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Memorandum

To: CHAIR AND COMMISSIONERS

CTC Meeting: October 8, 2014

Reference No.: 4.5
Action

From: ANDRE BOUTROS
Executive Director

Subject: **DRAFT UPDATE TO CEQA GUIDELINES IMPLEMENTING SENATE BILL 743 (STEINBERG, 2013)**

ISSUE:

Pursuant to Senate Bill (SB) 743 (Steinberg, Chapter 386, Statutes of 2013) (Attachment A) the Governor's Office of Planning and Research (OPR) is required to amend the California Environmental Quality Act (CEQA) Guidelines to provide an alternative to Level of Service (LOS) for evaluating transportation impacts within areas served by transit. OPR is required to circulate the draft revisions on or before July 1, 2014.

RECOMMENDATION:

Due to the complexity of this issue and the potential impacts of the proposed CEQA amendments, staff recommends no comments to OPR at this time. Staff recommends continued consultation with OPR, Caltrans and other interested parties as the CEQA amendment process unfolds.

BACKGROUND:

SB 743 created a process to change the way that transportation impacts are analyzed under CEQA. Specifically, SB 743 requires the OPR to amend the CEQA Guidelines to provide an alternative to LOS for evaluating transportation impacts, particularly within areas served by transit, also known as transit priority areas. Pursuant to law these alternative criteria must "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." The transportation impact measurements to be considered may include "vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated." SB 743 also gave OPR the discretion to develop alternative criteria for areas that are not served by transit, if appropriate.

On August 8, 2014, OPR released its "Updating Transportation Impacts Analysis in the CEQA Guidelines – Preliminary Discussion Draft of Updates to the CEQA Guidelines Implementing Senate Bill 743 (Steinberg, 2013)" for review and comment (Attachment B). OPR extended the initial comment period to November 21, 2014.

Attachment A – Senate Bill 743

Attachment B – Preliminary Discussion Draft of Updates to the CEQA Guidelines Implementing Senate Bill 743 (Steinberg, 2013)

Senate Bill No. 743

CHAPTER 386

An act to amend Sections 65088.1 and 65088.4 of the Government Code, and to amend Sections 21181, 21183, 21186, 21187, 21189.1, and 21189.3 of, to add Section 21155.4 to, to add Chapter 2.7 (commencing with Section 21099) to Division 13 of, to add and repeal Section 21168.6.6 of, and to repeal and add Section 21185 of, the Public Resources Code, relating to environmental quality.

[Approved by Governor September 27, 2013. Filed with Secretary of State September 27, 2013.]

LEGISLATIVE COUNSEL'S DIGEST

SB 743, Steinberg. Environmental quality: transit oriented infill projects, judicial review streamlining for environmental leadership development projects, and entertainment and sports center in the City of Sacramento.

(1) The Jobs and Economic Improvement Through Environmental Leadership Act of 2011 requires a party bringing an action or proceeding alleging that a lead agency's approval of a project certified by the Governor as an environmental leadership development project is in violation of the California Environmental Quality Act to file the action or proceeding with the Court of Appeal with geographic jurisdiction over the project and requires the Court of Appeal to issue its decision within 175 days of the filing of the petition. The Jobs and Economic Improvement Through Environmental Leadership Act of 2011 requires the lead agency to concurrently prepare the record of proceeding for the leadership project with the review and consideration of the project. The Jobs and Economic Improvement Through Environmental Leadership Act of 2011 provides that the above provision does not apply to a project for which a lead agency fails to certify an environmental impact report on or before June 1, 2014. The Jobs and Economic Improvement Through Environmental Leadership Act of 2011 is repealed by its own terms on January 1, 2015.

This bill would instead require the Judicial Council, on or before July 1, 2014, to adopt a rule of court to establish procedures applicable to actions or proceedings seeking judicial review of a public agency's action in certifying the environmental impact report and in granting project approval that requires the actions or proceedings, including any appeals therefrom, be resolved, within 270 days of the certification of the record of proceedings. The bill would extend the operation of the judicial review procedures unless the lead agency fails to certify an environmental impact report for an environmental leadership project on or before January 1, 2016. The bill would provide that the above provisions do not apply to a project if the Governor does not certify the project as an environmental leadership

development project prior to January 1, 2016. Because this bill would extend the time period for which a lead agency would be required to concurrently prepare the record of proceeding with the review and consideration of the environmental leadership development projects, this bill would impose a state-mandated local program. The bill would require the lead agency, within 10 days of the Governor's certification, to issue, at the applicant's expense, a specified public notice, thereby imposing a state-mandated local program. The bill would repeal the Jobs and Economic Improvement Through Environmental Leadership Act of 2011 on January 1, 2017.

(2) The California Environmental Quality Act, commonly known as CEQA, requires a lead agency, as defined, to prepare, or cause to be prepared, and certify the completion of, an environmental impact report on a project that it proposes to carry out or approve that may have a significant effect on the environment or to adopt a negative declaration if it finds that the project will not have that effect. CEQA also requires a lead agency to prepare a mitigated negative declaration for a project that may have a significant effect on the environment if revisions in the project would avoid or mitigate that effect and there is no substantial evidence that the project, as revised, would have a significant effect on the environment. CEQA establishes a procedure by which a person may seek judicial review of the decision of the lead agency made pursuant to CEQA.

This bill would provide that aesthetic and parking impacts of a residential, mixed-use residential, or employment center project, as defined, on an infill site, as defined, within a transit priority area, as defined, shall not be considered significant impacts on the environment. The bill would require the Office of Planning and Research to prepare and submit to the Secretary of the Natural Resources Agency, and the secretary to certify and adopt, revisions to the guidelines for the implementation of CEQA establishing criteria for determining the significance of transportation impacts of projects within transit priority areas.

This bill would, except for specified circumstances, exempt from CEQA residential, employment center, and mixed-use development projects meeting specified criteria. Because a lead agency would be required to determine the applicability of this exemption, this bill would impose a state-mandated local program.

This bill would require the public agency, in certifying the environmental impact report and in granting approvals for a specified entertainment and sports center project located in the City of Sacramento, including the concurrent preparation of the record of proceedings and the certification of the record of proceeding within 5 days of the filing of a specified notice, to comply with specified procedures. Because a public agency would be required to comply with those new procedures, this bill would impose a state-mandated local program. The bill would require the Judicial Council, on or before July 1, 2014, to adopt a rule of court to establish procedures applicable to actions or proceedings seeking judicial review of a public agency's action in certifying the environmental impact report and in granting project approval that requires the actions or proceedings, including any

appeals therefrom, be resolved, to the extent feasible, within 270 days of the certification of the record of proceedings. The bill would provide that the above provisions are inoperative and repealed on January 1 of the following year if the applicant fails to notify the lead agency before the release of the draft environmental impact report for public comment that the applicant is electing to proceed pursuant to the above provisions.

(3) Existing law requires the development, adoption, and updating of a congestion management program for each county that includes an urbanized area, as defined. The plan is required to contain specified elements and to be submitted to regional agencies, as defined, for determination of whether the program is consistent with regional transportation plans. The regional agency is then directed to monitor the implementation of all elements of each congestion management program. The required elements include traffic level of service standards for a system of designated highways and roadways. Existing law defines "infill opportunity zone" for purposes of the above-described provisions and exempts streets and highways in an infill opportunity zone from the level of service standards specified in the above-described provisions and instead requires alternate level of service standards to be applied. Existing law prohibits a city or county from designating an infill opportunity zone after December 31, 2009.

This bill would revise the definition of "infill opportunity zone," as specified. The bill would authorize the designation of an infill opportunity zone that is a transit priority area within a sustainable communities strategy or alternative planning strategy adopted by an applicable metropolitan planning organization.

(4) Existing law terminates the designation of an infill opportunity zone if no development project is completed within that zone within 4 years from the date of the designation.

This bill would repeal this provision.

This bill would make findings and declarations as to the necessity of a special statute for the City of Sacramento.

(5) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

The people of the State of California do enact as follows:

SECTION 1. (a) The Legislature finds and declares the following:

(1) With the adoption of Chapter 728 of the Statutes of 2008, popularly known as the Sustainable Communities and Climate Protection Act of 2008, the Legislature signaled its commitment to encouraging land use and transportation planning decisions and investments that reduce vehicle miles traveled and contribute to the reductions in greenhouse gas emissions required in the California Global Warming Solutions Act of 2006 (Division

25.5 (commencing with Section 38500) of the Health and Safety Code). Similarly, the California Complete Streets Act of 2008 (Chapter 657 of the Statutes of 2008) requires local governments to plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel.

(2) Transportation analyses under the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) typically study changes in automobile delay. New methodologies under the California Environmental Quality Act are needed for evaluating transportation impacts that are better able to promote the state's goals of reducing greenhouse gas emissions and traffic-related air pollution, promoting the development of a multimodal transportation system, and providing clean, efficient access to destinations.

(b) It is the intent of the Legislature to do both of the following:

(1) Ensure that the environmental impacts of traffic, such as noise, air pollution, and safety concerns, continue to be properly addressed and mitigated through the California Environmental Quality Act.

(2) More appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions.

SEC. 2. The Legislature further finds and declares all of the following:

(a) The Federal Reserve has stated that "[m]ost policymakers estimate the longer-run normal rate of unemployment is between 5.2 and 6 percent." At 7.6 percent, the current United States unemployment rate remains markedly higher than the normal rate and both the unemployment rates in Sacramento County and California are higher than the current national unemployment rate.

(b) The California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) requires that the environmental impacts of development projects be identified and mitigated. The act also guarantees the public an opportunity to review and comment on the environmental impacts of a project and to participate meaningfully in the development of mitigation measures for potentially significant environmental impacts.

(c) The existing home of the City of Sacramento's National Basketball Association (NBA) team, the Sleep Train Arena, is an old and outmoded facility located outside of the City of Sacramento's downtown area and is not serviced by the region's existing heavy and light rail transportation networks. It was constructed 25 years ago and a new, more efficient entertainment and sports center located in downtown Sacramento is needed to meet the city's and region's needs.

(d) The City of Sacramento and the region would greatly benefit from the addition of a multipurpose event center capable of hosting a wide range of events including exhibitions, conventions, sporting events, as well as musical, artistic, and cultural events in downtown Sacramento.

(e) The proposed entertainment and sports center project is a public-private partnership between the City of Sacramento and the applicant that will result in the construction of a new state-of-the-art multipurpose event center, and surrounding infill development in downtown Sacramento as described in the notice of preparation released by the City of Sacramento on April 12, 2013.

(f) The project will generate over 4,000 full-time jobs including employees hired both during construction and operation of the entertainment and sports center project. This employment estimate does not include the substantial job generation that will occur with the surrounding development uses, which will generate additional hospitality, office, restaurant, and retail jobs in Sacramento's downtown area.

(g) The project also presents an unprecedented opportunity to implement innovative measures that will significantly reduce traffic and air quality impacts and mitigate the greenhouse gas emissions resulting from the project. The project site is located in downtown Sacramento near heavy and light rail transit facilities, situated to maximize opportunities to encourage nonautomobile modes of travel to the entertainment and sports center project, and is consistent with the policies and regional vision included in the Sustainable Communities Strategy adopted pursuant to Chapter 728 of the Statutes of 2008 by the Sacramento Area Council of Governments in April of 2012. The project is also located within close proximity to three major infill development areas including projects (The Bridge District, Railyards, and Township Nine) that received infill infrastructure grants from the state pursuant to Proposition 1C.

(h) It is in the interest of the state to expedite judicial review of the entertainment and sports center project, as appropriate, while protecting the environment and the right of the public to review, comment on, and, if necessary, seek judicial review of, the adequacy of the environmental impact report for the project.

SEC. 3. Section 65088.1 of the Government Code is amended to read:

65088.1. As used in this chapter the following terms have the following meanings:

(a) Unless the context requires otherwise, "agency" means the agency responsible for the preparation and adoption of the congestion management program.

(b) "Bus rapid transit corridor" means a bus service that includes at least four of the following attributes:

(1) Coordination with land use planning.
(2) Exclusive right-of-way.
(3) Improved passenger boarding facilities.
(4) Limited stops.
(5) Passenger boarding at the same height as the bus.
(6) Prepaid fares.
(7) Real-time passenger information.
(8) Traffic priority at intersections.
(9) Signal priority.

(10) Unique vehicles.

(c) "Commission" means the California Transportation Commission.

(d) "Department" means the Department of Transportation.

(e) "Infill opportunity zone" means a specific area designated by a city or county, pursuant to subdivision (c) of Section 65088.4, that is within one-half mile of a major transit stop or high-quality transit corridor included in a regional transportation plan. A major transit stop is as defined in Section 21064.3 of the Public Resources Code, except that, for purposes of this section, it also includes major transit stops that are included in the applicable regional transportation plan. For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

(f) "Interregional travel" means any trips that originate outside the boundary of the agency. A "trip" means a one-direction vehicle movement. The origin of any trip is the starting point of that trip. A roundtrip consists of two individual trips.

(g) "Level of service standard" is a threshold that defines a deficiency on the congestion management program highway and roadway system which requires the preparation of a deficiency plan. It is the intent of the Legislature that the agency shall use all elements of the program to implement strategies and actions that avoid the creation of deficiencies and to improve multimodal mobility.

(h) "Local jurisdiction" means a city, a county, or a city and county.

(i) "Multimodal" means the utilization of all available modes of travel that enhance the movement of people and goods, including, but not limited to, highway, transit, nonmotorized, and demand management strategies including, but not limited to, telecommuting. The availability and practicality of specific multimodal systems, projects, and strategies may vary by county and region in accordance with the size and complexity of different urbanized areas.

(j) (1) "Parking cash-out program" means an employer-funded program under which an employer offers to provide a cash allowance to an employee equivalent to the parking subsidy that the employer would otherwise pay to provide the employee with a parking space. "Parking subsidy" means the difference between the out-of-pocket amount paid by an employer on a regular basis in order to secure the availability of an employee parking space not owned by the employer and the price, if any, charged to an employee for use of that space.

(2) A parking cash-out program may include a requirement that employee participants certify that they will comply with guidelines established by the employer designed to avoid neighborhood parking problems, with a provision that employees not complying with the guidelines will no longer be eligible for the parking cash-out program.

(k) "Performance measure" is an analytical planning tool that is used to quantitatively evaluate transportation improvements and to assist in determining effective implementation actions, considering all modes and

strategies. Use of a performance measure as part of the program does not trigger the requirement for the preparation of deficiency plans.

(*l*) "Urbanized area" has the same meaning as is defined in the 1990 federal census for urbanized areas of more than 50,000 population.

(m) Unless the context requires otherwise, "regional agency" means the agency responsible for preparation of the regional transportation improvement program.

SEC. 4. Section 65088.4 of the Government Code is amended to read:

65088.4. (a) It is the intent of the Legislature to balance the need for level of service standards for traffic with the need to build infill housing and mixed use commercial developments within walking distance of mass transit facilities, downtowns, and town centers and to provide greater flexibility to local governments to balance these sometimes competing needs.

(b) Notwithstanding any other provision of law, level of service standards described in Section 65089 shall not apply to the streets and highways within an infill opportunity zone.

(c) The city or county may designate an infill opportunity zone by adopting a resolution after determining that the infill opportunity zone is consistent with the general plan and any applicable specific plan, and is a transit priority area within a sustainable communities strategy or alternative planning strategy adopted by the applicable metropolitan planning organization.

SEC. 5. Chapter 2.7 (commencing with Section 21099) is added to Division 13 of the Public Resources Code, to read:

Chapter 2.7. Modernization of Transportation Analysis for Transit-Oriented Infill Projects

21099. (a) For purposes of this section, the following terms mean the following:

(1) "Employment center project" means a project located on property zoned for commercial uses with a floor area ratio of no less than 0.75 and that is located within a transit priority area.

(2) "Floor area ratio" means the ratio of gross building area of the development, excluding structured parking areas, proposed for the project divided by the net lot area.

(3) "Gross building area" means the sum of all finished areas of all floors of a building included within the outside faces of its exterior walls.

(4) "Infill site" means a lot located within an urban area that has been previously developed, or on a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses.

(5) "Lot" means all parcels utilized by the project.

(6) "Net lot area" means the area of a lot, excluding publicly dedicated land and private streets that meet local standards, and other public use areas as determined by the local land use authority.

(7) "Transit priority area" means an area within one-half mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations.

(b) (1) The Office of Planning and Research shall prepare, develop, and transmit to the Secretary of the Natural Resources Agency for certification and adoption proposed revisions to the guidelines adopted pursuant to Section 21083 establishing criteria for determining the significance of transportation impacts of projects within transit priority areas. Those criteria shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses. In developing the criteria, the office shall recommend potential metrics to measure transportation impacts that may include, but are not limited to, vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated. The office may also establish criteria for models used to analyze transportation impacts to ensure the models are accurate, reliable, and consistent with the intent of this section.

(2) Upon certification of the guidelines by the Secretary of the Natural Resources Agency pursuant to this section, automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any.

(3) This subdivision does not relieve a public agency of the requirement to analyze a project's potentially significant transportation impacts related to air quality, noise, safety, or any other impact associated with transportation. The methodology established by these guidelines shall not create a presumption that a project will not result in significant impacts related to air quality, noise, safety, or any other impact associated with transportation. Notwithstanding the foregoing, the adequacy of parking for a project shall not support a finding of significance pursuant to this section.

(4) This subdivision does not preclude the application of local general plan policies, zoning codes, conditions of approval, thresholds, or any other planning requirements pursuant to the police power or any other authority.

(5) On or before July 1, 2014, the Office of Planning and Research shall circulate a draft revision prepared pursuant to paragraph (1).

(c) (1) The Office of Planning and Research may adopt guidelines pursuant to Section 21083 establishing alternative metrics to the metrics used for traffic levels of service for transportation impacts outside transit priority areas. The alternative metrics may include the retention of traffic levels of service, where appropriate and as determined by the office.

(2) This subdivision shall not affect the standard of review that would apply to the new guidelines adopted pursuant to this section.

(d) (1) Aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment.

(2) (A) This subdivision does not affect, change, or modify the authority of a lead agency to consider aesthetic impacts pursuant to local design review ordinances or other discretionary powers provided by other laws or policies.

(B) For the purposes of this subdivision, aesthetic impacts do not include impacts on historical or cultural resources.

(e) This section does not affect the authority of a public agency to establish or adopt thresholds of significance that are more protective of the environment.

SEC. 6. Section 21155.4 is added to the Public Resources Code, to read:

21155.4. (a) Except as provided in subdivision (b), a residential, employment center, as defined in paragraph (1) of subdivision (a) of Section 21099, or mixed-use development project, including any subdivision, or any zoning, change that meets all of the following criteria is exempt from the requirements of this division:

(1) The project is proposed within a transit priority area, as defined in subdivision (a) of Section 21099.

(2) The project is undertaken to implement and is consistent with a specific plan for which an environmental impact report has been certified.

(3) The project is consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in either a sustainable communities strategy or an alternative planning strategy for which the State Air Resources Board, pursuant to subparagraph (H) of paragraph (2) of subdivision (b) of Section 65080 of the Government Code, has accepted a metropolitan planning organization's determination that the sustainable communities strategy or the alternative planning strategy would, if implemented, achieve the greenhouse gas emissions reduction targets.

(b) Further environmental review shall be conducted only if any of the events specified in Section 21166 have occurred.

SEC. 7. Section 21168.6.6 is added to the Public Resources Code, to read:

21168.6.6. (a) For the purposes of this section, the following definitions shall have the following meanings:

(1) "Applicant" means a private entity or its affiliates that proposes the project and its successors, heirs, and assignees.

(2) "City" means the City of Sacramento.

(3) "Downtown arena" means the following components of the entertainment and sports center project from demolition and site preparation through operation:

(A) An arena facility that will become the new home to the City of Sacramento's National Basketball Association (NBA) team that does both of the following:

(i) Receives Leadership in Energy and Environmental Design (LEED) gold certification for new construction within one year of completion of the first NBA season.

(ii) Minimizes operational traffic congestion and air quality impacts through either or both project design and the implementation of feasible mitigation measures that will do all of the following:

(I) Achieve and maintain carbon neutrality or better by reducing to at least zero the net emissions of greenhouse gases, as defined in subdivision (g) of Section 38505 of the Health and Safety Code, from private automobile trips to the downtown arena as compared to the baseline as verified by the Sacramento Metropolitan Air Quality Management District.

(II) Achieve a per attendee reduction in greenhouse gas emissions from automobiles and light trucks compared to per attendee greenhouse gas emissions associated with the existing arena during the 2012–13 NBA season that will exceed the carbon reduction targets for 2020 and 2035 achieved in the sustainable communities strategy prepared by the Sacramento Area Council of Governments for the Sacramento region pursuant to Chapter 728 of the Statutes of 2008.

(III) Achieve and maintain vehicle-miles-traveled per attendee for NBA events at the downtown arena that is no more than 85 percent of the baseline.

(B) Associated public spaces.

(C) Facilities and infrastructure for ingress, egress, and use of the arena facility.

(4) "Entertainment and sports center project" or "project" means a project that substantially conforms to the project description for the entertainment and sports center project set forth in the notice of preparation released by the City of Sacramento on April 12, 2013.

(b) (1) The city may prosecute an eminent domain action for 545 and 600 K Street, Sacramento, California, and surrounding publicly accessible areas and rights-of-way within 200 feet of 600 K Street, Sacramento, California, through order of possession pursuant to the Eminent Domain Law (Title 7 (commencing with Section 1230.010) of Part 3 of the Code of Civil Procedure) prior to completing the environmental review under this division.

(2) Paragraph (1) shall not apply to any other eminent domain actions prosecuted by the City of Sacramento or to eminent domain actions based on a finding of blight.

(c) Notwithstanding any other law, the procedures established pursuant to subdivision (d) shall apply to an action or proceeding brought to attack, review, set aside, void, or annul the certification of the environmental impact report for the project or the granting of any project approvals.

(d) On or before July 1, 2014, the Judicial Council shall adopt a rule of court to establish procedures applicable to actions or proceedings brought to attack, review, set aside, void, or annul the certification of the environmental impact report for the project or the granting of any project approvals that require the actions or proceedings, including any potential appeals therefrom, be resolved, to the extent feasible, within 270 days of certification of the record of proceedings pursuant to subdivision (f).

(e) (1) The draft and final environmental impact report shall include a notice in not less than 12-point type stating the following:

THIS EIR IS SUBJECT TO SECTION 21168.6.6 OF THE PUBLIC RESOURCES CODE, WHICH PROVIDES, AMONG OTHER THINGS, THAT THE LEAD AGENCY NEED NOT CONSIDER CERTAIN COMMENTS FILED AFTER THE CLOSE OF THE PUBLIC COMMENT PERIOD FOR THE DRAFT EIR. ANY JUDICIAL ACTION CHALLENGING THE CERTIFICATION OF THE EIR OR THE APPROVAL OF THE PROJECT DESCRIBED IN THE EIR IS SUBJECT TO THE PROCEDURES SET FORTH IN SECTION 21168.6.6 OF THE PUBLIC RESOURCES CODE. A COPY OF SECTION 21168.6.6 OF THE PUBLIC RESOURCES CODE IS INCLUDED IN THE APPENDIX TO THIS EIR.

(2) The draft environmental impact report and final environmental impact report shall contain, as an appendix, the full text of this section.

(3) Within 10 days after the release of the draft environmental impact report, the lead agency shall conduct an informational workshop to inform the public of the key analyses and conclusions of that report.

(4) Within 10 days before the close of the public comment period, the lead agency shall hold a public hearing to receive testimony on the draft environmental impact report. A transcript of the hearing shall be included as an appendix to the final environmental impact report.

(5) (A) Within five days following the close of the public comment period, a commenter on the draft environmental impact report may submit to the lead agency a written request for nonbinding mediation. The lead agency and applicant shall participate in nonbinding mediation with all commenters who submitted timely comments on the draft environmental impact report and who requested the mediation. Mediation conducted pursuant to this paragraph shall end no later than 35 days after the close of the public comment period.

(B) A request for mediation shall identify all areas of dispute raised in the comment submitted by the commenter that are to be mediated.

(C) The lead agency shall select one or more mediators who shall be retired judges or recognized experts with at least five years experience in land use and environmental law or science, or mediation. The applicant shall bear the costs of mediation.

(D) A mediation session shall be conducted on each area of dispute with the parties requesting mediation on that area of dispute.

(E) The lead agency shall adopt, as a condition of approval, any measures agreed upon by the lead agency, the applicant, and any commenter who requested mediation. A commenter who agrees to a measure pursuant to this subparagraph shall not raise the issue addressed by that measure as a basis for an action or proceeding challenging the lead agency's decision to certify the environmental impact report or to grant one or more initial project approvals.

(6) The lead agency need not consider written comments submitted after the close of the public comment period, unless those comments address any of the following:

(A) New issues raised in the response to comments by the lead agency.

(B) New information released by the public agency subsequent to the release of the draft environmental impact report, such as new information set forth or embodied in a staff report, proposed permit, proposed resolution, ordinance, or similar documents.

(C) Changes made to the project after the close of the public comment period.

(D) Proposed conditions for approval, mitigation measures, or proposed findings required by Section 21081 or a proposed reporting and monitoring program required by paragraph (1) of subdivision (a) of Section 21081.6, where the lead agency releases those documents subsequent to the release of the draft environmental impact report.

(E) New information that was not reasonably known and could not have been reasonably known during the public comment period.

(7) The lead agency shall file the notice required by subdivision (a) of Section 21152 within five days after the last initial project approval.

(f) (1) The lead agency shall prepare and certify the record of the proceedings in accordance with this subdivision and in accordance with Rule 3.1365 of the California Rules of Court. The applicant shall pay the lead agency for all costs of preparing and certifying the record of proceedings.

(2) No later than three business days following the date of the release of the draft environmental impact report, the lead agency shall make available to the public in a readily accessible electronic format the draft environmental impact report and all other documents submitted to or relied on by the lead agency in the preparation of the draft environmental impact report. A document prepared by the lead agency or submitted by the applicant after the date of the release of the draft environmental impact report that is a part of the record of the proceedings shall be made available to the public in a readily accessible electronic format within five business days after the document is prepared or received by the lead agency.

(3) Notwithstanding paragraph (2), documents submitted to or relied on by the lead agency that were not prepared specifically for the project and are copyright protected are not required to be made readily accessible in an electronic format. For those copyright protected documents, the lead agency shall make an index of these documents available in an electronic format no later than the date of the release of the draft environmental impact report, or within five business days if the document is received or relied on by the lead agency after the release of the draft environmental impact report. The index must specify the libraries or lead agency offices in which hardcopies of the copyrighted materials are available for public review.

(4) The lead agency shall encourage written comments on the project to be submitted in a readily accessible electronic format, and shall make any

such comment available to the public in a readily accessible electronic format within five days of its receipt.

(5) Within seven business days after the receipt of any comment that is not in an electronic format, the lead agency shall convert that comment into a readily accessible electronic format and make it available to the public in that format.

(6) The lead agency shall indicate in the record of the proceedings comments received that were not considered by the lead agency pursuant to paragraph (6) of subdivision (e) and need not include the content of the comments as a part of the record.

(7) Within five days after the filing of the notice required by subdivision (a) of Section 21152, the lead agency shall certify the record of the proceedings for the approval or determination and shall provide an electronic copy of the record to a party that has submitted a written request for a copy. The lead agency may charge and collect a reasonable fee from a party requesting a copy of the record for the electronic copy, which shall not exceed the reasonable cost of reproducing that copy.

(8) Within 10 days after being served with a complaint or a petition for a writ of mandate, the lead agency shall lodge a copy of the certified record of proceedings with the superior court.

(9) Any dispute over the content of the record of the proceedings shall be resolved by the superior court. Unless the superior court directs otherwise, a party disputing the content of the record shall file a motion to augment the record at the time it files its initial brief.

(10) The contents of the record of proceedings shall be as set forth in subdivision (e) of Section 21167.6.

(g) (1) As a condition of approval of the project subject to this section, the lead agency shall require the applicant, with respect to any measures specific to the operation of the downtown arena, to implement those measures that will meet the requirements of this division by the end of the first NBA regular season or June of the first NBA regular season, whichever is later, during which an NBA team has played at the downtown arena.

(2) To maximize public health, environmental, and employment benefits, the lead agency shall place the highest priority on feasible measures that will reduce greenhouse gas emissions on the downtown arena site and in the neighboring communities of the downtown arena. Mitigation measures that shall be considered and implemented, if feasible and necessary, to achieve the standards set forth in subclauses (I) to (III), inclusive, of clause (ii) of subparagraph (A) of paragraph (3) of subdivision (a), including, but not limited to:

(A) Temporarily expanding the capacity of a public transit line, as needed, to serve downtown arena events.

(B) Providing private charter buses or other similar services, as needed, to serve downtown arena events.

(C) Paying its fair share of the cost of measures that expand the capacity of a public fixed or light rail station that is used by spectators attending downtown arena events.

(3) Offset credits shall be employed by the applicant only after feasible local emission reduction measures have been implemented. The applicant shall, to the extent feasible, place the highest priority on the purchase of offset credits that produce emission reductions within the city or the boundaries of the Sacramento Metropolitan Air Quality Management District.

(h) (1) (A) In granting relief in an action or proceeding brought pursuant to this section, the court shall not stay or enjoin the construction or operation of the downtown arena unless the court finds either of the following:

(i) The continued construction or operation of the downtown arena presents an imminent threat to the public health and safety.

(ii) The downtown arena site contains unforeseen important Native American artifacts or unforeseen important historical, archaeological, or ecological values that would be materially, permanently, and adversely affected by the continued construction or operation of the downtown arena unless the court stays or enjoins the construction or operation of the downtown arena.

(B) If the court finds that clause (i) or (ii) is satisfied, the court shall only enjoin those specific activities associated with the downtown arena that present an imminent threat to public health and safety or that materially, permanently, and adversely affect unforeseen important Native American artifacts or unforeseen important historical, archaeological, or ecological values.

(2) An action or proceeding to attack, set aside, void, or annul a determination, finding, or decision of the lead agency granting a subsequent project approval shall be subject to the requirements of Chapter 6 (commencing with Section 21165).

(3) Where an action or proceeding brought pursuant to this section challenges aspects of the project other than the downtown arena and those portions or specific project activities are severable from the downtown arena, the court may enter an order as to aspects of the project other than the downtown arena that includes one or more of the remedies set forth in Section 21168.9.

(i) The provisions of this section are severable. If any provision of this section or its application is held invalid, that invalidity shall not affect other provisions or applications that can be given effect without the invalid provision or application.

(j) (1) This section does not apply to the project and shall become inoperative on the date of the release of the draft environmental impact report and is repealed on January 1 of the following year, if the applicant fails to notify the lead agency prior to the release of the draft environmental impact report for public comment that the applicant is electing to proceed pursuant to this section.

(2) The lead agency shall notify the Secretary of State if the applicant fails to notify the lead agency of its election to proceed pursuant to this section.

SEC. 8. Section 21181 of the Public Resources Code is amended to read:

21181. This chapter does not apply to a project if the Governor does not certify a project as an environmental leadership development project eligible for streamlining provided pursuant to this chapter prior to January 1, 2016.

SEC. 9. Section 21183 of the Public Resources Code is amended to read:

21183. The Governor may certify a leadership project for streamlining pursuant to this chapter if all the following conditions are met:

(a) The project will result in a minimum investment of one hundred million dollars ($100,000,000) in California upon completion of construction.

(b) The project creates high-wage, highly skilled jobs that pay prevailing wages and living wages and provide construction jobs and permanent jobs for Californians, and helps reduce unemployment. For purposes of this subdivision, "jobs that pay prevailing wages" means that all construction workers employed in the execution of the project will receive at least the general prevailing rate of per diem wages for the type of work and geographic area, as determined by the Director of Industrial Relations pursuant to Sections 1773 and 1773.9 of the Labor Code. If the project is certified for streamlining, the project applicant shall include this requirement in all contracts for the performance of the work.

(c) The project does not result in any net additional emission of greenhouse gases, including greenhouse gas emissions from employee transportation, as determined by the State Air Resources Board pursuant to Division 25.5 (commencing with Section 38500) of the Health and Safety Code.

(d) The project applicant has entered into a binding and enforceable agreement that all mitigation measures required pursuant to this division to certify the project under this chapter shall be conditions of approval of the project, and those conditions will be fully enforceable by the lead agency or another agency designated by the lead agency. In the case of environmental mitigation measures, the applicant agrees, as an ongoing obligation, that those measures will be monitored and enforced by the lead agency for the life of the obligation.

(e) The project applicant agrees to pay the costs of the Court of Appeal in hearing and deciding any case, including payment of the costs for the appointment of a special master if deemed appropriate by the court, in a form and manner specified by the Judicial Council, as provided in the Rules of Court adopted by the Judicial Council pursuant to subdivision (f) of Section 21185.

(f) The project applicant agrees to pay the costs of preparing the administrative record for the project concurrent with review and consideration of the project pursuant to this division, in a form and manner specified by the lead agency for the project.

SEC. 10. Section 21185 of the Public Resources Code is repealed.

SEC. 11. Section 21185 is added to the Public Resources Code, to read:

21185. On or before July 1, 2014, the Judicial Council shall adopt a rule of court to establish procedures applicable to actions or proceedings brought to attack, review, set aside, void, or annul the certification of the environmental impact report for an environmental leadership development

project certified by the Governor pursuant to this chapter or the granting of any project approvals that require the actions or proceedings, including any potential appeals therefrom, be resolved, within 270 days of certification of the record of proceedings pursuant to Section 21186.

SEC. 12. Section 21186 of the Public Resources Code is amended to read:

21186. Notwithstanding any other law, the preparation and certification of the administrative record for a leadership project certified by the Governor shall be performed in the following manner:

(a) The lead agency for the project shall prepare the administrative record pursuant to this division concurrently with the administrative process.

(b) All documents and other materials placed in the administrative record shall be posted on, and be downloadable from, an Internet Web site maintained by the lead agency commencing with the date of the release of the draft environmental impact report.

(c) The lead agency shall make available to the public in a readily accessible electronic format the draft environmental impact report and all other documents submitted to, or relied on by, the lead agency in the preparation of the draft environmental impact report.

(d) A document prepared by the lead agency or submitted by the applicant after the date of the release of the draft environmental impact report that is a part of the record of the proceedings shall be made available to the public in a readily accessible electronic format within five business days after the document is released or received by the lead agency.

(e) The lead agency shall encourage written comments on the project to be submitted in a readily accessible electronic format, and shall make any comment available to the public in a readily accessible electronic format within five days of its receipt.

(f) Within seven business days after the receipt of any comment that is not in an electronic format, the lead agency shall convert that comment into a readily accessible electronic format and make it available to the public in that format.

(g) Notwithstanding paragraphs (b) to (f), inclusive, documents submitted to or relied on by the lead agency that were not prepared specifically for the project and are copyright protected are not required to be made readily accessible in an electronic format. For those copyright-protected documents, the lead agency shall make an index of these documents available in an electronic format no later than the date of the release of the draft environmental impact report, or within five business days if the document is received or relied on by the lead agency after the release of the draft environmental impact report. The index must specify the libraries or lead agency offices in which hardcopies of the copyrighted materials are available for public review.

(h) The lead agency shall certify the final administrative record within five days of its approval of the project.

(i) Any dispute arising from the administrative record shall be resolved by the superior court. Unless the superior court directs otherwise, a party

disputing the content of the record shall file a motion to augment the record at the time it files its initial brief.

(j) The contents of the record of proceedings shall be as set forth in subdivision (e) of Section 21167.6.

SEC. 13. Section 21187 of the Public Resources Code is amended to read:

21187. Within 10 days of the Governor certifying an environmental leadership development project pursuant to this section, the lead agency shall, at the applicant's expense, issue a public notice in no less than 12-point type stating the following:

"THE APPLICANT HAS ELECTED TO PROCEED UNDER CHAPTER 6.5 (COMMENCING WITH SECTION 21178) OF THE PUBLIC RESOURCES CODE, WHICH PROVIDES, AMONG OTHER THINGS, THAT ANY JUDICIAL ACTION CHALLENGING THE CERTIFICATION OF THE EIR OR THE APPROVAL OF THE PROJECT DESCRIBED IN THE EIR IS SUBJECT TO THE PROCEDURES SET FORTH IN SECTIONS 21185 TO 21186, INCLUSIVE, OF THE PUBLIC RESOURCES CODE. A COPY OF CHAPTER 6.5 (COMMENCING WITH SECTION 21178) OF THE PUBLIC RESOURCES CODE IS INCLUDED BELOW."

The public notice shall be distributed by the lead agency as required for public notices issued pursuant to paragraph (3) of subdivision (b) of Section 21092.

SEC. 14. Section 21189.1 of the Public Resources Code is amended to read:

21189.1. If, prior to January 1, 2016, a lead agency fails to approve a project certified by the Governor pursuant to this chapter, then the certification expires and is no longer valid.

SEC. 15. Section 21189.3 of the Public Resources Code is amended to read:

21189.3. This chapter shall remain in effect until January 1, 2017, and as of that date is repealed unless a later enacted statute extends or repeals that date.

SEC. 16. With respect to certain provisions of this measure, the Legislature finds and declares that a special law is necessary and that a general law cannot be made applicable within the meaning of Section 16 of Article IV of the California Constitution because of the unique need for the development of an entertainment and sports center project in the City of Sacramento in an expeditious manner.

SEC. 17. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because a local agency or school district has the authority to levy service charges, fees, or assessments

sufficient to pay for the program or level of service mandated by this act, within the meaning of Section 17556 of the Government Code.

O

Updating Transportation Impacts Analysis in the CEQA Guidelines

Preliminary Discussion Draft of Updates to the CEQA Guidelines Implementing Senate Bill 743 (Steinberg, 2013)

Governor's Office of Planning and Research
8/6/2014

Senate Bill 743 (Steinberg, 2013)

Excerpt of Public Resources Code § 21099

(b) (1) The Office of Planning and Research shall prepare, develop, and transmit to the Secretary of the Natural Resources Agency for certification and adoption proposed revisions to the guidelines adopted pursuant to Section 21083 establishing ***criteria for determining the significance of transportation impacts*** *of projects within transit priority areas. Those criteria shall* ***promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses****. In developing the criteria, the office shall recommend potential metrics to measure transportation impacts that* ***may include, but are not limited to, vehicle miles traveled****, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated. The office may also establish criteria for models used to analyze transportation impacts to ensure the models are accurate, reliable, and consistent with the intent of this section.*

(2) Upon certification of the guidelines by the Secretary of the Natural Resources Agency pursuant to this section, ***automobile delay****, as described solely by level of service or similar measures of vehicular capacity or traffic congestion* ***shall not be considered a significant impact on the environment*** *pursuant to this division, except in locations specifically identified in the guidelines, if any.*

(3) This subdivision does not relieve a public agency of the requirement to analyze a project's potentially significant transportation impacts related to air quality, noise, safety, or any other impact associated with transportation. The methodology established by these guidelines shall not create a presumption that a project will not result in significant impacts related to air quality, noise, safety, or any other impact associated with transportation. Notwithstanding the foregoing, the adequacy of parking for a project shall not support a finding of significance pursuant to this section.

(4) This subdivision ***does not preclude the application of local general plan policies, zoning codes, conditions of approval, thresholds, or any other planning requirements*** *pursuant to the police power or any other authority.*

(5) ***On or before July 1, 2014****, the Office of Planning and Research shall circulate* ***a draft*** *revision prepared pursuant to paragraph (1).*

(c) (1) The Office of Planning and Research ***may adopt guidelines*** *pursuant to Section 21083* ***establishing alternative metrics to the metrics used for traffic levels of service for transportation impacts outside transit priority areas****. The alternative metrics may include the retention of traffic levels of service, where appropriate and as determined by the office.*

(2) This subdivision shall not affect the standard of review that would apply to the new guidelines adopted pursuant to this section.

Executive Summary

On September 27, 2013, Governor Brown signed Senate Bill 743 (Steinberg, 2013). Among other things, SB 743 creates a process to change the way we analyze transportation impacts under the California Environmental Quality Act (Public Resources Code section 21000 and following) (CEQA). Currently, environmental review of transportation impacts focuses on the delay that vehicles experience at intersections and on roadway segments. That delay is often measured using a metric known as "level of service," or LOS. Mitigation for increased delay often involves increasing capacity (i.e. the width of a roadway or size of an intersection), which may increase auto use and emissions and discourage alternative forms of transportation. Under SB 743, the focus of transportation analysis will shift from driver delay to reduction of greenhouse gas emissions, creation of multimodal networks and promotion of a mix of land uses.

SB 743 requires the Governor's Office of Planning and Research (OPR) to amend the CEQA Guidelines (Title 14 of the California Code of Regulations sections and following) to provide an alternative to level of service for evaluating transportation impacts. The alternative criteria must "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." (New Public Resources Code Section 21099(b)(1).) Measurements of transportation impacts may include "vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated." (*Ibid*.)

This document contains a ***preliminary discussion draft*** of changes to the CEQA Guidelines implementing SB 743. In developing this preliminary discussion draft, OPR consulted with a wide variety of potentially affected stakeholders, including local governments, metropolitan planning organizations, state agencies, developers, transportation planners and engineers, environmental organizations, transportation advocates, academics, and others. OPR released its preliminary evaluation of different alternatives for public review and comment in December 2013. Having considered all comments that it received, and conducted additional research and consultation, OPR now seeks public review of this preliminary discussion draft.

This document contains background information, a narrative explanation of the proposed changes, text of the proposed changes, and appendices containing more detailed background information.

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Analyzing Transportation Impacts

Proposed New Section 15064.3 and Proposed Amendments to Appendix F

Background

Californians drive approximately 332 *billion* vehicle miles each year. That driving accounts for 36 percent of all greenhouse gases in the state. (California Air Resources Board, First Update to the Climate Change Scoping Plan (May 2014).) Meanwhile, existing roadway networks are deteriorating. While new development may pay the capital cost of installing roadway improvements, neither the state nor local governments are able to fully fund operations and maintenance. (See, e.g., Nichols Consulting Engineers, California Statewide Local Streets and Roads Needs Assessment (January 2013).) While the health benefits of walking, bicycling and transit use are becoming more well-known, planning has literally pushed those other modes aside. Why?

Traffic studies used in CEQA documents have typically focused on one thing: the impact of projects on traffic flows. By focusing solely on delay, environmental studies typically required projects to build bigger roads and intersections as "mitigation" for traffic impacts. That analysis tells only part of the story, however.

Impacts on pedestrians, bicyclists and transit, for example, have not typically been considered. Projects to improve conditions for pedestrians, bicyclist and transit have, in fact, been discouraged because of impacts related to congestion. Requiring "mitigation" for such impacts in the CEQA process imposes increasing financial burdens, not just on project developers that may contribute capital costs for bigger roadways, but also on taxpayers that must pay for maintenance and upkeep of those larger roads. Ironically, even "congestion relief" projects (i.e., bigger roadways) may only help traffic flow in the short term. In the long term, they attract more and more drivers (i.e., induced demand), leading not only to increased air pollution and greenhouse gas emissions, but also to a return to congested conditions. (Matute and Pincetl, "Use of Performance Measures that Prioritize Automobiles over Other Modes in Congested Areas;" Handy and Boarnet, "DRAFT Policy Brief on Highway Capacity and Induced Travel," (April 2014).) Under current practice, none of these impacts are considered in a typical project-level environmental review.

Such impacts have not completely escaped notice, however. For many years, local governments, transportation planners, environmental advocates and others have encouraged the Goveror's Office of Planning and Research (OPR) to revise the CEQA Guidelines to reframe the analysis of transportation impacts away from capacity. In 2009, the Natural Resources Agency revised the Appendix G checklist to focus more on multimodal, "complete streets" concepts. (Natural Resources Agency, Final Statement of Reasons: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97 (December 2009).)

Just last year, the Legislature passed, and Governor Brown signed into law, Senate Bill 743 (Steinberg, 2013), which requires OPR to develop alternative methods of measuring transportation impacts under CEQA. At a minimum, the new methods must apply within areas that are served by transit; however, OPR may extend the new methods statewide. Once the new transportation guidelines are adopted, automobile delay will no longer be considered to be an environmental impact under CEQA. SB 743 requires OPR to circulate a first draft of the new guidelines by July 1, 2014. The preliminary discussion draft below satisfies that requirement.

Before turning to a detailed explanation of the proposed text, OPR urges reviewers to consider the following:

- This is a ***preliminary discussion draft*** of a proposal that responds to SB 743. It reflects the information and research contained in OPR's Preliminary Evaluation of Alternative Methods of Transportation Analysis (December 2013), as well as comments submitted on that evaluation and informal consultation with stakeholder groups across the state. However, OPR expects this draft to evolve, perhaps substantially, in response to this larger vetting and review process.
- Because this is a preliminary discussion draft, reviewers may notice some terms that should be defined, or concepts that should be further explored. OPR invites your suggestions in that regard.
- This proposal involves changes to the CEQA Guidelines. Because the CEQA Guidelines apply to all public agencies, and all projects, throughout the state, they generally must be drafted broadly. Similarly, this proposal reflects CEQA's typical deference to lead agencies on issues related to methodology. The background paper accompanying this proposal, however, provides additional detail on a sample methodology for conducting an analysis, lists models capable of estimating vehicle miles traveled, and ideas for mitigation and alternatives. We invite reviewers to let us know if greater or less detail should be included in the new Guidelines.

This preliminary discussion draft consists of several parts. First, it contains a proposed new section 15064.3 of the CEQA Guidelines, which itself contains several subdivisions. Second, it proposes amendments to Appendix F (Energy Impacts) to describe possible mitigation measures and alternatives. Each of these components is described below.

Explanation of Proposed New Section 15064.3

OPR proposes to add a new section 15064.3 to the CEQA Guidelines to provide new methods of measuring transportation impacts. OPR initially considered whether to put the new methods in an appendix or in a new section of the Guidelines. OPR chose the latter, because experience with Appendix F, which requires analysis of energy impacts, has shown that requirements in appendices may not be consistently applied in practice.

Having decided to add a new section to the Guidelines, the next question was where to put it. As required by SB 743, the new guidelines focus on "determining the significance of transportation impacts." Section 15064 of the CEQA Guidelines contains general rules regarding "determining the

significance of the environmental effects caused by a project." Since the new Guideline section focuses on the specific rules regarding transportation impacts, OPR determined that it would be appropriate to place the new rules close to the section containing the general rules. Also, the new section 15064.3 would be contained within Article 5 of the Guidelines, which address "preliminary review of projects and conduct of initial study," and therefore would be relevant to both negative declarations and environmental impact reports.

The proposed new section 15064.3 contains several subdivisions, which are described below.

Subdivision (a): Purpose

Subdivision (a) sets forth the purpose of the entire new section 15064.3. First, the subdivision clarifies that the primary consideration, in an environmental analysis, regarding transportation is the amount and distance that a project might cause people to drive. This captures two measures of transportation impacts: auto trips generated and trip distance. These factors are important in an environmental analysis for the reasons set forth in the background materials supporting vehicle miles traveled as a transportation metric. These factors were also identified by the legislature in SB 743. (Pub. Resources Code § 21099(b)(1).) Specifying that trip generation and vehicle miles traveled are the primary considerations in a transportation analysis is necessary because impacts analysis has historically focused on automobile delay.

The second sentence in subdivision (a) also identifies impacts to transit and the safety of other roadway users as relevant factors in an environmental analysis. Impacts to transit and facilities for pedestrians and bicyclists are relevant in an environmental impacts analysis because deterioration or interruption may cause users switch from transit or active modes to single-occupant vehicles, thereby causing energy consumption and air pollution to increase. Further, impacts to human safety are clearly impacts under CEQA. (Pub. Resources Code § 21083(b)(3) (a significance finding is required if "a project will cause substantial adverse effects on human beings, either directly or indirectly").) Finally, SB 743 requires the new guidelines to promote "multimodal transportation" and to provide for analysis of safety impacts. (Pub. Resources Code § 21099(b)(1), (b)(3).)

The third sentence clarifies that air quality and noise impacts related to transportation may still be relevant in a CEQA analysis. (Pub. Resources Code § 21099(b)(3) (the new guidelines do "not relieve a public agency of the requirement to analyze a project's potentially significant transportation impacts related to air quality, noise, safety, or any other impact associated with transportation").) However, those impacts are typically analyzed in the air quality and noise sections of environmental documents. Further, there is nothing in SB 743 that requires analysis of noise or air quality in a transportation section of an environmental document. In fact, the content of any environmental document may vary provided that any required content is included in the document. (State CEQA Guidelines § 15120(a).)

Finally, the last sentence clarifies that automobile delay is not a significant effect on the environment. This sentence is necessary to reflect the direction in SB 743 itself that vehicle delay is not a significant environmental impact. (Pub. Resources Code § 21099(b)(2) ("Upon certification of the guidelines by the Secretary of the Natural Resources Agency pursuant to this section, automobile delay, as described

solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any”).) As noted above, traffic-related noise and air quality impacts, for example, may still be analyzed in CEQA and mitigated as needed. Mitigation would consist of measures to reduce noise or air pollutants, however, and not necessarily the delay that some vehicles may experience in congestion.

Subdivision (b): Criteria for Analyzing Transportation Impacts

While subdivision (a) sets forth general principles related to transportation analysis, subdivision (b) focuses on specific criteria for determining the significance of transportation impacts. It is further divided into four subdivisions: (1) vehicle miles traveled and land use projects, (2) induced travel and transportation projects, (3) safety, and (4) methodology.

The lead-in sentences to these subdivisions clarify two things. First, CEQA’s general rules regarding the determination of significance apply to all potential impacts, including transportation impacts. These general rules include the necessity to consider context and substantial evidence related to the project under consideration, as well as the need to apply professional judgment. These rules are contained in section 15064 of the CEQA Guidelines, which is included as a cross-reference in subdivision (b). The second lead-in sentence clarifies that the new section 15064.3 contains rules that apply specifically to transportation impacts.

Subdivision (b)(1): Vehicle Miles Traveled and Land Use Projects

The first sentence in subdivision (b)(1) states that vehicle miles traveled is generally the most appropriate measure of transportation impacts. It uses the word “generally” because OPR recognizes that the CEQA Guidelines apply to a wide variety of project types and lead agencies. Therefore, this sentence recognizes that in appropriate circumstances, a lead agency may tailor its analysis to include other measures.

SB 743 did not authorize OPR to set thresholds, but it did direct OPR to develop Guidelines “for determining the significance of transportation impacts of projects[.]” (Pub. Resources Code § 21099(b)(2).) Therefore, to provide guidance on determining the significance of impacts, subdivision (b)(1) describes factors that might indicate whether the amount of a project’s vehicle miles traveled may be significant, or not.

For example, a project that results in vehicle miles traveled that is greater than the regional average might be considered to have a significant impact. Average in this case could be measured using an efficiency metric such as per capita, per employee, etc. Travel demand models can provide information on those regional averages. “Region” refers to the metropolitan planning organization or regional transportation plan area within which the project is located. Notably, because the proposed text states that greater than regional average “may indicate a significant impact,” this subdivision would not prevent a local jurisdiction from applying a *more stringent* threshold. (Pub. Resources Code § 21099(e) (the new Guidelines do not “affect the authority of a public agency to establish or adopt thresholds of

significance that are more protective of the environment”).) Note, this potential finding of significance would not apply to projects that are otherwise statutorily or categorically exempt.

Why regional average? First, the region generally represents the area within which most people travel for their daily needs. Second, focusing on the region recognizes the many different contexts that exist in California. Third, pursuant to SB 375, metropolitan planning organizations throughout the state are developing sustainable communities strategies as part of their regional transportation plans, and as part of that process, they are developing data related to vehicle miles traveled. Fourth, average vehicle miles traveled per capita, per employee, etc., can be determined at the regional level from existing data. Finally, because SB 375 requires all regions to reduce region-wide greenhouse gas emissions related to transportation, projects that move the region in the other direction may warrant a closer look.

Subdivision (b)(1) also gives examples of projects that might have a less than significant impact with respect to vehicle miles traveled. For example, projects that locate in areas served by transit, where vehicle miles traveled is generally known to be low, may be considered to have a less than significant impact. (See, e.g., California Air Pollution Control Officers Association, “Quantifying Greenhouse Gas Mitigation Measures,” (August 2010).) Further, projects that are shown to decrease vehicle miles traveled, as compared to existing conditions, may be considered to have a less than significant impact. Such projects might include, for example, the addition of a grocery store to an existing neighborhood that enables existing residents to drive shorter distances. Notably, in describing these factors, the Guidelines use the word “may” to signal that a lead agency should still consider substantial evidence indicating that a project may still have significant vehicle miles traveled impacts. For example, the addition of regional serving retail to a neighborhood may draw customers from far beyond a single neighborhood, and therefore might actually increase vehicle miles traveled overall. Similarly, a project located near transit but that also includes a significant amount of parking might indicate that the project may still generate significant vehicle travel.

Most of the examples in this subdivision are most relevant to specific development projects. Land use plans, such as specific plans or general plans, might be considered to have a less than significant effect at the plan level if they are consistent with an adopted sustainable communities strategy.

Subdivision (b)(2): Induced Travel and Transportation Projects

While subdivision (b)(1) addresses vehicle miles traveled associated with land use projects, subdivision (b)(2) focuses on impacts that result from certain transportation projects. Specifically, research indicates that adding new traffic lanes in areas subject to congestion tends to lead to more people driving further distances. (Handy and Boarnet, “DRAFT Policy Brief on Highway Capacity and Induced Travel,” (April 2014).) This is because the new roadway capacity may allow increased speeds on the roadway, which then allows people to access more distant locations in a shorter amount of time. Thus, the new roadway capacity may cause people to make trips that they would otherwise avoid because of congestion, or may make driving a more attractive mode of travel. Research also shows that extending new roadway capacity, like the addition of water or sewer infrastructure, may remove barriers to growth in undeveloped areas. Subdivision (b)(2) would therefore require lead agencies that add new physical roadway capacity in congested areas to consider these potential growth-inducing impacts.

Subdivision (b)(2) also clarifies that not all transportation projects would be expected to cause increases in vehicle miles traveled. For example, projects that are primarily designed to improve safety or operations would not typically be expected to create significant impacts. The same is true of pedestrian, bicycle and transit projects, including those that require reallocation or removal of motor vehicle lanes.

Subdivision (b)(3): Local Safety

Subdivision (b)(3) recognizes that vehicle miles traveled may not be the only impacts associated with transportation. While vehicle miles traveled may reflect regional concerns, transportation impacts may also be felt on a local level. The convenience of drivers and the layout of local roadway systems are issues that can, and likely will continue to be, addressed in local planning processes. Safety impacts, as noted above, are local impacts that are appropriate in a CEQA analysis.

Specifically, subdivision (b)(3) clarifies that lead agencies should consider whether a project may cause substantially unsafe conditions for various roadway users. The potential safety concern must be one that affects many people, not just an individual. Further, the potential safety concern must relate to actual project conditions, and not stem solely from subjective fears of an individual. Subdivision (b)(3) includes a non-exclusive list of potential factors that might affect the safety of different roadway users.

Subdivision (b)(4): Methodology

Subdivision (b)(4) provides guidance on methodology. First, it clarifies that analysis of a project's vehicle miles traveled is subject to the rule of reason. In other words, a lead agency would not be expected to trace every possible trip associated with a project down to the last mile. Conversely, to the extent that available models and tools allow, a lead agency would be expected to consider vehicle miles traveled that extend beyond the lead agency's political boundaries. (See, e.g., State CEQA Guidelines § 15151 ("An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible").) This clarification is needed because under current practice, some lead agencies do not consider the transportation impacts of their own projects that may be felt within adjacent jurisdictions.

Subdivision (b)(4) also recognizes the role for both models and professional judgment in estimating vehicle miles traveled. Many publicly available models are available that can estimate the amount of vehicle miles traveled associated with a project. Models, however, are only tools. A model relies on certain assumptions and its use may, or may not, be appropriate given a particular project and its context. For similar reasons, model outputs may need to be revised. Thus, subdivision (b)(4) expressly recognizes the role of professional judgment in using models. Notably, this is consistent with general CEQA rules in determining significance. (See, e.g., State CEQA Guidelines § 15064(b) (determining significance "calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data").) To promote transparency, subdivision (b)(4) requires that any adjustments to model inputs or outputs be documented and explained. Further, this documentation should be made plain in the environmental document itself.

Subdivision (c): Mitigation and Alternatives

Subdivision (c) restates the general rule that when a lead agency identifies a significant impact, it must consider mitigation measures that would reduce that impact. The selection of particular mitigation measures, however, is always left to the discretion of the lead agency. Further, OPR expects that agencies will continue to innovate and find new ways to reduce vehicular travel. Therefore, OPR proposes to identify several potential mitigation measures and alternatives in existing Appendix F (regarding energy impacts analysis), and include a cross-reference to Appendix F in subdivision (c). Subdivision (c) also makes explicit that this section does not limit any public agency's ability to condition a project pursuant to other laws. For example, while automobile delay will not be treated as a significant impact under CEQA, cities and counties may still require projects to achieve levels of service designated in general plans or zoning codes. (Pub. Resources Code § 21099(b)(4) ("This subdivision [requiring a new transportation metric under CEQA] does not preclude the application of local general plan policies, zoning codes, conditions of approval, thresholds, or any other planning requirements pursuant to the police power or any other authority").) Similarly, with regard to projects that have already undergone environmental review, subdivision (c) clarifies that nothing in these proposed rules would prevent a lead agency from enforcing previously adopted mitigation measures. In fact, within the bounds of other laws, including adopted general plans, lead agencies have discretion to apply or modify previously adopted mitigation measures. (*Napa Citizens for Honest Government v. Napa County Bd. of Sup*. (2001) 91 Cal. App. 4th 342, 358 (because "mistakes can be made and must be rectified, and … the vision of a region's citizens or its governing body may evolve over time… there are times when mitigation measures, once adopted, can be deleted").) Notably, deletion of measures imposed solely to address automobile delay should not require any additional environmental review because section 21099 of the Public Resources Code states that automobile delay is not a significant impact under CEQA.

Subdivision (d): Applicability

OPR recognizes that the procedures proposed in this section may not be familiar to all public agencies. OPR also recognizes that this section proposes a new way to evaluate transportation impacts. Therefore, to allow lead agencies time to familiarize themselves with these new procedures, OPR proposes a phased approach to implementation. Doing so will also allow OPR to continue studying the application of vehicle miles traveled in the environmental review process, and to propose further changes to this section if necessary.

Subdivision (d) explains when these new rules will apply to project reviews. The first sentence restates the general rule that changes to the CEQA Guidelines apply prospectively to new projects that have not already commenced environmental review. (See State CEQA Guidelines § 15007.)

The second sentence provides that the new procedures will apply immediately upon the effective date of these Guidelines to projects located within one-half mile of major transit stops and high quality transit corridors. Those transit-served areas have been the focus of planning under SB 375 and jurisdictions containing such areas may be more likely to be familiar with tools that estimate vehicle miles traveled.

The third sentence allows jurisdictions to opt-in to these new procedures, regardless of location, provided that they update their own CEQA procedures to reflect the rules in this section. (See State CEQA Guidelines § 15022.) This is intended to provide certainty to project applicants and the public regarding which rules will govern project applications. Notably, a lead agency's adoption of updates to its own CEQA procedures will not normally be considered a project that requires its own environmental review. (*See California Building Industry Assn. v. Bay Area Air Quality Management Dist*. (2014) 218 Cal. App. 4th 1171, 1183-1192 (certiorari granted on other grounds).)

Finally, the last sentence states that after January 1, 2016, the rules in this section will apply statewide.

Explanation of Amendments to Appendix F: Energy Impacts

OPR proposes to provide suggestions of potential mitigation measures and alternatives that might reduce a project's vehicle miles traveled in Appendix F of the State CEQA Guidelines. Appendix F provides detailed guidance on conducting an analysis of a project's energy impacts. Inclusion of the list of suggested measures in Appendix F is proposed for at least two reasons. First, vehicle miles traveled may be a relevant consideration in the analysis and mitigation of a project's energy impacts. Second, the list of potential mitigation measures is lengthy and is more appropriate for an appendix than the body of the Guidelines.

Notably, the suggested mitigation measures and alternatives were largely drawn from the California Air Pollution Control Officers Association's guide on Quantifying Greenhouse Gas Mitigation Measures. That guide relied on peer-reviewed research on the effects of various mitigation measures, and provides substantial evidence that the identified measures are likely to lead to quantifiable reductions in vehicle miles traveled.

Explanation of Amendments to Appendix G: Transportation

OPR proposes several changes to the questions related to transportation in Appendix G to conform to the proposed new Section 15064.3. First, OPR proposes to revise the question related to "measures of effectiveness" so that the focus is more on the circulation element and other plans governing transportation. Second, OPR proposes to revise the question that currently refers to "level of service" to focus instead on a project's vehicle miles traveled. Third, OPR proposes to recast the question related to design features so that it focuses instead on whether a roadway project would tend to induce additional travel. Fourth, OPR proposes to revise the question related to safety to address the factors described in subdivision (b)(3) of the proposed new Section 15064.3.

Text of Proposed New Section 15064.3

Proposed New **Section 15064.3. Determining the Significance of Transportation Impacts; Alternatives and Mitigation Measures**

(a) Purpose.

When analyzing a project's potential environmental impacts related to transportation, primary considerations include the amount and distance of automobile travel associated with the project. Other relevant considerations include the effects of the project on transit and non-motorized travel and the safety of all travelers. Indirect effects of project-related transportation, such as impacts to air quality and noise, may also be relevant, but may be analyzed together with stationary sources in other portions of the environmental document. A project's effect on automobile delay does not constitute a significant environmental impact.

(b) Criteria for Analyzing Transportation Impacts.

Section 15064 contains general rules governing the analysis, and the determination of significance, of environmental effects. Specific considerations involving transportation impacts are described in this section. For the purposes of this section, "vehicle miles traveled" refers to distance of automobile travel associated with a project.

(1) Vehicle Miles Traveled and Land Use Projects. Generally, transportation impacts of a project can be best measured using vehicle miles traveled. A development project that is not exempt and that results in vehicle miles traveled greater than regional average for the land use type (e.g. residential, employment, commercial) may indicate a significant impact. For the purposes of this subdivision, regional average should be measured per capita, per employee, per trip, per person-trip or other appropriate measure. Also for the purposes of this subdivision, region refers to the metropolitan planning organization or regional transportation planning agency within which the project is located. Development projects that locate within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor generally may be considered to have a less than significant transportation impact. Similarly, development projects, that result in net decreases in vehicle miles traveled, compared to existing conditions, may be considered to have a less than significant transportation impact. Land use plans that are either consistent with a sustainable communities strategy, or that achieve at least an equivalent reduction in vehicle miles traveled as projected to result from implementation of a sustainable communities strategy, generally may be considered to have a less than significant impact.

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(2) Induced Vehicle Travel and Transportation Projects. To the extent that a transportation project increases physical roadway capacity for automobiles in a congested area, or adds a new roadway to the network, the transportation analysis should analyze whether the project will induce additional automobile travel compared to existing conditions. The addition of general purpose highway or arterial lanes may indicate a significant impact except on rural roadways where the primary purpose is to improve safety and where speeds are not significantly altered. Transportation projects that do not add physical roadway capacity for automobiles, but instead are for the primary purpose of improving safety or operations, undertaking maintenance or rehabilitation, providing rail grade separations, or improving transit operations, generally would not result in a significant transportation impact. Also, new managed lanes (i.e. tolling, high-occupancy lanes, lanes for transit or freight vehicles only, etc.), or short auxiliary lanes, that are consistent with the transportation projects in a Regional Transportation Plan and Sustainable Communities Strategy, and for which induced travel was already adequately analyzed, generally would not result in a significant transportation impact. Transportation projects (including lane priority for transit, bicycle and pedestrian projects) that lead to net decreases in vehicle miles traveled, compared to existing conditions, may also be considered to have a less than significant transportation impact.

(3) Local Safety. In addition to a project's effect on vehicle miles traveled, a lead agency may also consider localized effects of project-related transportation on safety. Examples of objective factors that may be relevant may include:

(A) Increase exposure of bicyclists and pedestrians in vehicle conflict areas (i.e., remove pedestrian and bicycle facilities, increase roadway crossing times or distances, etc.).

(B) Contribute to queuing on freeway off-ramps where queues extend onto the mainline.

(C) Contribute to speed differentials of greater than 15 miles per hour between adjacent travel lanes.

(D) Increase motor vehicle speeds.

(E) Increase distance between pedestrian or bicycle crossings.

(4) Methodology. The lead agency's evaluation of the vehicle miles traveled associated with a project is subject to a rule of reason; however, a lead agency generally should not confine its evaluation to its own political boundary. A lead agency may use models to estimate a project's vehicle miles traveled, and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project.

(c) Alternatives and Mitigation.

Examples of mitigation measures and alternatives that may reduce vehicle miles travelled are included in Appendix F. Neither this section nor Appendix F limits the exercise of any public agency's discretion provided by other laws, including, but not limited to, the authority of cities and counties to condition project approvals pursuant to general plans and zoning codes. Previously adopted

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measures to mitigate congestion impacts may continue to be enforced, or modified, at the discretion of the lead agency.

(d) Applicability.

The provisions of this section shall apply prospectively as described in section 15007. Upon filing of this section with the Secretary of State, this section shall apply to the analysis of projects located within one-half mile of major transit stops or high quality transit corridors. Outside of those areas, a lead agency may elect to be governed by the provisions of this section provided that it updates its own procedures pursuant to section 15022 to conform to the provisions of this section. After January 1, 2016, the provisions of this section shall apply statewide.

Note: Authority cited: Sections 21083 and 21083.05, Public Resources Code. Reference: Sections 21099 and 21100, Public Resources Code; *California Clean Energy Committee v. City of Woodland* (2014) 225 Cal. App. 4th 173.

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Text of Proposed Amendments to Appendix F

Appendix F

Energy Conservation

I. Introduction

The goal of conserving energy implies the wise and efficient use of energy. The means of achieving this goal include:

(1) decreasing overall per capita energy consumption,

(2) decreasing reliance on fossil fuels such as coal, natural gas and oil, and

(3) increasing reliance on renewable energy sources.

In order to assure that energy implications are considered in project decisions, the California Environmental Quality Act requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy (see Public Resources Code section 21100(b)(3)). Energy conservation implies that a project's cost effectiveness be reviewed not only in dollars, but also in terms of energy requirements. For many projects, cost effectiveness may be determined more by energy efficiency than by initial dollar costs. A lead agency may consider the extent to which an energy source serving the project has already undergone environmental review that adequately analyzed and mitigated the effects of energy production.

II. EIR Contents

Potentially significant energy implications of a project shall be considered in an EIR to the extent relevant and applicable to the project. The following list of energy impact possibilities and potential conservation measures is designed to assist in the preparation of an EIR. In many instances specific items may not apply or additional items may be needed. Where items listed below are applicable or relevant to the project, they should be considered in the EIR.

A. Project Description may include the following items:

1. Energy consuming equipment and processes which will be used during construction, operation and/or removal of the project. If appropriate, this discussion should consider the energy intensiveness of materials and equipment required for the project.

2. Total energy requirements of the project by fuel type and end use.

3. Energy conservation equipment and design features.

4. Identification of energy supplies that would serve the project.

5. Total estimated daily vehicle trips to be generated by the project and the additional energy consumed per trip by mode.

B. Environmental Setting may include existing energy supplies and energy use patterns in the region and locality.

C. Environmental Impacts may include:

1. The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance and/or removal. If appropriate, the energy intensiveness of materials maybe discussed.

2. The effects of the project on local and regional energy supplies and on, requirements for additional capacity.

3. The effects of the project on peak and base period demands for electricity and other forms of energy.

4. The degree to which the project complies with existing energy standards.

5. The effects of the project on energy resources.

6. The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

D. Mitigation Measures may include:

1. Potential measures to reduce wasteful, inefficient and unnecessary consumption of energy during construction, operation, maintenance and/or removal. The discussion should explain why certain measures were incorporated in the project and why other measures were dismissed.

2. The potential of siting, orientation, and design to minimize energy consumption, including transportation energy, increase water conservation and reduce solid-waste.

3. The potential for reducing peak energy demand.

4. Alternate fuels (particularly renewable ones) or energy systems.

5. Energy conservation which could result from recycling efforts.

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6. Potential measures to reduce vehicle miles traveled include, but are not limited to:

a. Improving or increasing access to transit.

b. Increasing access to common goods and services, such as groceries, schools, and daycare.

c. Incorporating affordable housing into the project.

d. Improving the jobs/housing fit of a community.

e. Incorporating neighborhood electric vehicle network.

f. Orienting the project toward transit, bicycle and pedestrian facilities.

g. Improving pedestrian or bicycle networks, or transit service.

h. Traffic calming.

i. Providing bicycle parking.

j. Limiting parking supply.

k. Unbundling parking costs.

***l*. Parking or roadway pricing or cash-out programs.**

m. Implementing a commute reduction program.

n. Providing car-sharing, bike sharing, and ride-sharing programs.

o. Providing transit passes.

E. Alternatives should be compared in terms of overall energy consumption and in terms of reducing wasteful, inefficient and unnecessary consumption of energy. **Examples of project alternatives that may reduce vehicle miles traveled include, but are not limited to:**

1. Locating the project in an area of the region that already exhibits below average vehicle miles traveled.

2. Locating the project near transit.

3. Increasing project density.

4. Increasing the mix of uses within the project, or within the project's surroundings.

5. Increasing connectivity and/or intersection density on the project site.

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6. Deploying management (e.g. pricing, vehicle occupancy requirements) on roadways or roadway lanes.

F. Unavoidable Adverse Effects may include wasteful, inefficient and unnecessary consumption of energy during the project construction, operation, maintenance and/or removal that cannot be feasibly mitigated.

G. Irreversible Commitment of Resources may include a discussion of how the project preempts future energy development or future energy conservation.

H. Short-Term Gains versus Long-Term Impacts can be compared by calculating the project's energy costs over the project's lifetime.

I. Growth Inducing Effects may include the estimated energy consumption of growth induced by the project.

Note: Authority cited: Sections 21083**, 21083.05** and 21087, Public Resources Code. Reference: Sections 21000-21176. Public Resources Code.

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Text of Proposed Amendments to Appendix G

The following is an excerpt of Section XVI of existing Appendix G, as proposed to be amended to conform to proposed Section 15064.3:

[…]

XVI. TRANSPORTATION~~/TRAFFIC~~ -- Would the project:

a) Conflict with a~~n applicable~~ plan, ordinance or policy ~~establishing measures of effectiveness for the~~ **addressing the safety or** performance of the circulation system, **including transit, roadways, bicycle lanes and pedestrian paths?** ~~taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?~~

b) **Cause vehicle miles traveled (per capita, per service population, or other appropriate measure) that exceeds the regional average for that land use?** ~~Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?~~

c) Result in **substantially unsafe conditions for pedestrians, bicyclists, transit users, motorists or other users of public rights of way by, among other things, increasing speeds, increasing exposure of bicyclists and pedestrians in vehicle conflict areas, etc.?** ~~a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?~~

d) Substantially **induce additional automobile travel by increasing physical roadway capacity in congested areas (i.e., by adding new mixed-flow lanes) or by adding new roadways to the network?** ~~increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?~~

e) Result in inadequate emergency access?

~~f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?~~

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Providing Input

This is a preliminary discussion draft, which we expect to change for the better through public input. We hope that you will share your thoughts and expertise in this effort.

When and Where to Submit Comments

Input may be submitted electronically to CEQA.Guidelines@ceres.ca.gov. While electronic submission is preferred, suggestions may also be mailed or hand delivered to:

Christopher Calfee, Senior Counsel
Governor's Office of Planning and Research
1400 Tenth Street
Sacramento, CA 95814

Please submit all suggestions before **October 10, 2014** at **5:00 p.m**.

Tips for Providing Effective Input

OPR would like to encourage robust engagement in this update process. We expect that participants will bring a variety of perspectives. While opposing views may be strongly held, discourse can and should proceed in a civil and professional manner. To maximize the value of your input, please consider the following:

- In your comment(s), please clearly identify the specific issues on which you are commenting. If you are commenting on a particular word, phrase, or sentence, please provide the page number and paragraph citation.
- Explain why you agree or disagree with OPR's proposed changes. Where you disagree with a particular portion of the proposal, please suggest alternative language.
- Describe any assumptions and support assertions with legal authority and factual information, including any technical information and/or data. Where possible, provide specific examples to illustrate your concerns.
- When possible, consider trade-offs and potentially opposing views.
- Focus comments on the issues that are covered within the scope of the proposed changes. Avoid addressing rules or policies other than those contained in this proposal.
- Consider quality over quantity. One well-supported comment may be more influential than one hundred form letters.
- Please submit any comments within the timeframe provided.

Appendices

Appendix A: Frequently Asked Questions

Appendix B: Vehicle Miles Traveled, Air Quality and Energy

Appendix C: Technical Considerations in Assessing Vehicle Miles Traveled

Appendix D: Sample Trip-Based VMT Calculation

Appendix E: Estimating VMT From Roadway Capacity Increasing Projects

Appendix F: Available Models for Estimating Vehicle Miles Traveled

Appendix A

Frequently Asked Questions

1. *What is "level of service" and how is it used in environmental review?*

   Many jurisdictions use "level of service" standards to measure potential transportation impacts of development projects and long range plans. Commonly known as LOS, level of service measures vehicle delay at intersections and on roadways and is represented as a letter grade A through F. LOS A represents free flowing traffic, while LOS F represents congested conditions. LOS standards are often found in local general plans and congestion management plans. LOS is also often used in traffic impact studies prepared under the California Environmental Quality Act (CEQA). Exceeding LOS standards can require changes in proposed projects, installation of additional infrastructure, or, in some cases, financial penalties.

2. *What is wrong with treating congestion as an environmental impact under CEQA?*

   Stakeholders have reported several problems with level of service, and congestion generally, as a measure of environmental impact under CEQA. First, as a measure of delay, congestion measures more of social, rather than an environmental impact. Second, the typical way to mitigate congestion impacts is to build larger roadways, which imposes long-term maintenance costs on tax-payers, pushes out other modes of travel, and may ultimately encourage even more congestion. Third, addressing congestion requires public agencies to balance many factors, including fiscal, health, environmental and other quality of life concerns. Such balancing is more appropriate in the planning context where agency decisions typically receive deference.

3. *How does SB 743 affect the use of level of service to measure transportation impacts?*

   SB 743 requires the Governor's Office of Planning and Research (OPR) to amend the CEQA Guidelines to provide an alternative to level of service for evaluating transportation impacts. The alternative approach must "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." (*New* Public Resources Code Section 21099(b)(1).) According to the statute, potential alternative measurements of transportation impacts may include "vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated." (*Ibid*.) OPR must develop an alternative approach for areas near transit, but also has discretion to develop such alternative criteria beyond those areas, if appropriate. (*Id*. at subd. (c).)

Transportation impacts related to air quality, noise and safety must still be analyzed under CEQA where appropriate. (*Id*. at subd. (b)(3).)

4. *Will the new CEQA Guidelines eliminate the use of level of service in all cases?*

   No. Automobile delay will no longer be considered a significant environmental impact under CEQA in areas specified in the Guidelines. As currently proposed, those areas would initially include areas near transit, as well as those jurisdictions that wish to opt-in to this new approach. After a period of time, the new Guidelines would apply throughout the state. Level of service may still be used, however, for planning purposes outside of CEQA (see below).

5. *Some communities still use level of service to plan their transportation networks. Will the new guidelines prevent my city/county from using it for that purpose?*

   No. The Guidelines only address impacts analysis under CEQA. Many jurisdictions have level of service standards in their general plans, zoning codes and fee programs. These proposed Guidelines would not affect those uses of level of service. Maintaining level of service in planning allows a jurisdiction to balance automobile delay with other interests, e.g. mode share objectives, human health, fiscal health, etc.

6. *Doesn't level of service help indicate whether the project will cause safety concerns? How will the new Guidelines address local safety?*

   Safety is an issue that both the statute and these proposed Guidelines identify as a potential area of study under CEQA. Level of service does not itself measure safety. For example, higher level of service often indicates higher vehicle speeds, which put all road users at greater risk in the event of a collision. On the other hand, it may indicate areas where large speed differentials might occur, for example an off ramp backing up onto a highway mainline. Where analysis is needed to determine the significance of potential safety impacts, that analysis will still be required under these proposed Guidelines.

7. *Traffic causes air quality and noise problems. How will those issues be addressed in the new Guidelines?*

   SB 743 and these proposed Guidelines explicitly specify that potential impacts from transportation other than delay, for example air quality and noise, continue to be analyzed under CEQA. The methods for addressing those factors remain unchanged.

8. *How will the new Guidelines affect fee programs in my community?*

   SB 743 and these proposed Guidelines both recognize that jurisdictions maintain their ability to retain and enact fee programs, including those based on level of service. The proposed Guidelines explicitly state that they do not limit the discretion of public agencies in implementing other laws, including city and county general plans, zoning codes and other planning laws.

9. *Why not limit the change to just transit priority areas?*

   OPR looked broadly, but did not find a geographic area of the state or project type for which use of level of service would do a better job of protecting the environment or human health, or achieving the interests specified in the statute (promoting reduction of greenhouse gas emissions, development of multimodal transportation networks, and a diversity of land uses) than vehicle miles traveled. However, as noted above, the proposed guideline would phase-in application of the new methodology, and would start in areas near transit.

10. *My community does not have frequent transit. What options are available for reducing VMT?*

    Extensive research has been conducted on different ways that local governments can reduce vehicle miles traveled. Some useful sources of information include:

    - California Air Pollution Control Officers Association, "Quantifying Greenhouse Gas Mitigation Measures," (August 2010)
    - California Energy Commission, "Energy Aware Planning Guide" (February 2011)
    - Salon, Deborah, "Quantifying the effect of local government actions on VMT," Prepared for the California Air Resources Board and the California Environmental Protection Agency (September 2013)

11. *Didn't SB 743 make other changes to CEQA related to infill projects?*

    Yes. SB 743 created a new exemption from CEQA for certain projects that are consistent with a Specific Plan. (See New Public Resources Code Section 21155.4.) SB 743 also provides that certain types of infill projects are not required to analyze aesthetic impacts or impacts related to parking. (New Public Resources Code Section 21099, subd. (d).) Those changes went into effect January 2014. Additional information regarding those provisions is available here.

12. *When would the new rules go into effect?*

OPR released a ***preliminary discussion draft*** on August 6, 2014. That draft will likely undergo significant revisions in response to public input. After a full public vetting, OPR will then submit a draft to the Natural Resources Agency, which will then conduct a formal rulemaking process. That rulemaking process will itself entail additional public review, and may lead to further revisions. New rules would not go into effect until after the Natural Resources Agency adopts the new Guidelines, and the package undergoes review by the Office of Administrative Law. Notably, the new Guidelines would apply prospectively only, and would not affect projects that have already commenced environmental review.

Appendix B

Vehicle Miles Traveled, Air Quality and Energy

Vehicle travel leads to a number of direct and indirect impacts to the environment and human health. Among other effects, loading additional vehicle miles traveled, or VMT, onto the roadway network leads to increased emissions of air pollutants, including greenhouse gases, as well as increased consumption of energy. Some direct effects of increased VMT are described below.

Air Pollution

In California, transportation is associated with more greenhouse gas emissions than any other sector. Increased tailpipe emissions are a direct effect of increased VMT.

As VMT increases, so do carbon dioxide (CO2), (Chester and Horvath, 2009) methane (CH4), and nitrogen dioxide (N20) emissions. (U.S. Environmental Protection Agency, Emission Facts: Greenhouse Gas Emissions from a Typical Passenger Vehicle (February 2005).) The U.S. Environmental Protection Agency estimates that model 2005 passenger vehicles in the US emit an average of 0.0079 grams of N2O and 0.0147 grams of NH4 per mile. (U.S. Environmental Protection Agency, Climate Leaders Greenhouse Gas Inventory Protocol Core Module Guidance: Direct Emissions from Mobile Combustion Sources (May 2008).) Other air pollutants also directly result from increased VMT. Per mile traveled, California's light vehicles emit:

- 2.784 grams of CO
- 0.272 grams of NOX
- 0.237 grams of ROC (reactive organic gases, similar to volatile organic compounds)

(California Air Resources Board, Methods to Find the Cost-Effectiveness of Funding Air Quality Projects (May 2013).) While technological improvements are reducing vehicle emissions, those improvements are being eroded by a dramatic increase in vehicle miles traveled. (U.S. Environmental Protection Agency, Our Built and Natural Environments 2nd Ed. (June 2013).)

Energy

In addition to generating air pollution, vehicle travel can consumes substantial amounts of energy. Over 40 percent of California's energy consumption occurs in the transportation sector. (See California Energy Commission, "Energy Aware Planning Guide" (February 2011).) Passenger vehicles account for 74 percent of emissions from the transportation sector. (*Ibid*.)

Appendix C

Technical Considerations in Assessing Vehicle Miles Traveled

Many practitioners are familiar with accounting for vehicle miles traveled, commonly referred to as VMT, in connection with long range planning, or as part of the analysis of a project's greenhouse gas emissions or energy impacts. This Appendix provides background information on how vehicle miles traveled may be assessed as part of a transportation impacts analysis under the California Environmental Quality Act.

What VMT to Count

The simplest and most straightforward counting method is to simply estimate VMT from trips generated or attracted by a project (i.e., from trips made by residents, employees, students, etc.). This method is known as trip-based VMT. Agencies with access to more sophisticated modeling capabilities have can examine VMT in a more comprehensive manner, examining projected travel behavior, including effects the project has on other trip segments. For projects that might replace longer trips with shorter ones, a lead agency might analyze total area-wide VMT to see whether it would decrease were the project to be built. These methods are described below. [Additional background information regarding travel demand models is available in the California Transportation Commission's "2010 Regional Transportation Plan Guidelines," beginning at page 35.]

Trip-based VMT

Trip-based VMT includes all VMT from trips that begin or end at the project. It answers the question, "How much driving would be needed to get people to and from the project?" Standard 4-step travel demand models can measure trip-based VMT. For residential development, trip-based VMT is called home-based VMT.

Tour-based VMT

A tour is defined as a series of trips beginning and ending at the residence. Tour-based VMT includes all VMT from the entire tour that includes a stop at the project. As such, it captures the influence the project has on broader travel choices; for example, a project which is accessible by automobile can influence a traveler to choose travel by automobile for their day's needs, and this choice necessitates automobile use along the rest of their tour, which in turn can influence destination choices. Tour-based models, which are typically activity-based models, model entire tours rather than trips. Tour-based VMT for a residential development, for example, would count all the travel undertaken by its residents; this is called household VMT.

A shortcut: mapping trip- and tour-based VMT

Trip- or tour-based travel can be calculated on a project-by-project basis, but it is also possible to use a travel demand model to map the VMT of existing development. Because the travel behavior of new development tends to mimic that of existing development, such maps could be used to estimate VMT from new development in those locations.

Area-wide VMT

An area-wide analysis compares total VMT with and without the project. It answers the question, "What is the net effect of the project on area VMT?" The area for analysis should be chosen to capture the full VMT effects of the project; it should avoid truncating the analysis. In some cases, a strategically located project can reduce the total amount of VMT by substituting shorter trips for longer ones. For example, a grocery store in an area that previously had none could allow shorter shopping trips to substitute for longer ones. The area-wide VMT method should also be used when calculating the VMT impacts of transportation infrastructure projects.

Choosing a Denominator

A transportation analysis for a land use project should measure transportation efficiency, rather than the total amount of VMT generated. Therefore, a VMT metric used for trip- or tour-based assessments should include a denominator. Typical denominators include per capita for residential, per employee for office, and per trip for other uses. Per person-trip is another option that could be used for all land use types. Note, examination of area-wide VMT typically does not include a denominator, because the objective is to examine the magnitude of increase or decrease in total VMT.

Measuring VMT for Land Use Projects

The proposed Guidelines suggest that projects generating or attracting greater than regional average VMT may be an indication of a significant transportation impact. Similarly, the proposed Guidelines suggest that a net reduction in VMT may be an indication of a less than significant impact. The paragraphs below provide additional detail on how an agency might make those determinations.

Calculating Regional Average VMT

When comparing project VMT to regional average VMT, the same denominator and VMT counting method (trip-based or tour-based) should be used. For example, a trip-based VMT analysis for a residential project, which estimates home-based VMT per capita, should be compared with the regional total home based VMT divided by the total regional population. Totals should be taken over the entire region, i.e. the full geography of the MPO or RTPA.

Demonstrating a Reduction in Area-Wide VMT

The area-wide method of counting VMT may be used to determine whether total VMT increases or decreases with the project. The area chosen for analysis should cover the full area over which the project affects travel behavior.

Transportation projects should assess VMT using the area-wide method. Transit and active transportation projects can generally be presumed to reduce total VMT, unless substantial evidence demonstrates otherwise, because their largest effect on VMT is typically mode shift away from automobile use. Projects that increase physical roadway capacity typically induce additional vehicle travel, generally leading to increases in total VMT. However, a roadway project that improves connectivity can, in some cases, shorten trip lengths sufficiently to outweigh the induced travel effect, leading to an overall reduction in VMT.

Appendix D

Sample Trip-Based VMT Calculation

This sample describes the steps in estimating the vehicle miles traveled associated with a project. In this example, a 100 unit residential subdivision is proposed in a low-density large lot development pattern (i.e., one unit per 5 acres). This type of pattern has no mix of uses and relatively long distances to jobs, schools, and services. As such, residents typically have to rely on private vehicles for any trip and each trip is many miles. With no mix of uses, no 'internal' vehicle trips are projected to occur. To estimate daily VMT for the project, the following steps are used.

1. Multiply the number of residential units (100) by an average vehicle daily trip rate. This rate can be obtained by conducting local surveys of at least three similar sites, but in absence of this data, the analyst can rely on the ITE *Trip Generation Manual*. The manual contains an average daily vehicle trip rate for single family detached homes of 9.52. It should be noted that this rate only captures trip to/from the home (i.e., home-based work (HBW) and home-based other (HBO)) and not all trips made by the residents of the home.

   100 single-family detached residential dwelling units x 9.52 vehicle trips per unit =

   <u>952 daily vehicle trips</u>

2. Multiply the number of home-based trips by trip lengths. If trip lengths are available by trip purpose, then the trip generation estimate should be divided into purposes based on household survey data or travel forecasting model estimates. Potential sources for trip lengths by purpose are available through the California Household Travel Survey, the National Household Travel Survey, and MPO model estimates. In this simple estimate, only one trip length is assumed to be available and it represents the average weekday trip length for California based on the National Household Travel Survey.

   952 daily vehicle trips x 10 miles per trip = <u>9,520 daily VMT</u>

   9,520 daily VMT/100 residential units =

   <u>95.2 daily VMT per residential unit</u>

3. Divide by the expected average project household occupancy. A specific estimate based on project characteristics (i.e. unit sizes and number of bedrooms) and location is preferable. Here we use the average for Sacramento County, 2.69 persons per household:

   95.2 daily VMT generated per residential unit / 2.69 persons per unit =

   <u>35.4 daily VMT per capita</u>

Appendix E

Estimating VMT From Roadway Capacity Increasing Projects

Introduction

CEQA requires analysis of a project's potential growth-inducing impacts. (Public Resources Code § 21100(b)(5); State CEQA Guidelines, § 15126.2(d).) Many agencies are familiar with the analysis of growth inducing impacts associated with water, sewer and other infrastructure. As part of its effort to reform the analysis of transportation impacts in the CEQA Guidelines, the Office of Planning and Research is proposing criteria for determining the significance of growth-inducing impacts related to transportation projects. This document provides additional background and information related to induced travel.

Because a roadway project can induce substantial vehicle miles traveled, or VMT, incorporating estimates of induced travel is critical to calculating both transportation and other impacts of a roadway expansion project. Induced travel also has the potential to reduce congestion relief benefits, and so any weighing of cost and benefit of a highway project will be inaccurate if it is not fully accounted for.

How Does Roadway Capacity Relate to Throughput?

The capacity of a road is the maximum number of vehicles per hour that the road can service. Throughput, meanwhile, is the number vehicles per hour that the road is servicing at any given time. In general, adding lanes to roads increases capacity. The magnitude of the increase depends on the type of lane (e.g. general purpose lanes, managed lanes, auxiliary lanes).

When a roadway is serving vehicles at capacity, adding more vehicles will disrupt traffic flow causing speed reductions (i.e., congestion) and reduce throughput. Conversely, reducing the number of vehicles entering a congested roadway will reduce congestion and increase throughput. So, travel demand management programs or traffic systems management programs that reduce vehicle miles traveled loaded onto a roadway can improve throughput without increasing capacity.

What is Induced VMT?

Additional roadway capacity may lead to additional VMT, a phenomenon known as induced travel, or induced VMT. It occurs when congestion is already present and a capacity expansion will lead to an appreciable reduction in travel time. With lower travel times, the modified facility becomes more attractive to travelers, resulting in the following trip-making changes, which have implications for total VMT:

- **Longer trips.** The ability to travel a long distance in a shorter time increases the attractiveness of destinations that are further away, increasing trip length and VMT.
- **Changes in mode choice.** When transportation investments are devoted to reducing automobile travel time, travelers tend to shift toward automobile use from other modes, which increases VMT.

- **Route changes.** Faster travel times on a route attract more drivers to that route from other routes, which can increase or decrease VMT depending on whether it shortens or lengthens trips.
- **Newly generated trips.** Increasing travel speeds can add trips, which increases VMT. For example, an individual who previously telecommuted or purchased goods on the internet might choose to travel by automobile as a result of increased speeds.
- **Land Use Changes.** Faster travel times along a corridor lead to land development further along that corridor; that development generates and attracts longer trips, which increases VMT.

These effects operate over different time scales. For example, changes in mode choice might happen immediately or within a few years, while land use changes typically take a few years or longer.

Has Induced VMT Been Studied?

On the whole, evidence links highway capacity expansion to VMT increases. Numerous studies have estimated the magnitude of the induced travel phenomenon. Most of these studies express the amount of induced travel as an "elasticity," which is a multiplier that describes the percent increase in VMT resulting from a given percent increase in lane miles of new roadway capacity. Many distinguish "short run elasticity" (increase in vehicle travel in the first few years) from "long run elasticity" (increase in vehicle travel beyond the first few years). Long run elasticity is typically larger than short run elasticity, because as time passes, more of the components of induced travel materialize. Generally, short run elasticity can be thought of as excluding the effects of land use change, while long run elasticity includes them. Most studies find long run elasticities between 0.6 and just over 1.0 (California Air Resources Board *DRAFT Policy Brief on Highway Capacity and Induced Travel*, p. 2.)

How Would an Agency Estimate Induced VMT for Proposed Projects?

Transportation analysis undertaken for transportation infrastructure projects typically requires use of a travel demand model. Proper use of a travel demand model will yield a reasonable estimate of short run induced VMT, generally including the following components:

- Trip length (generally increases VMT)
- Mode shift (generally shifts from other modes towards automobile use, increasing VMT)
- Route changes (can act to increase or decrease VMT)
- Newly generated trips (generally increases VMT; note that not all travel demand models have sensitivity to this factor, so an off-model estimate may be necessary)

Estimating long run induced VMT requires consideration of changes in land use. At a minimum, VMT resulting from land use changes induced by the project should be acknowledged and discussed. The analysis should disclose any limitations related to VMT forecasting that may have not been sensitive to induced travel effects and how these effects could influence the analysis results. Quantitative analysis is also possible using integrated transport and land use models or by relying on expert panels employing techniques such as the Delphi method. Once developed, the estimates of land use changes can then be analyzed by the travel demand model to assess VMT effects.

Alternately, the travel demand model analysis can be performed without an estimate of land use changes, and then the results can be compared to empirical studies of induced travel found in the types of studies described above. If the modeled elasticity falls outside of that range, then the VMT estimate can be adjusted to fall within the range, or an explanation can be provided describing why the project would be expected to induce less VMT than the subjects of those studies. (For an example of an EIR that includes a number of these elements, see *Interstate 5 Bus/Carpool Lanes Project Final EIR, pp. 2-52--2-56.*)

Example Outline for induced Travel Analysis

The following is a sample outline for describing induced VMT in the analysis of a project which includes a roadway capacity increase:

- Description of potential sources of induced travel due to the project alternatives resulting from
    - Longer trips
    - Changes in mode choice
    - Route changes
    - Newly generated trips
    - Land Use Changes
- If an estimate of land use change resulting from project alternatives is available from an expert panel or a land use model, that estimate should be used in the travel demand model to estimate VMT. Alternately, include:
    - A calculation of the long run elasticity of induced VMT for each project alternative (change in VMT divided by change in lane miles)
    - A comparison of that elasticity to empirical studies OR an estimate of land use changes
    - A discussion of potential sources for error in the induced travel estimate made by the travel demand model
    - An estimate of induced VMT that provides a best estimate correction to the results from the travel demand model

Variations in Induced VMT by Lane Type

The amount of VMT induced by a roadway capacity expansion depends on the amount of capacity added. All else being equal, as capacity is added, more VMT would be induced. Different types of lanes induce different amounts of VMT because they have different capacities or different abilities to influence travel time. Travel demand models can reflect these distinctions, as the capacities of lane types are programmed into the model and they are sensitive to travel time.

General purpose lanes can be used by any vehicle, and tend to exhibit the greatest vehicle capacity. Managed lanes are designated for use by vehicles occupied by at least a certain number of passengers (HOV lanes), those vehicles plus ones that have paid a toll (HOT lanes), or only ones that have paid a toll (Toll lanes). They are typically managed to prevent congestion by placing a restriction on the vehicles that may use the lane. Typically the target throughput is somewhat below capacity, for the purpose of having the managed lane maintain a speed advantage over the general purpose lanes. Thus, effective capacity of a managed lane is typically reduced.

Auxiliary lanes are defined as lanes that are only one link in length (starting at an on ramp and terminating at the next off ramp). The purpose of an auxiliary lane is to provide additional roadway capacity to accommodate the weaving that takes place near ramps as vehicles maneuver to enter or exit the freeway. Auxiliary lanes add capacity to a roadway, but near ramps their capacity is reduced, because cars are weaving into and out of them require extra space. Portions of an auxiliary lane away from ramps behave like a general purpose lane. Auxiliary lanes of approximately 1 mile or less in length can generally be assumed to have a reduced capacity along their full length, but longer auxiliary lanes may function like general purpose lanes. (See, Sacramento Area Council of Governments, Sacramento Activity-Based Travel Simulation Model: Model Reference Report, at p. 3-3.)

Transit lanes, which are designated for transit vehicles only, and truck lanes, which are designated for freight vehicles only, do not directly provide capacity for private passenger vehicles. However, these lane types attract trucks or transit vehicles from general purpose lanes, freeing up capacity in those lanes, and as a result can induce private passenger vehicle travel.

Mitigation and Alternatives

Induced travel has the potential to reduce congestion relief benefits, increase VMT, and increase other environmental impacts that result from vehicle travel. These effects may be considered potential impacts requiring consideration of mitigation or the development of alternatives. If the impact is determined to be significant, the lead agency must consider feasible measures to mitigate the impact, or consider project alternatives. In the context of increased travel induced by capacity increases, appropriate mitigation and alternatives that a lead agency might consider include managing the new lane or improving the passenger throughput of existing lanes. For example, a planned general purpose lane could instead be built as an HOV or HOT lane, reducing induced VMT. Travel demand management off site can also reduce VMT.

Appendix F

Available Models for Estimating Vehicle Miles Traveled

Overview

Our ability to anticipate the transportation outcomes of land use development has increased greatly in recent years. Research undertaken by academics, consulting firms, and public agencies provide the basis for estimating future vehicle travel, and advances in computing power have allowed more sophisticated application of that research.

Models range in complexity and sensitivity to factors that can influence vehicle miles traveled, or VMT. Simpler tools make assumptions, but are easier to implement. More complex models consider more variables, but are not always necessary or feasible. Models generally fall into one of two categories:

Sketch models use statistical characterizations of land use projects and transportation networks to estimate project VMT. For example, a sketch model might characterize the transportation network using statistics like intersections per square mile and number of transit stops per day within a half mile, rather than actually containing a detailed representation of the network itself. They range in sophistication from simple spreadsheet tools, which often require a smaller number of inputs and are therefore easier to use but sensitive to fewer variables, to complex software packages. A number of sketch models can be downloaded free of charge.

Three sketch models commonly used in California include:

- Urban Emissions Model (URBEMIS) - *California Air Resources Board*
- California Emissions Estimator Model (CalEEMod) – *California Air Pollution Control Officers' Association*
- EPA Mixed-Use Development Model (MXD) - *U.S. EPA*

Travel demand models represent links and nodes in the transportation network explicitly rather than statistically. As a result, they generally require more data, maintenance, and run time than sketch models. Because of their greater complexity, and because their use is typically required for various statutory functions (e.g. determining air quality conformity), travel demand models are maintained by all MPOs and RTPAs, and also by some cities and counties. For this reason, a regional travel demand model already exists in most locations and can be used to develop estimates of VMT. Because they represent the transportation network explicitly, travel demand models are required when analyzing the VMT impacts of transportation projects.

Travel demand models can supply inputs for sketch models, particularly trip lengths; a single travel demand model run can supply these inputs for sketch model runs throughout the region. Travel

demand models can also be used to develop maps depicting VMT generation across the model's geography, providing a quick method for estimating VMT of a project in a certain location.

Catalog of Models

This section catalogs many of the models that generate estimates of VMT. Some were primarily designed to estimate project VMT, while others calculate VMT primarily in order to estimate GHG emissions and/or other outcomes. Please note, this inventory of possible models should not be construed as an endorsement of any particular model.

Name: VMT+

Developer: Fehr and Peers

Year: 2013

Accessibility: Free, only web browser and Internet access required

Description: This free website functions like a spreadsheet tool, estimating weekly VMT and GHG by the size and type of land uses developed. The calculation is based on trip generation. ITE data are provided as a default for "Average Western US City" and for four California metropolitan areas. All default data (including trip generation, average trip length, and internal trip rates) can be replaced with project specific information. This tool is useful for development projects or land use plans of various sizes.

URL: http://www.fehrandpeers.com/vmt

Name: RapidFire

Developer: Calthorpe Associates

Year: 2011

Accessibility: Paid, spreadsheet software (e.g. Microsoft Excel) required

Description: This spreadsheet tool can estimate VMT and GHG, among many other factors, and is appropriate for a neighborhood and larger scale development. RapidFire, as deployed during the Plan Bay Area project in the San Francisco Bay Area, applies a user-friendly web interface to allow the public to explore the VMT and GHG outcomes of their development preferences.

URL: http://www.calthorpe.com/scenario_modeling_tools

Documentation:
http://www.calthorpe.com/files/Rapid%20Fire%20V%202.0%20Tech%20Summary_0.pdf

Name: Transportation Emissions Guidebook and Calculator

Developer: Center for Clean Air Policy

Year: 2007

Accessibility: Free, spreadsheet software (e.g. Microsoft Excel) required

Description: This spreadsheet tool uses a trip generation model to estimate neighborhood VMT and GHG, and then estimates the impact of 19 mitigation strategies. Required inputs include present day mode share, trip generation rates, and average trip length. This model is unique among those listed here in that it includes school siting as a potential VMT mitigation strategy.

URL: http://www.ccap.org/safe/guidebook/guide_complete.html

Documentation:

http://www.ccap.org/guidebook/CCAP%20Transportation%20Guidebook%20(1).pdf

Name: Sketch7 VMT Spreadsheet Tool

Developer: UC Davis Institute of Transportation Studies

Year: 2012

Accessibility: Free, spreadsheet software (e.g. Microsoft Excel) required

Description: This Excel spreadsheet and online GIS application use elasticities for seven "D's" (density, diversity, distance, design, destination, demographics, and development scale) to compare site or neighborhood plans, and estimate the VMT and GHG produced by each.

URL: http://ultrans.its.ucdavis.edu/projects/improved-data-and-tools-integrated-land-use-transportation-planning-california

Documentation:
http://downloads.ice.ucdavis.edu/ultrans/statewidetools/Appendix_G_VMT_Spreadsheet_Tool.pdf

Name: COMMUTER

Developer: United States Environmental Protection Agency (U.S. EPA), Cambridge Systematics, Inc.

Year: 2011

Accessibility: Free, spreadsheet software (e.g. Microsoft Excel) required

Description: This spreadsheet tool estimates the impact on VMT and GHG of several common transportation demand management strategies, including pricing/subsidy, transit improvements, carpooling, and telecommute promotion. The model allows the user to provide baseline mode share, trip generation and length, and population as inputs, or alternately can provide defaults from MOBILE6.

URL: http://cfpub.epa.gov/crem/knowledge_base/crem_report.cfm?deid=74941

Documentation: http://www.epa.gov/otaq/stateresources/policy/transp/commuter/420b05017.pdf

Name: Envision Tomorrow

Developer: Fregonese Associates, U.S. Office of Housing and Urban Development (HUD)

Year: 2014 (version 3.4)

Accessibility: Free, spreadsheet software (e.g. Microsoft Excel) required

Description: This suite of linked spreadsheets allows users to "paint" changes to land use and transportation at the neighborhood or site level and model the resulting impacts on travel behavior. Inputs include employment characteristics, intersection counts, transit coverage, and assumed average vehicle speeds. The spreadsheets use trip generation rates to estimate VMT and GHG. Envision Tomorrow is distributed under a Creative Commons license, is free to use, and is open source.

URL: http://www.envisiontomorrow.org/site-level-travel-model

Documentation:
http://www.envisiontomorrow.org/storage/user_manuals/20131029ENVISION%20TOMORROW%20PLUS_USER%20MANUAL_1st%20COMPLETE%20VERSION_updated_sm2.pdf

Name: Urban Emissions Model (URBEMIS)

Developer: California Air Resources Board (CARB)

Year: 2007

Accessibility: Free

The Urban Emissions Model (URBEMIS) was developed to model VMT and GHG from new development, and is appropriate for small and large site developments. The tool was developed with the support of California air districts, and is free to download and use. As it was designed with local data, URBEMIS is used across California, including in the San Joaquin Valley. It has faced and passed legal challenges. The model calculates impacts from many mitigation measures, including affordable housing, free transit passes, and transit availability, as well as decisions throughout the construction phase.

URL: http://www.urbemis.com

Documentation: http://www.urbemis.com/support/manual.html

Name: California Emissions Estimator Model (CalEEMod)

Developer: California Air Pollution Control Officers Association (CAPCOA)

Year: 2013

Accessibility: Free

Description: This user-friendly tool is appropriate for any size site development, and estimates VMT and GHG based on the size and land use(s) of the project. The model integrates with the California Air Pollution Control Officers Association (CAPCOA) Quantification of GHG Mitigation Measures.

URL: http://www.caleemod.com

Documentation: http://www.aqmd.gov/caleemod/user's-guide

Name: Smart Growth INDEX 2.0

Developer: United States Environmental Protection Agency (U.S. EPA), Criterion Planners/Engineers

Year: 2002

Accessibility: Free

Description: This tool requires users to upload a map of the project's surrounding neighborhood into a GIS system such as ESRI ArcMap. Inputs (shapefile format) include: land use, transportation, demographics, housing, and other community features. Once uploaded, users can configure and compare development scenarios, projecting 56 indicators that include VMT and GHG. Designed for stakeholder engagement, the tool can be set to rank the performance of multiple scenarios by community-defined metrics.

URL: http://www.epa.gov/smartgrowth/topics/sg_index.htm

Documentation: http://www.epa.gov/dced/pdf/4_Indicator_Dictionary_026.pdf

Name: Low-Carb Land

Developer: Sonoma Technology, Inc., Washington State Department of Transportation

Year: 2011

Accessibility: Paid

Description: This sketch-planning tool is intended primarily for site development in suburban and rural areas because it uses simple and high-level inputs, and doesn't account for the complexities of more centrally-located development. Users model a base case and one or more project scenarios. Aside from location, the other inputs are the "5 D's" commonly discussed in VMT mitigation: density, diversity, destination, distance and design. The tool incorporates prevailing VMT rates and elasticities for the area.

URL: http://www.sonomatech.com/project.cfm?uprojectid=672

Documentation: http://www.trpc.org/regionalplanning/transportation/Documents/Modeling/Low-Carb%20Land_TRB%20Presentation_2011.pdf

Name: CommunityViz

Developer: Placeways

Year: 2014 (version 4.4)

Accessibility: Paid, ESRI ArcGIS required

Description: CommunityViz, is a model designed to facilitate an engaging experience between planners and the public. Optional inputs include demographic data, transportation network characteristics, land use, water use, and jobs. Outputs include VMT and GHG. The user-friendly, interactive interface was designed to invite community members step up during public meetings, enter their own preferences, and then model and display the results in real-time, using with 3-D visualizations, charts, and maps.

URL: http://placeways.com/communityviz/

Documentation:
http://placeways.com/communityviz/resources/downloads/items/WhitePaperIndicators2011.pdf

Name: Transportation Impacts of Mobility Management Strategies (TRIMMS)

Developer: United States Environmental Protection Agency (U.S. EPA), Center for Urban Transportation Research, University of South Florida

Year: 2012

Accessibility: Free, spreadsheet software (e.g. Microsoft Excel) required

Description: Using constant elasticities of demand, TRIMMS predicts VMT and GHG changes brought about by the application of several mitigation strategies, including Smart Growth land use development, transit fare reduction, transit service enhancements, and parking pricing. TRIMMS also estimates GHG emissions.

URL: http://www.nctr.usf.edu/abstracts/abs77805.htm

Documentation: http://ntl.bts.gov/lib/43000/43600/43635/77932-final.pdf

Name: Emme

Developer: INRO (Canada)

Year: 2014 (version 4.1)

Accessibility: Paid

Description: Used in the United States and internationally, Emme is a desktop-based model that uses neighborhood-level household information to estimate the impacts of a variety of transportation policy and infrastructure decisions, including transit service, bicycle facilities, carpooling, and tolling. Emme is appropriate for neighborhood-level development and outputs VMT and GHG.

URL: http://www.inro.ca/en/products/emme/index.php

Name: I-PLACE3S

Developer: Parson Brinkerhoff, Freonese Calthorpe Associates

Year: 1996

Accessibility: Free, ESRI ArcGIS required

Description: I-PLACE3S was launched in 2002 as a web-based modeling tool commissioned by the California Energy Commission, and is appropriate for larger developments and plans. The model works by developing a comprehensive land use and transportation network for a base year, before estimating effects of the development on VMT and GHG, among other variables. I-PLACE3S has a user-friendly interface, and is currently being used in several cities across the United States.

URL: http://www.smartcommunities.ncat.org/articles/place3s.shtml

Documentation: http://www.smartcommunities.ncat.org/pdf/places.pdf

Name: Surface Transportation Efficiency Analysis System

Developer: Federal Highway Administration (FHWA), Cambridge Systematics, Inc.

Year: 1997

Accessibility: Free

Description: Though STEAM requires substantial base year data; it is well suited for exploring many VMT mitigation strategies in a sub-region or along a corridor. Inputs include baseline vehicle occupancy, trip length, and population as well as several elasticities. Outputs include VMT and GHG.

URL: https://www.fhwa.dot.gov/steam/products.htm

Documentation: https://www.fhwa.dot.gov/steam/20manual.htm

Name: Urban Footprint

Developer: Calthorpe Associates

Year: 2012

Description: Developed for the Vision California process, this web-based tool allows users to estimate VMT and GHG at a large site or neighborhood scale. Urban Footprint also outputs land consumption, fiscal impact (household and government), household resource use, and public health. Within California, Urban Footprint is currently being used by the Sacramento Area Council of Governments (SACOG), San

Diego Association of Governments (SANDAG) and the Southern California Association of Governments (SCAG).

URL: http://www.calthorpe.com/scenario_modeling_tools

Documentation: http://www.calthorpe.com/files/UrbanFootprint%20Technical%20Summary%20-%20July%202012.pdf

Name: UrbanSim

Developer: Synthicity

Year: 2014 (ongoing open source improvements)

Accessibility: Free, ESRI ArcGIS required

Description: UrbanSim is an open-source transportation and land use scenario-planning tool, which can model VMT and GHG, among many other outcomes. The Metropolitan Transportation Commission (MTC) applied UrbanSim to forecast its Plan Bay Area outcomes. Modeling site and neighborhood development with UrbanSim is most feasible if the surrounding region already uses UrbanSim.

URL: http://www.urbansim.org/Main/UrbanSim

Documentation: https://github.com/synthicity/urbansim/wiki

Name: EPA Mixed-Use Development (MXD) Model

Developer: United States Environmental Protection Agency (U.S. EPA)

Year: 2007

Accessibility: Free, spreadsheet software and ESRI ArcGIS required

Description: The MXD Model is a spreadsheet tool designed to model VMT production from project sites and neighborhoods that apply Smart Growth principles. The model must integrate with a desktop GIS application, and for inputs, it requires household and employment characteristics, intersection density, and transit availability.

URL: http://www.epa.gov/smartgrowth/mxd_tripgeneration.html

Name: MXD+ / Plan+ / TDM+ Toolkit

Developer: Fehr and Peers

Year: 2013

Accessibility: Paid

Description: These proprietary tools build on the EPA MXD model, estimating VMT for site and neighborhood-scaled development. MXD+ adjusts trip generations rates downward for mixed use development. Plan+ introduces new land use mitigations (parking pricing, connection to transit, bicycle parking) to estimate further reductions. TDM+ models the effects of the CAPCOA Guideline mitigations.

URL: http://asap.fehrandpeers.com/tools/sustainable-development/plan

Name: CUTR_AVR

Developer: Federal Highway Administration (FHWA)

Year: 1999

Accessibility: Free

Description: The CUTR_AVR model is ideal for large office developments with 100 or more employees with innovative TDM programs. The model estimates the mode share and ridership effects of the TDM programs, which can be input into other models to estimate VMT and GHG. The model is based on a dataset including 7,000 employer TDM programs from three metropolitan areas in Arizona and California.

Information: http://www.fhwa.dot.gov/environment/air_quality/conformity/research/transportation_control_measures/emissions_analysis_techniques/descriptions_cutr_avr.cfm

Download: http://www3.cutr.usf.edu/tdm/registercutravr.htm

Documentation: http://www3.cutr.usf.edu/tdm/pdf/CUTRAVR.PDF

Name: National Energy Modeling System (NEMS): Transportation Sector Module (TSM)

Developer: United States Department of Energy (DOE) Energy Information Administration

Year: 2001

Accessibility: Free

Description: This model focuses exclusively on the impact of changes in the vehicle fleet on VMT and GHG. Input data includes the vehicle fleet (personal, transit, and freight), fuel prices, fuel economy, passenger miles, population, income, and changes in costs and income.

URL: http://www.eia.gov/bookshelf/models2002/tran.html

Documentation: http://www.eia.gov/FTPROOT/modeldoc/m0702001.pdf

Name: VMT Impact Tool

Developer: California Air Resources Board (CARB)

Year: 2014

Accessibility: Free, spreadsheet software (e.g. Microsoft Excel) required

Description: This spreadsheet tool calculates the effect of changes in seven factors on VMT: pricing, transit utilization, job access, activity mix, active mode share, road network connectivity, and mixing of uses. It does not calculate absolute VMT quantities, but can be used to estimate the change in VMT that would result from policy changes. The results can be exported to GIS to visualize spatial relationships.

URL (Tool and Documentation): http://www.arb.ca.gov/research/single-project.php?row_id=64861

THE FOLLOWING MATERIALS WERE PROVIDED BY THE GOVERNOR'S OFFICE OF PLANNING AND RESEARCH FOR BACKGROUND INFORMATION

Insight: Everyone wants to keep leverage under CEQA

By William Fulton on 30 September 2014 - 9:37pm

A few weeks ago I stopped by Bacara for the first time. Bacara is a superfancy resort along the Gaviota Coast, just off Highway 101 west of the UC Santa Barbara campus. With a rack rate of maybe $700 a night for a room, it's far from cheap. And it's beautifully designed – a collection of Santa Barbara-style white buildings, two and three stories, tumbling down a hill toward the ocean. It's so beautiful, in fact, that it's easy to forget that Bacara – or, more precisely, an earlier proposal for a luxury resort on the site – prompted the court case that made the California Environmental Quality Act what it is today.

When you ask experts what the most important case in the 44-year history of CEQA is, usually they'll say *Friends of Mammoth v. Board of Supervisors of Mono County*, 8 Cal.3d 247 (1972) – the case establishing that government approvals of private development projects are subject to environmental review. And there's no question that *Friends of Mammoth* is a seminal case. But for my money, the defining CEQA case is *Citizens of Goleta Valley v. Board of Supervisors*, 52 Cal.3d 553, handed down by a much more conservative California Supreme Court on New Year's Eve 1990.

It was *Citizens of Goleta Valley* that cleared the way for the eventual construction of Bacara. More important, it transformed CEQA from a project-killing mechanism into a mitigation machine. As a result, almost a quarter-century later, all kinds of organizations use CEQA's mitigation power to gain leverage (and that's a polite word) over all kinds of things. And that, more than anything else, is the reason it's impossible to repeal CEQA or even reform it in a truly meaningful way.

Environmental and citizen groups have always used CEQA to gain leverage, of course – that's the point of the law. But today, unions, business trade associations, rival local government agencies, and even the building industry all use CEQA to gain leverage over some local political process, and in most cases there's no other way for them to get so much leverage.

That's what *Citizens of Goleta Valley* changed. At issue was whether the private owner of the Bacara property had to consider alternative locations for the project as part of the alternatives analysis under CEQA. The Supreme Court, which was then newly more conservative thanks to appointments by Gov. George Deukmejian – said no. But more than that, the Court – in an opinion written by Deukmejian's longtime friend Armand Arabian – basically told environmental groups to stop using CEQA to try to kill projects. The purpose of CEQA, Arabian said, was not to re-fight the local general plan's land use decisions in an environmental impact report, which is what the plaintiffs were trying to do. The purpose, he reminded everybody, was to inform the public about the environmental consequences of governmental decisions and mitigate the damage as much as possible.

The switch from killing projects to extracting mitigation meant, essentially, a switch from CEQA as blunt instrument to CEQA as a means to specific ends. Over time, more and more organizations saw that, through CEQA, they could gain unique political leverage via CEQA, whether they had environmental concerns or not.

For example, CEQA has been consistently used by labor unions to try to shut down retail development projects they don't like – especially Wal-Marts – for reasons that have to do with labor practices, not environmental damage. This has led to many lawsuits. It has also led Wal-Mart to attempt to evade CEQA by trying to get projects approved via ballot initiative – a practice that was upheld recently by the state Supreme Court in *Tuolomne Jobs & Small Business Alliance v. Superior Court of Tuolomne County*.

But it's not just unions. More and more, CEQA has also become a tool that business groups use to

try to quash regulation they don't like.

Take the recent city-by-city battle in California over banning single-use plastic bags. Whatever you think of this type of regulatory approach, it's hard to argue that banning plastic bags is bad for the environment. Indeed, when I was working in San Diego, our back-of-the-envelope estimate was that the ban would eliminate the use of 500 million plastic bags per year in the city. My view – highly personal but strongly held – is that a plastic-bag ban is a slam-dunk exemption under Class 7 and 8.

Still, every time cities or counties proposed such a ban, they had to look over their shoulders for the plastics industry, which was sure to file a lawsuit unless the locality undertook an environmental impact report that used the industry's own studies about the lifecycle cost of plastic versus paper bags. The plastics industry was singularly unsuccessful in this litigation, losing a Supreme Court case from Manhattan Beach and appellate cases from Marin County and San Francisco (which the Supreme Court declined to take – see http://www.cp-dr.com/node/3426.) Even after that, cities and counties still had to watch out for the plastics industry, because the Supreme Court had not laid down a conclusive, all-encompassing ruling. (The recent passage of the state's plastic-bag ban, SB 270, which Governor Jerry Brown has now signed, put this question to rest.)

Developers, who often complain the most about CEQA, frequently invoke the law to sue each other in order to stop development projects and gain a competitive advantage. They also sometimes use CEQA to challenge government policies they don't like – as when the California Building Industry Association tried to claim that the creation of significance thresholds under CEQA creates a significant impact that must be analyzed under CEQA. (The appellate court didn't buy the argument – see http://www.cp-dr.com/node/3395.) Obviously, if the building industry had won that case, the consequences on all future CEQA analysis would have been profound – and the building industry wouldn't have been happy.

(Although that case, CBIA v. BAAQMD, is now before the state Supreme Court – see http://bit.ly/1wOXR9o – the high court granted review only on the separate issue of when if ever CEQA may "require an analysis of how existing environmental conditions will impact future residents or users (receptors) of a proposed project".)

Even cities and counties, which also often complain about being hamstrung by CEQA, are skeptical of any change that suggests the possibility of surrendering leverage. The best current example is the local government hand-wringing over taking traffic congestion level of service standards out of CEQA as a result of SB 743. (See http://www.cp-dr.com/node/3571.) It's been so long since traffic engineers used anything other than CEQA to extract traffic improvements from developers that they can't figure out how it can be done without CEQA.

So that's the crux of the problem: CEQA provides a way for anybody who wants anything out of a public agency to get some leverage over the situation – whether that's unions, environmentalists, businesses, developers, and even local governments themselves. And no matter how much all these folks say they want CEQA streamlined, they don't want anything to change that will cut into their leverage. Until that equation changes, you won't see much in the way of meaningful CEQA reform

Frequently Asked Questions Regarding the Preliminary Discussion Draft of Guidelines Implementing Senate Bill 743

The Governor's Office of Planning and Research released a Preliminary Discussion Draft of changes to the CEQA Guidelines addressing transportation impacts on August 6, 2014. Since that time some observers have raised questions about the proposal. Answers to those questions, and places to find more information, are provided below. This Frequently Asked Questions document may be updated from time to time as addition discussion occurs.

Has the comment period been extended? If so, when should I submit written comments?

Due to stakeholder interest in the proposal, OPR has extended the comment deadline to **November 21, 2014**. Written comments should be submitted to CEQA.Guidelines@ceres.ca.gov.

Where can I find additional information about the statute and the proposal?

A copy of Senate Bill 743 (Steinberg, 2013) is available online. That bill added new Section 21099 to the Public Resources Code, which directs the Office of Planning and Research to develop changes to the CEQA Guidelines. Those proposed changes are contained in the Preliminary Discussion Draft which includes not only the draft proposal, but also relevant excerpts of SB 743, additional Frequently Asked Questions, a sample vehicle miles traveled analysis, and description of available models. Additional information about transportation analysis is also available on the Office of Planning and Research's website.

How does Senate Bill 743 Modify the California Environmental Quality Act? Why is the Office of Planning and Research proposing to update the CEQA Guidelines?

Senate Bill 743 was passed by the State Legislature in 2013. It addressed several topics, including aesthetics and parking for certain infill projects. (See more below.) It also requires the Office of Planning and Research to update the Guidelines Implementing the California Environmental Quality Act to replace existing requirements for studying transportation impacts under CEQA. The Preliminary Discussion Draft addresses the issue of transportation analysis.

Existing rules treat auto delay and congestion, commonly measured using "level of service," or LOS, as an environmental impact. Instead, SB 743 requires the CEQA Guidelines to proscribe an analysis that

better accounts for transit and reducing greenhouse gas emissions. In this proposal, the Office of Planning and Research selected vehicle miles traveled as a replacement measure not only because it satisfies the explicit goals SB 743, but also because vehicle miles traveled is already used in CEQA to study greenhouse gas and energy impacts. Vehicle miles traveled is also already used in planning for regional sustainable communities strategies. Therefore, the proposal is not adding a new CEQA requirement; instead, it suggests replacing level of service with an analysis that is already widely used in CEQA.

If Level of Service can still be used for planning purposes, isn't this proposal just adding another layer of study?

Because Senate Bill 743 preserves local government authority to make planning decisions, level of service and congestion can still be measured for planning purposes. In fact, many general plans contain level of service requirements. While traffic studies may be required for planning approvals, those studies will not be required to be part of the CEQA process. (This would be similar to how some local governments require landscaping plans and site elevations as part of project approval, but not necessarily for the environmental document prepared under CEQA.) Also, as noted above, vehicle miles traveled is already being studied in many CEQA documents.

What benefits come from removing level of service and congestion from CEQA?

Removing level of service and congestion from CEQA is beneficial for several reasons. First, it preserves local choice in planning circulation systems (i.e., it does not mandate that local roads have any certain capacity). Second, it gives local governments the ability to make policy trade-offs in dealing with congestion (i.e., balancing free-flow with the cost of building and maintaining roadways and using other modes of travel). Third, mitigation for congestion impacts (which often entails larger roadway infrastructure) can be quite costly, and cause other adverse environmental impacts.

What if local general plans call for more roadway capacity?

Senate Bill 743 preserves local government authority to plan the circulation system that is right for their community. Local governments may continue to require new projects to contribute to transportation enhancements in connection with project approvals. To the extent that local governments adopt policies that have environmental impacts, those impacts would need to be studied. Once addressed in an environmental impact report for a general plan, such impacts would not normally need to be re-evaluated for later projects. (Pub. Resources Code section 21083.3.)

What if the mitigation measures identified in the proposal are not appropriate for my project or community?

The proposal defers to lead agencies regarding the choice of mitigation measures if they identify a significant impact. The proposal further identifies several examples of mitigation measures that studies show will reduce vehicle miles traveled in an appendix. Importantly, those are only examples of measures.

Does this proposal add more of a litigation burden for infill?

This proposal reduces litigation burdens in several ways. First, congestion impacts are frequently litigated in CEQA cases today. Under this proposal, however, such effects would not be part of CEQA litigation. Second, the proposal presumes that projects located near transit would normally not have a significant impact. In most cases, no study or mitigation would be required for such projects, meaning that there would be fewer issues to litigate in a lawsuit. Third, even for projects that are not located near transit, the proposal establishes wide discretion for lead agencies in selecting models to estimate vehicle miles traveled, and to apply professional judgment in adjusting model assumptions and outputs to reflect project conditions. All of these features of the proposal should make infill projects more defensible in litigation than they are today.

Didn't Senate Bill 743 eliminate the need to study aesthetics or parking impacts for infill projects? Why is that not part of this proposal?

New Section 21099 of the Public Resources Code states that certain infill projects need not evaluate aesthetics or parking impacts. Those rules went into effect on January 1, 2014. The Office of Planning and Research posted information about the new rules on its website shortly after SB 743 was signed. No further action is needed in the Guidelines in order for those rules to go into effect.

This proposal focuses on transportation because the statute requires new Guidelines to address that issue. If stakeholders believe that additional guidance is needed in the CEQA Guidelines to address those issues, the Office of Planning and Research welcomes comments and suggestions to further clarify the terms of the statute.

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Plan of action.
This is a wide-ranging list of initiatives, not all of which can be accomplished immediately. Over the next six months, to move forward as rapidly as possible, we recommend this plan of action:

1. Caltrans and CalSTA should develop mission, vision, and goal statements that are fully consistent with state planning and policy goals. These statements should explain conceptually what Caltrans' role is in sustainability, livability, and equitable economic development. One source for these statements is the department's own 2040 long-range plan, which is being constructed in parallel to, but separately from, the five-year strategic plan. Another is the recent *Smart Mobility* report, which has largely been ignored. Critically, if the word "mobility" (whether described as smart or not) remains as a central focus in the department's mission, it needs a clear definition in light of new expectations of Caltrans. Whatever the aims of management might be, currently too many in the department understand the word to mean "moving cars faster." To jumpstart this effort, we recommend that the secretary and director accept responsibility for crafting these statements in concert with a set of key senior staff of their choosing. To demonstrate the commitment to collaboration, we suggest that these statements be produced in draft and shared with key transportation and elected officials selected by the secretary before finalization. Once CalSTA and Caltrans have developed the new statements, they must go to the district directors and other key staff to work out the details and implementation. The process we describe is different from the bottom-up approach that has characterized strategic planning in the department, which resulted in the culture endorsing itself. Strategic direction must come from top down and outside in. *Timeframe: Month 1.*

2. Following the release of new mission, vision, and goals, Caltrans and CalSTA should use those statements, as well as the recommendations in this report, to organize teams to develop implementation actions and performance measures. Teams may be organized around work-streams, e.g., project development or system planning, or topic areas from the recommendations, e.g., liability or guidance manuals. Ten to 12 teams of about 10 to 12 members should be able to tackle a wide range of critical issues. Membership should be across silos, e.g., if a design team is formed it should not be limited to engineers doing design, and ideally should be composed of staff members who volunteer to serve and guide implementation of the new strategic direction. Caltrans should designate a leader of this effort with sufficient staffing and enough seniority to have the ear of the secretary and the director. Going forward this staff can take responsibility for tracking and adjusting measures, and recommending strategic corrections. Staff from the agency and its other departments, as well as those from other state and local entities, may be included in the work groups where such expertise and perspectives are helpful. For example, if a group is formed around the big issue of reporting and communications, it might consider reducing or combining some of the many reports required by law, and this discussion might include legislative staff. The majority of staff, however, should be from Caltrans. To focus the effort, this work should supersede or absorb other external and internal initiatives, such as the strategic and long-range planning processes and the 2012 program review follow-ups. While there may be areas where new resources are needed in order for Caltrans to improve performance—we have argued that planning and operations are two—implementation should not assume additional resources for projects unless those resources are clearly forthcoming. *Timeframe: Months 2-6.*

3. Caltrans and CalSTA should work to ensure the success of CEQA reform rulemaking set up by SB 743 (2013). SB 743 could do more to advance state planning goals than anything else Caltrans has done. The statute's assignment of the SB 743 rulemaking to another department, however, is evidence of the general lack of confidence in Caltrans' ability to accomplish this transformative change. And that lack of confidence may be well-founded, as our interviews disclosed substantial resistance to change, with Caltrans staff, for example, arguing to extend the new rules only to the minimum area required, while the statute would permit statewide application. A successful rulemaking, leading to a predictable developer fee based on transportation system use—probably vehicle-miles traveled (VMT)—would put California and Caltrans back at the leading edge of modern transportation practice, and would remove one of the greatest institutional barriers to implementing SB 375. It would begin to make Caltrans a real contributor to the success of modern policy in the state, and it would provide a model for how the staff could help implement a challenging new charge. *Timeframe: Months 1-5.*

4. Caltrans and CalSTA should modernize state transportation design guidance. A complete overhaul involving the content of multiple manuals and changes to the exception process will take longer than a half-year, but the agency and department should move quickly to encourage modern multimodal improvements in metro areas. The agency and department should support, or propose if no bill is forthcoming, legislation to end the archaic practice of imposing state rules on local streets for bicycle facilities. For the many remaining state-owned metropolitan facilities—local streets designed to road standards, or "stroads"—the agency and department should follow the lead of Washington State DOT and quickly adopt modern guidance as laid out in the NACTO Urban Street Design Guide. These actions will not only improve multimodal access and safety in metro areas, but will also provide relief to local entities that have raised money and sought to implement modern design, only to be thwarted by the state and its dated, rigid design policies. These initial steps should be followed by more thorough reform of the department's design guidance as described in the recommendations. One or more of the work groups in recommendation No. 2 should be tasked with creating a process for design reform. *Timeframe: Months 1-4.*

Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions

Policy Brief

Susan Handy, University of California, Davis
Marlon G. Boarnet, University of Southern California

September 30, 2014

Policy Brief:
http://www.arb.ca.gov/cc/sb375/policies/hwycapacity/highway_capacity_brief.pdf

Technical Background Document:
http://www.arb.ca.gov/cc/sb375/policies/hwycapacity/highway_capacity_bkgd.pdf

California Environmental Protection Agency
Air Resources Board

Policy Brief on the Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions

Susan Handy, University of California, Davis
Marlon G. Boarnet, University of Southern California

Policy Description

Because stop-and-go traffic reduces fuel efficiency and increases greenhouse gas (GHG) emissions, strategies to reduce traffic congestion are sometimes proposed as effective ways to also reduce GHG emissions. Although transportation system management (TSM) strategies are one approach to alleviating traffic congestion,[1] traffic congestion has traditionally been addressed through the expansion of roadway vehicle capacity, defined as the maximum possible number of vehicles passing a point on the roadway per hour. Capacity expansion can take the form of the construction of entirely new roadways, the addition of lanes to existing roadways, or the upgrade of existing highways to controlled-access freeways.

One concern with this strategy is that the additional capacity may lead to additional vehicle travel. The basic economic principles of supply and demand explain this phenomenon: adding capacity decreases travel time, in effect lowering the "price" of driving; when prices go down, the quantity of driving goes up (Noland and Lem, 2002). An increase in vehicle miles traveled (VMT) attributable to increases in capacity is called "induced travel." Any induced travel that occurs reduces the effectiveness of capacity expansion as a strategy for alleviating traffic congestion and offsets any reductions in GHG emissions that would result from reduced congestion. If the percentage increase in VMT matches the percentage increase in capacity, congestion (a function of the ratio of VMT to capacity) is not alleviated at all.

Conversely, some communities have decreased roadway capacity, in part motivated by the goal of reducing VMT. While temporary reductions in highway capacity are common (e.g. through the closure of lanes for construction or emergencies), permanent reductions are relatively rare. San Francisco eventually removed two elevated freeway segments damaged in the 1989 Loma Prieta earthquake, replacing them with street-level boulevards. Many European cities have closed selected streets in their

[1] See the separate policy brief on traffic incident clearance programs: http://arb.ca.gov/cc/sb375/policies/policies.htm

commercial cores to car traffic. This strategy is less common in U.S. cities, but one notable example is the recent elimination of vehicle traffic in Times Square in New York City. Increasingly common in the U.S. are “road diet” projects that re-allocate a portion of the public right-of-way for modes other than cars, though such projects do not necessarily decrease the capacity of the roadway as measured by vehicle throughput.

Impacts of Highway Capacity Expansion

Increased highway capacity can lead to increased VMT in the short run in several ways: if people shift from other modes to driving, if drivers make longer trips (by choosing longer routes and/or more distant destinations), or if drivers make more frequent trips (Noland and Lem, 2002; Gorham, 2009; Litman, 2010). Longer-term effects may also occur if households and businesses move to more distant locations or if development patterns become more dispersed in response to the capacity increase. Capacity expansion can lead to increases in commercial traffic as well as passenger travel (Duranton and Turner, 2011).

The induced-travel impact of capacity expansion is generally measured with respect to the change in VMT that results from an increase in lane miles, determined by the length of a road segment and its number of lanes (e.g. a two mile segment of a four-lane highway equates to eight lane miles). Effect sizes are usually presented as the ratio of the percent change in VMT associated with a one percent change in lane miles. The expectation is that this ratio, also called an “elasticity,” will be positive: an increase in lane miles will lead to an increase in VMT. An elasticity of 1 or greater means that the new capacity is entirely filled by additional VMT, producing no reduction in congestion or GHG emissions; for elasticities between 0 and 1, the closer the elasticity is to zero, the smaller the increase in VMT relative to the increase in capacity, and thus the greater the reduction in congestion and GHG emissions.

Impacts are also sometimes measured as the change in VMT associated with the change in travel time (that results from the change in highway capacity). Many studies analyze the change in the number of vehicles per day on that road segment (a metric called “average daily traffic”). No studies focused on travel time or average daily traffic are included here.

Effect Size

Studies consistently show that increased capacity induces additional VMT. Elasticity estimates of the short-run effect of increased highway capacity range from 0.3 to 0.6,

though one study produced a lower estimate of 0.1 (Table 1). Estimates of the long-run effect of increased highway capacity are considerably higher, mostly falling into the range from 0.6 to just over 1.0. The more recent studies have produced the highest estimates of long-run elasticities using more sophisticated methodologies that are better able to illuminate the impact of highway capacity on VMT (as discussed in the accompanying Technical Background Document). Thus, the best estimate for the long-run effect of highway capacity on VMT is an elasticity close to 1.0, implying that in congested metropolitan areas, adding new capacity to the existing system of limited-access highways is unlikely to reduce congestion or associated GHG in the long-run.

Table 1. Impact of Capacity Expansion on VMT

Study	Study location	Study year(s)	Results	
			Change in VMT/ change in lane miles	*Time period*
Duranton and Turner, 2011	U.S.	1983 - 2003	1.03	10 years
Cervero, 2003	California	1980 - 1994	0.10	Short term
			0.39	Long term
Cervero and Hansen, 2002	California	1976 - 1997	0.59	Short term (1 year)
			0.79	Intermediate term (5 years)
Noland, 2001	U.S.	1984 - 1996	0.30 to 0.60	Short term
			0.70 to 1.00	Long term
Noland and Cowart, 2000	U.S.	1982 - 1996	0.28	Short term
			0.90	Long term
Hansen and Huang, 1997	California	1973 - 1990	0.20	Short term
			0.60 to 0.70	Long term – counties
			0.90	Long term – metro areas

Even the earlier studies were skeptical about the potential of capacity expansion to reduce VMT, particularly in the long-run. In 1997, Hansen and Huang found that population growth is the most consistent contributor to VMT growth, but that the contribution from increases in lane miles is significant: "…Our results suggest that the urban [state highway lane miles] added since 1970 have, on the whole, yielded little in the way of level of service improvements." Noland (2001) concluded that "Increased capacity clearly increases vehicle miles of travel beyond any short run congestion relief

that may be obtained." More recently, Duranton and Turner (2011) echoed these earlier studies: "We conclude that increased provision of roads… is unlikely to relieve congestion."
The effect size appears to depend on the size (whether in terms of population or geographic extent) of the metropolitan area. On a percentage basis, the effects are larger for smaller areas (Schiffer, et al. 2005), likely for a number of reasons. In smaller areas, capacity increases are likely to represent larger percentage increases in total capacity, which then produce larger percentage increases in VMT (Noland and Cowart, 2000). Note that the amount (rather than the percentage) of induced travel is likely to be greater in larger areas than in smaller areas (Hansen and Huang, 1997).

Other factors may also influence the effect size. As noted above, the effect is larger in the long-run than in the short-run, with one study concluding that the full impact of capacity expansion on VMT materializes within five years (Hansen and Huang, 1997) and another concluding that the full effect takes as long as ten years (Durantan and Turner, 2011). The level of congestion is important, as capacity expansion will produce a larger reduction in travel time and thus a larger increase in VMT when congestion is high than when it is low and driving speeds are unconstrained (Schiffer, et al. 2005). In addition, the effect size may depend on fuel prices: when fuel prices are lower, the induced travel effects of expanded capacity tend to be higher, as travel time is a greater share of the cost of travel in this situation (Noland and Lem, 2002). Whether the form of capacity expansion (i.e. new roads or expanded roads) matters is not clear (Schiffer, et al., 2005).

An important question is whether increased VMT on highways following capacity expansion is partially offset by decreases in VMT on other roads. This would be the case if drivers shifted from slower and more congested roads to the new or newly expanded highways. However, Hansen and Huang (1997) found "no conclusive evidence that increases in state highway lane-miles have affected traffic on other roads," while more recently Duranton and Turner (2011) concluded that "increasing lane kilometers for one type of road diverts little traffic from other types of road." In other words, capacity expansion leads to a net increase in VMT, not simply a shifting of VMT from one road to another.

Another important question is whether increased highway capacity impacts public transit ridership, or vice versa. The potential interactions are complex. Increased highway capacity could lead public transit riders to shift to driving, thereby contributing to the induced travel effect. Conversely, increased public transit service could entice drivers to replace some driving with public transit, thereby reducing highway traffic and in effect freeing up additional capacity that could then lead to induced traffic. Duranton and

Turner (2011) found no evidence that public transit service affects VMT, suggesting that whatever interactions do occur tend to cancel each other out. In other words, adding transit capacity does not help to reduce congestion, as any freed up capacity is consumed by additional driving.

As noted, some communities have decreased roadway capacity, in part motivated by the goal of reducing VMT. Evidence on the effects of roadway removals or capacity decreases is sparse, however. A 1998 study of 60 locations where road space was taken away from cars in the UK, Canada, Tasmania, and Japan found that, on average, 25 percent of VMT seemed to go away, though the effect size varied widely (Goodwin, et al. 1998). A study of a fourteen-month closure of an important bridge in Calgary, Canada found only a small reduction in trips and little change in behavior with respect to mode (Hunt et al., 2001). Researchers also found limited changes in behavior during the temporary closing for construction of a stretch of Interstate 5 through downtown Sacramento in 2008 (Ye et al., 2012). Studies of the removal of the Central Freeway in San Francisco documented a significant drop in traffic: counts on the boulevard that replaced the freeway were roughly 50 percent less than counts on the freeway (Cervero et al., 2009). Effects on VMT rather than traffic counts have not been assessed.

Evidence Quality

The quality of the evidence linking highway capacity expansion to VMT increases is relatively high, although tying changes in VMT to changes in capacity is challenging. The cited studies use time-series data and sophisticated econometric techniques to estimate the effect size. These studies control for other factors that might also affect VMT, including population growth, increases in income, other demographic effects, and changes in transit service (Noland and Lem, 2002).

Although these studies show a strong correlation between capacity increases and increases in VMT, the direction of causality is an important question in that the anticipation of growth in VMT is generally the rationale for capacity expansion. One study showed that a 10 percent increase in VMT is associated with a 3.3 percent increase in lane-miles (Cervero and Hansen, 2002). However, Fulton, et al. (2000) found that growth in lane-miles precedes growth in VMT, and Duranton and Turner (2011) concluded that “roads are assigned to [metropolitan areas] with little or no regard for the prevailing level of traffic.” The cited studies have found a significant influence of capacity expansion on VMT even after accounting for the reverse effect.

Caveats

Many of the studies focus on California, and the results for these studies are similar to those for the national studies, suggesting that the effects are relatively uniform across the U.S. However, as noted above, the effect size may depend on size of the metropolitan area, existing levels of congestion, and fuel prices, and it is likely to be higher in the long run than in the short run.

GHG Emissions

The effect of capacity expansion on GHG emissions depends on two competing effects: the increase in VMT (which increases GHG emissions), and the reduction in traffic congestion (which tends to decrease GHG emissions). As noted above, any induced travel that occurs reduces the effectiveness of capacity expansion as a strategy for alleviating traffic congestion and offsets any reductions in GHG emissions that would result from improved traffic flow. Noland (2001) predicted that the growth in VMT attributable to increased lane miles would produce an additional 43 million metric tons of CO_2 emissions in 2012 nationwide. Conversely, any reductions in VMT resulting from reductions in capacity will reduce GHG emissions, though if traffic congestion increases as a result of the capacity reduction, the benefits will be offset to some degree.

Co-benefits

Given the induced travel effect, capacity expansion has limited potential as a strategy for reducing congestion. The additional vehicle travel induced by capacity expansion increases GHG emissions as well as other environmental effects, including increased air, water, and noise pollution. On the other hand, capacity expansion potentially generates economic and social benefits, at least in the short run, even if the new capacity is completely filled by induced travel. The additional benefits derive from the fact that the expanded highway is carrying more people, each of whom benefits from his or her travel. However, most studies of the impact of capacity expansion on development in a metropolitan region find no net increase in employment or other economic activity, though highway investments do influence where within a region development occurs (Handy, 2005; Funderberg et al., 2010).

In addition, the construction process itself generates both positive and negative effects. Most obviously, highway construction projects create jobs that can boost the local economy. On the other hand, highway construction projects often have substantial negative effects on the communities through which they are sited, particularly if construction necessitates the removal of homes or businesses. Historically, low-income

and/or minority communities were and continue to be disproportionately affected by such projects.

In contrast, reductions in road capacity tend to produce positive social and environmental effects, and they can also generate economic benefits. For example, many cities in Europe have adopted the strategy of closing streets in the central business district to vehicle traffic as an approach to economic revitalization (Hajdu, 1988; Rodriguez, 2011). Road diet projects are becoming increasingly popular in California and elsewhere in the U.S. as a way to support modes other than driving and enhance the local environment, though their economic impacts have not yet been systematically documented.

Examples

California continues to expand its highway system, though at a far slower rate than during the era of interstate highway construction. According to the national Bureau of Transportation Statistics, California had 31,435 miles of freeways, highways, and arterial roadways in 2010, a 1.6 percent increase from 2005.

As noted above, San Francisco removed two segments of elevated freeway damaged in the 1989 Loma Prieta earthquake. The Central Freeway was replaced with Octavia Boulevard, while the removal of the Embarcadero Freeway enabled substantial improvements to the at-grade Embarcadero Boulevard. Both projects sparked an on-going revitalization of their surrounding areas (Cervero, et al. 2009).

The strategy of closing central business district streets to car traffic is uncommon in California but not unknown. Cities in California that have or have had “pedestrian malls” include Burbank, Oxnard, Pomona, Redding, Redlands, Sacramento, and Santa Cruz. The Fulton Mall in downtown Fresno, closed to traffic in the 1960s, has struggled, despite several revitalization efforts. In contrast, Santa Monica’s Third Street Promenade, closed to traffic in the 1960s, is widely seen as a success in promoting economic activity and creating a thriving community core.

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