results. There is no explanation of what the various summaries (or "outputs") represent. Without an explanation of the data inputs for the modeling done to support the DPEIR, or an explanation of what the summaries show, it is impossible for the public or the public agency decision makers to make informed decisions. (*See* Pub. Res. Code § 21061.)

Fourth, the toxics analysis is inadequate. In its discussion of impacts on hydrology and water quality, the DPEIR acknowledges that there will be "new roadways in undeveloped areas" under the Plan. (DPEIR at 4.7-11.) In its discussion of toxic air contaminants, however, there is no discussion of the impacts of those "new roadways in undeveloped areas" which will expose new populations to both criteria and toxic pollutants. There should be a risk assessment in order to draw valid conclusions about public health, and such an assessment should be done for each phase of the project (just as with the overall air quality assessment). The DPEIR recognizes that diesel emissions are a known carcinogen, but limits its analysis of cancer risk from the project to

Glen Campbell
March 30, 2006
Page 7

construction emissions and to the expected situation in 2030. The DPEIR does not consider the cancer risks resulting from the operation of current and new roadways, expanded freeways, etc. In Health & Safety Code Section 39606(b), the Legislature recognized the special susceptibility of children and infants to air pollution, and the DPEIR itself recognizes that there are particularly sensitive receptors (DPEIR at 4.1-16), yet the DPEIR makes no effort to evaluate the project's effects on them.[2]

Fifth, where the DPEIR does provide some mitigation for the few significant air quality impacts it does recognize (related to construction), the document makes no assignments, not even tentatively, of responsibility for enforcing them through mitigation monitoring. The DPEIR recognizes only two categories of potentially significant impacts on air quality: Short-term (construction) regional impacts (from a number of construction-related activities and materials) and short-term localized impacts (from construction vehicles which are sources of carcinogenic pollutants and diesel exhaust). (*See* DPEIR at 4.1-21 through 4.1-23.) With regard to the construction impacts, the DPEIR acknowledges that "a large number of the projects in the [Plan] would involve extensive construction or reconstruction" and that it is "very likely" that some of the projects would be under construction at the same time. (DPEIR at 4.1-21.) Notwithstanding the acknowledged significant air quality impacts the construction activities are expected to produce, there are no monitoring requirements for the list of mitigation measures that the DPEIR says "should be considered" when EIR's are prepared for the individual projects. Likewise, there are no monitoring requirements incorporated in the mitigation measures to address the emissions from construction equipment. Moreover, Chapter 7, Mitigation Monitoring and Reporting Program, does not indicate any monitoring actions, or responsible implementation agencies for the proposed mitigation measures. (DPEIR at 7-1 through 7-34.)

OCTA is required to "provide that measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements or other measures." (Pub. Res. Code § 21081.6(b).) The DPEIR should disclose and discuss such mitigation monitoring measures, or at least make tentative assignments of responsibility for enforcing them, so that the public can take these proposed measures into account.[3]

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2. In addition to these failures to address toxic air contaminants, in the chapter on Hazardous Materials, the DPEIR does not examine the indirect effects of the 45 % increase in VMT, such as increased cancer risk from benzene and other petrochemical toxic emissions released from gas stations, increased refinery emission, and the like.

3. In addition, the Plan should contemplate, discuss and disclose whether funding for the mitigation measures it will require is or will be available.

Glen Campbell
March 30, 2006
Page 8

Finally, given the inadequacies and lack of detail in the air quality impacts analysis it is not appropriate for all future projects contemplated under this Plan to be able to "tier" off of a document as deficient as this DPEIR.[4] The DPEIR states "[t]he lead agencies for individual projects may use this PEIR as the basis of their regional and cumulative analysis." (DPEIR at 2-13.) The deficient analysis of the air quality impacts would make any meaningful project-level analysis of regional and cumulative of air quality impacts for an individual project nearly impossible. For example, it is possible that a project-level EIR could be prepared next year for a project such as a lane-addition to a freeway. Based on "tiering" from this DPEIR, the planners of such a project would have only the conclusory statements regarding air quality impacts in the year 2030 from this DPEIR upon which to base cumulative and regional impacts analyses in their EIR, whereas the new hypothetical freeway lane might be operational in 2009. There would be no analysis of the cumulative and regional impacts of that project for years 2009 through 2029. While this example pertains only to the air quality analysis, the other failings of the DPEIR discussed below also contribute to the inappropriateness of allowing future project level EIR's to "tier" off of this deficient CEQA document.

IV. The DPEIR Contains Many Other Inadequacies.

In addition to the failure of the DPEIR to adequately address air quality, and to address greenhouse gas emissions impacts at all, the DPEIR is inadequate in a number of other areas.

A. The DPEIR Does Not Contain An Adequate Description of the Project

Chapter 2 of the DPEIR, is titled "Project Description" and it does contain a list of the projects that the Plan envisions. The description, however, is lacking. The list of projects contemplated under the plan includes one-line, bullet-point descriptions of various freeway and interchange improvements, lane additions and ramp construction projects that will make up the improvements to freeways under the Plan. (There are also one-line, bullet-point descriptions of the other planned projects.) Despite the fact that the primary focus of projects and spending under the Plan is on freeway construction projects, however, the Project Description does not contain any maps or visual drawings of the Plan's contemplated improvements. It is very difficult to ascertain what the impacts on the ground will be from the brief descriptions of the planned projects. Guidelines indicating areas of disturbance, or footprints, for planned projects

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4. "'Tiering' or 'tier' means the coverage of general matters and environmental effects in an [EIR] prepared for a policy, plan, program or ordinance followed by narrower or site-specific [EIRs] which incorporate by reference the discussion in any prior EIR . . ." (Pub. Res. Code §§ 21068.5.)

should be included. From the descriptions in the DPEIR, an understanding of the true impact of the Plan is not possible.

The public should be able to understand from the DPEIR what implementation of the Plan will mean to their communities and their surroundings in physical terms. "Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal (i.e., the "no project" alternative) and weigh other alternatives in the balance. An accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR." *County of Inyo v. City of Los Angeles*, (1977) 71 Cal.App.3d 185, 192-193.

B. The DPEIR Does Not Contain An Adequate Analysis of Alternatives.

The alternatives considered in the DPEIR consist entirely of plans that envision varying degrees of funding, as opposed to plans that envision alternative mixes of various transportation improvements or projects. The four alternatives to the Proposed Plan are:

(i) the No Project (Baseline) Alternative, which "includes projects and programs that have secured funding, have been assessed for their environmental impacts, and have been approved to be implemented" (a small sub-set of the projects in the Proposed Plan) (DPEIR at 5-4,);

(ii) the Constrained Alternative, which is "a set of projects and services that can be completed within the County's traditional revenue sources for transportation improvements" (a sub-set, larger than the No Project Alternative sub-set, of the same projects that are included in the Proposed Plan) (DPEIR at 5-11, 5-17);

(iii) the Balanced II Alternative, which "includes all of the projects from the Proposed Plan with the exception of the High Occupancy Toll (HOT) projects proposed along [SR 91, including the direct connectors between SR-241 and the SR-91 toll lanes" (DPEIR at 5-29); and

(iv) the "Unconstrained" Alternative, which "includes projects and services that could be implemented . . . if funding was not an issue." (DPEIR at 5-43.)

It is clear from the alternatives considered that the planners looked only at alternative levels of funding that would allow variable numbers of projects off a master-list of desired projects, and not at alternatives designed to provide alternative levels of environmental impact,

Glen Campbell
March 30, 2006
Page 10

or a different master-list of projects. For example, nowhere does the DPEIR consider a potential alternative that changes the balance of spending to focus more on improvements to mass transit services rather than on improvements to freeways and roadways. The decision to focus so much attention on freeway upgrades was pre-determined by the planners' view that the only solution to increased congestion is to build more freeways. The planners exhibit this view when they explain that "the projections for 2030 indicate that vehicle miles will increase faster than population and employment, mostly due to longer trips or commutes. In short, freeway capacity must grow to meet future freeway travel demand." (DPEIR at 2-5) This conclusion ignores the obvious alternative viewpoint: some of the increased travel demand might be more properly diverted to mass transit solutions, as opposed to simply concluding that increased freeway capacity is the only solution. Based on a review of the Plan "objectives" to increase mobility, protect transportation resources and enhance the quality of life (see DPEIR at 2-3), other types of alternatives – alternatives that examine variable mixes of modes of transportation as opposed to just variable mixes of dollars – that still met the objectives of planners could have been considered.

Given that the impacts on the environment from the proposed Plan are projected to be significant, such alternatives should have been considered. One of the purposes of the discussion of alternatives in an EIR is to diminish or avoid adverse environmental effects. (*See Laurel Heights Improvement Ass'n v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376, 403 [discussion of only three alternatives, where planners claimed they had already ruled out other alternatives as infeasible, was inadequate]; Pub. Res. Code § 21002 [EIR should consider alternatives which would substantially lessen the significant environmental effects].)

C. The DPEIR Does Not Contain Adequate Discussion of Biological Resource Impacts.

The DPEIR does not quantify the biological resource impacts that it recognizes will be more significant under the proposed Plan than under the No Project alternative. (See DPEIR at 5-6 through 5-7.) Additional detail on the magnitude of direct impacts of the project must be provided for the Proposed Project and all project alternatives. All of the proposed alternatives and the proposed Plan contain lists of the projects they include. The Program EIR should make an attempt to quantify the impacts. Instead, the DPEIR puts off the analysis of the biological resource impacts of all the projects until the EIR for the individual project is prepared. (*See* DPEIR at 4.2-22.) It is impossible to analyze the difference between alternatives on this subject, when the impacts have not been described.

Glen Campbell
March 30, 2006
Page 11

D. The Plan And DPEIR Should Include Plans For Improving Air Quality And Reducing Greenhouse Gas Emissions In Its Discussion Of "Environmental Programs."

The only "environmental program" contemplated under the Plan is a program for augmenting urban runoff treatment and mitigation to create a "coordinated high-quality urban runoff program." (DPEIR at 2-11.) As discussed in detail above, the impacts of the Plan on greenhouse gas emissions and the cumulative impacts of those emissions on climate change, warrant close examination in this DPEIR. Likewise, a plan like this one which places so much of its emphasis for transportation planning and spending on automobile and truck travel versus mass transit will likely result in greater emissions of criteria pollutants and toxic air contaminants than would an alternative that focuses on improving mass transit and *reducing* vehicular miles traveled. Given these considerations, the state of air quality in the South Coast air basin and the severe impacts climate change can inflict on the citizens of Orange County, it would be a responsible and reasonable planning measure to include some "environmental program" aimed at reducing the air quality and climate impacts of the proposed Plan. As mentioned in above, there are some easily implemented steps that might be considered, such as the purchase of mitigation credits. There are also programs that might encourage greater use of alternative technologies and fuels (e.g., electric and hybrid vehicles) or that might add incentives for increased use of public transit (enhanced employer managed discount programs that reward use of transit when compared with parking costs) that could be explored. This long term plan is an opportunity for OCTA to take a truly "visionary" role in shaping the transportation *and* environmental landscape of Orange County for the next quarter century. We hope that the opportunity will not be missed.

V. Conclusion

If you or your staff have questions regarding these comments, please contact me at 213-897-0628.

Sincerely,

Kathryn W Egolf

KATHRYN W. EGOLF
Deputy Attorney General

For BILL LOCKYER
Attorney General

Glen Campbell
March 30, 2006
Page 12

bcc: Theodora Berger
Mary Hackenbracht
Ken Alex
Susan Durbin
Ellen Peter

1- The No-Project Bay Area wide projected weekday VMT is 80,410,808 vehicle miles traveled. The two-lane bore projected VMT is 80,251,260 vehicle miles traveled. The small decrease in VMT in Alternative 2N, the Preferred Alternative, is likely due to travelers taking advantage of the decreased congestion in the Caldecott Tunnel to take more direct routes to their destination.

2- The Preferred Alternative (Alternative 2N) of this project is included in the 2007 Transportation Improvement Program (TIP) (which conforms to the State Implementation Plan (SIP)) and the 2005 Regional Transportation Plan (RTP), and thus is in conformance with all related federal air quality requirements. The analysis done by the MTC takes into account increases in vehicle emissions region-wide, not just from this project.

3- While climate change has been a concern since at least 1988 as evidenced by the establishment of the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change (IPCC), the efforts devoted to "greenhouse gas"[1] (GHG) emissions reduction and climate change research and policy has increased dramatically in recent years. In 2002, with the passage of Assembly Bill 1493 (AB 1493), California launched an innovative and pro-active approach to dealing with GHG emissions and climate change at the state level. AB 1493 requires the Air Resources Board (ARB) to develop and implement regulations to reduce automobile and light truck GHG emissions; these regulations will apply to automobiles and light trucks beginning with the 2009 model year.

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. The goal of this Executive Order is to reduce California's greenhouse gas (GHG) emissions to: 1) 2000 levels by 2010, 2) 1990 levels by the 2020 and 3) by the year 2050 to reduce GHG emissions to 80% below the 1990 levels. In 2006, this goal was further reinforced with the passage of Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006. AB 32 sets the same overall GHG emissions reduction goals while further mandating that ARB create a plan, which includes market mechanisms, and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Executive Order S-17-06 further directs state agencies to begin implementing AB 32, including the recommendations made by the state's Climate Action Team. Caltrans strives to be a good steward of the environment and as a member of the executive branch of the state government, shares your and our governor's concerns regarding greenhouse gasses and global warming. This is reflected in our Director's Policy DP-23 which states, "(Caltrans) Coordinates with external agencies on cross-agency policy framework and provides support for clean transportation and (the) State's effort on climate change and global warming." The Department and its parent agency, the Business, Transportation, and Housing Agency, have taken an active role in addressing GHG emission reduction and climate change. Recognizing that 98 percent of California's GHG emissions are from the burning of fossil fuels and 40 percent of all human made GHG emissions are from transportation, the Department has created and is implementing the *Climate Action Program at Caltrans* (December 2006).

One of the main strategies to reduce GHG emissions is to make California's transportation system more efficient. The highest levels of carbon dioxide from mobile sources, such as automobiles, occur at stop-and-go speeds (0-25 miles per hour) and speeds over 55 mph. Relieving congestion by enhancing operations and improving travel times in high congestion travel corridors will lead to an overall reduction in GHG emissions.

The letter the commenter attached from the Attorney General provides comments on the *Orange County Transportation Authority (OCTA) 2006 Long-Range Transportation Plan (Plan) Draft Program Environmental Impact Report*. It is not as the commenter opined "a complete explanation of the responsibility of the lead agency to study the impacts on climate change." The Attorney General notes that the Plan is "OCTA's 'blueprint' for maintaining and improving Orange County's transportation network, including freeways, roadways and bus and rail systems through 2030." And "…forecasts huge increases (approximately 45%) in the vehicle miles traveled ("VMT") per day in the coming years." He further concludes that under CEQA the Plan "has the potential to degrade the environment." We do not disagree with the Attorney General regarding the necessity that a Regional Transportation Plan should consider the effects of global warming and air quality. Indeed, this is how air quality issues are currently addressed.

While we agree that it may be appropriate for a *region wide transportation plan* to consider the effects of global warming, such extensive analysis is beyond the scope of this *project specific* EA/EIR that the federal and state lead agencies have determined will have no significant impacts. A transit alternative was analyzed for this

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[1] Greenhouse gases related to human activity include: Carbon dioxide, Methane, Nitrous oxide, Tetrafluoromethane, Hexafluoroethane, Sulfur hexafluoride, HFC-23, HFC-134a*, and HFC-152a*.

project and found not to meet the purpose and need of the project (see the essay on “Transit" in Chapter 1). In addition, by helping improve the state highway system infrastructure the project will increase efficiencies for future motor vehicles which we assume will be fueled by less polluting petroleum based fuels and/or based on other less polluting technologies.

The Caldecott Improvement Project will add a minimal amount of new impermeable surface area to an already urbanized area, which could theoretically add to global warming by increasing the heat island effect. However, trees reduce the heat island effect through the natural cooling process of shading and reducing evapotranspiration. Native trees removed by the project will be replaced at a 3:1 to 5:1 ratio, providing shade. Given the small amount of impermeable surface area to be added in an already urbanized setting, and the replacement of native trees and shrubs, the Caldecott Improvement Project is not expected to add to any existing heat island.

The amount of carbon dioxide produced by a given gasoline or diesel fueled motor vehicle is directly proportional to the amount of fuel that it burns. Motor vehicles get considerably better mileage and burn less fuel per mile traveled when they can travel at a uniform speed rather than in the kind of stop and go conditions caused by traffic congestion. Therefore, the reduction in congestion accomplished by this project should result in a reduction in the amount of carbon dioxide produced by motor vehicles.

As noted in response #1 above, the project will provide a slight decrease in Bay Area wide projected weekday VMT. This coupled with the fact that vehicle emissions will decrease as a result of congestion relief, i.e. there will be more free flowing traffic and fewer engines idling while queuing up outside the tunnel portals thus producing fewer “greenhouse gasses”, indicates that the project will have a beneficial effect by reducing “greenhouse” gasses and any resultant climate changes.

4- Please see response #3 in the essay on “Traffic Modeling/Forecasting” in Chapter 1.

5- Please see the essay on “Purpose and Need” in Chapter 1.

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