

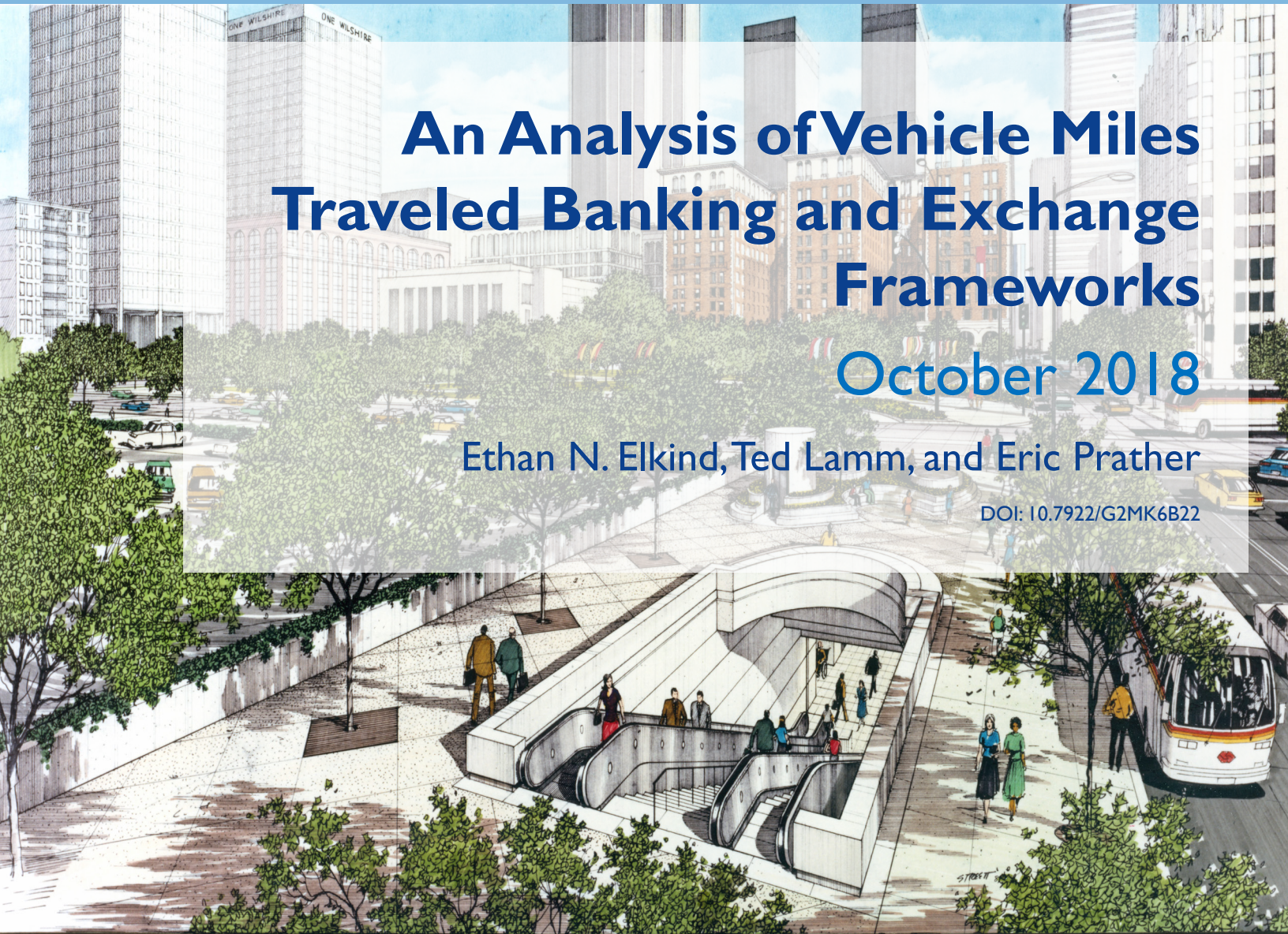
Implementing SB 743

An Analysis of Vehicle Miles Traveled Banking and Exchange Frameworks

October 2018

Ethan N. Elkind, Ted Lamm, and Eric Prather

DOI: 10.7922/G2MK6B22



5TH/HILL STATION A-140

ARCHITECTURE & ENGINEERING:
DELON HAMPTON & ASSOCIATES
ARTHUR ERICKSON ARCHITECTS

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT



TECHNICAL REPORT DOCUMENTATION PAGE

1. Report No. UC-ITS-2018-40	2. Government Accession No. N/A	3. Recipient's Catalog No. N/A	
4. Title and Subtitle Implementing SB 743: An Analysis of Vehicle Miles Traveled Banking and Exchange Frameworks		5. Report Date October 2018	
		6. Performing Organization Code ITS-Berkeley	
7. Author(s) Ethan Elkind, Ted Lamm, and Eric Prather		8. Performing Organization Report No. N/A	
9. Performing Organization Name and Address Institute of Transportation Studies, Berkeley 109 McLaughlin Hall, MC1720 Berkeley, CA 94720-1720		10. Work Unit No. N/A	
		11. Contract or Grant No. UC-ITS-2018-40	
12. Sponsoring Agency Name and Address The University of California Institute of Transportation Studies www.ucits.org		13. Type of Report and Period Covered Final Report (April 2018 – August 2018)	
		14. Sponsoring Agency Code UC ITS	
15. Supplementary Notes DOI: 10.7922/G2MK6B22			
16. Abstract Pursuant to Senate Bill 743 (Steinberg, 2013), which reformed the process for California Environmental Quality Act (CEQA) review of transportation impacts to align with greenhouse gas emissions reduction goals, the Governor's Office of Planning and Research identified vehicle miles traveled (VMT) as the key metric to measure transportation impacts of new developments under CEQA. As a result, project developers will now have to reduce vehicle miles traveled to mitigate significant transportation impacts. In response, state and local policy makers are considering the creation of mitigation "banks" or "exchanges." This report assesses the structural and legal considerations that could determine which model (i.e., banks or exchanges) and scope are appropriate for each implementing jurisdiction (i.e., city, county, regional, state). This report also analyzes a number of existing programs that provide additional models for implementation.			
17. Key Words CEQA, vehicle miles of travel, environmental impact analysis, greenhouse gasses, policy analysis, emissions trading		18. Distribution Statement No restrictions.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 32	22. Price N/A

About CLEE

The Center for Law, Energy & the Environment (CLEE) channels the expertise of the Berkeley Law community into pragmatic policy solutions to environmental and energy challenges in California and across the nation. CLEE works with government, business, and communities on initiatives that focus on reducing greenhouse gas emissions, advancing the transition to renewable energy, and ensuring clean water for California's future.

Authorship

The authors of this report are Ethan N. Elkind, Director of the Climate Program at CLEE, Ted Lamm, Research Fellow in the Climate Program at CLEE, and Eric Prather, JD candidate at UC Berkeley School of Law.

Acknowledgments

This report was made possible through funding received by the University of California Institute of Transportation Studies (UC ITS) from the State of California via the Public Transportation Account and the Road Repair and Accountability Act of 2017 (Senate Bill 1). The authors would like to thank the State of California for its support of university-based research, and especially for the funding received for this project. The authors would also like to thank Chris Ganson and Jeannie Lee of the Governor's Office of Planning and Research, Alyssa Begley of Caltrans, and Robert Liberty of Portland State University for their valuable insight.

Emily Van Camp designed this report.

Cover photo courtesy of Flickr's LA Metro Library and Archive.

Disclaimer

The contents of this report reflect the views of the author(s), who are responsible for the facts and the accuracy of the information presented herein. This document is disseminated under the sponsorship of the State of California in the interest of information exchange. The State of California assumes no liability for the contents or use thereof. Nor does the content necessarily reflect the official views or policies of the State of California. This report does not constitute a standard, specification, or regulation.

For more information, contact Ethan Elkind at eelkind@law.berkeley.edu or Ted Lamm at tlamm@law.berkeley.edu.

Table of Contents

Executive Summary	i
I. Introduction	1
II. Overview of VMT and Mitigation	2
<i>VMT Mitigation Options and Strategies</i>	2
<i>VMT Mitigation Banks and Exchanges</i>	3
III. Core Considerations for Banking and Exchange Systems	5
<i>Legal Barriers and Considerations</i>	5
<i>Programmatic and Design Considerations</i>	10
IV. Existing Models and Instructive Concepts	18
<i>Examples within California</i>	18
<i>Examples outside California</i>	21
V. Conclusion	23
 Table 1: VMT Mitigation Program Checklist	 iii
Table 2: VMT Mitigation Project Prioritization Factors	15
Table 3: Informative Elements from Existing Banking and Exchange Programs	18
Table 4: Sample VMT Mitigation Bank/Exchange Plan Proposal Requirements	19

Executive Summary

Pursuant to Senate Bill 743 (Steinberg, 2013), which reformed the process for California Environmental Quality Act (CEQA) review of transportation impacts to align with greenhouse gas emissions reduction goals, the Governor's Office of Planning and Research identified vehicle miles traveled (VMT) as the key metric to measure transportation impacts of new developments under CEQA. As a result, project developers will now have to reduce vehicle miles traveled to mitigate significant transportation impacts.

Yet while methods for reducing VMT impacts—such as mileage pricing mechanisms, direct investments in new public transit infrastructure, transit access subsidies, and infill development incentives—are well understood, they may be difficult in some cases to implement as mitigation projects directly linked or near to individual developments. As a result, broader and more flexible approaches to mitigation may be necessary.

In response, state and local policy makers are considering the creation of mitigation “banks” or “exchanges.” In a mitigation bank, developers would commit funds instead of undertaking specific on-site mitigation projects, and then a local or regional authority could aggregate these funds and deploy them to top-priority mitigation projects throughout the jurisdiction. Similarly, in a mitigation exchange, developers would be permitted to select from a list of pre-approved mitigation projects throughout the jurisdiction (or propose their own), without needing to mitigate their transportation impacts on-site. Both models can be applied at a city, county, regional, and potentially state scale, depending on local development patterns, transportation needs and opportunities, and political will.

This report assesses the structural and legal considerations that could determine which model and scope are appropriate for each implementing jurisdiction. A regional-scale bank might provide the most flexibility and the greatest capacity to undertake large-scale public transit infrastructure projects, but it might also implicate a number of concerns. For example, local jurisdictions may be unwilling to permit development to occur without also receiving associated mitigation funds, while significant equity issues may arise if disadvantaged communities host developments but not beneficial mitigation projects. Additionally, a bank arrangement that receives and pools funds from multiple projects should account for the delay between payment and deployment of funds as it measures the cost of VMT mitigation and negotiates with developers. A VMT exchange, meanwhile, might be simpler for developers, but it could also limit the usefulness of funds from smaller developments and be less politically agreeable to local communities.

Ultimately, both banks and exchanges should enact measures to verify the legitimacy of claimed VMT reductions, as well as their “additionality” (the principle that reductions would not otherwise have happened but for the funds committed). All models should also determine a comprehensive framework for the prioritization of individual mitigation

projects, in order to ensure that reductions are achieved as quickly and efficiently as possible. Finally, any lead agency will need to include rigorous backstops to ensure that disadvantaged communities are not negatively impacted by—and ideally can benefit from—the ability of developers to move mitigation off-site.

Certain legal considerations also shape these potential models, including reasonable relationship, proportionality, enforceability, and feasibility requirements under CEQA and the California Mitigation Fee Act. Any agency implementing a bank or exchange mechanism must demonstrate both a reasonable substantive relationship and financial proportionality between the proposed development and the fee or condition placed on it. Additionally, implementing agencies should consider requiring or providing incentives for developers or lead agencies to demonstrate that on-site mitigation is not feasible before being permitted to undertake off-site measures. Each of these legal standards has been extensively litigated under CEQA and will likely be well understood by implementing agencies.

This report analyzes each of these considerations as well as a number of existing programs that provide additional models for implementation, summarizing them into straightforward insight on the factors that implementing agencies will need to take into account as they structure their VMT mitigation programs. Table I provides a summary checklist of key considerations, potential solutions, and useful examples for the design of a VMT mitigation program. The remainder of the report presents and analyzes these issues in detail.

Both banks and exchanges should enact measures to verify the legitimacy of claimed VMT reductions, as well as their additionality. All models should also determine a comprehensive framework for the prioritization of individual mitigation projects, in order to ensure that reductions are achieved as quickly and efficiently as possible.

Table 1: VMT Mitigation Program Checklist

Structure	
Mitigation Bank	
<u>Benefits</u> <ul style="list-style-type: none"> Increased flexibility and capacity to facilitate regional transfers Capacity to fund large-scale transportation projects via aggregation Centralized control over project prioritization Potential to proactively address regional equity concerns 	<u>Challenges</u> <ul style="list-style-type: none"> Increased need to conduct careful CEQA/Mitigation Fee Act analysis Accounting challenge in delay from fee payment to project funding Greater need for program administration budget Political difficulty in distributing mitigation projects and coordinating across jurisdictions
Mitigation Exchange	
<u>Benefits</u> <ul style="list-style-type: none"> Increased community/political viability and reduced legal concerns Increased appeal for developers Minimized time delay between development and mitigation 	<u>Challenges</u> <ul style="list-style-type: none"> Potential mismatch between funds and mitigation projects available Potential for reduced oversight of project selection Limited capacity for regional application
Legal	
CEQA and Mitigation Fee Act	
<u>CEQA/Constitutional Analysis (<i>Nollan v. Calif. Coastal Comm.</i>; <i>Dolan v. Tigard</i>)</u> <ol style="list-style-type: none"> Demonstrate an essential nexus between condition and legitimate government interest Demonstrate rough proportionality between condition and adverse impact of project <u>Mitigation Fee Act Analysis (Cal. Gov. Code §§ 66000-66001)</u> <ol style="list-style-type: none"> Identify the purpose of the fee Identify the use to which the fee is to be put Determine how there is a reasonable relationship between the fee's use and the type of development project Determine how there is a reasonable relationship between the need for the public facility and the type of development project Determine how there is a reasonable relationship between the amount of the fee and the cost of the public facility 	<u>Solutions</u> <ul style="list-style-type: none"> Clearly establish link between proposed program and purposes of SB 743 and other relevant state law Prepare a formal nexus analysis Require demonstration of mitigation project feasibility and effectiveness Analyze and quantify local transportation stock and demand and anticipated future demand Analyze and quantify anticipated need for each type of facility or benefit to be funded by mitigation program Calculate fee levels justified by demonstrated needs and anticipated level VMT generated by project development Consider limiting use of fees to projects that cannot feasibly mitigate on-site <p>Example: San Francisco Transportation Sustainability Fund Nexus Study</p>
Congestion Management Plan	
<u>Consideration</u> Accounting for LOS impacts in addition to VMT impacts	<u>Solutions</u> <ul style="list-style-type: none"> Prepare analysis guidelines that expressly include thresholds and metrics for LOS and VMT Prepare a set of potential mitigation measures that can reduce both LOS and VMT (e.g., car share programs and shuttle services) <p>Example: Pasadena Transportation Impact Analysis guidelines</p>
Program Design	
Project Selection and Prioritization	
<u>Consideration</u> Clear mitigation project prioritization criteria	<u>Solutions</u> <ul style="list-style-type: none"> Create ranking system to weigh projects based on cost-effectiveness, timeliness, verifiability, legal complexity, and other factors Assign mitigation "points" based on type and scope of mitigation project relative to development context <p>Example: San Francisco Transportation Demand Management Program</p>

Accounting for potential benefits of mitigation fund aggregation	<ul style="list-style-type: none"> • Build bank structure that expressly permits aggregation of funds • Prioritize large-scale mitigation projects that rely on aggregated funds like new transit infrastructure • Account for inflation of project costs if there is a substantial delay between commitment of funds and initiation of project <p>Example: Clean Water Act § 404 Mitigation Banking</p>
Verification and Additionality	
<u>Consideration</u>	<u>Solutions</u>
Capacity to verify additionality	<ul style="list-style-type: none"> • Retain or create independent, third-party verification entity • Employ state-wide standard verification metrics • Require disclosure and conflict-of-interest checks • Require submissions documenting lack of alternative project funds or existing plans to achieve same VMT reductions <p>Example: California cap-and-trade program</p>
Reporting, recordkeeping, monitoring, and enforcement	<ul style="list-style-type: none"> • Produce annual program-wide reports to document funds received and expended, development projects and mitigation projects involved, actual VMT reduced, and value of VMT reduction over time <p>Example: Arizona Water Banking Authority</p>
Internal adjustment	<ul style="list-style-type: none"> • Build in price adjustment mechanisms or release valves if initial VMT prove too expensive or too affordable for developers <p>Example: Regional Greenhouse Gas Initiative</p>
Equity	
<u>Consideration</u>	<u>Solutions</u>
Assurance that minimum percentage of total mitigation funds reach disadvantaged communities	<ul style="list-style-type: none"> • Offer prioritization of or VMT discounts for mitigation projects located in disadvantaged communities • Require minimum percentage of total funds to be delivered to disadvantaged communities • Consider explicitly directing mitigation projects from affluent communities to disadvantaged communities <p>Example: SB 535/AB 1550 Disadvantaged Communities program</p>
Assurance that localized equity is preserved	<ul style="list-style-type: none"> • Employ a more stringent feasibility standard for development projects located in disadvantaged communities • Limit size of area or region covered by bank or exchange
Logistical	
<u>Consideration</u>	<u>Solutions</u>
Clear standards for program design and implementation	<ul style="list-style-type: none"> • Provide state-wide templates and document forms for bank or exchange implementing agreements <p>Example: Conservation and Mitigation Banking program</p> <ul style="list-style-type: none"> • Codify requirements for initial program proposals and require state-level review and approval <p>Example: Regional Conservation Investment Strategies</p> <ul style="list-style-type: none"> • Create an online development and mitigation project analysis tool <p>Example: San Francisco Transportation Demand Management Tool</p>

I. Introduction

In 2013, the California legislature passed and Governor Jerry Brown signed Senate Bill 743 (Steinberg, Chapter 386, Statutes of 2013), with the intent to balance congestion management needs and the mitigation of the environmental impacts of traffic under the California Environmental Quality Act (CEQA) (Pub. Res. Code § 2100 et. seq.) with statewide greenhouse gas emission reduction goals. The law directed the Governor's Office of Planning and Research (OPR) to develop an alternative mechanism for evaluating transportation impacts under CEQA, the state's environmental impact assessment and mitigation statute. SB 743 requires OPR to amend the CEQA guidelines to provide a transportation impact analysis framework that prioritizes reducing greenhouse gas emissions, replacing the prior focus of minimizing automobile delay.¹ Traditionally, the CEQA guidelines have required that environmental reviews consider inhibiting the flow of vehicle traffic to be an adverse environmental impact of development. However, in order to reduce greenhouse gas emissions, promote alternative transportation, and encourage sustainable land uses, SB 743 called for the guidelines to be revised to no longer consider automobile delay a significant impact on the environment.² In keeping with California's greenhouse gas targets, and to promote further integration between the guidelines and the state's environmental goals, OPR recommended adopting vehicle miles traveled (VMT) as the metric to determine the significance of transportation impacts under CEQA.³

This report assesses the prospects under existing state law for establishment of regional VMT mitigation strategies, specifically VMT mitigation banks or exchanges. Part II describes existing VMT mitigation measures and their benefits and outlines potential approaches to SB 743 compliance. Part III examines the principal constraints and opportunities of a VMT mitigation exchange or bank and a set of prioritization factors and key considerations to facilitate the creation of VMT mitigation banks or exchanges. Finally, part IV highlights similar concepts that provide instructive examples to consider in the creation of a mitigation bank or exchange.

II. Overview of VMT and Mitigation

Traditionally, the CEQA guidelines have required agencies to assess the transportation impacts of new developments by whether they will result in automobile delay.⁴ The most widely used metric to evaluate these impacts is referred to as level-of-service (LOS) analysis.⁵ This analysis measures the anticipated roadway congestion associated with a project and then assigns a LOS level (ranging from A to F) to depict the expected traffic flow, based on new vehicle trips and traffic dynamics that the project is anticipated to generate. Successfully mitigating LOS impacts can reduce the overall traffic impact of a project, but it can often require steps that run counter to reducing greenhouse gas emissions, such as increasing roadway capacity to accommodate more vehicles. Moreover, in prioritizing automobile traffic, the LOS analysis can undermine California's goals of increasing multimodal transportation use and promoting infill development.⁶

The VMT metric measures the total miles traveled by vehicles as a result of a given project. VMT accounts for the total environmental impact of transportation associated with a project, as it considers the additional miles—and thus emissions and traffic—occasioned by the project, independent of congestion levels. As such, using VMT to assess transportation impacts should align more accurately with California's greenhouse gas emission reduction goals. In contrast to LOS impacts, reducing or mitigating VMT impacts requires measures that simply decrease the total number of miles traveled by automobiles, thus limiting or reducing the greenhouse gas emissions associated with a project. Additionally, the reduction in automobile travel associated with mitigating VMT provides indirect benefits to public safety and health by reducing pollution, particulate matter, automotive accidents, chronic disease, and other conditions.⁷

A. VMT Mitigation Options and Strategies

Project developers have multiple methods to mitigate VMT, each of which should be evaluated for suitability based on its appropriateness under CEQA and capacity to generate actual, cost-effective VMT reductions. This section offers examples of those measures.⁸

Direct Pricing

The most direct mechanism for reducing VMT may be pricing strategies. Vehicle users can be charged a fee based on the number of miles driven, with the cost serving as an incentive to reduce driving. The principal advantage of implementing a pricing regime is the ability to directly connect cost to vehicle miles. The fee can be set, and subsequently modified, to specifically encourage reduced driving at a level that meets the statewide or regional goal for emissions reduction. However, this strategy can pose significant equity problems for lower-income populations, for whom transportation costs already constitute a higher percentage of income and who may not be able to reduce miles driven to respond to fees. Moreover, if residents have no reasonable alternatives to driving—such as residents of communities with no access to public transit or ride-sharing—pricing is unlikely to elicit the targeted reductions.⁹ Most importantly, policy makers would have difficulty tailoring a VMT pricing mechanism in response to a specific development or group of developments, which is essential under CEQA.

Transportation Investment

Investing in alternative modes of transportation may be the simplest way to reduce VMT. This process involves the creation of new infrastructure that promotes non-vehicle travel (e.g., creation of sidewalks, “paseos” or pedestrian routes, and bike lanes), or the improvement of existing public transportation options to promote higher usage (e.g., raised pedestrian sidewalks, protected bike lanes, dedicated bus lanes). Funding can also be used to subsidize fares or otherwise reduce the cost of existing transportation options. While these investments cannot guarantee that individuals will choose public transportation over private automobiles, reducing costs and increasing availability can encourage greater utilization of transit.

Infill Development

Targeted land use and development strategies can also encourage VMT reduction by reducing the need for residents to travel by automobile. Potential strategies include promoting increased spatial connectivity between residential and other uses, whether through mixed-use developments or infill developments between existing uses. By decreasing the required travel distance between homes, workplaces and shopping areas, developers can increase the ability of residents to walk or use transit on a regular basis. Researchers have found strong evidence that households living in more central locations in urban areas tend to drive less.¹⁰ However, infill development often faces zoning and general plan considerations and may require significant planning to properly facilitate. It is important to note that SB 743 essentially exempts from its requirements all “transit priority areas,” defined as areas within one-half mile of a major transit stop, from all transportation impact analysis under CEQA.¹¹ OPR has stated in proposed guidance, and the California Natural Resources Agency has included in its rulemaking, that “[g]enerally, projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact.”¹²

B. VMT Mitigation Banks and Exchanges

While these options represent the core set of measures available to a project developer or lead agency seeking to reduce VMT, some or all of them may be impractical or inefficient to implement on-site depending on the scale and location of a given project. For example, a new shopping center in an undeveloped area might not be realistically accessible by a new pedestrian or bicycle path, and not located near a bus line that could be expanded to include a new stop. In these cases, developers may need to consider broader approaches to maximize overall VMT reduction and ensure their projects comply with the requirements of SB 743. A mitigation exchange or bank for VMT could allow agencies and developers to access mitigation options sufficient to meet the scale of their projects:

1. A VMT mitigation bank could issue credits for purchase by project developers to offset the unavoidable environmental impacts of their projects.¹³ VMT mitigation banks could require the purchase of VMT mitigation credits for developments that do not have a feasible option for mitigating VMT on-site. These credits would then be compiled and applied to specific VMT-reducing projects within a given area, whether at the city or regional (or possibly state) level, chosen through the selection process created by the entity in charge of a bank. Such a regime could allow project developers to support off-site, but regionally or locally beneficial, VMT-reducing projects as a means to mitigate their impacts.
2. A related concept, a VMT mitigation exchange, would leverage the same principles to allow developers to fully fund specific off-site mitigation projects when on-site mitigation is not feasible. In such an exchange, developers could be permitted to design and propose their own mitigation projects (and demonstrate their sufficiency and equivalency)

or could select approved projects from the bank's project list—effectively skipping the generation and calculation of credits.

By allowing development of sites that present VMT mitigation challenges and capturing the mitigation-related fees for targeted deployment, these banks or exchanges could leverage private funding to facilitate maximally efficient overall regional VMT reduction. The VMT fees could be used to fund the VMT strategies listed previously, including transit developments (such as rail, bus, or ferry lines) and alternative transportation infrastructure (e.g., bike lanes, pedestrian walkways), or even to support infill development (e.g., subsidizing affordable housing next to transit hubs).

In designing these concepts, participating agencies must first designate an appropriate coverage area. Cities may be unwilling to accept larger, regional approaches due to fear of distributing VMT mitigation outside their borders; as a result, in practice SB 743 implementation may result in the creation of many city-level exchanges or smaller banks. However, the bank or exchange should have sufficient geographical coverage to encompass enough VMT-reducing projects and activities to be functional as a market-based solution. Additionally, under long-standing legal precedent, a VMT mitigation bank must be designed to extract and spend fees in a manner that is reasonably related to the VMT impact of the new development. In particular, a mitigation bank must utilize its funds to directly contribute to a proportional VMT reduction that offsets a development's VMT generation that would occur without the bank.

This report focuses on mitigation options for local- and regional-scale development projects. One additional consideration not discussed in this report is how state-level development projects that cross multiple regions, such as state highway expansions, could manage compliance with multiple VMT mitigation schemes operating in different jurisdictions within the project footprint. Absent the creation of a statewide VMT mitigation bank or exchange exclusively for these projects, lead agencies

could work with local VMT mitigation entities to determine what proportion of estimated VMT impacts will occur in each jurisdiction and how they should allocate associated mitigation efforts as a result. This process will likely require granular analysis of a project's impact in each jurisdiction and close coordination among the agencies involved to reach a mutually agreed allocation of mitigation projects or funds.

By allowing development of sites that present VMT mitigation challenges and capturing the mitigation-related fees for targeted deployment, VMT mitigation banks or exchanges could leverage private funding to facilitate maximally efficient overall regional VMT reduction.

III. Core Considerations for Banking and Exchange Systems

This section examines the opportunities and challenges for creating a VMT mitigation banking regime. A mitigation bank or exchange should have the following characteristics:

- Compliance with the legal frameworks with which it intersects, including state and local laws governing environmental mitigation and road congestion;
- Assurance that the VMT reductions achieved would not have occurred absent mitigation bank funding;
- A verification system, including preliminary confirmation that proposed VMT reductions match the nature and scope of a proposed development, and procedures to ensure that mitigation projects receiving funding actually elicit the targeted VMT reductions;
- Attention to the incentive structure it creates for local governments and project developers in order to prioritize efficiency in terms of the cost-effectiveness and the timelines of available mitigation projects; and
- Consideration of the potential for disproportionate impacts on communities of socioeconomic disadvantage and design safeguards to minimize those impacts.

A. Legal Barriers and Considerations

Potential legal constraints and considerations that would shape the creation of a VMT mitigation bank or exchange include CEQA and associated constitutional considerations, as well as California laws including the Mitigation Fee Act and the Congestion Management Program. While federal or state law likely would not prevent the creation of VMT mitigation banks or exchanges, any agency designing and/or operating a bank would need to carefully account for them to ensure legal compliance and minimize litigation risk. In addition to the legal requirements detailed in this section, any mitigation bank or exchange will also need to adhere to the implementing agency's baseline legal authority: local governments and agencies typically hold general police powers and planning authority, while regional agencies and special districts have more limited authorities specifically granted by statute, potentially affecting the scope of mitigation activities they can implement or require to be implemented.

The California Environmental Quality Act

While SB 743 directly amends CEQA to require updated analysis of transportation impacts, other considerations under the statute may constrain the options available to developers and government agencies in carrying out that analysis. The U.S. Supreme Court has recognized fundamental constitutional constraints on agency power to impose mitigation measures on project approval under CEQA.¹⁴ The Court has long held that land-use regulation (including mitigation requirements) must “substantially advance legitimate state interests” and

not deny an owner “economically viable use of his land,” in order to not constitute an unconstitutional taking.¹⁵ This doctrine of unconstitutional conditions requires that fees imposed on projects have an “essential nexus” to a legitimate government interest (i.e., they must further a government purpose that would otherwise serve as a valid basis for prohibiting the underlying project).¹⁶ Furthermore, the doctrine requires those fees to be “rough[ly] proportional” to the adverse impacts of a project.¹⁷ Since these requirements are based on the relationship between police-power purposes (i.e., state regulation for health, safety, and general welfare) and the imposition of fees that further those purposes, a broad range of fees may be permissible so long as they are justifiably necessary to further a legitimate purpose related to the project itself. The court has considered a wide range of governmental purposes legitimate, including zoning requirements, scenic zoning, and landmark preservation.¹⁸ By passing SB 743 with the express intent of reducing greenhouse gas emissions through means including VMT mitigation, the California Legislature has signaled that mitigating VMT is a legitimate purpose for the state’s general welfare.

- The basic structure of a mitigation bank or exchange would need to satisfy these constitutional requirements: The goal of a VMT mitigation bank or exchange should be to offset the adverse impact of increased VMT due to project development;
- VMT mitigation fees should be imposed on developments that are unable to sufficiently or cost-effectively mitigate their VMT onsite—as an alternative to the agency’s or developer’s direct funding of mitigation measures—and utilized for projects which offset the requisite VMT;¹⁹ and
- VMT mitigation fees would be related to the valid police purpose of reducing VMT as established by SB 743 and would be assessed in direct proportion to the anticipated increased VMT that project would generate, thereby demonstrating proportionality to the impacts the fees offset.

With this basic structure, the bank or exchange (and any fees charged) would likely satisfy the requirement of an essential nexus to the government interest of environmental protection under CEQA. While VMT mitigation “buyout” (e.g., paying directly to gain project approval, without an appropriately defined target for mitigation funds) would be impermissible, a VMT mitigation transfer regime that clearly defines a set of mitigation projects with a verified ability to reduce VMT, and assesses fees proportional to both that ability and to anticipated development impacts, should be permitted under the unconstitutional conditions doctrine.²⁰

Courts have accepted the imposition of fees that are aggregated and then used on large regional projects that offset adverse environmental impacts.²¹ In *Save Our Peninsula Committee v. Monterey County Bd. of Supervisors*, the court held that the aggregation of fees to fund appropriate mitigation projects that are actually being implemented, demonstrated through annual reports, can be an adequate mitigation measure under CEQA.²² In that case, the approval of a project that would result in traffic impacts was conditioned on the assessment of fees that were compiled to be used for future highway improvement projects.²³ The mitigation fees were challenged under CEQA since they did not directly fund specific highway improvements. The court held that since road improvement plans were in place, which were partially funded by the fees, and construction was proceeding on some projects under the road improvement plans, the fee structure was permissible under CEQA.²⁴ Similarly, *Anderson First Coalition v. City of Anderson* held that an agency may require a development to contribute a “fair share” fee to a mitigation project in proportion to its anticipated transportation impact, when the cumulative impact of multiple projects will be significant (even if the individual project’s impact is less than significant).²⁵ Thus the VMT mitigation transfer mechanism of a mitigation bank or exchange should be a permissible impact offset, provided that agency leaders develop a clear plan for funding projects and demonstrate progress under that plan.²⁶

Agencies seeking to establish a VMT mitigation

bank or exchange could also take advantage of the CEQA “tiering” process for bank mitigation projects. Tiering, which is expressly permitted under CEQA, allows for the creation of program-level EIRs that undertake a single assessment of a group of geographically or substantively related actions. Developers of individual projects can then reference the master programmatic EIR and demonstrate their consistency with that master by showing that the projects are in the same scope and area of the overall program.²⁷ As long as the reviewing agency evaluates the impacts in sufficient detail in the initial EIR and no substantial differences in types or locations of impacts exists, agencies can use this process to prepare a programmatic CEQA analysis of potential bank mitigation projects and then tier the individual projects off of the program EIR, thereby expediting the environmental reviews of the recipient projects.

Review of the CEQA statute and its associated guidelines does not surface any other limitations that could constrain the creation of VMT mitigation banks or exchanges. Additionally, because SB 743 requires the new transportation impact mitigation criteria to promote reduction of greenhouse gas emissions, potentially including VMT mitigation requirements, a court would likely presume that the legislature authorized approaches to VMT mitigation that address the full scope of VMT impacts (such as innovative approaches for projects that cannot fully mitigate on-site). SB 743 repeatedly references statewide greenhouse gas reduction goals, indicating a willingness by the legislature to look beyond localized impacts. Finally, the legislature has previously enacted regional conservation and mitigation banking programs (discussed later in this report) that suggest an implicit endorsement of regional approaches to secure state aims.

The Mitigation Fee Act

California’s Mitigation Fee Act codifies the relational requirements imposed by the U.S. Supreme Court under the unconstitutional conditions doctrine.²⁸ The act imposes requirements for development fees to ameliorate concerns “that local agencies

were imposing development fees for purposes unrelated to development projects.”²⁹ Since a VMT mitigation bank would require the imposition of fees on development, any bank must be created to comply with the requirements of the act (since an exchange model would avoid the imposition of fees by connecting developers directly to mitigation projects, the requirements would likely not apply).

For the purposes of establishing a VMT mitigation bank there are two principal issues with the act’s requirements:

1. Does the bank, or the targeted recipient of the bank’s funds, constitute a “public facility” as defined in § 66000(d)? The Act requires demonstrating a reasonable relationship between the development project and the need for the “public facility” (defined to include “public improvements, public services, and community amenities”) being funded by the fee.³⁰ Since the act defines “public facility” broadly, and courts have interpreted those requirements broadly (and the act itself codifies the already-broad unconstitutional conditions doctrine), VMT mitigation measures—such as public transit infrastructure, improvements, and subsidies—likely would be considered public facilities.³¹
2. Does the mitigation bank identify the purpose of the fee imposed and the use to which the fee will be put, as well as a reasonable relationship between the fee’s use (and the need for the public facility to be financed) and the type of development proposed? These requirements stem from § 66001(a) of the act, both in terms of the development fee, its use, and the reasonable relationship to the type of development proposed.³² If the amount charged to the developer in lieu of sufficient VMT mitigation is a fee, under the act, then the agency operating the bank must show that the fee and its recipient are reasonably related to reducing VMT and

the development. This requirement should constrain but not preempt the creation of VMT mitigation banks.³³ So long as an acceptable evidentiary support package is compiled detailing the necessity of the fee, the purpose of its imposition, and its proportionality to project impacts, courts should permit the mitigation fee.

The bank should therefore provide documentation that the affected project will increase VMT if not for the fee, that CEQA (under SB 743) considers VMT increases adverse to California's welfare, and that the fee will be utilized to offset that adverse impact, in addition to any other information which could justify its imposition. Making the determination of a reasonable relationship between the proposed fee and the affected development project, as required under § 66001(a), should not significantly limit the flexibility of mitigation project selection that a bank or exchange could offer since the enactment of SB 743 has created a statutory imperative to reduce VMT under CEQA. So long as they represent properly documented and truly additional VMT reductions, even mitigation projects such as contributions to transit services should satisfy legal requirements. And since governments already provide evidence justifying similar fees today, agencies creating mitigation banks can look to past examples of Mitigation Fee Act compliance for best practices in supporting bank projects.

The act also establishes a fiscal compliance and reporting framework for funds collected from development fees. These requirements include the mechanics of preventing improper commingling of the targeted funds, annual reporting requirements on the status of the associated projects or facilities, and a return provision for unused funds.³⁴ In order to comply with this section the agency collecting the fees must account for each fee collected, provide public notice, and note when construction will begin on incomplete facilities for which the sufficient fees were collected. Moreover, if the agency fails to provide an approximate start date for a project which it has sufficiently funded with 180 days, the agency must return that portion of the fees (with accrued

interest) to the current owner of the property the fee was imposed on. Furthermore, in every fifth year the act requires agencies to re-identify how the fees collected will be used and comply with the reasonable-relation requirement, otherwise the agency must return those fees as noted above. These requirements are unlikely to hinder the creation of a mitigation bank since they do not limit the type or timeline of projects able to receive fees, but they may present reporting challenges when, for example, fees from multiple developments are pooled together to fund a single mitigation project with an undefined future start date. Thus, it will be essential that any mitigation bank include a robust compliance and accounting body that provides detailed reports on fees collected and how they are allocated to projects, public notice of any changes in the allocation of funds among projects over time, and in-depth descriptions of mitigation project timelines for major regional measures that may receive funds from multiple sources.

Finally, § 66005 sets out a proportional fee reduction scheme for new infill or transit-oriented housing developments. A housing development that is located within one-half mile of a transit station and meets other basic requirements is entitled to a reduction in transportation mitigation obligations based on the lower rate of automobile trips that the project will generate.³⁵ However, since SB 743 essentially exempts all such "transit priority areas" from analysis of transportation impacts under CEQA, this component of the act may be effectively moot. Nonetheless, an entity designing a bank should be aware of this new change in the law that will likely deviate from past practices.

The Congestion Management Program

VMT mitigation banks and exchanges necessarily permit a potential increase in VMT at one site (as a result of the new development) in exchange for reduction at another site or sites within a given region. This potential "transfer" of automobile congestion could implicate California's Congestion Management Program (CMP). Under the program, every county that includes an urbanized area must

develop, adopt, and biennially update a congestion management program to enforce LOS standards at a minimum LOS of E level (severe congestion with slow movement and frequent stoppages not uncommon at peak travel hours) or the current level if below E, and performance elements which evaluate and promote current and future multimodal and alternative transportation methods.³⁶ Additionally, the program requires jurisdictions to analyze and mitigate the impacts of land use on transportation.³⁷ These performance measures are intended to simultaneously maximize service on roadways while supporting alternative mobility, air quality, and other land use objectives which support a reduction in automobile usage, such as improving jobs-housing imbalances, promoting carpooling, and telecommuting.

Failing to adopt, or comply with the adopted, congestion management program results in a loss of funds for transportation and air quality (although a county may opt out of the CMP requirement if a majority of the local governments representing a majority of the county population each adopt exempting resolutions).³⁸ If a county finds deficient segments or intersections that do not meet the LOS requirements, the county must create a deficiency plan to mitigate that underperforming segment unless the deficiency results from an excepted development such as low-income housing or high-density housing (and mixed-use housing) near transit.³⁹ Given the relatively narrow constraints for these exceptions, the LOS-mitigation requirements of congestion management plans could apply to many developments potentially eligible for VMT mitigation banking under SB 743.⁴⁰

SB 743 alters the requirements for determination of transportation impacts under CEQA but does not explicitly do so for compliance with the CMP.⁴¹ Unless, or until, the CMP requirements are updated to reflect the CEQA changes under SB 743, developments located outside of “infill opportunity zones” that impact LOS on highways and arterials may face conflicting requirements under the two sets of objectives. Since high-density housing near transit is exempt from deficiency requirements under the

CMP, some types of housing development will be unaffected by the disparate methodologies. However, for other developments this conflict presents a potential issue. Under an existing CMP, for example, a county may be required to undertake measures to prevent a new development from degrading local LOS from an E to an F level, while a VMT mitigation bank or exchange could permit, or even require, the assessment of a fee used to finance VMT-reducing projects that do not improve local LOS. This could effectively force agencies to accomplish both pre- and post-SB 743 goals, which would impede the intended efficiency of a banking or exchange approach and prove impracticable from a cost perspective.

The most straightforward solution for compliance with both CMP and the goals of VMT mitigation banking could be to evaluate LOS on the same geographical scale on which VMT mitigation is permitted. Since a VMT mitigation bank or exchange would reduce vehicle miles traveled, LOS should not be negatively impacted—and in fact may be improved—in the covered region. If the scale of LOS evaluation is expanded from assessing localized impacts at the intersection level to assessing impacts on larger segments or the region, then the VMT mitigation should coincide with LOS goals under the CMP. For example, the City of Pasadena has organized its Complete Streets Program to implement AB 1358 (Leno, Chapter 657, Statutes of 2008) which required transportation planners to identify innovative approaches to reduce VMT. The City adopted a mobility element in its general plan, which expressly sought to create “a community where people can circulate without cars,” and created a non-profit Transportation Management Association to create and disseminate transportation information throughout the City.⁴² The City’s Transportation Impact Analysis guidelines expressly include review thresholds for both VMT and LOS (along with other accessibility and transit-related metrics), requiring analysis and potentially mitigation of any significant impacts to either or both of them under CEQA.⁴³ The guidelines set the significance threshold for VMT at 22.6 additional trips per capita (residential population plus jobs) and require LOS to be held

at D (or E in transit-oriented districts), without apparent conflict. While these thresholds are set specifically for the development and transportation environment of Pasadena, they demonstrate that with appropriate guidance there need not be conflict between congestion- and VMT-reduction goals.

While the potential alignment of CMP and VMT-reduction goals as demonstrated by the Pasadena guidelines may render dual compliance concerns minimal in practice, it will be important for implementing agencies to consider the options available to satisfy both sets of requirements. If a targeted project reduces VMT but would not otherwise comply with the LOS requirements under the CMP, local leaders could designate areas as “infill opportunity zones” as a workable model. Under SB 743, Government Code § 65088 allows for cities or counties to designate areas as infill opportunity zones, provided the areas are consistent with their general plan and applicable specific plans, and are “within one-half mile of a major transit stop or high-quality transit corridor included in the applicable regional transit plan.”⁴⁴ Sites that qualify for designation in an infill opportunity zone are exempt from the LOS requirements under the CMP.⁴⁵ The infill opportunity zone designation could provide areas in which VMT mitigation funds could reliably be spent without consideration of their LOS impact.

Senate Bill 375

Senate Bill 375 (Steinberg, Chapter 728, Statutes of 2008) requires the state’s metropolitan planning organizations (MPOs) to create and implement Sustainable Communities Strategies (SCS), which are regional transportation plan components designed to integrate land use, housing, and transportation planning strategies to meet regional greenhouse gas emission reduction goals set by the California Air Resources Board (ARB). Each SCS is unique to its region, but the programmatic goal of SB 375 is “to achieve significant additional greenhouse gas reductions from changed land use patterns and improved transportation”—effectively, to adopt regional VMT-reducing policies and incentives.⁴⁶

Compliance with SB 743 and the implementation of mitigation banking or exchange strategies is unlikely to conflict with the requirements of SB 375, but it will be important for responsible agencies to review the applicable regional SCS for any potential overlaps or conflicts. More likely, an existing SCS may provide useful concepts or considerations for bank or exchange design, and if a regional scale is selected for VMT mitigation then the responsible MPO may be the ideal body to manage it.

B. Programmatic and Design Considerations

Structure

Policy makers have two principal options for structuring VMT mitigation approaches, as outlined at the beginning of this report.⁴⁷ One model, the VMT mitigation bank, utilizes a supervising agency that aggregates fees imposed on project developers. In this model, the agency identifies and manages the list of potential projects and then selects which projects to fund. Alternatively, the exchange-based model would allow developers to select individual off-site mitigation projects from a list of options or identify projects and submit them to the implementing agency for approval. This model may create less burden for agencies, since developers could be given greater control of the selection process. But it may present political and equity concerns. If agencies do not control the distribution of project awards, they may not be able to correct for inequitable project distributions. Finally, the creation of a local exchange-based model could create an evidentiary and political foundation for the later implementation of a centralized, regional banking or exchange system by facilitating the initial development of VMT mitigation metrics, project evaluation criteria, and basic operational mechanisms. Once the central concepts are demonstrated and gain stakeholder acceptance, policy makers could consider expanding or combining local initiatives to achieve regional economies of scale.

One potential model for structuring a bank or

exchange is the San Francisco Transportation Demand Management Program, which “seeks to promote sustainable travel modes by requiring new development projects to incorporate design features, incentives, and tools that support transit, ride-sharing, walking, and bicycle riding.”⁴⁸ Program staff assign a number of points to each project based on its land use category, size and parking requirements. Project developers must then select applicable demand-management measures (primarily on-site) totaling an equal number of points from a city-prepared menu of options and adopt a plan to implement these measures.⁴⁹ Each point is roughly equivalent to a one percent reduction in VMT. Potential projects can range from bicycle parking and bike-share memberships to car-share parking

and memberships to general transportation system contributions, providing a wide variety of options for developers to tailor mitigation to project design. An online tool allows developers to determine the mitigation options and needs for a particular site.⁵⁰

The design and use of a points-based system integrates consistency and project-specific flexibility in a manner that could serve as a model for jurisdictions seeking to implement VMT reductions under SB 743. Tailoring such a system to the options available in a given jurisdiction, incorporating off-site mitigation options, and potentially expanding use of the online tool that San Francisco officials have created, could serve the needs of many local governments and developers alike.

Figure 1: Sample San Francisco Transportation Demand Management Menu of Options

Category	Measure	Points	Land Use Category			
			A	B	C	D
ACTIVE-1	Improve Walking Conditions: Option A; or	1 ●				
	Improve Walking Conditions: Option B; or	1 ●				
	Improve Walking Conditions: Option C; or	1 ●				
	Improve Walking Conditions: Option D	1 ●				
ACTIVE-2	Bicycle Parking: Option A; or	1 ●				
	Bicycle Parking: Option B; or	2 ●●				
	Bicycle Parking: Option C; or	3 ●●●				
	Bicycle Parking: Option D	4 ●●●●				
ACTIVE-3	Showers and Lockers	1 ●				
ACTIVE-4	Bike Share Membership: Location A; or	1 ●				
	Bike Share Membership: Location B	2 ●●				

Source: City and County of San Francisco Planning Commission, *Standards for the Transportation Demand Management Program* (2016).

Figure 2: Sample from San Francisco Transportation Demand Management Tool

PARKING

PKG 1 Unbundle Parking ☒ Yes ☐ No +0 Neighborhood Parking Rate: 0.12 Location: E

PKG 2 Short Term Daily Parking Provision ☒ Yes ☐ No +2

PKG 3 Parking Cash Out - Non-residential Tenants ☐ Yes ☒ No

PKG 4 Parking Supply ☐ Yes ☒ No +0 Neighborhood Parking Rate: 0.12 Project Parking Rate: 0.80 Parked > neighborhood rate

Total points for measures chosen for:

Category A (Retail)

CURRENT POINTS: 7 TARGET POINTS: 17

Source: City and County of San Francisco Planning Commission, *Transportation Demand Management Tool*.

Verification and Additionality

A VMT mitigation bank should include procedures that verify that development fees and mitigation projects properly qualify. Agencies need to consider both verification of VMT reductions and additionality (i.e., the requirement that reductions would not have occurred absent funding from the bank) for projects before approving participation in the banking regime. In verifying the legitimacy of VMT reductions, implementing agency staff should consider evaluation both before they accept a mitigation project and after it is implemented. Since VMT mitigation projects may rely on complex human decision-making processes around development, employment, and transportation use, it is important not only to verify on the front end that a project's anticipated reductions will match the need generated by the development in question, but also to confirm that those reductions actually occur as anticipated after implementation or construction. One solution could involve engaging a third party to verify the legitimacy of the claimed reductions. This verification can be adapted from the current offset verification program utilized by the ARB. In order to verify that claimed greenhouse gas emission reductions meet the standards of AB 32 (Pavley, Chapter 488, Statutes of 2006), ARB trains and certifies "Offset Verifiers" who independently confirm compliance.⁵¹ These verifiers are subject to many requirements designed to ensure their independence, such as conflict of interest checks. Moreover, offset verifications are required to comply with a stringent process of checks, including site visits, data collection, and legal compliance checks to ensure that the emissions reductions are additional and permanent.⁵² First, verification bodies must create a verification plan, specifying the verification timeline, the methods of data collection, calculation, and the qualifications of the verifiers, and then have the plan reviewed by ARB. Next, the offset verification team must utilize the planned combination of visual observations and calculations to ensure that the project will reduce emissions by the planned amount and that the reduction would not have occurred otherwise (including due to other

legal or regulatory compliance). Finally, the offset verification team must certify their results (of both the initial verification and continued verification for the required compliance period) with written and signed reports to ARB, under penalty of perjury. By adopting a similar verification system, VMT mitigation banks or exchanges can preempt the problems associated with self-verification, including the appearance of improper influence (which could undermine VMT reduction efforts), undermined public trust of the process, and failure to verify the actual reductions comply with the requisite legal constraints of fee exaction. On the other hand, third-party verification could prove expensive to implement at the local level, creating additional mitigation costs that could deter developers from entering the mitigation bank or exchange. A potential compromise could be the creation of one or a small number of regional or statewide verification bodies, which could have the capacity and expertise to handle verification for localities throughout the state at a more distributed cost and with increased statewide consistency.

A VMT mitigation verification strategy should also ensure that the VMT reductions achieved by the mitigation bank are truly additional and would have not otherwise occurred. The inclusion of VMT-reducing measures in an existing general plan or regional transportation plan likely would not affect the additionality of those measures in a VMT mitigation bank or exchange in general; however, the participating agency or developer should be required to demonstrate that the specific proposed reductions would not have occurred under that existing plan but for the developer's initiative under SB 743. The analysis of additionality begins with the proposed development: if the development were not constructed, and mitigation were not required as a result, would the reduction in VMT have occurred anyway (such as if a local agency had already earmarked funds for the mitigation project in question)? If so, then the developer should not be considered in compliance, and should be required to generate further reductions. But if the developer's obligation to comply with a general plan, SCS, or other legal requirements means that it would mitigate

VMT impacts regardless of the new requirements of SB 743, additionality would not be violated, since the developer can rightly claim responsibility for mitigating its own VMT impact.

In order to verify this, a bank or exchange should consider creating application materials which require the participating agency or developer to affirmatively assert their compliance and provide supporting documentation to confirm it. Additionally, banks can follow the AB 32 offset verification process outlined above, thereby creating parallel affirmative confirmations. The simplest solution may be first prioritizing projects where additionality is clearest, such as transit pass subsidies. Once the most direct projects are exhausted, the bank could next prioritize smaller budget infrastructure projects, such as bike lanes or bus stops. The application requirements for these projects could mandate submission of local budget documents that show no other funding is available for the mitigation project, prior legislative efforts or initiatives that have not been successful in providing funding, or evidence of public demand for the project. For example, these documents could demonstrate that a jurisdiction does not have any funds earmarked to finance the new bike lane or bus stop in question. For larger-budget projects that may require bundling of mitigation bank funds with other sources, banks could employ a verification system similar to AB 32 in combination with independent reviews and monitoring of local legislative proposals and proceedings. These reviews could identify potential funding recipients who would be asked to prepare summaries of transit initiatives to date and deliver affidavits that projects to be financed would not otherwise be funded. But given the difficulty assessing the additionality of larger-budget projects, program designers may want to emphasize smaller, direct-funded projects first.

A mitigation bank or exchange could also include measures to ensure that developers or agencies first exhaust their on-site VMT mitigation options before authorizing their participation in the program (except to the extent a local jurisdiction may wish to direct mitigation measures off-site from developments in

affluent areas to disadvantaged communities as a proactive method to comply with SB 375 Sustainable Communities Strategies requirements and other state and local equity goals). If on-site VMT mitigation is feasible, local governments may prioritize that on-site mitigation before use of the exchange or mitigation bank, due to local equity considerations and the potential to simultaneously offset VMT and LOS impacts at the site. The developer or lead agency would shoulder the burden of proving that sufficient VMT mitigation cannot be accomplished on-site (or that off-site mitigation is particularly advantageous) before a bank or exchange allows it to offset the remaining VMT off-site. A bank or exchange would then effectively hold the value of the gap between the feasible on-site VMT mitigation performed and the total amount of VMT mitigation needed. One means to evaluate this burden is to use the current CEQA standard for feasibility, where feasible is defined as “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.”⁵³ This standard requires the public agencies reviewing development projects to approve projects, as proposed, only if there are no feasible alternatives or mitigation measures that would reduce their adverse environmental impacts.⁵⁴ It could serve as a reasonable basis on which to ensure developers do not abuse the bank or exchange to increase profits by seeking out the cheapest mitigation when on-site options are available. An implementing agency could establish a baseline rule that if on-site VMT mitigation is available and actually feasible under this standard (for example provision of a new bus stop), that alternative mitigation should be completed. In order to find a mitigation infeasible under CEQA, a lead agency must determine that specific economic, legal, social, technological or other benefits of the project outweigh the adverse impacts on the environment.⁵⁵ The key question in this analysis is whether the additional costs necessary to complete an alternative, which would fully mitigate the adverse impact, “are so great that a reasonably prudent [person] would not proceed with the [altered project].”⁵⁶ Under CEQA, courts defer to agency findings regarding feasibility

and only review them for abuses of discretion; “a court’s proper role in reviewing a challenged EIR is not to determine whether the EIR’s ultimate conclusions are correct but only whether they are supported by substantial evidence and whether the EIR is sufficient as an informational document.”⁵⁷ Adopting the CEQA feasibility standard would provide the benefit of predictability as its contours have been examined by the courts and local agencies are familiar with evaluating evidentiary support for claims of infeasibility. For clarity, agencies that choose not to require exhaustion of on-site remedies (via traditional feasibility or any other standard) should consider formulating an express policy statement detailing that decision.

Prioritization and Economic Considerations

In order to maximize total VMT reduced, a mitigation bank or exchange should prioritize projects that reduce VMT at lowest cost and can be completed as early as possible. By prioritizing funds to achieve goals that are less capital- and time-intensive, a bank can avoid problems with pooling (see further discussion below) and ensure that VMT reductions are actually achieved. Otherwise, banks may face public or fiscal challenges that could constrain their ability to maintain operation. Priority project types that fit this model include items such as transit pass subsidies and transit service increases, which do not require construction of new infrastructure and are amenable to near-term calculation of vehicle trips avoided or reduced (these project types may also serve the added benefit of reducing the “additionality” concerns described above). While each mitigation bank would have to determine its own set of project priority criteria depending on the context of transportation in the covered area and the scale of development projects likely to participate, a straightforward project ranking system that weights efficiency and timeliness criteria may be the most legally compliant and transparent means to do so. Determination of which VMT mitigation projects will have priority in receiving funds or being selected from exchange lists would be based on considerations including regional transportation and development context,

total quantity of funds anticipated, and concurrent or conflicting transportation or congestion management plans. Table 2 includes a list and brief analysis of potential factors.

The duration of a mitigation project may be of particular concern. New developments can be expected to generate increased VMT in perpetuity, while some mitigation measures (such as new transit stops) can match that duration based on an initial upfront investment via a developer’s fees, while other mitigation measures (such as transit pass subsidies) can only generate VMT reductions so long as they receive ongoing funding. Implementing agencies will need to balance the clear durational benefits of measures such as infrastructure investments against their potentially long construction timelines and high upfront costs, and the clear efficiency benefits of measures such as subsidies against their potentially limited duration. For the latter, a bank or exchange will need to indicate clearly the expected duration of a mitigation measure, and longer durations may be less appealing to developers. As an example, the San Francisco Transportation Demand Management Program requires measures such as transit subsidies and bike share memberships to be implemented for the life of the development project.⁵⁸

In addition, agencies establishing VMT mitigation banks should carefully consider the economic constraints under which they will operate. If inflation is not properly accounted for, targeted projects may be insufficiently funded over time.⁵⁹ Moreover, a cost-effectiveness strategy would encourage completing less expensive options sooner, creating larger capital expenditure requirements for the bank over time. As a result, each unit of VMT mitigation may potentially become more “expensive” for future projects, if a supply of new, low-cost projects does not become available. For example, increasing frequency of bus service may generate more VMT reduction per dollar spent than construction of a new rail station, but a bank may eventually exhaust the available options for increasing service. Each of these constraints requires consideration when adopting funding plans for VMT mitigation banks. In particular, implementing agencies

Table 2: VMT Mitigation Project Prioritization Factors

Factor	Analysis
Cost	Issue: The ratio of dollars-to-unit of VMT reduction that the project is anticipated to achieve. Example: Major infrastructure projects may cost more per unit of VMT reduction due to construction, delay, legal and other expenses.
Verifiability	Issue: The ability of the project's anticipated VMT reductions to be verified and accounted for. Example: Extension of a bus line to a new station facilitates straightforward calculation of the number of transit trips generated.
Duration	Issue: The period of time for which the project is anticipated to reduce VMT. Example: Provision of free or discounted transit passes might only cover a limited number of years, potentially capping VMT reductions.
Time to completion	Issue: The period of time that will elapse before the project is completed and anticipated VMT reductions will begin. Example: Certain transit infrastructure projects such as rail lines may not begin operation, and thus VMT reduction, until years after funds are committed.
Administrative and legal requirements	Issue: The potential legal approvals or agency reviews necessary for the project to be completed. Example: New infrastructure may necessitate lengthy, costly land-use and environmental reviews (including CEQA).
Cost increases	Issue: The potential for project costs to increase over time. Example: A multi-year infrastructure project may end up costing more than initially anticipated when bank funds were committed.
Direct public benefit	Issue: The direct public benefits conferred by the project. Example: Provision of free or discounted transit passes directly benefits individuals' finances, potentially increasing public appreciation.
Pooling of funds	Issue: The need for the project to pool funds from multiple developments in order to be completed (as well as the "additionality" concerns). Example: Construction of a new rail line could require billions of dollars in bank funds pooled from multiple developments.

should adopt accounting standards that transparently explain the changes in mitigation project costs over time, as well as flexible baselines for expected VMT reductions that can adapt to potential exhaustion of low-cost options. While the bank approach adds new complexity, lead agencies that have prepared CEQA environmental impact reports are well versed in the documentation of mitigation costs and should be able to apply standard principles of long-term budgeting in their estimations of inflation and other cost adjustments. Similarly, the existing CEQA mechanism of the Statement of Overriding Considerations, which allows a lead agency to approve a project despite significant environmental impacts that cannot be mitigated, can provide a "release valve" when the lead agency can show that mitigation project costs are completely infeasible and provide substantial evidence that the development is needed based on overriding public objectives.⁶⁰

Policy makers should also establish VMT mitigation banks with consideration of "pooling" and "clearance." When a bank-managing entity debits the fees from participating developers, a necessary time delay may ensue before these fees can be credited to eligible funding recipients. At a minimum, a delay will occur before confirmation of an individual target project; in the case of the largest, most expensive regional projects (such as rail network expansion), the accumulation of credits from multiple developments and selection of a deployment target may extend over years. Policy makers should therefore design a VMT mitigation bank to minimize the delay between when funds are acquired and when the funds are deployed. Otherwise, the system could become an indirect buyout mechanism that undermines the purposes of SB 743. Furthermore, the Mitigation Fee Act requires a periodic accounting of fee status and a

refund provision that could defeat the mitigation banking concept if clearance proceeds too slowly. Any agency establishing a VMT mitigation bank should consider how to create and tune the bank's framework in order to minimize unnecessary delay in the deployment of mitigation funds.

One potential example of a municipal fee program is the San Francisco Transportation Sustainability Fee, which requires developers of qualifying projects to pay approximately \$8 per square foot of residential development and \$18 per square foot of commercial development into a fund devoted primarily to capital maintenance and service expansion and improvement for public transit systems.⁶¹ The program is anticipated to generate approximately \$25 million per year for transit improvements, helping to directly offset VMT impacts of new development in a generalized fashion. San Francisco conducted a thorough CEQA nexus study to determine the legality of the program and the maximum fees justified for different categories of expenditure based on funding needs, trips generated, and potential projects, finding that a nexus exists pursuant to the CEQA and constitutional analysis outlined earlier in this section.⁶² The program demonstrates that, through proper analysis of transportation demand and needs and calibration of fees and measures funded, even a generally assessed fee program can satisfy core CEQA requirements.

Equity Considerations

A bank or exchange for VMT mitigation would, by design, allow project developers and lead agencies to mitigate VMT impacts through measures undertaken in locations other than the development site or its immediate vicinity. This arrangement contrasts with the traditional LOS approach, which necessarily involves mitigation at or near the development site. Any program that transfers impacts from one location to another necessarily implicates equity considerations, as a community affected by the environmental impacts of development may not be the destination of associated mitigation commitments. If mitigation banks or exchanges are established regionally instead of locally, localized equity considerations may

still exist even if disadvantaged communities are protected within the region. For example, with a development located in a disadvantaged community, the regional project selection process could locate the associated VMT mitigation in another disadvantaged community within the same region. This VMT impact distribution would aid overall equitable distribution but not the specific equity problem for the first community. Mitigation bank or exchange designers should ensure that individual communities that host new developments—and disadvantaged communities in particular—do not suffer disproportionate impacts.

With these considerations in mind, a VMT mitigation bank or exchange could follow the approved approach of the Greenhouse Gas Reduction Fund. Senate Bill 535 (De León, Chapter 830, Statutes of 2012) and Assembly Bill 1550 (Gomez, Chapter 369, Statutes of 2016) require that a set percentage of proceeds from the fund are spent on projects that are located in and benefit disadvantaged communities. Additionally, the fund must allocate at least five percent of the money it spends to benefit low-income households or communities and at least five percent of its spending to benefit low-income households or communities within a half-mile of a designated disadvantaged community. CalEPA maintains responsibility for identifying those communities and maintains a list of findings on their CalEnviroScreen website.⁶³

The agencies that operate VMT mitigation banks or exchanges can provide for equitable VMT distribution by adopting a similar requirement. The identification procedure could utilize CalEnviroScreen to adopt a screening mechanism which complies with the same equity goals as SB 535 and AB 1550.⁶⁴ CalEnviroScreen uses federal and state data to quantitatively evaluate 20 indicators of environmental, health, and socioeconomic data. With this data, the tool ranks census tracts and produces a final ranking of their relative vulnerability. If disadvantaged communities are identified within the geographical scope of a banking authority, then the authority creating the bank or exchange

could mandate that a percentage of the mitigation funds are spent or projects are located in—or for the benefit of—those communities. Additionally, an authority could provide incentives (but not requirements) to locate mitigation projects in disadvantaged communities (including the original community in which a development project is located), for example by offering contributory or matching funds for developments that pledge to mitigate in those communities. This public subsidy could have the effect of “discounting” the mitigation for the developer, thus making it more attractive, without sacrificing climate goals.

As an alternative, implementing agencies could consider a mechanism whereby disadvantaged communities that host development projects for which VMT mitigation is achieved off-site via a bank or exchange are given additional weight in the prioritization of subsequent mitigation projects within the bank’s ranking factors and criteria to identify best-fit projects. This ranking boost could ensure that while an individual community may not immediately receive the VMT mitigation benefits of a given development, it will be more likely to receive the VMT mitigation benefits from other developments within the region in the future. In addition, implementing agencies could consider using a VMT mitigation bank or exchange to proactively direct some mitigation funds from prosperous or low-impact communities to disadvantaged communities that have suffered disproportionate impacts.

Mitigation bank or exchange designers should ensure that individual communities that host new developments—and disadvantaged communities in particular—do not suffer disproportionate impacts.

IV. Existing Models and Instructive Concepts

This section examines similar concepts to mitigation banking and exchanges and draws lessons from these regimes for the design of a VMT mitigation banking or exchange system. Table 3 summarizes the key element from each example that could inform the design of a new VMT mitigation bank or exchange; the section then presents each example in detail.

A. Examples within California

The Conservation and Mitigation Banking Program and the Regional Conservation Investment Strategies Program

Senate Bill 1148 (Pavley, Chapter 565, Statutes of 2012) created a Conservation and Mitigation Banking program to identify and aggregate sites for projects.⁶⁵ This program was designed to incentivize the creation and protection of maximally effective wetland and endangered species habitats. Under this program, the bank sponsor obtains credits which are sold to public or private actors “who need to satisfy legal requirements for mitigating the environmental impacts of projects, or that it may use for its own project mitigation needs.” These credits are utilized to acquire and maintain habitats at a scale that

provides greater protection for wildlife and ecological processes than would a scattered approach of on-site mitigation. To date, dozens of local and regional banks have been created and approved in over 20 counties statewide, protecting hundreds of individual species and habitats.⁶⁶ As a result, numerous public and private entities around the state have experience in creating and administering banks. The California Department of Fish and Wildlife, which oversees the program, hosts a suite of document templates that assist implementing entities with creating banks—most importantly, a model enabling instrument for mitigation banks.⁶⁷ The model enabling instrument provides a base form of agreement that outlines the key components to initiate a bank—operational mechanics, service area, financial securities, reporting and oversight capacities, and various technical assessments and maps—that ensure both compliance and consistency among implementing entities. The creation of a similar template of an enabling instrument for VMT mitigation agencies could be similarly helpful while also offering developers a straightforward means to compare programs in different jurisdictions.

Assembly Bill 2087 (Levine, Chapter 455, Statutes of 2016) created the Regional Conservation Investment Strategy (RCIS) program. This program created a

Table 3: Informative Elements from Existing Banking and Exchange Programs

Program	Element
California Conservation and Mitigation Banking Program	Statewide templates for bank or exchange enabling instrument and ancillary documents
California Regional Conservation Investment Strategies Program	Specific regulatory requirements for bank or exchange proposal and review/approval by state agency
California Greenhouse Gas Cap-and-Trade Program	Independent verification of mitigation by accredited third-party entity
Clean Water Act	Express allowance of mitigation project aggregation
Regional Greenhouse Gas Initiative	Built-in price adjustment mechanism
Arizona Water Banking Authority	Annual program-wide reporting and tracking of price changes and supply of funds and projects

voluntary regional process to protect, create, restore, and reconnect habitat for declining and vulnerable wildlife species.⁶⁸ The RCIS program encourages local public agencies to assess important species and ecosystems under their jurisdiction, develop regional strategies to conserve them, and create transferable mitigation credit agreements with project developers which can be used to fund the regional strategies. These credits are used to comply with the impact mitigation requirements under CEQA but their transference enables aggregation of funding that can be deployed to advance the goals of the regional strategies. Under the RCIS program, a local agency must submit to the Department of Fish and Wildlife

a proposed strategy that states its conservation purpose, a rationale for its geographic boundaries, important species and conservation elements, historical pressures and stressors, consistency with other regional programs, and a number of other detailed requirements; the Department must approve this strategy before proceeding to enter into any credit agreements. A state agency such as Caltrans could consider requiring similar proposals from entities seeking to implement mitigation banks or exchanges. Proposals could also be required to incorporate credit schedules and economic analyses as required under the Conservation and Mitigation Banking Program. Table 4 proposes a model set of requirements based on the RCIS program:

Table 4: Sample VMT Mitigation Bank/Exchange Plan Proposal Requirements

Requirement	Statutory Ref.
1. An explanation of the VMT mitigation purpose of and need for the bank or exchange.	Fish & Game Code § 1852(c)(1)
2. The geographic area covered by the bank or exchange and rationale for the selection of the area, together with a description of the existing transportation and development dynamics that provide relevant context for the development of the bank or exchange.	§ 1852(c)(2)
3. The public transit and VMT reduction opportunities currently located within the bank or exchange area.	§ 1852(c)(3)
4. Important residential and commercial communities and transportation resources within the bank or exchange area, and an explanation of the criteria, data, and methods used to identify those important communities and resources.	§ 1852(c)(4)
5. A summary of historic, current, and projected future transportation stressors and pressures in the bank or exchange area, including economic, population growth and development trends.	§ 1852(c)(5)-(6)
6. Provisions ensuring that the bank or exchange will be in compliance with all applicable state and local legal and other requirements and does not preempt the authority of local agencies to implement infrastructure and urban development in local general plans.	§ 1852(c)(7)
7. VMT mitigation goals and measurable objectives for regional transportation resources and important mitigation elements identified in the plan that address or respond to the identified stressors and pressures on transportation within the bank or exchange area.	§ 1852(c)(8)
8. VMT mitigation projects, including a description of specific projects that, if implemented, could achieve the mitigation goals and objectives, and a description of how the mitigation projects were prioritized and selected in relation to the mitigation goals and objectives.	§ 1852(c)(9)
9. Provisions ensuring that the bank or exchange plan is consistent with and complements any local, regional or federal transportation or congestion management plan that overlaps with the bank or exchange area, a summary of any such plans, and an explanation of such consistency.	§ 1852(c)(10)-(11)

Policy makers could also consider criteria focusing on other considerations, such as addressing equity concerns or ensuring a system of third-party verification.

The regional conservation and mitigation banking programs suggest that the California government has accepted the concept of regional, aggregated solutions to environmental problems. Moreover, agencies seeking to establish mitigation banks can use their mitigation banking experience under these two programs to inform the creation of VMT mitigation banking or exchange regimes. VMT mitigation banks or exchanges can adopt a similar model to the regional conservation approaches—such as requiring submission to a state agency such as Caltrans of a thorough justification of the need for a bank or exchange, its goals, anticipated funding targets and priorities, and regional transportation trends and needs—to ensure that banks and exchanges undertake rigorous approaches to the scope and project identification with relative statewide consistency. It would also ensure that developers can review a familiar, state-approved framework before participating in a bank or exchange.

The Greenhouse Gas Cap-and-Trade Program

The California Global Warming Solutions Act of 2006 (AB 32, Pavley, Chapter 488, Statutes of 2006) established a greenhouse gas reduction plan, commonly referred to as the cap-and-trade program. This program, implemented and enforced by the California Air Resources Board, utilizes a market-based system to reduce greenhouse gas emissions.⁶⁹ The program works by setting a declining limit on permissible greenhouse gas emissions and then selling emissions allowances. Covered emitters include power generators, industry, and transportation fuel providers. These entities must acquire and redeem emissions offset credits directly proportional to their greenhouse gas emissions under the compliance period. The offset credits “must be real, additional, quantifiable, permanent, verifiable, and enforceable.” The credits can be purchased on a primary market or through secondary trading markets and may be banked for future compliance periods.

The cap-and-trade program utilizes a compliance protocol process to ensure that approved offsets demonstrate real reductions in emissions over conservative estimates of business-as-usual performance, ensure that emissions reductions are permanent and additional, and account for uncertainty in quantification of the particular offset project type.⁷⁰ In order to ensure additionality, offsets must be verified as reductions that are not legally required and would not otherwise occur in a conservative business as usual scenario. These offsets must be independently verified by an ARB-accredited verification body. The offset verification requester must submit notice to ARB including project information and a list of the staff who will verify the offset, documentation of the staff’s skills or qualifications, and a description of the verification services to be undertaken. The offset verification team must develop a verification plan that includes a site visit, establishes a timeline for verification, and enumerates any required documentation for verification. The offset verification team must then verify the offsets through a combination of visual observations, data collection, and assessments of additionality (compliance with but not under compulsion of regulatory, legal, or other mandatory requirements). The offset verification team must also provide ARB with a written report of their verification (of both the initial verification and continued verification for the required compliance period) and certify their findings under penalty of perjury.

The cap-and-trade program provides an instructive example of solutions to verification and additionality challenges for mitigation banking or exchanges. Agencies seeking to establish a VMT mitigation bank or exchange should consider adopting similar verification procedures (as discussed previously) to ensure that projects receiving banking funds deliver the targeted VMT reductions. By drawing from the ARB guidelines, agencies can adopt a sound verification process and could even pursue efficiencies through cooperation with ARB, such as utilizing ARB-certified verifiers.

B. Examples Outside California

The Clean Water Act

Section 404 of the Clean Water Act permits the creation of mitigation banks for the protection of aquatic resources that would otherwise suffer unavoidable adverse impacts due to authorized development.⁷¹ These banks provide mitigation credits that can be purchased by a party to compensate for adverse impacts. The credits may only be issued when either onsite mitigation is not practicable or off-site mitigation is environmentally preferable, such as when aggregation of mitigation funds generates additional ecosystem benefits through the creation of larger overall habitats that could not be funded by a single project. The use of these mechanisms can contribute towards greater overall conservation while still enabling economic development in covered areas. Importantly, section 404 of The Clean Water Act also demonstrates general federal acceptance of mitigation banking concepts. While the programmatic design lessons mirror those drawn from SB 1148 and AB 2087, mitigation-bank operating agencies can periodically assess learnings from banks established under Section 404 to refine banking operations and assess the benefits of aggregation.

The Regional Greenhouse Gas Initiative

The Regional Greenhouse Gas Initiative is an interstate compact forming a cap-and-trade system regulating power plant emissions covering the power sector in 10 Northeastern states (Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont). The initiative was designed to reduce carbon emissions from fossil-fuel power plants of 25 megawatts or greater by establishing a declining regional cap on greenhouse gas emissions, and then auctioning off emission allowances into the market. The system works by requiring power plants to acquire these emissions allowances in amounts

equally proportional to their greenhouse gas emissions. The allowances are auctioned on a market and are both tradable on secondary markets and bankable (can be put aside to cover possible spikes in future years). The regulated producers are given three-year compliance windows to accumulate the necessary allocations, which provides flexibility and constrains back-end clearance. Participating states then use the auction proceeds consistent with their individual policies but much of the revenue has been used to fund programs that reduce greenhouse gas emissions.⁷²

The RGGI program was also designed with a review mechanism that utilizes analysis of the systems' performance to refine its implementation. These evaluations have revealed that while the program has so far failed to generate greenhouse gas emission reductions—likely due to the emissions cap being set too high—it has generated economic benefits. Despite the failure of the program to spur targeted emissions reductions, from 2012 to 2014 RGGI program spending created a net economic benefit of \$1.3 billion and boosted employment by 14,200 new job years in the participating states. The program continues to reduce its cap in order to achieve its targeted reductions, but demonstrates that credit-based mitigation schemes can generate additional economic benefits.⁷³ Moreover, RGGI provides an example of the necessity of incorporating adjustment mechanisms in regional banking concepts. Agencies seeking to establish a VMT mitigation banks or exchanges should consider adopting mandatory periodic review mechanisms that complement the reporting requirements to maximize opportunities for refining a bank's operations.

The Arizona Water Banking Authority

The Arizona Water Banking Authority was created in 1996 to develop a system for long-term utilization of the state's water. The authority stores or "banks" unused water from the Colorado River to deploy during water shortages. The system works by accruing credit for surplus water, which is stored in aquifers or used instead of depleting groundwater.

Credits are then redeemed during future shortages or transferred to neighboring states to mitigate their shortages. The authority has accrued more than four million acre-feet of credits, approximately eighty-four percent of which are for in-state use, since its inception. The authority is required to file an annual report which accounts for the funds received and expended, the water and credit balance, and the purposes for which credits are authorized and used.⁷⁴ Additionally, the annual reports calculate the average cost of credits over time and chart its increase, a capacity that would be highly valuable in the context of VMT mitigation. Agencies seeking to establish a VMT mitigation bank or exchange should consider adoption of a reporting requirement similar to that of the Arizona Water Banking Authority, modified as necessary for consistency with existing agency reporting policies and capacity. Reports could document not only the source and destination of funds and the value of credits, but also the actual or estimated VMT reductions achieved by individual projects over time, thereby facilitating ongoing monitoring and internal adjustment. By creating a system of mandatory source and status disclosures, VMT mitigation banks or exchanges could simultaneously maintain compliance with the Mitigation Fee Act (where applicable) while providing opportunities to continually refine the program and communicate anticipated costs and needs to developers. A state entity such as OPR or Caltrans could consider hosting all of these performance reports in a centralized database, to facilitate data and information sharing across jurisdictions.

VMT mitigation banks or exchanges can adopt a similar model to the regional conservation approaches—such as requiring submission to a state agency such as Caltrans of a thorough justification of the need for a bank or exchange, its goals, anticipated funding targets and priorities, and regional transportation trends and needs—to ensure that banks and exchanges undertake rigorous approaches to the scope and project identification with relative statewide consistency.

V. Conclusion

Senate Bill 743 provides a potentially landmark method to reform how projects mitigate their transportation impacts under CEQA. A mitigation bank or exchange, if done effectively, could further multiple environmental and economic goals. Most prominently, it could result in more efficient and streamlined mitigation requirements that make VMT-reducing projects easier to permit under CEQA, while providing a potentially valuable funding stream to help further VMT reductions through projects in localities or regions. Table I, provided at the beginning of this report, includes a “checklist” of legal and design factors for implementing agencies to consider in developing their bank- or exchange-based strategies for implementing SB 743.

Local or regional leaders that decide to launch such a bank or exchange will likely need technical and potentially operational support from state leaders, in the form of guidance documents, model codes, and procedures for operation. A state agency or state-certified independent third party may also be necessary to assist with such tasks as verification of VMT reductions, as well as determining their additionality.

Ultimately, if successful, these mitigation banks or exchanges could become a model for jurisdictions around the state and beyond its borders to promote VMT reduction to further greenhouse gas emission reduction goals, encourage the timely deployment of development projects consistent with those goals, and improve quality of life for existing residents through decreased traffic congestion and time spent in traffic.

A mitigation bank or exchange, if done effectively, could result in more efficient and streamlined mitigation requirements that make VMT-reducing projects easier to permit under CEQA, while providing a potentially valuable funding stream to help further VMT reductions through projects in localities or regions.

Endnotes

- 1 California Governor's Office of Planning and Research (OPR), *Preliminary Evaluation of Alternative Methods of Transportation Analysis* (2013).
- 2 Cal. Pub. Res. Code § 21099(b)(1).
- 3 OPR, *Technical Advisory on Evaluating Transportation Impact in CEQA* (2018), at 1.
- 4 OPR, *Preliminary Evaluation of Alternative Methods of Transportation Analysis*, at 3. Under CEQA, all projects carried out or approved by public agencies require review of transportation (among other environmental) impacts. 17 CCR § 21001.1. Any development that falls within this definition, unless specifically exempted from review under 17 CCR §§ 15260-15333 or qualifying for the transit priority area development exemption under § 21155.4, should be a candidate to participate in a VMT mitigation arrangement. This should include most residential, commercial, or industrial projects by private developers that receive any discretionary governmental approval or funding, as well as public projects such as roadway expansions and other transportation projects that are anticipated to increase VMT.
- 5 Kevin Fang and Jamey Volker, National Center for Sustainable Transportation, *Cutting Greenhouse Gas Emissions Is Only the Beginning: A Literature Review of the Co-Benefits of Reducing Vehicle Miles Traveled* (2017), at 1.
- 6 OPR, *Preliminary Evaluation of Alternative Methods of Transportation Analysis*, at 3.
- 7 Fang and Volker, at 1.
- 8 Marion Boarnet & Susan Hardy, California Strategic Growth Council, *A Framework for Projecting the Potential Statewide VMT Reduction from State-Level Strategies in California* (2017), at 2.
- 9 See *id.*
- 10 Boarnet & Hardy, at 20.
- 11 Cal. Pub. Res. Code. § 21155.4.
- 12 OPR, CEQA Guidelines Proposed New Section 15064.3, Determining the Significance of Transportation Impacts (2017); Cal. Natural Resources Agency, 2018 Amendments and Additions to the State CEQA Guidelines, § 15064.3.
- 13 See 40 CFR § 230; 60 Fed. Reg. 58605.
- 14 See *Nollan v. California Coastal Com'n*, 483 U.S. 825 (1987). (Holding that there is no taking under the Fifth Amendment where the government conditions a land-use permit on a provision that substantially furthers a governmental purpose which would otherwise provide that governmental actor with authority to refuse to issue the permit).
- 15 See *id.* at 834.
- 16 See *Nollan*, 483 U.S. at 837.
- 17 *Dolan v. City of Tigard*, 512 U.S. 374, 391 (1994) (Holding that exactions imposed by state authorities must be roughly proportionate to the projected impact of the proposed development, and that authorities must offer more than a merely conclusory statement of that relationship).
- 18 See, e.g., *Agins v. Tiburon*, 447 U.S. 255, 260-62 (1980) (scenic zoning); *Penn Central Transportation Co. v. New York City*, 438 U.S. 104, 127 (1978) (preservation of landmarks); *Euclid v. Ambler Realty Co.*, 272 U.S. 365 (1926) (residential zoning).
- 19 Jurisdictions may also want to consider using a bank or exchange to drive mitigation projects in underprivileged areas when new developments are located in more affluent areas, for social and political reasons.
- 20 See *Nollan*, 483 U.S. at 837.
- 21 See e.g., *Russ Bldg. Partnership v. City and County of San Francisco*, 44 Cal. 3d 839, 845 (Cal. Ct.App. 1st 1988) (upholding the imposition of transit impact development fees).
- 22 87 Cal.App. 4th 99 (Cal. Ct.App. 6th 2001).
- 23 *Id.* at 137-38.
- 24 *Id.* at 140-41.
- 25 130 Cal.App. 4th 1173 (Cal. Ct.App. 3d 2005).

- 26 The issue of proportionality could raise two distinct questions in the context of VMT mitigation banks or exchanges: a) the relationship between the amount of the fee assessed on a project and the anticipated impacts of that project, and b) the relationship between the VMT reductions achieved for the amount of that fee (which will vary based on project cost and efficiency) and the anticipated impacts of the project. For the purposes of constitutional analysis, it appears that only the former question is relevant. In *Dolan*, the Court held that “[n]o precise mathematical calculation is required, but the city must make some sort of individualized determination that the required dedication is related both in nature and extent to the impact of the proposed development,” explicitly rejecting a standard requiring a local government to “demonstrate that its exaction is directly proportional to the specifically created need.” 512 U.S. at 390-91. Thus, the proportionality of the fee to the impacts of the project, together with a clearly articulated plan to use the fee for legitimate VMT mitigation goals, is likely adequate. However, as suggested below, agencies should consider cost-effectiveness when prioritizing fund recipients for substantive environmental and political reasons.
- 27 See 17 CCR § 15152, 15168(c).
- 28 Cal. Gov. Code § 66000 et seq.
- 29 See *Home Builders Assn. of Tulare/Kings Counties, Inc. v. City of Lemoore*, 185 Cal.App. 4th 554, 560 (Cal. Ct.App. 5th 2010).
- 30 Cal. Gov’t Code § 66000(d); Cal. Gov’t Code § 66001(a).
- 31 See, e.g., *Home Builders Assn. of Tulare/Kings Counties*; *Walker v. City of San Clemente*, 239 Cal.App. 4th 1350, 1362 (Cal. Ct.App. 4th 2015).
- 32 Cal. Gov’t Code §§ 66000(b), 66001(a). § 66000(b) defines a “Fee” as money exacted (not including taxes or assessments) by a local agency from an applicant in connection with the approval of a project which defrays the at least a portion of the cost of public facilities related to the development project. But it does not include fees specified in Cal. Gov’t Code § 66477, government regulatory application fees, or fees adopted as part of the Community Redevelopment Law.
- 33 See, e.g., *Home Builders Assn. of Tulare/Kings Counties*; *Walker*.
- 34 Cal. Gov’t Code § 66001(c)-(g)
- 35 Cal. Gov’t Code § 66005(c) defines “housing development” as a development project with common ownership and financing consisting of residential use or mixed use where not less than 50 percent of the floor space is for residential use. Note that the code allows an agency to still charge the higher fees if it finds that even with these characteristics the housing development at issue would not generate reduced automobile trips. See § 66005(a).
- 36 Cal. Gov’t Code § 65089.1(a); Cal. Gov’t Code § 65089(b)(1)-(3). For a discussion of LOS levels, see OPR, *Preliminary Evaluation of Alternative Methods of Transportation Analysis*, at 3.
- 37 Cal. Gov’t Code § 65089(b)(4). (Note that interregional travel is specifically exempted from impact mitigation).
- 38 Cal. Gov’t Code §§ 65089.2(b)-(c), 65088.3. For example, the San Diego Association of Governments elected to opt out in 2009, although it is still bound by federal transportation planning requirements under 23 CFR § 450.320.
- 39 See Cal. Gov’t Code § 65089.4. In order to qualify, housing must be within one-quarter mile of a fixed rail passenger station. “High density” means residential density development which contains a minimum of 24 dwelling units per acre and a minimum density per acre which is equal to or greater than 120 percent of the maximum residential density allowed under the local general plan and zoning ordinance. A project providing a minimum of 75 dwelling units per acre shall automatically be considered high density.
- 40 Simultaneous compliance with CMP requirements as well as SB 743 requirements should not raise any additionality concerns (discussed in detail in the next section). While implementing agencies should ensure that mitigation projects would not otherwise be undertaken, a project should be considered “additional” even if it satisfies two separate regulatory requirements. A distinction should be made between mitigation projects that have separate, pre-existing sources of funding (i.e., a transit extension for which a city has already budgeted funds) and mitigation projects that also reduce congestion.
- 41 Cal. Gov’t Code § 65089(b)(1)-(A).
- 42 City of Pasadena Department of Transportation, *Mobility Element* (2015). See <https://ww5.cityofpasadena.net/transportation/complete-streets/development-review/pasadena-transportation-management-association/> for more information on the Transportation Management Association.
- 43 City of Pasadena Department of Transportation, *Transportation Impact Analysis Current Practice & Guidelines* (2015), at 1.9-1.12.
- 44 See Cal. Gov’t Code §§ 65088.1, 65088.4. “High-quality transit corridor” is defined as “a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.”
- 45 See Cal. Gov’t Code § 65088.4.
- 46 Senate Bill 375 (Steinberg, Chapter 728, Statutes of 2008), Section 1(c).
- 47 Setting up a bank or exchange may not require the creation of a new legal entity. Rather, the bank or exchange may simply refer to

the set of rules and requirements implemented by a local or regional agency to enforce compliance with SB 743. However, a bank or exchange could also assume a distinct legal existence, such as a nonprofit organization created by multiple cooperating governments, such as RGGI, Inc., which implements the Regional Greenhouse Gas Initiative on behalf of the member state governments

- 48 San Francisco Planning Code § 169.1(c)(3).
- 49 City and County of San Francisco Planning Commission, *Standards for the Transportation Demand Management Program* (2016), at 5-15.
- 50 See <http://www.sftdmtool.org/> to explore the tool.
- 51 See California Air Resources Board, *Technical Guidance for Offset Verifiers: Verification of Offset Project Data Reports* (2013), at 7, 40.
- 52 17 CCR §§ 95972-73.
- 53 17 CCR § 15364.
- 54 See, e.g., *San Franciscans Upholding the Downtown Plan v. City & County of San Francisco*, 102 Cal.App. 4th 656, 695 (Cal. Ct.App. 1st 2002) (Feasible alternatives or mitigation measures should be adopted if practical but agencies are not required to select the most environmentally protective alternative).
- 55 See Pub. Resources Code. § 21081(b).
- 56 *Uphold Our Heritage v. Town of Woodside*, 147 Cal.App. 4th 587, 600 (Cal. Ct.App. 4th 2007). Note that reduced profits alone cannot be the basis for economic infeasibility. See *Sierra Club v. County of Napa*, 121 Cal.App. 4th 1490 (Cal. Ct.App. 1st 2004); *Sierra Club v. Tahoe Reg'l Planning Agency*, 916 F. Supp. 2d 1098 (E.D. Cal. 2013).
- 57 *City of Marina v. Board of Trustees of California State University*, 39 Cal. 4th 341 (Cal. 2006) (citing *Laurel Heights Improvement Assn. v. Regents of University of California*, 47 Cal. 3d 376, 392, 407 (Cal. 1998)).
- 58 See City and County of San Francisco Planning Commission, *Transportation Demand Management Program Measures* (2016); see also San Francisco Planning Code § 401.
- 59 Many projects that reduce VMT may also be correlated with an increase in land value. As such, the system may create additional localized “inflation” due to the increased attractiveness of areas surrounding its projects. Agencies establishing a VMT mitigation bank should consider this potential.
- 60 See Pub. Resources Code § 21081(b); 17 CCR § 15093.
- 61 San Francisco Planning Code § 411A.
- 62 Robert D. Spencer, San Francisco Municipal Transportation Agency, San Francisco Transportation Sustainability Fee (TSF) Nexus Study (2015).
- 63 See methodology description at <https://oehha.ca.gov/calenviroscreen/sb535>.
- 64 California Environmental Protection Agency, Office of Environmental Health Hazard Assessment, California Communities Environmental Health Screening Tool, Version 3 (CalEnviroScreen 3.0). See <http://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30>.
- 65 Cal. Fish & Game Code § 1797 et seq.
- 66 See <https://www.wildlife.ca.gov/Conservation/Planning/Banking/Approved-Banks>. Not all banks listed were established pursuant to SB 1148.
- 67 Templates and other information can be located at <https://www.wildlife.ca.gov/Conservation/Planning/Banking/Templates>.
- 68 Cal. Fish & Game Code § 1850 et seq.
- 69 Cal Health & Safety Code § 38501; 17 CCR § 95801 et seq.
- 70 17 CCR §§ 95972.
- 71 See 40 CFR § 230.98.
- 72 See Paul J. Hibbard & Susan F. Tierney, *The Economic Impacts of the Regional Greenhouse Gas Initiative on Nine Northeast and Mid-Atlantic States* (2018).
- 73 Id. at 10-11.
- 74 Arizona Water Banking Authority, *Annual Report 2016* (2017).



5TH/HILL STATION A-140

ARCHITECTURE & ENGINEERING:
DELOH HAMPTON & ASSOCIATES
ARTHUR ERICKSON ARCHITECTS

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT



BerkeleyLaw
UNIVERSITY OF CALIFORNIA

Center for Law, Energy &
the Environment