VMT Mitigation Through Banks and Exchanges
UNDERSTANDING NEW MITIGATION APPROACHES

A WHITE PAPER PREPARED BY

Fehr & Peers

JANUARY 2020 | DRAFT
VMT MITIGATION THROUGH BANKS AND EXCHANGES

Understanding New Mitigation Approaches

BACKGROUND
On September 27, 2013, Governor Jerry Brown signed SB 743 into law and started a process intended to fundamentally change transportation impact analysis as part of CEQA compliance. These changes include elimination of auto delay, level of service (LOS), and other similar measures of vehicular capacity or traffic congestion as a basis for determining significant impacts. Instead, transportation impacts will be determined based on changes to vehicle miles of travel (VMT). This change essentially shifts the focus of analysis from impacts to drivers through higher delays to the impact of driving itself.

Lead agencies making the transition to VMT are realizing the challenges of using the new metric especially when it comes to mitigating significant VMT impacts. Reducing VMT from land use projects and land use plans has traditionally been accomplished through transportation demand management (TDM) strategies. These strategies include modifying a project’s land use characteristics (i.e., density) and incorporating vehicle trip reduction programs at the project site to change travel behavior of tenants and visitors. TDM is most effective in urban areas where a project site is accessible through multiple travel modes (i.e., walking, bicycling, transit, and vehicle) offering similar travel times and convenience. Conversely, TDM strategies are less effective in lower density suburban and rural areas where modes are generally limited to personal vehicles. In these types of areas, a program-based approach to mitigation may be more effective than project-site only strategies. Under a program-based approach, development mitigation contributions can be pooled to pay for VMT reduction strategies that would not be feasible for individual projects to implement.

PROGRAM CONCEPTS
The concept of a ‘program’ approach to impact mitigation is not new and has been used for a variety of technical subjects including transportation, air quality, greenhouse gases, and habitat. Transportation impact fee programs have been used to help mitigate cumulative level of service (LOS) impacts. What is new are how to use impact fee programs for VMT impacts and alternative programs called Mitigation Exchanges and Banks. Absent new program-level mitigation options, suburban and rural lead agencies will have limited feasible mitigation options for project sites.

For CEQA purposes, feasible means “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.”

- CEQA Guidelines Section 15364
Without feasible mitigation, significant VMT impacts would be significant and unavoidable (SAU). Under these circumstances a project must prepare an environmental impact report (EIR) adding extra time and cost to environmental review compared to a negative declaration (ND). Program-based approaches may be able to overcome the limitation of project-site only mitigation. Three specific concepts as described below have been identified for the purposes of this white paper.

- **VMT-based Transportation Impact Fee program (VMT-TIF)** – The first program concept is a traditional impact fee program in compliance with the mitigation fee act. The nexus for the fee program would be a VMT reduction goal consistent with the CEQA threshold established by a lead agency for SB 743 purposes. The City of LA is the first in California to complete a nexus study for this type of program. The main difference from a fee program based on a metric such as vehicle level of service (LOS) is that the VMT reduction nexus results in a capital improvement program (CIP) consisting largely of transit, bicycle, and pedestrian projects. These types of fee programs are time consuming to develop, monitor, and maintain but are recognized as an acceptable form of CEQA mitigation if they can demonstrate that the CIP projects will be fully funded and implemented.

- **VMT Mitigation Exchange** – In simple terms, the Exchange concept relies on a developer agreeing to implement a predetermined VMT reducing project or proposing a new one. The project may be located in the vicinity of the project or elsewhere in the community, and possibly outside the community. The Exchange needs to have a facilitating entity that can match the VMT generator (the development project) with a VMT reducing project or action. The facilitating entity could be the lead agency or another entity that has the ability to provide the match and to ensure through substantial evidence that the VMT reduction is valid. A key unknown with this approach is the time period for VMT reduction. For example, how many years of VMT reduction are required to declare a VMT impact less than significant?

- **VMT Mitigation Bank** – A Mitigation Bank attempts to create a monetary value for VMT reduction such that a developer could purchase VMT reduction credits. The money exchanged for credits could be applied to local, regional, or state level VMT reduction projects or actions. Like all VMT mitigation, substantial evidence would be necessary that the projects covered by the Bank would achieve expected VMT reductions and some form of monitoring may be required. This is more complicated than a simple exchange and would require more time and effort to set up and implement. The verification of how much VMT reduction is associated with each dollar or credit would be one of the more difficult parts of the program.
With both Exchanges and Banks, another important test is that the VMT reduction would not have occurred otherwise such that mitigation program creates ‘additionality’. This means that additional VMT reduction will occur above and beyond what would have occurred without the program. For any program to qualify as a CEQA mitigation program, the discretionary action to adopt the program may require CEQA review. This conclusion is based on the *California Native Plant Society v. County of El Dorado* where the court found that payment of fee does not presumptively establish full mitigation of a discretionary project. A separate CEQA review of the program is necessary to satisfy the duty to mitigate imposed by CEQA. Decision makers should also realize that absent a VMT reduction program, developers would likely be limited to only project site mitigation. While this may be less effective, it may also limit their mitigation costs because the available and feasible mitigation would be more limited.

More details about Exchanges and Banks are explained in the framework document shown at right and available at the cited web link. This white paper expands on the framework to accomplish two objectives. The first objective is to compare the pros and cons of exchanges and banks to a traditional impact fee program. Since impact fee programs have already been established as feasible CEQA mitigation, they serve as a benchmark against which to compare other program concepts. The second objective is to outline the implementation steps associated with creating an exchange or bank to help identify key implementation questions or issues that could affect their feasibility.

**PROGRAM ASSESSMENT (Pros/Cons)**

Table 1 below outlines the pros and cons of approach VMT mitigation through an impact fee program, exchange, or bank. This assessment is intended to highlight some of the key differences between each program concept.
<table>
<thead>
<tr>
<th>Program Type</th>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact Fee Program</td>
<td>• Common and accepted practice</td>
<td>• Time consuming and expensive to develop and maintain</td>
</tr>
<tr>
<td></td>
<td>• Accepted for CEQA mitigation</td>
<td>• Requires strong nexus</td>
</tr>
<tr>
<td></td>
<td>• Adds certainty to development costs</td>
<td>• Increases mitigation costs for developers because it increases</td>
</tr>
<tr>
<td></td>
<td>• Allows for regional scale mitigation projects</td>
<td>feasible mitigation options</td>
</tr>
<tr>
<td></td>
<td>• Increases potential VMT reduction compared to project site mitigation only</td>
<td>• Limited to jurisdictional boundary unless a regional authority is created</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Uncertainty about feasibility and strength of nexus relationship between VMT and pedestrian, bicycle, and transit projects (especially in suburban/rural jurisdictions)</td>
</tr>
<tr>
<td>Mitigation Exchange</td>
<td>• Limited complexity</td>
<td>• Requires ‘additionality’</td>
</tr>
<tr>
<td></td>
<td>• Reduced nexus obligation</td>
<td>• Potential for mismatch between mitigation need and mitigation projects</td>
</tr>
<tr>
<td></td>
<td>• Expands mitigation to include costs for programs, operations, and maintenance</td>
<td>• Increases mitigation costs for developers because it increases feasible mitigation options</td>
</tr>
<tr>
<td></td>
<td>• Allows for regional scale mitigation projects</td>
<td>• Unknown timeframe for mitigation life</td>
</tr>
<tr>
<td></td>
<td>• Allows for mitigation projects to be in other jurisdictions</td>
<td>• Effectiveness depends on scale of the program</td>
</tr>
<tr>
<td></td>
<td>• Increases potential VMT reduction compared to project site mitigation only</td>
<td></td>
</tr>
<tr>
<td>Mitigation Bank</td>
<td>• Adds certainty to development costs</td>
<td>• Requires ‘additionality’</td>
</tr>
<tr>
<td></td>
<td>• Allows for regional scale projects</td>
<td>• Time consuming and expensive to develop and maintain</td>
</tr>
<tr>
<td></td>
<td>• Allows for mitigation projects to be in other jurisdictions</td>
<td>• Requires strong nexus</td>
</tr>
<tr>
<td></td>
<td>• Allows regional or state transfers</td>
<td>• Political difficulty distributing mitigation dollars/projects</td>
</tr>
<tr>
<td></td>
<td>• Expands mitigation options to include costs for programs, operations, and maintenance</td>
<td>• Increases mitigation costs for developers because it increases feasible mitigation options</td>
</tr>
<tr>
<td></td>
<td>• Increases potential VMT reduction compared to project site mitigation only</td>
<td>• Unknown timeframe for mitigation life</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Effectiveness depends on scale of the program</td>
</tr>
</tbody>
</table>
To better understand potential program differences, Table 2 contains a comparison of the VMT mitigation projects or actions that each program type could fund or implement. The information for an impact fee program is more certain than for exchanges or banks. Fee programs have been used in practice for decades and have been vetted through court decisions. While banks and exchanges do exist for other environmental mitigation purposes such as wetlands preservation and habitat conservation, these applications have largely focused on protecting fixed land amounts versus reducing a metric that fluctuates over time and may vary in value depending on economic conditions.

### Table 2 – VMT Mitigation Projects and Actions Comparison

<table>
<thead>
<tr>
<th>Program Structure</th>
<th>Project Types that Reduce VMT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact Fee Program</td>
<td>• Pedestrian network expansion</td>
</tr>
<tr>
<td></td>
<td>• Bicycle/Scooter network expansion (includes bike/scooter share stations)</td>
</tr>
<tr>
<td></td>
<td>• Transit vehicles or facilities associated with service expansion</td>
</tr>
<tr>
<td></td>
<td>• Roadway gap closures that reduce trip lengths (bridges)</td>
</tr>
<tr>
<td>Mitigation Exchange</td>
<td>• All impact fee program project types</td>
</tr>
<tr>
<td></td>
<td>• Private or institutional projects that reduce VMT</td>
</tr>
<tr>
<td></td>
<td>• Transit service improvements and transit pass subsidies</td>
</tr>
<tr>
<td>Mitigation Bank</td>
<td>• All impact fee program project types</td>
</tr>
<tr>
<td></td>
<td>• All mitigation exchange project types</td>
</tr>
<tr>
<td></td>
<td>• VMT reduction strategies associated with travel behavior changes</td>
</tr>
</tbody>
</table>

### IMPLEMENTATION STEPS

This section addresses the second objective noted above to outline the implementation steps associated with creating an exchange or bank to help identify key implementation questions or issues that could affect their feasibility. The starting point for these steps begins with identifying the potential statutory or legal requirements that could govern or influence program creation. These are highlighted in Table 3 and build on the research previously done by U.C. Berkeley in the document referenced above. Since specific statutes do not exist specific to VMT exchanges and banks, U.C. Berkeley used a proxy based on conservation programs established under the California Fish & Game code. This is a reasonable proxy given that the intent behind VMT exchanges and banks is a form of conservation. Instead of habitat, VMT exchanges and banks are trying to conserve vehicle trip making and the VMT generated through this activity. VMT mitigation banks or exchanges do not appear to require new legislative authority but as noted in the U.C. Berkeley document, having state-wide templates for their development could help establish clear standards and expectations for program designs.
<table>
<thead>
<tr>
<th>Program Type/Legal Requirements</th>
<th>Statutory Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transportation Impact Fee Program</strong></td>
<td></td>
</tr>
<tr>
<td>1. Mitigation Fee Act – Intended to create a program that allows individual development projects to pay for all or portion of the cost to implement public facilities necessary to support the project. Public facilities are generally limited to capital projects. The nexus study for the program must demonstrate how there is a reasonable relationship between the following.</td>
<td>• California Government Code §66000-66001</td>
</tr>
<tr>
<td>• How there is a reasonable relationship between the fee’s use and the type of development project on which the fee is imposed.</td>
<td></td>
</tr>
<tr>
<td>• How there is a reasonable relationship between the need for the public facility and the type of development project on which the fee is imposed.</td>
<td></td>
</tr>
<tr>
<td>• How there is a reasonable relationship between the amount of the fee and the cost of the public facility or portion of the public facility attributable to the development on which the fee is imposed.</td>
<td></td>
</tr>
<tr>
<td>The fees may not be applied to existing deficiencies or the maintenance and operation of an improvement. As such, clear standards should exist about the physical and operational performance expectations for each model of travel included in the program.</td>
<td></td>
</tr>
<tr>
<td>2. Constitutional – Court decisions have placed limits on what level of mitigation can be expected of land use development projects. The limits largely require a nexus between the mitigation and a legitimate government interest plus a rough proportionality between the mitigation and the adverse impact caused by the project.</td>
<td>• Nollan v. California Coastal Commission, 483 U.S. 825 (1987)</td>
</tr>
<tr>
<td></td>
<td>• Dolan v. City of Tigard, 512 U.S. 374 (1994)</td>
</tr>
<tr>
<td>3. CEQA – For mitigation to be imposed, a significant impact must occur. Impacts stem from changes to the baseline environment caused by the project. The significance of those impacts is determined by the lead agencies choice of thresholds. This limits mitigation to increment of VMT change that occurs above the threshold.</td>
<td>• CEQA Statute (CA Public Resources Code 21000-21189)</td>
</tr>
<tr>
<td></td>
<td>• CEQA Guidelines (CA Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387)</td>
</tr>
<tr>
<td><strong>VMT Mitigation Exchange or Bank</strong></td>
<td></td>
</tr>
<tr>
<td>1. An explanation of the VMT mitigation purpose of and need for the bank or exchange.</td>
<td>• Fish &amp; Game Code §1852(c)(1)</td>
</tr>
</tbody>
</table>
Table 3 – Potential VMT Mitigation Exchange/Bank Legal Requirements

<table>
<thead>
<tr>
<th>Program Type/Legal Requirements</th>
<th>Statutory Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>§1852(c)(2)</td>
</tr>
<tr>
<td>3. The public transit and VMT reduction opportunities currently located within the bank or exchange area.</td>
<td>§1852(c)(3)</td>
</tr>
<tr>
<td>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.</td>
<td>§1852(c)(4)</td>
</tr>
<tr>
<td>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.</td>
<td>§1852(c)(5-6)</td>
</tr>
<tr>
<td>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.</td>
<td>§1852(c)(7)</td>
</tr>
<tr>
<td>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.</td>
<td>§1852(c)(8)</td>
</tr>
<tr>
<td>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.</td>
<td>§1852(c)(9)</td>
</tr>
<tr>
<td>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.</td>
<td>§1852(c)(10-11)</td>
</tr>
</tbody>
</table>

Sources:
Implementing SB 743 An Analysis of Vehicles Miles Traveled Banking and Exchange Frameworks, October 2018, Institute of Transportation Studies, U.C. Berkeley.
http://leginfo.ca.gov/  http://ccr.oal.ca.gov/
A review of these potential legal requirements suggests that the creation of an exchange or a bank may not be less rigorous than that of a conventional transportation impact fee program. These legal requirements combined with the need to demonstrate additionality and provide verification could create implementation costs beyond those of a conventional transportation impact fee program. To explore this issue further, annotated flow charts were developed for each program concept. These flow charts are presented on the following pages and allow a reviewer to quickly surmise the differences and similarities associated with creating, operating, and maintaining these programs.
**Implementation**

**Step 1**
Determine Scale/Scope

To create a regional program requires all participating agencies to adopt the program. Programs with larger scopes:

- Decrease administrative costs
- Decrease local authority
- Increase efficiency and effectiveness of the program

**Step 2**
Determine Nexus (VMT)

An agency must determine its VMT reduction goal before it can show the relationship between new development and that goal.

**Step 3**
Determine & Propose Mitigation Options

The CIP develops a list of capital improvement projects necessary to reduce VMT consistent with its desired goal. The agency should prioritize the projects so they are constructed in a logical order.

The prioritization process should consider:

- Equity
- Timeliness
- Cost
- Modal Preference (Walking/Biking/Transit)
- Stakeholder/Community Input

**Step 4**
Prepare & Approve Nexus Study

Agencies must demonstrate that the projects in the fee program contribute to VMT reduction. The agency must also show that the fees are related and proportional to new development.

Fees should take into account the delay in the time when fees are collected and when they are used.

**Step 5**
Prepare & Adopt Fee Ordinance

For a fee to be regularly imposed, it must be adopted as an ordinance.

The ordinance must include:

- Reason for the fee
- The relationship between the fee and new development
- Methodology used in developing the fee
- Projects to be included in the CIP

**Step 6**
Complete CEQA Review for the Program

California courts have ruled that in order for a fee program to serve as an acceptable CEQA mitigation, the program itself must first be reviewed in an EIR.

**Step 7**
Administer the Program

For Regional Impact Fee Programs ensure that participating agencies have adopted the program such that payment of fees is considered a feasible mitigation measure.

**Considerations**

- Decrease administrative costs
- Decrease local authority
- Increase efficiency and effectiveness of the program

**Procedural Flowchart**

1. **Program Scale**
2. **Determine Nexus (VMT) Approaches**
3. **Determine Mitigation Options for CIP**
4. **Identify CIP Priorities**
5. **Prepare Nexus Study**
6. **Prepare & Adopt Fee Ordinance**
7. **Complete CEQA Review**
8. **Administer the Fee Program**
9. **Perform Cost Updates**
   - Agencies should perform minor cost updates annually. Adjustments should take into consideration inflation as well as other information such as the Engineering News-Record Construction Cost Index.
   - The agency should also publish annual reports that include the balance of the fund and how it has been used.
10. **Monitor Fee Use (5-Year Check)**
    - Fees collected by the fee program can only be used for projects included in the CIP. Additionally, fees that are not spent or committed five years after being received must be refunded. Agencies must monitor collected fees to ensure they are being spent appropriately and in a timely manner.
11. **Update Modeling & Analysis as Needed**
    - An agency administering a fee program must update both the program’s land use assumptions and CIP at least every five years.
**Step 1**
Determine Scale/Scope

To create a regional program requires all participating agencies to adopt the program. Programs with larger scopes can:

* Decrease administrative costs
* Decrease local authority
* Increase efficiency and effectiveness of the program

**Step 2**
Determine Sponsor

The organizational components of a mitigation Exchange will depend on the type of sponsor (public or private) mitigation options, and matching process between mitigation options and projects.

If the sponsor is a public agency, they will develop a list of options developers can choose from to mitigate the VMT generated by their development. If the developer wants to propose their own mitigation exchange, they must get it approved by the sponsor and lead agency.

**Step 3**
Determine & Propose Mitigation Options

The Exchange should have a Review Team to verify mitigation effectiveness and additivity based on substantial evidence. The team could consist of third-party representatives. The team reviews the mitigation list and verifies that the options reduce VMT and that the reductions would not have occurred without the project, program, or incentive.

Because Exchanges can include programs/incentives as mitigation options, the Review Team must continually evaluate them to ensure the options are still effective and determine to what degree they reduce VMT.

**Step 4**
Develop Review Team

The public agency/authority sponsoring an Exchange may not always be the lead agency on a project. In this situation the Sponsor should develop an agreement with the lead agency that allows the Exchange’s mitigation options to be considered an acceptable mitigation measure for the EIR.

Exchanges must continue to prove that their mitigation options reduce VMT and that the reduction would not have occurred without the projects/programs.

CEQA review of the Exchange creation may be required to be considered as a formal mitigation program.

**Step 5**
Administer Exchange

The public agency/entity sponsoring an Exchange may not always be the lead agency on a project. In this situation the Sponsor should develop an agreement with the lead agency that allows the Exchange's mitigation options to be considered an acceptable mitigation measure for the EIR.

Exchanges must continue to prove that their mitigation options reduce VMT and that the reduction would not have occurred without the projects/programs.

CEQA review of the Exchange creation may be required to be considered as a formal mitigation program.
**Mitigating VMT Impacts Under SB 743**

**VMT Bank**

### Implementation

**Step 1**
**Determine Scale/Scope**

There are advantages and disadvantages to creating a Bank with a larger scale/scope. However, multiple agencies must be willing to accept the Bank's mitigation options for a state or regional Bank to be feasible. Larger regions can:

- Decrease costs associated with running the Bank
- Decrease local authority over mitigation options
- Increase efficiency and effectiveness of the program

### Considerations

There are a few organizational components to consider when creating a mitigation Bank. These elements include:

- Administrative: The Bank must perform several administrative functions such as collecting fees, managing information, answering questions, and other business operations.
- Technical: There is a significant amount of technical work needed to initially and continually prove the mitigation options reduce VMT and that the reductions would not have occurred without the programs. The Bank also needs to show the fees it receives are related and proportional to new development.
- Accounting: The Bank requires a thorough accounting system to track collected fees and to ensure fees are being handled according to CEQA and other legal guidelines. This includes payments for implementing VMT reduction projects.

Agencies should consider their ability to perform these roles when deciding whether the Bank should be run internally or by a third party.

The entity creating the Bank must legally formalize its creation. If the intent is for the Bank to be used by multiple agencies, this may require a joint powers authority or equivalent.

A review team should be used to verify the effectiveness of mitigation options based on substantial evidence. This team could be internal to the entity creating the bank or an independent third party.

Potential third party entities that could function as a review team include public agencies such as those listed below.

- Caltrans - local office
- AB
- CalEPA

The Bank Sponsor creates a list of mitigation options. The Review Team evaluates the list to ensure it complies with relevant requirements. The Sponsor should consider the following elements when prioritizing options:

- Equity
- Timeliness of Implementation
- Cost

Mitigation options can include:

- Infrastructure projects
- Programs/incentives (Unlike infrastructure projects, programs/incentives are ongoing activities. Because programs/incentives must be continually maintained to be effective, agencies should consider if developers must pay for them indefinitely.

The public agency or entity sponsoring a Bank may not always be the lead agency on a project. In this situation the Sponsor should develop an agreement with the lead agency that allows the Bank's mitigation options to be considered an acceptable mitigation measure for the EIR.

Banks must continue to prove that their mitigation options reduce VMT and that the reduction would not have occurred without the projects/programs.

CEQA review of the Exchange creation may be required to be considered as a formal mitigation program.

### Procedural Flowchart

**Decision**

1. **Step 1**
   - Determine Scale/Scope

2. **Step 2**
   - Determine Sponsor

3. **Step 3**
   - Formally Establish Bank & Review Team

4. **Step 4**
   - Determine & Prioritize Mitigation Options

5. **Step 5**
   - Administer Bank

**Flowchart Details**

- **Program Scale**
- **State**
- **Local**
- **Regional**

- **Public**
  - Maintaining the Bank in-house could:
    - Increase agency control
    - Potentially generate revenue

- **Private**
  - Allowing a third party to maintain the Bank can:
    - Decrease agency control
    - Decrease burden on agency staff

- **Complete Legal Formation of Bank**
- **Develop Review Team**
- **Determine & Select Mitigation Options**
- **Administer Bank and Complete Mitigation Agreements with Lead Agencies**
PROGRAM EXAMPLES

To help explain the different program types, it may be useful to consider some examples. While no VMT mitigation exchanges or banks currently exist, the examples below could function as one with appropriate modifications to comply with the implementation steps noted above.

City of Los Angeles Westside Mobility Plan Transportation Impact Fee Program
(https://planning.lacity.org/eir/CoastalTrans/deir/pdfs/tiafeestudy.pdf)

The City of Los Angeles developed the first impact fee program that relies on a VMT reduction nexus. The westside previously relied on LOS-based impact fee programs but as the area matured and new laws like SB 743 emerged, the City choose to shift their nexus. This shift changed the nature of the CIP from largely roadway capacity expansion projects to more transit, bicycle, and pedestrian infrastructure projects. A key benefit of this approach as noted above is that once the fee program is in place, administration of the program is limited to construction cost updates and complying with state reviews to ensure that funding is being appropriately used to construct and implement the CIP projects. No further verification of CIP effectiveness is required.

Miles
(https://www.sacrt.com/apps/miles-get-rewarded-for-your-commute-travel/)

The City of Sacramento, Sacramento Regional Transit, and Sacramento State partnered with Miles, a new app that will reward you miles for all of your commute and travel. Miles app users automatically earn miles for daily travel and are rewarded bonus miles for green trips (walk, bike, carpool or transit). Sacramento residents are also eligible to complete special challenges to earn additional rewards. While this program was not set up as an VMT mitigation exchange or bank, it could evolve into one.

The purpose of rewarding green trips and the special challenges is to influence user behavior to reduce vehicle trips and VMT. With some additional accounting of user travel behavior before and after using the app, enough substantial evidence could be created to provide the VMT reduction verification described above and noted in the flow charts. The program already has administrative functions developed and established relationships between the partner agencies. Some of the unknowns at this time are listed below.

- cost of the program on a per user basis
- amount of VMT reduction that is achieved for a typical user
- how a developer could contribute to the program to sponsor additional users
- stability or permanency of VMT reductions dependent on ‘challenges’
In addition to the Miles program, other similar vendors exist such as Luum (https://luumbenefits.com/) and Metropia (https://www.metropia.com/). These type of app-based vendors could evolve to offer Exchange or Bank type mitigation options if they can comply with the various requirements outlined in the implementation steps and identified in the U.C. Berkeley white paper cited above.

**Metro Transit Pass Subsidy**

Metro is the Los Angeles County mobility provider. One of the programs they currently offer is a transit pass subsidy with a couple of unique elements that may qualify it as a VMT mitigation exchange. Metro offers student and employee transit passes under their U-pass and E-pass programs. These are transit passes for students and employees in LA County that are unique because instead of a physical transit pass card, the pass comes in the form of an RFID chip with an antenna that sticks to an existing student or employee identification badge. This type of chip allows the transit agency to charge for trips when they are made, which is more cost-effective for schools and employers. The registration form for obtaining the pass includes a survey about current travel behavior and data such as the distance between home and school or work for the applicant. By tracking how individual travel behavior changes from this baseline condition over time, LA Metro can produce aggregate statistics about the effect on transit ridership and VMT.

The second unique component of the program is that Metro allows anyone to ‘sponsor’ these passes for a particular school or employer. As such, they are entertaining the concept of using the program as an SB 743 VMT Mitigation Exchange. Developers could purchase U- or E-passes and could use the Metro performance data to estimate the VMT reduction per pass. LA Metro is working with LA DOT and SCAG on a pilot concept this year to formalize the program. As part of this white paper development, we asked Metro if developers/agencies outside Los Angeles County could participate. The reason for this request is that VMT mitigation dollars spent on Metro transit passes may be more effective than the same dollars spent in other communities. Whether local communities would be willing to allow mitigation dollars across borders will likely depend on a variety of factors but knowing that it is feasible on the Metro end is an important first feasibility question. Metro replied that their work has not progressed sufficiently to answer this question yet.

**IMPLEMENTATION RISKS**

As explained above, VMT exchanges or banks come with unique requirements such as the ‘additionality’ test and ongoing verification that make them more challenging to implement than a conventional transportation impact fee program. However, exchanges and banks offer the ability to include program-
type strategies directed at changing travel behavior that are not available in a conventional impact fee program. Given these tradeoffs, we assessed whether other risks could influence the choice of program.

One risk that stood out was related to current legal challenges to the use of carbon offsets that are based on similar concepts. In a recent legal case, the Sierra Club, Center for Biological Diversity, and Cleveland National Forest Foundation, Climate Action Campaign, Endangered Habitats League, Environmental Center of San Diego, and Preserve Wild Santee challenged the County of San Diego over the use of carbon offsets to achieve GHG reduction goals in the County's climate action plan. The court petition is available at the link below.


The California Attorney General’s (AG’s) office has also weighed in on this court case. According to a November 11, 2019 Los Angeles Times article, “California say San Diego County could undermine state’s greenhouse gas plan”, the AG’s office filed an amicus brief. The article reported the following about the AG’s brief.

> In a strongly worded amicus brief recently submitted to the 4th District Court of Appeal in San Diego, Becerra argued that the county’s offset strategy would “perpetuate current sprawling development patterns, which will impede the ability of the region and state to reach their long-term climate objectives.”

> “Without significant [vehicle miles traveled] reductions across the state, California simply will not be able to achieve its [greenhouse gas] reduction targets,” the 33-page document said.

The state does not appear to support reducing GHG emissions from land use development without those reductions coming from fundamental local land use and transportation network changes. The risk is that lower density suburban and rural parts of the state would continue their sprawling patterns leading to more VMT and emissions. If the state maintains this position, it could also be used to argue against the creation of VMT mitigation exchanges and banks that attempt to offset VMT increases. To minimize this risk, the mitigation options offered by exchanges and banks could be applied only after project site mitigation has been exhausted and should attempt to offer additional mitigation within the same area or community.