

POLICY ADVISORY COMMITTEE

ACTION/DISCUSSION ITEMS

AGENDA ITEM III. A.

December 19, 2008

Barbara J. Steck, AICP
Deputy Director
Fresno Council of Governments
2035 Tulare St., Suite 201
Fresno, CA 93721

Dear Ms. Barbara Steck,

As a representative of the California Product Stewardship Council (CPSC), I would like to take this opportunity to offer my time and resources to assist in educating your policy committee and board about Product Stewardship, otherwise known as Extended Producer Responsibility (EPR). CPSC is an association of local governments. Our mission is to shift California's product waste management system from one focused on government funded and ratepayer financed waste diversion to one that relies on producer responsibility in order to reduce public costs and drive improvements in product design that promote environmental sustainability.

What is Product Stewardship/EPR?

Extended Producer Responsibility (EPR) is a strategy to place a shared responsibility for end-of-life product management on the producers, and all entities involved in the product chain, instead of the general public; while encouraging product design changes that minimize a negative impact on human health and the environment at every stage of the product's lifecycle. This allows the costs of treatment and disposal to be incorporated into the total cost of a product. It places primary responsibility on the producer, or brand owner, who makes design and marketing decisions. It also creates a setting for markets to emerge that truly reflect the environmental impacts of a product, and to which producers and consumers respond.

AB939, passed in 1989, clearly defined the waste management hierarchy as source reduction first, followed by recycling. To date, there has been little focus on source reduction. The majority of the focus has been on back-end solutions reliant on recycling, which are costly and a burden to local government. Government agencies cannot continue to manage the waste stream alone. The businesses that design and manufacture products are the only ones who can effect source reduction by re-designing their products with the environment in mind. Producer responsibility drives product and packaging re-design.

CPSC supports the California Integrated Waste Management Board (CIWMB) in its efforts to move away from time-consuming, product-by-product legislation. There simply is not enough money in local budgets or the state budget to follow bills through the complex legislative process for every product of concern. CPSC supports the CIWMB's "framework approach" to product stewardship. The framework approach would provide a comprehensive, yet flexible method for managing products that meet a list of criteria including high cost to manage, hazard, volume in the waste stream, or have significant impacts on the environment. A "framework" approach is holistic and serves as an alternative to the current piecemeal approach with different laws, management, and funding methods.

What can my community do to support Product Stewardship/EPR?

Signing the CPSC Pledge and adopting a resolution in support of Product Stewardship accomplishes two important goals:

- Engages your community and local elected officials in a discussion about product stewardship, which calls attention to both the need for and benefits of EPR.
- Shows our lawmakers that there is support across the State of California for EPR “Framework Legislation.”

As an additional option, making a financial contribution to CPSC, a 501(c)(3) corporation made up of local government representatives and other partners, continues the important work being done to achieve these goals for our communities. While it is critical that we have funding to continue this work, a financial contribution is not a pre-requisite to participating or receiving assistance from CPSC. Some jurisdictions are using grant funds from the Department of Conservation, in-kind donations, or other means to support CPSC

Presentation and Resolution

Attached, I have included a sample resolution for you to start with. We recommend this format as it demonstrates the message we desire to deliver to our representatives. We ask you to consider adopting such a resolution, and forwarding a copy to the CPSC as well as directly to your state representatives. We encourage you to consider joining us as we approach the state legislature for enabling legislation in support of EPR.

Based on our conversation today, and barring any schedule changes, I look forward to presenting to your Policy Advisory Committee on February 20th and to your Policy Board on February 26th. I welcome any questions at those meetings.

Bob Gedert
CPSC Associates Support Representative
Bob@CalPSC.org
(559) 593-5298

Product Stewardship Tools Included with this Package

CPSC Brochures

Who is CPSC?

EPR Framework Questions & Answers

CPSC Framework Principles

CPSC Pledge

Model Local Government Resolution

Sample Letter to Legislators

RESOLUTION NO. _____
RESOLUTION OF THE (Jurisdiction name)
SUPPORTING EXTENDED PRODUCER
RESPONSIBILITY

WHEREAS, approximately _____ tons of discarded materials and products are currently sent to disposal from our community on an annual basis at a cost of \$_____ per ton; and

WHEREAS, on February 8, 2006 California's Universal Waste Rule (CCR, Title 22, Division 4.5, Chapter 23) became effective; and

WHEREAS, the Universal Waste Rule bans landfill disposal of certain products that are deemed hazardous, including household batteries, fluorescent bulbs and tubes, thermostats and other items that contain mercury, as well as electronic devices such as video cassette recorders, microwave ovens, cellular phones, cordless phones, printers, and radios; and

WHEREAS, it is anticipated that the list of Universal and other waste products determined to be hazardous and therefore banned from landfills will continue to grow as demonstrated by the ban of treated wood effective January 2007 and sharps in September 2008; and

WHEREAS, state policies currently make local governments responsible for achieving waste diversion goals and enforcing product disposal bans, both of which are unfunded mandates; and

WHEREAS, Universal Waste management costs are currently paid by taxpayers and rate payers and are expected to increase substantially in the short term unless policy changes are made; and

WHEREAS, local governments do not have the resources to adequately address the rising volume of discarded products; and

WHEREAS, costs paid by local governments to manage products are in effect subsidies to the producers of hazardous products and products designed for disposal; and

WHEREAS, costs paid in (year) for managing household batteries was equivalent to over \$_____ per ton and the costs paid by the operator of the (Name) Transfer Station to properly dispose of fluorescent tubes was over \$_____ per ton; and

WHEREAS, if (Jurisdiction name) were able to collect all of the batteries and fluorescent tubes generated in (Jurisdiction name), such a service cost would more than all of the other current household hazardous waste programs combined (or language that is true for your jurisdiction); and

WHEREAS, the Board/City Council of (Jurisdiction name) supports statewide efforts to hold producers responsible for Universal Waste products and other product waste management costs; and

WHEREAS, there are significant environmental and human health impacts associated with improper management of Universal Waste, sharps, and other products; and

WHEREAS, Extended Producer Responsibility (EPR) is a policy approach in which producers assume responsibility for management of waste products and which has been shown to be effective; and

WHEREAS, when products are reused or recycled responsibly, and when health and environmental costs are included in the product price, there is an incentive to design products that are more durable, easier to repair and recycle, and less toxic; and

WHEREAS, EPR framework legislation establishes transparent and fair principles and procedures for applying EPR to categories of products for which improved design and management infrastructure is in the public interest; and

WHEREAS, the California Product Stewardship Council (CPSC) is an organization of California local governments working to speak with one voice in promoting transparent and fair EPR systems in California; and

WHEREAS, in (Date), the (Jurisdiction name) adopted a municipal Zero Waste Plan, and this plan emphasizes the need to incentivize manufacturers to reduce the toxics in their products and design them to be reusable and recyclable; and

WHEREAS, the (Jurisdiction name) wishes to incorporate EPR policies into the City's and County's product procurement practices to reduce costs and protect the environment; and

WHEREAS, in January 2008 the California Integrated Waste Management Board adopted a Framework for an EPR System in California; and

WHEREAS, in July 2008 the National Association of Counties adopted a resolution in support of a framework approach to EPR; and

NOW, THEREFORE BE IT RESOLVED BY THE BOARD OF THE (Jurisdiction name) that the Board/Council of the (Jurisdiction name) that by adoption of this Resolution, the (Jurisdiction name) urges the California Integrated Waste Management Board to continue taking timely action to implement the Framework for an EPR System in California to manage Universal and other waste products; and

BE IT FURTHER RESOLVED, that the Board/Council of (Jurisdiction name) urges the California Legislature to enact framework EPR legislation which will give producers the incentive to design products to make them less toxic and easier to reuse and recycle; and

BE IT FURTHER RESOLVED, that the (staff/solid waste director) of (Jurisdiction name) be authorized to send letters to the League of California Cities, the California State Association of Counties, and the California Integrated Waste Management Board, and the State legislature and to use other advocacy methods to urge support for EPR Framework legislation and related regulations; and

BE IT FURTHER RESOLVED, that the Chair of the Board/Council of (Jurisdiction name) be authorized to sign the California Product Stewardship Council (CPSC) Pledge of Support and participate by contributing \$_____ to CPSC to educate and advocate for EPR policies and programs; and

BE IT FURTHER RESOLVED, that the (Jurisdiction name) encourages all manufacturers to share in the responsibility for eliminating waste through minimizing excess packaging, designing products for durability, reusability and the ability to be recycled; using recycled materials in the manufacture of new products; and providing financial support for collection, processing, recycling, or disposal of used materials; and

BE IT FURTHER RESOLVED, that the (Jurisdiction name) and its member agencies develop producer responsibility policies such as leasing products rather than purchasing them and requiring producers to offer less toxic alternatives and to take responsibility for collecting and recycling their products and the end of their useful life.

PASSED AND ADOPTED by the Board of the (Jurisdiction name), State of California on _____ by the following vote:

AYES:

NOES:

ABSENT:

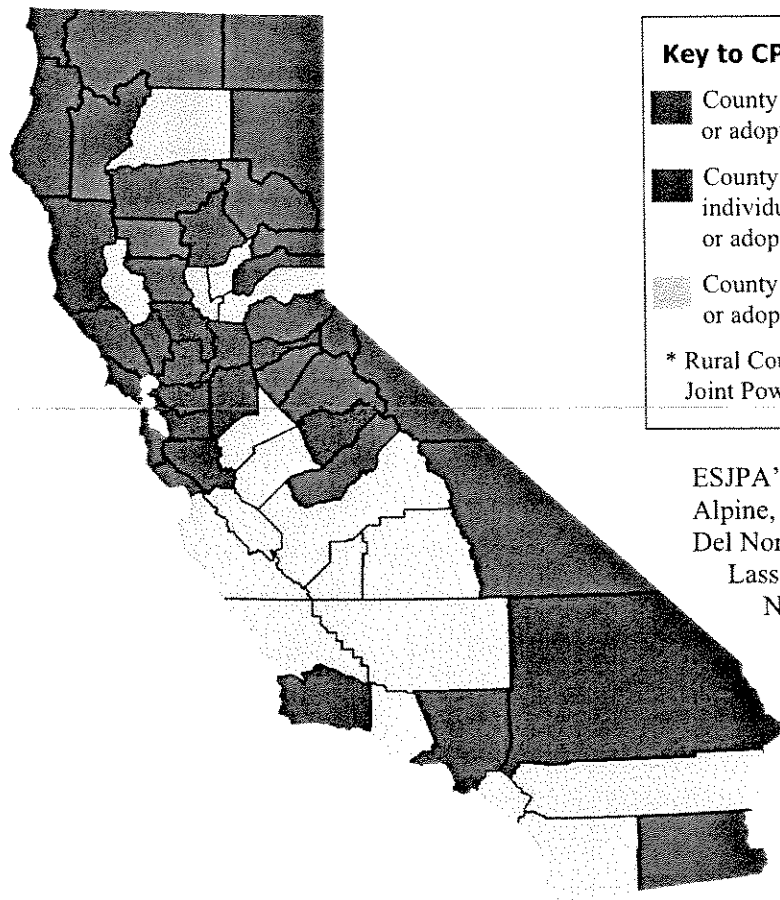
ABSTAIN:

Signed: _____ Date: (mo/day/year)
(Name), Chair

ATTEST: _____
(Name), Clerk
(Jurisdiction name)

Who is CPSC?

CPSC Associated Counties (11/1/08)



Key to CPSC Associated Counties:

-  County has either signed the CPSC pledge or adopted an EPR resolution
-  County in ESJPA* has not individually signed the CPSC pledge or adopted an EPR resolution
-  County has not signed the CPSC pledge or adopted an EPR resolution

* Rural Counties' Environmental Services Joint Powers Authority (ESJPA)

ESJPA's 22 member counties are:

Alpine, Amador**, Butte**, Calaveras, Colusa, Del Norte**, El Dorado, Glenn, Imperial, Inyo, Lassen, Madera, Mariposa**, Modoc, Mono, Nevada, Plumas, Sierra, Siskiyou, Tehama**, Trinity, Tuolumne.

***Note: ESJPA's participation in CPSC does not signal participation by each individual county member of the ESJPA. While several ESJPA members are bringing the CPSC pledge to their County Supervisors for approval, Amador, Butte, Del Norte, Mariposa and Tehama Counties are the only ESJPA member counties that have signed the pledge.*

Local government agencies in the following jurisdictions are participating in the California Product Stewardship Council (11/1/08):

Counties (15)

- | | | |
|---------------------|-------------------------|----------------------|
| ▪ Alameda County | ▪ San Bernardino County | ▪ Santa Clara County |
| ▪ Butte County | ▪ San Francisco County | ▪ Santa Cruz County |
| ▪ Mariposa County | ▪ San Joaquin County | ▪ Solano County |
| ▪ Napa County | ▪ San Mateo County | ▪ Tehama County |
| ▪ Sacramento County | ▪ Santa Barbara County | ▪ Yolo County |

Cities (38)

- Amador City
- Burbank
- Chula Vista
- Covina
- Cupertino
- Diamond Bar
- Dixon
- Dublin
- El Cerrito
- Elk Grove
- Folsom
- Fresno
- Indian Wells
- Isleton
- La Verne
- Lemon Grove
- Los Altos Hills
- Los Gatos
- Monrovia
- Monte Sereno
- Morgan Hill
- Oakland
- Palo Alto
- Pasadena
- Rohnert Park
- Rio Vista
- Sacramento
- San Dimas
- San Francisco
- San Juan Capistrano
- San Joaquin
- San Jose
- Santa Cruz
- Santa Monica
- Sierra Madre
- Union City
- Vacaville
- Vernon

Local Government Associations (26)

- Amador County Integrated Solid Waste Management Agency
- Association of Bay Area Governments, Bay Area Hazardous Waste Management Facility Allocation Committee
- Association of Bay Area Governments (ABAG), SF Estuary Project
- Bay Area Clean Water Agencies
- Bay Area Stormwater Management Agencies Association
- California Council of Directors of Environmental Health (CCDEH)
- California Stormwater Quality Association
- Central Contra Costa Solid Waste Authority
- Contra Costa Clean Water Program
- Del Norte Solid Waste Management Authority
- East Bay Municipal Utility District
- Humboldt Waste Management Authority
- Los Angeles County Integrated Waste Management Task Force
- Los Angeles County Sanitation District
- Marin County Joint Powers Authority
- Mendocino Solid Waste Management Authority
- Mojave Desert and Mountain Recycling Authority
- Monterey Regional Waste Management District
- Napa County Environmental Management
- Rural Counties' Environmental Services Joint Powers Authority (ESJPA)
(Counties of Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, El Dorado, Glenn, Imperial, Inyo, Lassen, Madera, Mariposa, Modoc, Mono, Nevada, Plumas, Sierra, Siskiyou, Tehama, Trinity, Tuolumne)
- Sacramento Business Environmental Resource Center
- Sacramento County Department of Water Resources
- Sacramento Regional County Sanitation District
- Santa Clara Valley, CLEAN South Bay
- Sonoma County Waste Management Agency
- West Valley Clean Water (Campbell, Los Gatos, Monte Serena, Saratoga)

Partners (20)

- Allied Waste, Daly City
- California Resource Connections Inc.
- CR&R Waste and Recycling Services
- Environmental Innovations
- Executive Communications
- Gill's Onions
- Grassroots Recycling Network
- Green Party of Los Angeles County
- Keep California Beautiful
- Long Beach Coalition for a Safe Environment
- Main Street Moms
- Marin Sanitary Service
- Pacific Recycling Solutions
- ReUse Arizona
- Reverse Logistics Association
- Sierra Club Napa
- Takayama Consulting
- Teleosis Institute
- Total Recycling Associates
- The Watershed Project

Extended Producer Responsibility

Questions and Answers

Extended Producer Responsibility (EPR), also known as Product Stewardship, is an adopted strategic policy priority for the California Integrated Waste Management Board (CIWMB). CPSC supports the CIWMB in making that policy a reality. EPR provides an opportunity to use market forces to create sustainability, drive environmental benefits, and save local governments a lot of money!

What is EPR?

EPR is a policy which ensures that responsibility for end-of-life product management is shared with the producers, and all entities involved in the product chain, instead of just the general public; EPR encourages product design changes that minimize a negative impact on human health and the environment at every stage of the product's lifecycle. This allows the costs of treatment and disposal to be incorporated into the total cost of a product. It places primary responsibility on the producer, or brand owner, who makes design and marketing decisions. It also creates a setting for markets to emerge that truly reflect the environmental impacts of a product, and to which producers and consumers can respond.

Why change the current system?

Californians are generating more waste than ever before. We recycle a lot more, which is great, but recycling alone is not enough. Placing potentially useful resources in the ground is not sustainable - it is wasteful! It costs a lot to safely manage products that contain hazardous or toxic substances. Local governments need relief from these costs. It is time for producers to help pay for the management of products they create and profit from. EPR will send economic signals to the producers and the market will sort out the best solutions. Right now, there is no economic link between production and waste management costs. Until that link is made through EPR, producers have little incentive to change product and packaging design. In short, EPR can help fix a broken economic system.

If EPR is a market-based approach, is there still a role for government?

Yes, but not in the traditional way. Instead of government designing and running programs to recover, dispose or otherwise properly manage products at the end of their useful life, EPR calls for producers to design and implement product stewardship programs that meet state goals. Producers may carry out this responsibility by themselves or participate in a group with others, called a stewardship organization.

Government will have a role in ensuring the same rules apply to all producers and to oversee a process that identifies products, and which sets performance goals and recovery rates. Just as it is hard to imagine a ball game without players, it is hard to imagine a ballgame without referees and a rule book.

Who exactly are "producers"? Why not call them manufacturers?

Producers are defined as one of the following: the direct manufacturer that sells or distributes a product in California under its own name or a brand name; an entity that is not a manufacturer but is

the owner or licensee of a trademark or brand name of a product sold or distributed in California; or an entity that imports the product into California for sale or distribution.

The CIWMB does not refer to “producers” as “manufacturers” because the term “manufacturer” is too narrow. For example, many companies that we think of as manufacturers are actually brand owners, while the manufacturer is located overseas and works under contract for the brand owner. It is the brand that is advertised. Also, many retailers are producers as they sell products under their own brand. Generally, the producer will be the brand owner.

What products will be affected?

At this point we don’t know. Initially, a few products would be selected based on their impact on society in terms of the environment, public health, and cost to taxpayers and rate payers for their end-of-life management. Consideration would also be given as to whether or not there are good opportunities for improvements in design and manufacture. Given the high number of products meeting those criteria and the significant resources required to conduct individual legislative processes for each product, the CIWMB and the CPSC recommend a more streamlined, broad based approach. This approach is called “EPR Framework.”

What is meant by an EPR “Framework” approach?

Rather than implementing EPR through individual pieces of legislation for each product, under a Framework approach, there is one law that gives state government the authority, through regulation, to address multiple products. The state would develop a public process to identify priority products, and then use this process to select products that should be covered by a Product Stewardship Program. This law would also provide state government with the authority to develop rules, set goals and targets, and establish oversight so there is a level playing field for all producers.

Is EPR a “one-size-fits-all” solution?

No. An EPR Framework approach would be flexible and customized for each product category. A consistent and predictable process for each product type would make it easier for all stakeholders to understand how to participate in the process. All decisions would be made through a public process. While goals would be established by state government with public input, producers would determine how to achieve the goals. This allows producers, who best know their products, the opportunity to identify the most efficient system for sustainable design, reducing toxicity and waste, reuse, recycling, and ultimately disposing of their products.

Are “take back programs” considered EPR programs?

The short answer is sometimes. Take back programs may or may not be EPR. It depends on whether or not the producers share in the management or the costs of taking back their discarded products. For example, when state government collects an advanced recycling fee at the point of sale, the fee may subsidize a state recycling program. Such a program may be successful at collecting materials, but it does not provide an incentive for manufacturers to make their products differently nor does it establish the economic link between production and waste management costs. Instead, it simply creates a costly bureaucracy and leaves the producers with no incentive to re-design the product.

What happens to the existing reuse, recycling, and waste management infrastructure under an EPR Framework scenario?

Based on EPR programs being implemented elsewhere, most producers would contract for waste management related services. In some cases the producers may pay another organization, called a stewardship organization, to carry out their responsibilities for product management at the point of discard. This organization would then negotiate contracts with reuse, recycling, and waste management companies and local governments. For example, in British Columbia, the Paint Stewardship Organization pays the local governments, haulers and retailers directly for each gallon of paint collected at public facilities, private collections, and retail outlets.

A producer could also choose to set up its own take back program, just for its product. This is currently done by Sony and Caterpillar. Setting up its own take back program provides the producer with an incentive to design products that are easy to refurbish and reuse or recycle, because they directly benefit. Even in these situations, waste management companies may be hired to collect and haul old products.

How do we know the products would be reused or recycled responsibly, rather than sent to a landfill or incinerator?

After consultations with producers and other stakeholders, the state would establish recovery rates for each product category. Producers would have to submit annual reports explaining their progress toward achieving the recovery rates and the recovery rates could be adjusted over time to encourage higher levels of environmental and public health protection. Current laws governing the safe and proper handling of materials would remain in effect.

There are three incinerators in California which can only incinerate the waste remaining after pulling out the recyclables. Pharmaceutical products are an exception because one of the current legal options for managing unused medications is incineration. Consequently, in this product category, incineration does occur.

How can I get involved and show my support for EPR in California?

- The California Product Stewardship Council has a variety of tools to assist local governments, businesses, health officials, citizens and others interested in advancing EPR.
- Donate to CPSC. Local governments can support CPSC through Assoicate's fees. Businesses and individuals can help us continue this important work by making tax-deductible contributions.
- The CIWMB's EPR website identifies other organizations actively supporting EPR.
- You can also contact companies and elected officials directly to voice your support for EPR.

Have a question that we haven't answered? Send questions to: Heidi@CalPSC.org



Framework Principles for Product Stewardship Policy

The following principles are intended to guide development of product stewardship policies and legislation that governs multiple products. It is primarily aimed at state legislation but is also intended as a guide for local and federal policy.

1. Producer Responsibility

- 1.1 All producers selling a covered product into the State are responsible for designing managing, and financing a stewardship program that addresses the lifecycle impacts of their products including end-of-life management.
- 1.2 Producers have flexibility to meet these responsibilities by offering their own plan or participating in a plan with others.
- 1.3 In addressing end-of-life management, all stewardship programs must finance the collection, transportation, and responsible reuse, recycling or disposition of covered products. Stewardship programs must:
 - Cover the costs of new, historic and orphan covered products.
 - Provide convenient collection for consumers throughout the State.
- 1.4 Costs for product waste management are shifted from taxpayers and ratepayers to producers and users.
- 1.5 Programs are operated by producers with minimum government involvement.

2. Shared Responsibilities

- 2.1 Retailers only sell covered products from producers who are in compliance with stewardship requirements.
- 2.2 State and local governments work with producers and retailers on educating the public about the stewardship programs.
- 2.3 Consumers are responsible for using return systems set up by producers or their agents.

3. Governance

- 3.1 Government sets goals and performance standards following consultation with stakeholders. All programs within a product category are accountable to the same goals and performance standards.

- 3.2 Government allows producers the flexibility to determine the most cost-effective means of achieving the goals and performance standards.
- 3.3 Government is responsible for ensuring a level playing field by enforcing requirements that all producers in a product category participate in a stewardship program as a condition for selling their product in the jurisdiction.
- 3.4 Product categories required to have stewardship programs are selected using the process and priorities set out in framework legislation.
- 3.5 Government is responsible for ensuring transparency and accountability of stewardship programs. Producers are accountable to both government and consumers for disclosing environmental outcomes.

4. Financing

- 4.1 Producers finance their stewardship programs as a general cost of doing business, through cost internalization or by recovering costs through arrangements with their distributors and retailers. End of life fees are not allowed.

5. Environmental Protection

- 5.1 Framework legislation should address environmental product design, including source reduction, recyclability and reducing toxicity of covered products.
- 5.2 Framework legislation requires that stewardship programs ensure that all products covered by the stewardship program are managed in an environmentally sound manner.
- 5.3 Stewardship programs must be consistent with other State sustainability legislation, including those that address greenhouse gas reduction and the waste management hierarchy.
- 5.4 Stewardship programs include reporting on the final disposition, (i.e., reuse, recycling, disposal) of products handled by the stewardship program, including any products or materials exported for processing.

Adopted by Northwest Product Stewardship Council: May 19, 2008

www.productstewardship.net

Adopted by California Product Stewardship Council: June 4, 2008

www.calpsc.org

Developed with support from **Product Policy Institute**

www.productpolicy.org

National and California EPR Resolutions

NATIONAL ASSOCIATION OF COUNTIES

--Resolution supporting EPR Framework Policy & EPR for lamps, batteries, and paint

"NACo's adoption of the Extended Producer Responsibility framework is a great step forward for our environment," says Commissioner Victoria Reinhardt, Ramsey County, Minnesota. "Smart design protects the environment and saves money by preventing costly waste."

Reinhardt was the author of the framework resolution for NACo, in addition to three other product-specific producer responsibility resolutions for paint, electronics, and mercury-containing lamps. The National Association of Counties adopted the resolutions at their annual meeting in Kansas City, Missouri July 2008.

SOLID WASTE ASSOCIATION OF NORTH AMERICA

-- [1] Technical Policy 2.1 Product Stewardship has been posted on the SWANA web site (<http://www.swana.org>) under Technical Divisions/Technical Policies

In 2001, SWANA issued a technical policy on product stewardship[1]. The purpose of that policy was to establish guiding principles for SWANA and its members to use in developing programs to safely and cost-effectively manage products at the end of their useful life. To achieve that result, product stewardship efforts should aim to encourage product Manufacturers to take increasing responsibility to reduce the adverse environmental impacts of their products and packaging through improved product design and end-of-life management of the products they produce. In that policy, SWANA committed to promote product stewardship in an advocacy role as a voice for its members in the solid waste management profession.

CALIFORNIA PRODUCT STEWARDSHIP COUNCIL

-- Mission Statement: *see bottom of page.*

REGIONAL COUNCIL OF RURAL COUNCILS

-- Policy Adopted by RCRC Board, March 21, 2007

"RCRC supports producer responsibility for financing and arranging the collection and recycling of their products at end-of-life. Producer responsibility removes the financial burden from local governments and makes recycling become a cost of doing business. Placing the responsibility with manufacturers/retailers will additionally provide incentive for products to be redesigned in a manner to eliminate or reduce their impact and to increase their recyclability. RCRC prefers producer responsibility through product take-back by the manufacturers/retailers. RCRC will consider the reasonable use of Advanced Recycling Fees and Advanced Disposal Fees."

CALIFORNIA LEAGUE OF CITIES

--Policy Adopted by League of Cities Board, February 7, 2008

"The League supports legislation implementing the concept of manufacturer responsibility. This includes, but is not limited to, encouraging or providing incentives for e-waste recycling, requiring manufacturers of computer, CRT or other electronic products considered universal wastes, to operate or fund comprehensive, extended producer responsibility programs."

CALIFORNIA OCEAN PROTECTION COUNCIL

-- Resolution on Reducing and Preventing Marine Debris Adopted February 8, 2007

(excerpt) "FURTHER RESOLVES to identify the following top priority solutions from the June 2006 Plan of Action prepared by the Plastic Debris Project:

1. Reduce the sources of plastic marine debris – The California Redemption Value Program (CRV) has proven to be enormously successful at diverting over 60 percent of aluminum, glass and certain plastic containers to recycling centers. Placing a value on these items has assured that the majority get collected. The state should look closely at extending the CRV or similar Extended Producer Responsibility programs to include other plastics commonly found in marine debris. ..."

CALIFORNIA COUNCIL OF DIRECTORS OF ENVIRONMENTAL HEALTH

Resolution on Extended Producer Responsibility

-- Adopted June 13, 2007

CALIFORNIA LOCAL GOVERNMENTS

Extended Producer Responsibility Resolutions and Ordinances

-- Since February 2006, 40 California cities, counties and local government associations have passed variations of an EPR resolution.

CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD

Strategic Directive-5: PRODUCER RESPONSIBILITY

-- Adopted February 13, 2007

"It is a core value of the CIWMB that producers assume the responsibility for the safe stewardship of their materials in order to promote environmental sustainability.

Specifically, the CIWMB will:

- Utilize existing Board authority to foster "cradle-to-cradle" producer responsibility.
- Seek statutory authority to foster "cradle-to-cradle" producer responsibility.
- Analyze the feasibility of various approaches to increasing producer responsibility, including during the product design and packaging phases, and make recommendations to the CIWMB Board by December 2007, and annually thereafter.
- Build capacity and knowledge in CIWMB on Extended Producer Responsibility (EPR) issues and solutions.
- Develop and maintain relationships with stakeholders that result in producer-financed and producer-managed systems for product discards.

PLEDGE OF SUPPORT

The California Product Stewardship Council (CPSC) is a coalition of local government, their associations and organizations related to solid waste, recycling, resource conservation, environmental protection, water quality, and other cross-media issues (Associates). Together with non-government organizations (NGOs) individuals, and businesses (Partners) across California they form a network supporting product stewardship and extended producer responsibility (EPR). CPSC is a federally recognized 501(c)(3) non-profit public benefit California corporation that exists by means of your monetary and in-kind contributions in addition to private and public grant funding.

CPSC MISSION: To shift California's product waste management system from one focused on government funded and ratepayer financed waste diversion to one that relies on producer responsibility in order to reduce public costs and drive improvements in product design that promote environmental sustainability.

CPSC FUNCTIONS:

1. Build relationships among local government and other stakeholders to increase capacity and knowledge in order to bring about producer financed and managed systems for life cycle and end of life management of their products.
2. Develop practical local and statewide EPR policy and educational tools such as model ordinances, legislation, newsletters, articles, policy briefings, PowerPoint presentations, etc.

The undersigned supports the mission and functions of the California Product Stewardship Council and will advocate in support of product stewardship and EPR.

Affiliation (check one): ☐ Associate - Local Government (City, County, Association)
☐ Partner - Individual, Business, NGO, Organization

Signature

Date

Name (print)

Title

Organization/Jurisdiction (city, county, regional agency)

Department/Agency

Mailing Address (street address or POB, city, zip)

Telephone (with area code)

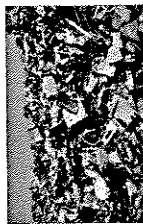
Email

☐ Check here if you are including or will provide a financial contribution to CPSC

Please sign, include contribution, and mail to CPSC, P.O. Box 216381, Sacramento, CA 95821

U.S. waste production

Growing...and changing!

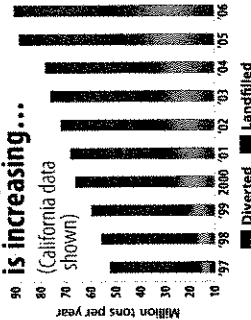


A century ago, when local governments assumed responsibility for solid waste, it consisted mostly of coal ash left over from heating and cooking. The rest was mainly food, with a small amount of simple manufactured products like paper and glass. Today, manufactured products and associated packaging make up 75% of what we throw out.

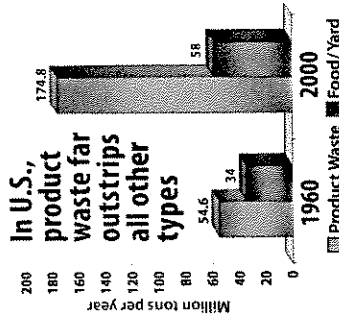
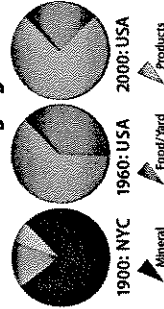
In California, while the amount of waste *diverted* from landfills has certainly increased in recent years, the amount of waste we still send to landfills has changed very little. Californians will send about the same amount of solid waste to landfills this year as we did in 1990: 40 million tons.

That's because diversion addresses these consumer products at the end of their lives. It does nothing

Waste production is increasing...



...and changing.



to provide incentives to reduce the generation or consumption of wasteful products—and it's generation and consumption that have exploded in recent years.

The simple fact is that existing recycling efforts and disposal bans aren't reducing total waste generation. Despite our best efforts, we're losing the battle.

Effective waste management can't be an afterthought. It must be a key part of product design, manufacturing, packaging and retailing.

Help make Producer Responsibility the standard in California!

- 1 Pass Resolutions, Ordinances, Plans and Policies**
Use model EPR plans and policies on our website.
- 2 Advocate for Statewide Legislation**
Add producer responsibility to whatever advocacy efforts your jurisdiction is pursuing in Sacramento.
- 3 Join CPSC and Speak with a Unified Voice**
Participate in CPSC and help us speak with a unified voice here in California. There IS power in numbers. Contact CPSC at the address below.



California Product Stewardship Council

P.O. Box 216381
Sacramento, CA 95821

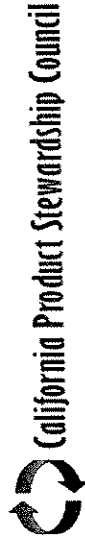
www.caproductstewardship.org

Heidi Sanborn
Executive Director
Phone: 916-485-7753
Email: heidi@caproductstewardship.org

Funded by a grant from the California Integrated Waste Management Board. Zero Waste — You Make it Happen.
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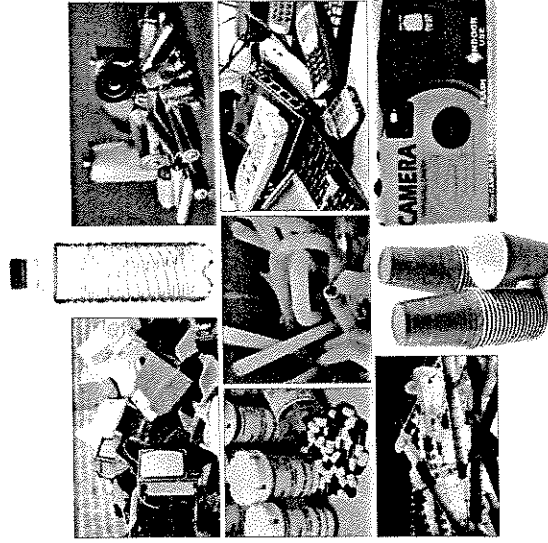
Developed with support from  The Product Policy Institute

Printed on 100% recycled paper, 50% post consumer content, with vegetable inks, using wind power.



A Better Way

Product Stewardship



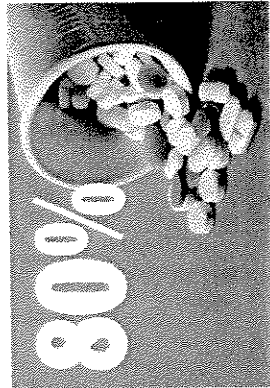
Most of the companies that make this stuff aren't paying a nickel to recycle it. In fact, they designed it for disposal—and you're picking up the tab!

We think it's time to change that.

\$100,000,000

The cost of collecting and properly recycling or disposing of hazardous products easily exceeds \$100 million a year in California.

A recent study by the U.S. Geological Survey found pharmaceuticals in 80% of the streams they tested. Half the streams had seven or more drugs.



There's a long list: Batteries...syringes... electric switches... cell phones... aerosol cans... electronic equipment... fluorescent light tubes... computer monitors... thermometers...

These and hundreds of other products make our lives easier...until we don't need them anymore. Then, if they're not disposed of responsibly, the acids, mercury and other heavy metals they contain become a danger to our health and the environment.

The U-Waste Ban: A for effort, F on the final

California's Universal Waste Ban prohibits an array of residential generated hazardous products from normal household trash disposal, effective early 2006. Treated lumber was banned in January 2007, and needles and other "sharps" will be banned in September 2008. Pharmaceuticals are expected to be added soon.

Unfortunately, the state-mandated bans must be enforced by local governments.

And they don't have the money to do it.

It's the classic unfunded mandate—a government directive without the resources to enforce it. The intentions were good, but the responsibility is misplaced onto local governments.

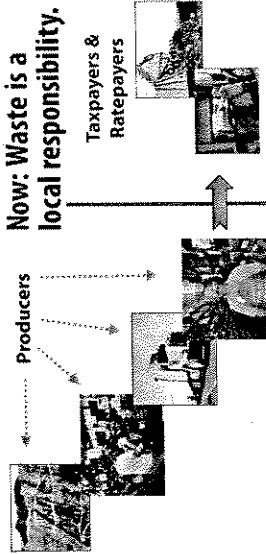
Two systems. No connection.

We currently operate under two completely separate and disconnected systems. One system designs, manufactures and sells products to us and then effectively rides off into the sunset.

Once the consumer is done with those products, the other system is engaged when local governments—and their taxpayers—become financially responsible for managing the disposal of these private goods, many of which are toxic and disposable by design.

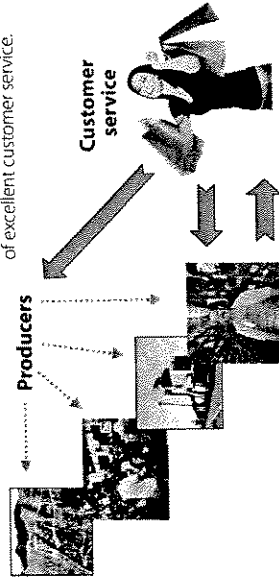
These two systems don't communicate with each other. Local governments don't have any input into how toxic or durable the products are, and manufacturers don't have to design creative and safe ways to dispose of them at the end of their useful life.

Now: Waste is a local responsibility.



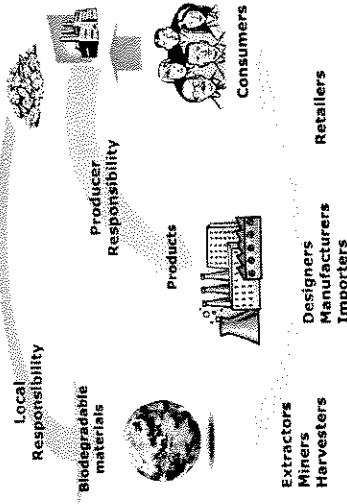
A better way: Producer Responsibility

Extended Producer Responsibility (EPR), or Product Stewardship, means whoever designs, produces, sells or uses a product takes responsibility for minimizing its environmental impact through all stages of the product's life cycle. And the producer, having the greatest ability to minimize impacts, has the most responsibility. Product recycling should be an extension of the marketing system, mirroring the production and distribution process in a kind of "reverse retail" process, and it should be managed through commercial arrangements—all as part of excellent customer service.



Implement Producer Responsibility

We suggest that manufactured product discards be managed by producers or their agents. Local governments should focus limited resources on managing things that are grown—like yard trimmings and food scraps.



The Producer Responsibility idea is picking up support:

- Some manufacturers, retailers and local governments in the U.S. have started to implement policies and programs that have EPR components. Manufacturers are already doing this in other countries... the same manufacturers that aren't doing it here.
- Taxpayer groups like EPR because it relies on the market—not tax dollars—to solve the problem.

And there is still a role for government:

- Laws are needed to provide manufacturers the level playing field they want. These programs need standards, transparency and accountability to achieve the desired results. And that means they need legislative mandates.
- Local government also has a critical role to play in leading the transition to Producer Responsibility. The **Take It Back Network** in Washington State—created by local governments partnering with retailers, charities and green groups—demonstrates that retailers can provide more convenient take-back services than the few locations local governments can provide.

Join the campaign. We'll tell you how.

See the back for ways you can help demand Producer Responsibility from companies who design, manufacture and sell the products we use daily.

POLICY ADVISORY COMMITTEE

ACTION/DISCUSSION ITEMS

AGENDA ITEM III. D.



2009 FRESNO COG ~ SACRAMENTO "ONE VOICE"

Regional Advocacy Issues

Ranking by Regional Priority	Advocacy Issues	Request
1	WATER: COMPREHENSIVE WATER SUPPLY INFRASTRUCTURE LEGISLATION	To have the State of California Legislature develop and place a comprehensive water bond package on the next available ballot, including specific priority items for Fresno County.
2	FEDERAL ECONOMIC STIMULUS PACKAGE	Maximize Fresno County's regional share of Federal economic stimulus funding.
3	CALIFORNIA STATE BUDGET ISSUES	* Support California High-Speed Rail: • Support annual appropriations of Proposition 1A (2008). • The High-Speed Rail Authority should consider locating the proposed maintenance and storage facility in the City of Fresno or Fresno area. • The Central Valley segment of the high-speed rail system should be completed first since its construction is not as complex or costly * Support \$1million in funding to ensure sustainability of the California Partnership for the San Joaquin Valley. * Protect Proposition 42 (Transportation Congestion Improvement Act) and other transportation funds from being diverted to other purposes in the state budget. * Seek Proposition 84 funding and other sources to offset costs for implementation of SB 375 requirements for MPO's and local governments.
4	AIR QUALITY ISSUES	* Seek the establishment of a new San Joaquin Valley Designation as an Air Quality Enterprise/Empowerment Zone at the state and federal level. * Support Port Container Fees for the San Joaquin Valley.
Information Only in Packets	San Joaquin Valley Blueprint Planning Process	Provide project update on regional blueprint planning activities.
Information Only in Packets	Council of Fresno County Government's 2009 Legislative Platform	Provide Legislative Platform.



2009 FRESNO COUNCIL OF GOVERNMENTS SACRAMENTO “ONE VOICE” AGENDA OVERVIEW

Contacts: Steve Samuelian, Consultant:
(559) 244-0801 Office; (559) 999-3651 Mobile

Tony Boren, Fresno COG:
(559) 233-4148 Office; (559) 824-9956 Mobile

Jennifer Dansby, Fresno COG:
(559) 233-4148 Office; (559) 681-4605 Mobile

Hotel: Marriott Residence Inn, Downtown at Capitol Park
1121 15th Street
Sacramento 95814
Phone: (916) 443-0500
Fax: (916) 443-0600

Details:

- Complimentary deluxe continental breakfast daily
- 24 hour business center on sight
- \$17 per night parking
- Check-in: 4 pm
- Check-out: 11 am

Sunday, March 8th

Delegates will arrive. Dinner on your own.

Monday, March 9th

Meet in the Capitol, Senate side, Room 113

- 8:30 am **Welcome/Introductions**
Tony Boren, Executive Director, Fresno COG
- Briefing/Review**
Steve Samuelian, California Consulting, Inc.
- 9:00 am **Peter Detwiler**, Staff Director
Senate Local Government Committee
- 9:30 am **Carrie Pourvahidi**, Deputy Director
California High Speed Rail Authority
- 10:00 am **Jim Bourgart**, Deputy Secretary for Transportation & Infrastructure
Business Transportation & Housing Agency
- John Hummer**, Deputy Secretary for Goods Movement
Business, Transportation & Housing Agency
- 10:30 am **Break**
- 11:00 am **Brian Kelly**, Policy Director
Senate President Pro Tem Darrel Steinberg
- 11:30 am **Assemblymember Danny Gilmore**
- 12:00 pm **Lunch (on own)**
- 1:30 pm **Group Picture on Capitol Steps**
- 2:00 pm
- 2:30 pm **Nicole Parra**, Director, Regional Development Initiatives,
Business, Transportation & Housing Agency
- Eloisa Klementich**, Assistant Deputy Secretary, Economic Development,
Business, Transportation & Housing Agency
- 3:00 pm **Break**
- 3:30 pm
- 4:00 pm

4:30 pm

5:00 pm *Adjourn*

6:00 pm. **Group Dinner (sponsored)**
McCormick & Schmick's Seafood Restaurant
1111 J St.
Sacramento, CA 95814
Guest Speaker: Will Kempton, Director, Caltrans

Tuesday, March 10th

Meet in the Capitol, Senate side, Room 113

9:00 am

9:30 am **Senator Alan Lowenthal**, Chairman
Senate Transportation and Housing Committee

10:00 am **Jennifer Gress**, Consultant
Senate Transportation & Housing Committee

10:30 am **Break**

11:00 am **Assemblymember Juan Arambula**

11:30 am **Cindy Tuck**, Assistant Secretary for Policy, Acting Undersecretary
California Environmental Protection Agency

12:00 pm **Lunch (on own)**

1:00 pm **Senator Dave Cogdill**

1:30 pm **Senator Dean Florez**, Senate Majority Leader

2:00 pm *Adjourn. Thanks for Coming!!*



2009 FRESNO COG'S SACRAMENTO "ONE VOICE" TRIP PARTICIPANTS

1. **Judy Case**, Supervisor, County of Fresno
2. **Bob Whalen**, Mayor, City of Clovis
3. **Armando Lopez**, Mayor, City of Parlier
4. **Amarpreet Dhaliwal**, Mayor, City of San Joaquin
5. **David Karstetter**, Mayor Pro Tem, City of Kingsburg
6. **Glenda Hill**, Mayor Pro Tem, City of Orange Cove
7. **Pete Chavez**, Mayor Pro Tem, City of Reedley
8. **Victor Ruiz**, Mayor Pro Tem, City of Sanger
9. **Julia Hernandez**, Mayor Pro Tem, City of San Joaquin
10. **Mike Derr**, Mayor Pro Tem, City of Selma
11. **Rico Aguayo**, Councilmember, City of Fowler
12. **Dan Parra**, Councilmember, City of Fowler
13. **Cynthia Sterling**, Councilmember, City of Fresno
14. **Andreas Borgeas**, Councilmember, City of Fresno
15. **Blong Xiong**, Councilmember, City of Fresno
16. **Henry T. Perea**, Councilmember, City of Fresno
17. **David Elias**, City Manager, City of Fowler
18. **Andy Souza**, City Manager, City of Fresno
19. **Rocky Rogers**, City Manager, City of Reedley
20. **Cruz Ramos**, City Manager, City of San Joaquin
21. **Margaret Mims**, Sheriff, County of Fresno
22. **John Campbell**, Assistant Superintendent, Kings Canyon Unified School District
23. **Ron Hudson**, Deputy Superintendent, Kings Canyon Unified School District

2009 FRESNO COG'S SACRAMENTO "ONE VOICE" TRIP PARTICIPANTS

24. **Preston Prince**, Executive Director, Housing Authorities
25. **Tony Boren**, Executive Director, Council of Fresno County Governments
26. **Roger Palomino**, CEO, Fresno County Economic Opportunities Commission
27. **Allysunn Williams**, Associate Executive Director, Fresno County Economic Opportunities Commission
28. **Mark Garza**, Site Director, Kings Canyon Unified School District
29. **Lydia Zabrycki**, Director of Business Partnering, Quad Knopf
30. **Erik Valencia**, Public Relations, Kings Canyon Unified School District
31. **Mario Santoyo**, Assistant General Manager, Friant Water Authority
32. **Kirk Hunter**, CEO, Southwest Transportation Agency
33. **Mike Dozier**, Director, California Partnership for the San Joaquin Valley
34. **Katie Stevens**, Government Affairs Associate, California Partnership for the San Joaquin Valley
35. **Julianne Tuggle**, Assistant to Fresno County Supervisor, Susan Anderson
36. **Kerri Ginis**, Government Affairs Manager, Greater Fresno Area Chamber of Commerce
37. **Jennifer Dansby**, Transportation Planner, Council of Fresno County Governments
38. **Marla Day**, Executive Assistant, Council of Fresno County Governments
39. **Steve Samuelian**, Consultant, California Consulting, LLC.

POLICY ADVISORY COMMITTEE

ACTION/DISCUSSION ITEMS

AGENDA ITEM III. E.

2008/09
COUNCIL OF FRESNO COUNTY GOVERNMENTS
Draft Federal Stimulus Target
02/19/08

Estimated Gross Amount Available

18,193,354

MEMBER	CENSUS	PERCENT	GROSS AMOUNT	\$160,000		PRORATA TARGET
	POPULATION 01/01/08			BASE Increment	REDUCTION	
Clovis	94,278	10.13%	1,842,162	0	(16,858)	1,825,304
Coalinga	19,063	2.05%	372,485	0	(3,409)	369,076
Firebaugh	6,811	0.73%	133,085	26,915	0	160,000
Fowler	5,572	0.60%	108,875	51,125	0	160,000
Fresno City	486,116	52.21%	9,498,549	0	(86,921)	9,411,628
Huron	7,553	0.81%	147,583	12,417	0	160,000
Kerman	13,878	1.49%	271,172	0	(2,482)	268,690
Kingsburg	11,257	1.21%	219,958	0	(2,013)	217,945
Mendota	9,787	1.05%	191,235	0	(1,750)	189,485
Orange Cove	10,774	1.16%	210,520	0	(1,927)	208,593
Parlier	13,325	1.43%	260,366	0	(2,383)	257,983
Reedley	25,584	2.75%	499,903	0	(4,575)	495,328
Sanger	25,046	2.69%	489,391	0	(4,479)	484,912
San Joaquin	4,521	0.49%	88,339	71,661	0	160,000
Selma	23,284	2.50%	454,962	0	(4,163)	450,799
Fresno Co.	174,249	18.71%	3,404,769	0	(31,158)	3,373,611
TOTALS	931,098	100%	18,193,354	162,118	(162,118)	18,193,354

2008/09
COUNCIL OF FRESNO COUNTY GOVERNMENTS
Draft Federal Stimulus Target
02/19/08

Estimated Gross Amount Available

16,000,000

MEMBER	CENSUS	PERCENT	GROSS AMOUNT	\$160,000		PRORATA TARGET
	POPULATION 01/01/08			BASE Increment	REDUCTION	
Clovis	94,278	10.13%	1,620,074	0	(22,849)	1,597,225
Coalinga	19,063	2.05%	327,579	0	(4,620)	322,959
Firebaugh	6,811	0.73%	117,040	42,960	0	160,000
Fowler	5,572	0.60%	95,749	64,251	0	160,000
Fresno City	486,116	52.21%	8,353,423	0	(117,815)	8,235,608
Huron	7,553	0.81%	129,791	30,209	0	160,000
Kerman	13,878	1.49%	238,480	0	(3,363)	235,117
Kingsburg	11,257	1.21%	193,440	0	(2,728)	190,712
Mendota	9,787	1.05%	168,180	0	(2,372)	165,808
Orange Cove	10,774	1.16%	185,141	0	(2,611)	182,530
Parlier	13,325	1.43%	228,977	0	(3,229)	225,748
Reedley	25,584	2.75%	439,636	0	(6,200)	433,436
Sanger	25,046	2.69%	430,391	0	(6,070)	424,321
San Joaquin	4,521	0.49%	77,689	82,311	0	160,000
Seima	23,284	2.50%	400,113	0	(5,643)	394,470
Fresno Co.	174,249	18.71%	2,994,297	0	(42,231)	2,952,066
TOTALS	931,098	100%	16,000,000	219,731	(219,731)	16,000,000

POLICY ADVISORY COMMITTEE

ACTION/DISCUSSION ITEMS

AGENDA ITEM III. G.

Regional Transportation Mitigation Fee for Fresno County

Administrative Manual

February 2009

Prepared by Parsons Brinckerhoff

Table of Contents

- I. Introduction
- II. Explanation of Program
- III. Development Fee Structure
- IV. Exemptions and Waivers
- V. Fee Calculation
- VI. Fee Collection Procedures
- VII. Credits and Reimbursements
- VIII. Reporting Responsibilities
- IX. Fee Adjustments / Review
- X. Appendices
 - 1. Appendix 1 Model Ordinance
 - 2. Appendix 2 Development Types / Fee Categories
 - 3. Appendix 3 RTMF Fee Chart
 - 4. Appendix 4 Defined Use Types
 - 5. Appendix 5 City Codes
 - 6. Appendix 6 Fee Calculation Worksheet Form A
 - 7. Appendix 7 Fee Calculation Worksheet Form B
 - 8. Appendix 8 Defined Use Type Forms B.1 – B.7
 - 9. Appendix 9 Master Fee Collection Log Form C

I. Introduction

With the successful completion of the Regional Transportation Mitigation Fee (RTMF) Nexus Study and the adoption of enabling ordinances, issues relating to implementation of the RTMF program need to be addressed. With a program of this nature involving coordination with multiple local jurisdictions, and adherence to local ballot Measure requirements and restrictive State legislation, it is necessary to establish administrative guidelines.

Administrative procedures and policies will guide participating jurisdictions with various aspects of the RTMF program implementation and will ensure that the program is carried out consistently in all jurisdictions. This Administrative Manual will provide step by step guidance for administering the program, including the fee structure, procedures for collecting the fee, worksheets for calculating the appropriate fee amount, procedures for exemptions and refunds, and procedures for reporting fee collections.

II. Explanation of Program

The RTMF is an important part of the Measure "C" Extension approved by Fresno County voters in 2006. The RTMF is intended to ensure that future development contributes its fair share towards the cost of infrastructure to mitigate the cumulative, indirect regional transportation impacts of new growth in a manner consistent with the provisions of the State of California Mitigation Fee Act.

The purpose of the RTMF is to establish a uniform, cooperative program to mitigate the regional traffic impacts of future developments on high-priority state roadways in Fresno County. The fees will help fund improvements needed to maintain the target level of service in the face of the higher traffic volumes brought on by new developments.

Each jurisdiction is responsible for adoption of a local enabling ordinance, and calculation and collection of fees within their jurisdiction. Local jurisdictions are also responsible for transmitting all fees collected to Fresno County Transportation Authority (FCTA) within 90 days of payment, and for preparation and submittal of required reports as detailed in Chapter VIII. A copy of the RTMF Model Ordinance detailing specific provision of the RTMF program is included in Appendix 1.

III. Development Fee Structure

The RTMF Nexus Study report describes the methodology and results of the study undertaken to develop a Regional Transportation Mitigation Fee (RTMF) for the local governments of Fresno County. The RTMF is an important component of the Measure "C" Extension that was approved by Fresno County voters in 2006, and the Nexus Study was carried out to fulfill a specific provision of the Measure.

The Nexus Study was based on the conventional approach of comparing traffic level-of-service with and without the addition of traffic from expected new development to identify where capacity improvements are needed to maintain the target level-of-service. The methodology used in the study is described in Chapters 2 through 7 of the Nexus Study report.

Over the year-long course of the study numerous policy issues were raised and analyzed. Input was sought and received at more than a dozen public meetings and through web-based correspondence. Based on this input and guidance in Measure "C" ballot language the FCOG and FCTA Boards ultimately approved a plan that:

- Limits the use of RTMF funds to projects for state facilities identified on the Regional Transportation Funding Tier 1 list or in the Freeway Interchange Deficiency Study (FIDS).
- Exempts projects for the development of educational or governmental facilities from paying the fee, and reduces the fee for affordable housing to half of the fee for market-rate housing. Retail developments are to be given a reduction for pass-by trips that are incidental to longer trips that would have occurred anyway.
- Phases in the fee over a three-year period, with reduced fees in 2009 and 2010, and the full fee to take effect in 2011.
- Is expected to generate approximately \$213 million over a 20-year period; enough to fund approximately 20% of the overall costs of the Tier 1 and FIDS programs.

There will be 4 different fee categories for residential developments and 7 categories for non-residential developments. The fees adopted by the FCOG and FCTA Boards in October 2008 were as follows:

Land Use Category	2009	2010	2011 and thereafter
Residential Developments (\$/dwelling unit)			
Single-Family Dwelling (market-rate)	\$1,200	\$1,450	\$1,727
Single-Family Dwelling (affordable)	\$600	\$725	\$863
Multi-Family Dwelling (market-rate)	\$843	\$1,018	\$1,212
Multi-Family Dwelling (affordable)	\$421	\$509	\$606
Non-Residential Developments (\$/sq.ft.)			
Commercial/Retail	\$1.36	\$1.65	\$1.96
Commercial/Office/Service	\$0.85	\$1.03	\$1.23
Education	Exempt	Exempt	Exempt
Government	Exempt	Exempt	Exempt
Light Industrial	\$0.34	\$0.41	\$0.49
Heavy Industrial	\$0.07	\$0.09	\$0.10
Other Non-Residential	\$0.29	\$0.35	\$0.42

For the purpose of calculating the RTMF obligation, residential dwelling units are defined as a building or portion thereof used by one (1) family and containing at least one (1) kitchen, which is designed primarily for residential occupancy. Residential dwelling units may include, but are not limited to, detached houses, apartment homes, condominiums and mobile homes. Residential dwelling units do not include hotel and motel rooms, dormitories, medical care facilities and correctional institutions which are considered to be non-residential developments.

Non-residential development is defined as commercial/retail, commercial/office/service, education, government, light industrial, heavy industrial and other non-residential developments which are designed primarily for use as a business and is not intended for residential occupancy or dwelling use. The applicable non-residential land use category for a non-residential development is determined based on the predominate use of the building or structure associated with the new development and may be related to the underlying land use zoning of the new development site. The RTMF non-residential land use categories were defined with reference to the North American Industry Classification System (NAICS) for the purpose of determining the respective fee rates.

Appendix 2 in Section XI provides a list of non-residential use types based on the NAICS developed by the United States Census Bureau. Each NAICS use type has been assigned to an appropriately corresponding RTMF non-residential use category. The NAICS cross reference with RTMF

non-residential use categories is to be used to determine which category a particular development type falls into.

Within these categories there are several types of developments that have been explicitly defined for the purpose of supplemental fee calculation (herein referred to as 'defined use') these defined uses have unique characteristics such that their trip generation is not necessarily proportionate to the number or size of buildings on the site. For these defined uses, the standard RTMF calculation methodology does not assign a fair share of the fee obligation to the development. The supplemental fee calculation methodology for these defined uses are explained in Section V and specific fee calculation are included in Appendix 8. Defined use types are Residential – Mobile Home Parks and Non-Residential – Fuel Filling Stations, Vehicle Dealerships, Group Quarters, Congregate Care Facilities and Nursing Homes, Mini-Warehouses and Rental Storage, Golf Courses, Wholesale Nurseries, and Retail Nurseries / Garden Centers. Determination of the precise floor area for each defined use will be explained in Section V.

IV. Exemptions and Waivers

Developments of educational facilities and government facilities shall be exempt from paying the RTMF.

An "education development" means any development project that is predominately dedicated to conducting regular academic instruction at preschool, kindergarten, elementary, secondary, and collegiate levels and including graduate schools, universities, non-profit research institutions and religious institutions. This definition applies only to public or non-profit institutions and does not include schools, academies or institutes, incorporated or otherwise which operate for profit, nor does it include commercial or trade schools.

"Government development" is defined as any development project that is predominately dedicated to provision of administrative, clerical, law enforcement, public safety, taxation and governance services by public institutions with legislative, executive or judicial authority.

V. Fee Calculation

RTMF fees will be assessed according to the Master Fee Schedule presented previously in Section I. Fee Calculation Worksheets (referred to as Forms A, B and B.1-B.7) have been developed for the jurisdictions to use in determining the amount of the RTMF to be assessed. Each jurisdiction will complete the appropriate forms for each development and assign each form an Application number consisting of the three letter City Code found in Appendix 5 along with a unique 6 digit code consisting of the two digit year followed by a unique 4 digit number. This code along with the applicant name and total fee will be transferred to the Master Fee Collection Log (referred to as Form C).

1. Residential developments are divided into four categories; single-family market rate, single-family affordable, multi-family market rate and multi-family affordable. Residential developments have a flat cost per unit.

Residential RTMF obligations are calculated by multiplying the net increase in the total number of dwelling units associated with a new development by the appropriate residential land use category fee rate using Form A.

A. Mobile Homes are the only Residential Defined Use that has been identified for the supplemental RTMF calculations. Mobile homes to be located in mobile home parks will be considered as multi-family dwelling units with the RTMF obligation calculated using Form A for standard residential fee calculations. Notice of the fee obligation will be provided to the mobile home park developer at the time of issuance of the "Mobile Home Park Permit" or equivalent building permit for the installation of site infrastructure including, but not limited to, permanent foundations, and electrical, water and sewer receptacles. The RTMF will be required to be paid in full by the mobile home park developer at the time of final inspection by the appropriate local jurisdiction to authorize utilization of the site for lease to a mobile home owner (which is considered the equivalent to the issuance of a certificate of occupancy).

Mobile homes to be located on individual lots will be considered single-family dwelling units with the RTMF obligation calculated using Form A for standard residential fee calculations.

2. Non-residential developments have seven categories. Two of the seven categories, education and government, are exempt from paying the fee. The remaining five categories, commercial/retail, commercial/office/service, light industrial, heavy industrial, and other non-residential are assessed the RTMF fee. Non-residential developments have a per square foot cost.

Non-residential RTMF obligations are calculated by multiplying the net increase in the gross floor area of the buildings or structures associated with a new development by the appropriate non-residential land use category fee rate using Form B. The gross floor area of non-residential developments is defined as the sum, measured in square feet, of the area at each floor level, including cellars, basements, mezzanines, penthouses, corridors, lobbies, stores, and offices, that are included within the principal outside faces of the exterior wall of the building or structure, not including architectural setbacks or projections. Included are all stories or areas that have floor surfaces with clear standing head room (at least 6 feet, 6 inches) regardless of their use. Where a ground level area, or part thereof, within the principal outside faces of the exterior walls of the building or structure is left un-roofed, the gross floor area of the un-roofed portion will be added to the overall square footage of the building for the purpose of the non-residential fee calculation unless the unroofed area is solely provided for architectural or aesthetic purposes.

Appendix 2 provides a list of non-residential use types based on the North American Industrial Classification System (NAICS) developed by the United States Census Bureau. Each NAICS use type has been assigned to an appropriately corresponding RTMF non residential use category. The NAICS cross reference with RTMF non-residential use categories is to be used to determine which category a particular development type falls into.

Eight Non-Residential Developments have a Defined Use for supplemental fee calculation. Each of them is described below with the details on proper calculation of the RTMF. A summary table of all Defined Use Types can be found in Appendix 4.

A. All types of fuel filling stations or facilities with fuel filling positions will be considered commercial/retail use types. The methodology outline in Form B.1 and described as follows will be applied to determine the gross floor area for calculating the RTMF obligation for all types of fuel filling stations or facilities with fuel filling positions (*for the example*

calculation assume a fuel filling station with 12 fuel filling positions and a building area of 1,250 square feet). The total number of fuel filling positions is equal to the maximum number of vehicles that could be supplied with fuel at the same time.

1. Multiply the total number of fuel filling positions by 1,885.5 square feet (i.e. for the example station it is $12 \times 1,885.5 = 22,626$ square feet).
2. Determine the total floor area of buildings on the site noting that the canopy area is not included as part of the gross floor area of the buildings on the site (i.e. for the example station it is 1,250 square feet).
3. Compare the results for steps 1 and 2, and use the greater of the two values as the gross floor area to calculate the RTMF obligation using Form B for standard non-residential fee calculations. (i.e. $22,626 > 1,250$; for the example station RTMF would be calculated for 22,626 square feet).

B. All vehicle dealerships are considered to be commercial/retail use types. RTMF obligation for Vehicle Dealerships will be calculated based on the gross floor area of all buildings associated with the dealership, including all vehicle sales, parts sales, service areas, administrative offices and waiting areas, using Form B for standard non-residential fee calculations.

C. Group quarters include, but are not limited to, correctional facilities, nursing homes, mental hospitals, college dormitories, military barracks, group homes, missions and shelters. Group quarters typically provide a group of rooms with shared living quarters for unrelated persons. Occupants of group quarters live and eat together with other persons in the building sharing at a minimum communal kitchen, dining and living facilities.

All group quarters will be considered non-residential commercial/office/service use types. The RTMF obligation for group quarters will be calculated using Form B for standard non-residential fee calculations.

C.1 Congregate care facilities (including senior assisted living facilities) and nursing homes are specific types of group quarters whose primary function is to provide care for elderly persons or other persons who are unable to adequately care for themselves due to advanced age or health reasons (such as chronic health care or convalescent care facilities). According to the Trip Generation 7th Edition (Institute of Traffic Engineers, 2003) vehicle ownership by residents of these types of

facilities is very low and residents do little or no driving due to their mobility limited condition. Traffic generation at these facilities is primarily limited to employees, visitors, and deliveries. By contrast, trip generation at other types of group quarters such as dormitories, barracks, and group homes is higher due to the increased mobility of residents. For this reason, it is considered appropriate to adjust the RTMF calculation methodology specifically for congregate care, nursing home and assisted living facilities.

The methodology outlined in Form B.2 and described as follows will be applied to determine the gross floor area for those group quarters specifically used only for congregate care (including assisted living) and/or nursing homes.

1. Multiply the total number of beds by 134.9 square feet (i.e. for 120 beds it is $120 \times 134.9 = 16,188$ square feet).
2. Use the resultant value as the gross floor area to calculate the RTMF obligation using Form B for standard non-residential fee calculations.

D. All types of mini-warehouses or facilities providing rental storage (including outdoor rental storage areas) will be considered industrial use types. The methodology outlined in Form B.3 and described as follows will be applied to determine the gross floor area for all types of mini-warehouses rental storage facilities.

1. Multiply the total site area in acres by 6,521.8 square feet (i.e. for the example facility it is $3.3 \times 6,521.8 = 21,521$ square feet).
2. Use the resultant value as the gross floor area to calculate the RTMF obligation using Form B for standard non-residential fee calculations.

For the purpose of determining the RTMF obligation, a residence that is located entirely within a mini-warehouse or rental storage site and is used exclusively by an on-site caretaker and his/her immediate family is considered to be integral to the primary industrial use of the site and therefore is not subject to any additional RTMF obligation over the amount calculated in accordance with the methodology outlined above.

E. All public and private golf courses are considered to be service use types. The methodology outlined in Form B.4 and described as follows will be applied to determine the gross floor area for the purpose of calculating the fee obligation for all public and private golf courses

(for the example calculation assume a golf course with 18 holes and including buildings covering an area of 20,000 square feet).

1. Multiply the total number of holes by 2,034.1 square feet (i.e. for the example golf course it is $18 \times 2,034.1 = 36,614$ square feet).
2. Determine the total floor area of buildings on the site (i.e. for the example course it is 20,000 square feet).
3. Compare the results for steps 1 and 2, and use the greater of the two values as the gross floor area to calculate the RTMF obligation using Form B for standard non-residential fee calculations. (i.e. $36,614 > 20,000$; for the example golf course RTMF would be calculated for 36,614 square feet).

F. All wholesale nurseries will be considered industrial use types. The methodology outlined in Form B.5 and described as follows will be applied to determine the gross floor area for all wholesale nurseries (for the example calculation assume a wholesale nursery with a total site area of 24.2 acres and including buildings with a gross floor area of 2,750 square feet).

1. Multiply the total site area in acres by 437.2 square feet (i.e. for the example facility it is $24.2 \times 437.2 = 10,580$ square feet).
2. Determine the total floor area of buildings on the site (i.e. for the example facility it is 2,750 square feet).
3. Compare the results for steps 1 and 2, and use the greater of the two values as the gross floor area to calculate the RTMF obligation using Form B for standard non-residential fee calculations. (i.e. $10,580 > 2,750$; for the example wholesale nursery RTMF would be calculated for 10,580 square feet).

G. All retail nurseries (also referred to as "Garden Centers") will be considered commercial/retail use types. The methodology outlined in Form B.6 and described as follows will be applied to determine the gross floor area for all retail nurseries (for the example calculation assume a retail nursery with a total site area of 2.5 acres and including buildings with a gross floor area of 9,650 square feet).

1. Multiply the total site area in acres by 1,114.4 square feet (i.e. for the example facility it is $2.5 \times 1,114.4 = 2,786$ square feet).
2. Determine the total floor area of buildings on the site (i.e. for the example facility it is 9,650 square feet).
3. Compare the results for steps 1 and 2, and use the greater of the two values as the gross floor area to calculate the RTMF obligation

using Form B for standard non-residential fee calculations. (i.e. 9,650 > 2,786; for the example retail nursery RTMF would be calculated for 9,650 square feet).

This methodology applies only to retail nurseries and garden centers that are free-standing businesses. Where the selling of garden and landscaping supplies (including plants) is an integral component of a more extensive retail store, the RTMF obligation will be determined based exclusively on the gross building area of the primary business of the site.

H. All types of high-cube warehouses or distribution centers will be considered industrial use types. The methodology outlined in Form B.7 and described as follows will be applied to determine the equivalent floor area for high-cube warehouses/distribution centers with a minimum gross floor area of 200,000 square feet, a minimum ceiling height of 24 feet and a minimum dock-high door loading ratio of 1 door per 10,000 square feet (for the example calculation assume a high-cube warehouse with a gross floor area of 450,000 square feet, a ceiling height exceeding 24 feet and a dock-high door loading ratio exceeding 1:10,000).

1. Subtract 200,000 square feet from the total gross floor area (i.e. for the example facility it is 450,000 – 200,000 = 250,000 square feet).
2. Multiply the resultant value from step 1 which is total gross floor area in excess of 200,000 square feet by 0.24 (i.e. for the example facility it is 250,000 x 0.24 = 60,000 square feet).
3. Add 200,000 square feet to the resultant value of step 2 (i.e. for the example facility it is 200,000 + 60,000 = 260,000 square feet).
4. Use the resultant value of step 3 as the gross floor area to calculate the RTMF obligation using Form B for standard non-residential fee calculations.

The RTMF obligation for a warehouse facility with a gross floor area of less than 200,000 square feet, a ceiling height of less than 24 feet and/or a dock-high door loading ratio of less than 1 door per 10,000 square feet will be calculated based on the actual gross floor area using Form B for standard non-residential fee calculations.

Furthermore, where other uses such as wholesale showrooms, retail showrooms or office suites are co-located with qualifying high-cube warehouse facilities, only the qualifying warehouse portion of the premises will be calculated using Form B.7. The fee obligation for all

other co-located facilities will be calculated based on the actual gross floor area and the appropriate land use category using Form B for standard non-residential fee calculations.

3. The Fee Calculation Worksheet, Form A or Form B, (Appendix 5 & 6) shall be used by local jurisdictions to determine the fee amount due from the developer. For any development that has a defined use, the corresponding Defined Use Worksheet (Form B.1 –B.7, Appendix 7) will also be completed to determine the correct figures to be used on Form B.

The RTMF can be calculated at the time a building permit or development application is filed with the respective local jurisdiction using the most recent fee schedule in effect at the time. However, the fee obligation to the RTMF program will be based on the fees in effect at the time of full payment which can occur up until the fees are due at issuance of a certificate of occupancy or final inspection.

VI. Fee Collection Procedures

Once the development fee has been calculated as described in Section V, the jurisdiction is responsible for the collection of the determined fee from the developer. Since the RTMF is intended to mitigate the traffic impacts of new development, and the traffic impacts of a development are not realized until the development is occupied, the fees shall be due and fully collected by the time a certificate of occupancy is issued for the Development Project or upon final inspection, whichever come first. However, as described in Section V, fees can be calculated at the time a building permit application or development application is filed with the local jurisdiction providing sufficient information to determine the number of residential units or square footage of non-residential developments, and the fees can be paid at any time prior to issuance of an occupancy permit or final inspection.

The fee obligation shall be calculated based on the fee in effect at that time fees are paid, provided the developer tenders the full amount of the RTMF obligation. For the ease of record keeping, it is recommended that the fee be collected in full at the time it is due. Should any partial payments or deposits be accepted, they will be deducted from the total amount due but the fee obligation. The fee will be based on the Master Fee Schedule in place at the time the fee is paid in full.

There is no right under the RTMF to pay fees prior to application for building permit or development permit. Acceptance of payment of the RTMF prior to application for building permit or development permit does not create any vesting rights against any increase in the RTMF or adoption of any new fees.

Once the fee has been collected, RTMF payment transaction information should be transferred to a Master Fee Collection Log, Form C. A copy of the log can be found in Appendix 9.

Each jurisdiction may collect an administrative processing fee at the time the RTMF is collected. This fee is to help offset the cost of administering the program. This fee may not exceed the actual cost to administer the program.

VII. Credits and Reimbursements

In a few instances, a credit toward the payment of the RTMF may be given for improvements that are made to eligible projects included as part of the RTMF program and identified in the Nexus Study as follows:

- i Exaction Credits: If a developer constructs improvements identified on an eligible facility as a condition of development approval to mitigate a direct impact of the development, the developer shall receive credit for actual costs associated with the improvement based on the estimated cost share attributable to new development as identified in the RTMF Nexus Study. FCTA staff must pre-approve any credit agreements that deviate from the standard FCTA approved format.
- ii Other Credits: In special circumstances, when a developer constructs off-site improvements such as an interchange, bridge, or railroad grade separation, credits shall be determined by FCTA and the local jurisdiction in consultation with the developer. All such credits must have prior written approval from FCTA.

The amount of the development fee credit shall not exceed the maximum amount determined by the most current estimated cost share attributable to new development as detailed in the RTMF Nexus Study or actual costs, whichever is less.

Should the developer construct network improvements in excess of the RTMF fee obligation, the developer shall be reimbursed based on eligible and reasonable actual costs. Reimbursements shall be enacted through a three party agreement including the developer, FCTA, and the local jurisdiction, contingent on funds being available. In all cases, however, reimbursements under such special agreements must coincide with construction of the transportation improvements as scheduled in the most current Measure "C" Implementation Plan adopted by FCTA.

VIII. Reporting Responsibilities

Each jurisdiction is responsible for transfer of funds and documentation including the Fee Calculation Worksheet, Form A and/or Form B along with Forms B.1 – B.7 for any Defined Use Types of development, and the Master Fee Collection Log, Form C, to FCTA every 90 days. Since the program is set to begin collection of funds in July 1, 2009, the first transmission will be due to the Transportation Commission on October 1, 2009, and every quarter there after (January 1, April 1, July 1 and October 1).

It is the Transportation Commission's responsibility to deposit all funds received in an account that has been established strictly for the RTMF funds. The Transportation Commission will complete the Master Fee Collection Log listing the total amount collected from each City, the total deposit amount and the date the deposit was made. Further, it is the Transportation Commission's responsibility to provide regular reports and updates on the status of fees collected to the jurisdictions at the regularly scheduled Commission meetings.

The funds in the RTMF account shall only be used for funding design, acquisition and construction of the eligible improvements identified on the approved project list included as part of the most recently adopted RTMF Nexus Study.

IX. Fee Adjustment / Review

The RTMF will be adjusted annually to account for inflation and other changes in the program. Any changes to the fee must be made by Amendment to the Master Fee Schedule consistent with the requirements of the State of California Mitigation Fee Act.

The fees may be increased or decreased to reflect changes in actual and estimated costs of the eligible projects, including, but not limited to, design, right-of-way and construction costs. The annual adjustment of the fees may also reflect minor changes in the eligible facilities required to be constructed based on conditions encountered during project development, but shall not include major modifications to eligible projects or additions of new projects. Major changes to eligible projects must coincide with updates of the Nexus Study to ensure the changes are consistent with the requirements of the State of California Mitigation Fee Act.

Any appeals must be filed with the Transportation Commission. Appealable issues shall be the application of the fee, application of credits, application of reimbursements, and application of exemption. Appeals may also be made that the fee level for development of unique types of land uses be evaluated on an individual basis. Such unique projects and specific evaluation shall be paid for by the project applicant and performed by the FCTA of its designee.

X. Appendices

Appendix 1 Model Ordinance

Appendix 2 Development Types / Fee Categories

Appendix 3 RTMF Fee Chart

Appendix 4 Defined Use Types

Appendix 5 City Codes

Appendix 6 Fee Calculation Worksheet Form A

Appendix 7 Fee Calculation Worksheet Form B

Appendix 8 Defined Use Types Forms B.1 - B.7

Appendix 9 Master Fee Collection Log Form C

Appendix 1

RTMF Model Ordinance

Insert model ordinance

Appendix 2

Development Types / Fee Categories

RTMF Non-Residential Category Correspondence Summary

RTMF Categories	NAICS Major Groups	NAICS Codes and Descriptions
Commercial / Retail	44-45 Retail Trade	441 Motor Vehicle and Parts Dealers
		442 Furniture and Home Furnishing Stores
		443 Electronics and Appliance Stores
		444 Building Material and Garden Equipment and Supplies Dealers
		445 Food and Beverage Stores
		446 Health and Personal Care Stores
		447 Gasoline Stations
		448 Clothing and Clothing Accessories Stores
		451 Sporting Goods, Hobby, Book, and Music Stores
		452 General Merchandise Stores
		453 Miscellaneous Store Retailers
		454 Nonstore Retailers
		72 Accommodation and Food Service
		722 Food Services and Drinking Places
Commercial / Office - Service	52 Finance and Insurance	521 Monetary Authorities-Central Bank
		522 Credit Intermediation and Related Activities
		523 Securities, Commodity Contracts, and Other Financial Investments and Related Activities
		524 Insurance Carriers and Related Activities
		525 Funds, Trusts, and Other Financial Vehicles
	53 Real Estate and Rental and Leasing	531 Real Estate
		532 Rental and Leasing Services
		533 Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)
	54 Professional, Scientific, and Technical Services	541 Professional, Scientific, and Technical Services
	55 Management of Companies and Enterprises	551 Management of Companies and Enterprises
	56 Administrative and Support and Waste Management and Remediation Services	561 Administrative and Support Services
		562 Waste Management and Remediation Services
	62 Health Care and Social Services	
		621 Ambulatory Health Care Services
		622 Hospitals
		623 Nursing and Residential Care Facilities
	71 Arts, Entertainment and Recreation	624 Social Assistance
		711 Performing Arts, Spectator Sports, and Related Industries
		712 Museums, Historical Sites, and Similar Institutions
		713 Amusement, Gambling, and Recreation Industries
	81 Other Services (Except Public Administration)	811 Repair and Maintenance
		812 Personal and Laundry Services
		813 Religious, Grantmaking, Civic, Professional, and Similar Organizations
		814 Private Households
Education	61 Educational Services	611 Educational Services
Government	92 Public Administration	921 Executive, Legislative, and Other General Government Support
		922 Justice, Public Order, and Safety Activities
		923 Administration of Human Resource Programs
		924 Administration of Environmental Quality Programs
		925 Administration of Housing Programs, Urban Planning, and Community Development
		926 Administration of Economic Programs
		927 Space Research and Technology
		928 National Security and International Affairs
Light Industrial	42 Wholesale Trade	423 Merchant Wholesalers, Durable Goods
		424 Merchant Wholesalers, Nondurable Goods
		425 Merchant Wholesalers, Nondurable Goods
	51 Information	511 Publishing Industries (except Internet)
		512 Motion Picture and Sound Recording Industries
		515 Broadcasting (except Internet)
		517 Telecommunications
		518 Data Processing, Hosting, and Related Services
		519 Other Information Services

Heavy Industrial	11 Agriculture, Forestry, Fishing and Hunting	111 Crop Production
		112 Animal Production
		113 Forestry and Logging
		114 Fishing, Hunting and Trapping
		115 Support Activities for Agriculture and Forestry
	21 Mining, Quarrying and Oil and Gas Extraction	211 Oil and Gas Extraction
		212 Mining (except Oil and Gas)
		213 Support Activities for Mining
	23 Construction	236 Construction of Buildings
		237 Heavy and Civil Engineering Construction
		238 Specialty Trade Contractors
	31-33 Manufacturing	311 Food Manufacturing
		312 Beverage and Tobacco Product Manufacturing
		313 Textile Mills
		314 Textile Product Mills
		315 Apparel Manufacturing
		316 Leather and Allied Product Manufacturing
		321 Wood Product Manufacturing
		322 Paper Manufacturing
		323 Printing and Related Support Activities
		324 Petroleum and Coal Products Manufacturing
		325 Chemical Manufacturing
		326 Plastics and Rubber Products Manufacturing
		327 Nonmetallic Mineral Product Manufacturing
		331 Primary Metal Manufacturing
		332 Fabricated Metal Product Manufacturing
		333 Machinery Manufacturing
		334 Computer and Electronic Product Manufacturing
		335 Electrical Equipment, Appliance, and Component Manufacturing
		336 Transportation Equipment Manufacturing
		337 Furniture and Related Product Manufacturing
		339 Miscellaneous Manufacturing
	48-49 Transportation and Warehousing	481 Air Transportation
		482 Rail Transportation
		483 Water Transportation
		484 Truck Transportation
		485 Transit and Ground Passenger Transportation
		486 Pipeline Transportation
		487 Scenic and Sightseeing Transportation
		488 Support Activities for Transportation
		491 Postal Service
		492 Couriers and Messengers
		493 Warehousing and Storage
Other Non-Residential	22 Utilities	221 Utilities

Sources: NAICS 2007 definitions

Appendix 3

RTMF Fee Chart

RTMF Fee Chart

Land Use Category	2009	2010	2011 and thereafter
Residential Developments (\$/dwelling unit)			
Single-Family Dwelling (market-rate)	\$1,200	\$1,450	\$1,727
Single-Family Dwelling (affordable)	\$600	\$725	\$863
Multi-Family Dwelling (market-rate)	\$843	\$1,018	\$1,212
Multi-Family Dwelling (affordable)	\$421	\$509	\$606
Non-Residential Developments (\$/sq.ft.)			
Commercial/Retail	\$1.36	\$1.65	\$1.96
Commercial/Office/Service	\$0.85	\$1.03	\$1.23
Education	Exempt	Exempt	Exempt
Government	Exempt	Exempt	Exempt
Light Industrial	\$0.34	\$0.41	\$0.49
Heavy Industrial	\$0.07	\$0.09	\$0.10
Other Non-Residential	\$0.29	\$0.35	\$0.42

Appendix 4

Defined Use Types

Defined Use Types		
	DEFINED USE	CALCULATION METHODOLOGY
	<i>Residential</i>	Standard residential fee calculation is the net increase in the total number of dwelling units multiplied by the appropriate residential land use category fee rate using Form A .
	Mobile Home Parks	Mobile homes to be located in mobile home parks will be calculated as multi-family dwelling units and mobile homes to be located on individual lots will be calculated as single-family dwelling units using Form A for standard residential fee calculations.
	<i>Non-Residential</i>	Standard non-residential fee calculation is the net increase in the gross floor area of buildings multiplied by the appropriate non-residential land use category fee rate using FORM B .
	Fuel Filling Stations	For all types of fuel filling stations or facilities with fuel filling positions, the gross floor area will be calculated using Form B.1 and the resultant value will be entered as the <i>Total Gross Floor Area for Retail Buildings</i> in Form B for standard non-residential fee calculations.
	Vehicle Dealerships	Vehicle Dealerships will be calculated based on the gross floor area of all buildings and structures associated with the dealership using Form B for standard non-residential fee calculations.
	Group Quarters	All types of group quarters will be calculated as service uses using Form B for standard non-residential fee calculations.
	Congregate Care Facilities and Nursing Homes	For all group quarters specifically used for congregate care (including assisted living facilities) and/or nursing homes, the gross floor area will be calculated using Form B.2 and the resultant value will be entered as the <i>Total Gross Floor Area for Service Buildings</i> in Form B for standard non-residential fee calculations.
	Mini-Warehouses and Rental Storage	Mini-Warehouses and Rental Storage (including outdoor rental storage areas) will be calculated using Form B.3 and the resultant value will be entered as the <i>Total Gross Floor Area for Industrial Buildings</i> in Form B for standard non-residential fee calculations.
	Golf Courses	Golf Courses will be calculated using Form B.4 and the resultant value will be entered as the <i>Total Gross Floor Area for Service Buildings</i> in Form B for standard non-residential fee calculations.
	Wholesale Nurseries	Wholesale Nurseries will be calculated using Form B.5 and the resultant value will be entered as the <i>Total Gross Floor Area for Industrial Buildings</i> in Form B for standard non-residential fee calculations.
	Retail Nurseries (Garden Centers)	Retail Nurseries will be calculated using Form B.6 and the resultant value will be entered as the <i>Total Gross Floor Area for Retail Buildings</i> in Form B for standard non-residential fee calculations.
	High-Cube Warehouse/Distribution Center	High-Cube Warehouses/Distribution Centers with a minimum gross floor area of 200,000 square feet, a minimum ceiling height of 24 feet and a minimum dock-high door loading ratio of 1 door per 10,000 square feet will be calculated using Form B.7 and the resultant value will be entered as the <i>Total Gross Floor Area for Industrial Buildings</i> in Form B for standard non-residential fee calculations.

Appendix 5

City Codes

Fresno County City Codes

The following three letter codes are to be used before a unique four digit number on all RTMF Forms A and B.

Clovis	clo
Firebaugh	fir
Fowler	fow
Fresno	fre
Huron	hur
Kerman	ker
Kingsburg	kin
Mendota	men
Orange Cove	ora
Parlier	par
Reedley	ree
San Joaquin	joa
Sanger	san
Selma	sel

Appendix 6

Fee Calculation Worksheet - Residential Form A

Form A Residential RTMF Calculation Worksheet

1.	Enter Total Number of Market-Rate Single-Family Dwelling Units	X	Enter RTMF Market- Rate Single-Family Rate Per Dwelling Unit	=		Total A				
2.	Enter Total Number of Affordable Single- Family Dwelling Units	X	Enter RTMF Affordable Single- Family Rate Per Dwelling Unit	=		Total B				
3.	Enter Total Number of Market-Rate Multi-Family	X	Enter RTMF Market- Rate Multi-Family Rate Per Dwelling	=		Total C				
4.	Enter Total Number of Affordable Multi- Family Dwelling	X	Enter RTMF Affordable Multi- Family Rate Per	=		Total D				
5.		+		+		+		=	\$	RTMF Obligation
	Enter Total A		Enter Total B		Enter Total C		Enter Total D			

Application # _____

Appendix 7

Fee Calculation Worksheet –Non-Residential Form B

1.	Enter Total Gross Floor Area of Retail Buildings (in square feet)	X	Enter RTMF Retail Rate Per Square Foot	=		Total A										
2.	Enter Total Gross Floor Area of Office/Service Buildings (in square feet)	X	Enter RTMF Office/Service Rate Per Square Foot	=		Total B										
3.	Enter Total Gross Floor Area of Light Industrial Buildings (in square feet)	X	Enter RTMF Light Industrial Rate Per Square Foot	=		Total C										
4.	Enter Total Gross Floor Area of Heavy Industrial Buildings (in square feet)	X	Enter RTMF Heavy Industrial Rate Per Square Foot	=		Total D										
5.	Enter Total Gross Floor Area of Other Non-Residential Buildings (in square feet)	X	Enter RTMF Other Non-Residential Rate Per Square Foot	=		Total E										
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; text-align: center;"> Enter Total A </td> <td style="width: 5%; text-align: center;">+</td> <td style="width: 15%; text-align: center;"> Enter Total B </td> <td style="width: 5%; text-align: center;">+</td> <td style="width: 15%; text-align: center;"> Enter Total C </td> <td style="width: 5%; text-align: center;">+</td> <td style="width: 15%; text-align: center;"> Enter Total D </td> <td style="width: 5%; text-align: center;">+</td> <td style="width: 15%; text-align: center;"> Enter Total E </td> <td style="width: 5%; text-align: center;">=</td> </tr> </table>							Enter Total A	+	Enter Total B	+	Enter Total C	+	Enter Total D	+	Enter Total E	=
Enter Total A	+	Enter Total B	+	Enter Total C	+	Enter Total D	+	Enter Total E	=							
\$ RTMF Obligation																

Application # _____

Appendix 8

Defined Use Types Forms B.1 – B.7

Form B.1 Fuel Filling Station RTMF Calculation Worksheet

1.	Enter Total Number of Fuel Filling Positions	X 1,885.5 =		← Total A
2.				← Total B
3.				Enter this value as (part of) the <u>Total Gross Floor Area of Retail Buildings</u> in Form B
				←
	Enter the greater of Total A and Total B			

Application # _____

Form B.2 Congregate Care/Nursing Home RTMF Calculation Worksheet

Enter Total Number of Beds	X 134.9 =	Enter this value as (part of) the <u>Total Gross Floor Area of Service Buildings</u> in Form B
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Application # _____

Form B.3 Mini-Warehouse/Rental Storage RTMF Calculation Worksheet

Enter Total Site Area in Acres	X 6,521.8 =	Enter this value as (part of) the <u>Total</u> <u>Gross Floor Area of Industrial Buildings</u> in Form B
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Application # _____

Form B.4 Golf Course RTMF Calculation Worksheet

1.	Enter Total Number of Holes	X 2,034.1 =	← Total A
2.			← Total B Enter Total Gross Floor Area of Buildings (in square feet)
3.	Enter the greater of Total A and Total B	← Enter this value as (part of) the <u>Total Gross Floor Area of Service Buildings</u> in Form B	

Application # _____

Form B.5 Wholesale Nursery RTMF Calculation Worksheet

1.	Enter Total Site Area in Acres	X 437.2 =		← Total A
2.				← Total B
			Enter Total Gross Floor Area of Buildings (in square feet)	
3.		Enter this value as (part of) the <u>Total Gross Floor Area of Industrial Buildings</u> in Form B		
	Enter the greater of Total A and Total B			

Application # _____

Form B.6 Retail Nursery RTMF Calculation Worksheet

1.	Enter Total Site Area in Acres	X 1,114.4 =	Total A
2.			Total B Enter Total Gross Floor Area of Buildings (in square feet)
3.	Enter the greater of Total A and Total B	Enter this value as (part of) the <u>Total Gross Floor Area of Retail Buildings</u> in Form B	

Application # _____

High-Cube Warehouse/Distribution Center RTMF Calculation Worksheet

	- 200,000 =		← Total A
Enter Gross Floor Area of Qualifying Building(s)			
	X 0.24 =		← Total B
Enter <u>Total A</u>			
	+ 200,000 =		
Enter <u>Total B</u>		Enter this value as (part of) the <u>Total Gross Floor Area of Industrial Buildings</u> in Form B	

Application # _____

Appendix 9

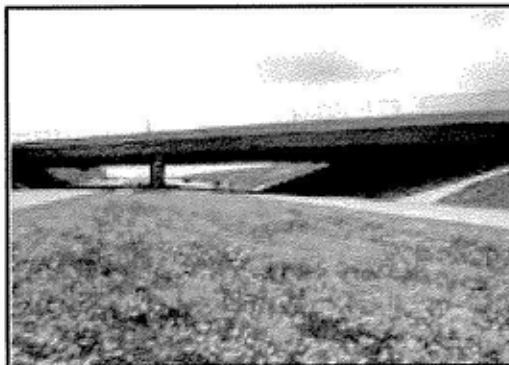
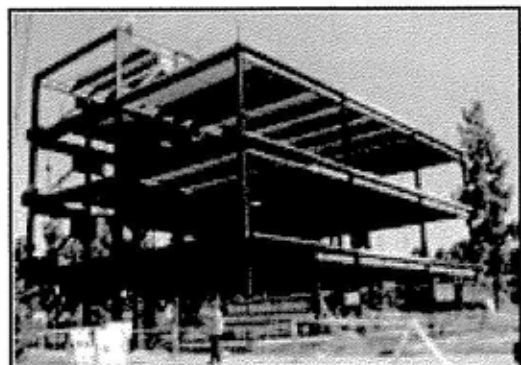
Master Fee Collection Log Form C

Submitted by: _____

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Date Submitted _____ Total Amount Submitted _____

Fresno Regional Traffic Mitigation Fee Draft Nexus Study Report



Submitted to:



Submitted by: Parsons Brinckerhoff

February 2009

EXECUTIVE SUMMARY

This report describes the methodology and results of a study undertaken to develop a Regional Transportation Mitigation Fee (RTMF) for the local governments of Fresno County. The RTMF is an important component of the Measure "C" Extension that was approved by Fresno County voters in 2006, and this study was carried out to fulfill a specific provision of the Measure.

The study was based on the conventional approach of comparing traffic level-of-service with and without the addition of traffic from expected new development to identify where capacity improvements are needed to maintain the target level-of-service. The methodology used in the study is described in Chapters 2 through 7.

Over the year-long course of the study numerous policy issues were raised and analyzed. Input was sought and received at more than a dozen public meetings and through web-based correspondence. Based on this input and guidance in Measure "C" ballot language the FCOG and FCTA Boards ultimately approved a plan that:

- Limits the use of RTMF funds to projects for state facilities identified on the Regional Transportation Funding Tier 1 list or in the Freeway Interchange Deficiency Study (FIDS).
- Exempts projects for the development of educational or governmental facilities from paying the fee, and reduces the fee for affordable housing to half of the fee for market-rate housing. Retail developments are to be given a reduction for pass-by trips that are incidental to longer trips that would have occurred anyway.
- Phases in the fee over a three-year period, with reduced fees in 2009 and 2010, and the full fee to take effect in 2011.
- Is expected to generate approximately \$213 million over a 20-year period; enough to fund approximately 20% of the overall costs of the Tier 1 and FIDS programs.

The fees adopted by the FCOG and FCTA Boards in October 2008 were as follows:

Land Use Category	2009	2010	2011 and thereafter
Residential Developments (\$/dwelling unit)			
Single-Family Dwelling (market-rate)	\$1,200	\$1,450	\$1,727
Single-Family Dwelling (affordable)	\$600	\$725	\$863
Multi-Family Dwelling (market-rate)	\$843	\$1,018	\$1,212
Multi-Family Dwelling (affordable)	\$421	\$509	\$606
Non-Residential Developments (\$/sq.ft.)			
Commercial/Retail	\$1.36	\$1.65	\$1.96
Commercial/Office/Service	\$0.85	\$1.03	\$1.23
Education	Exempt	Exempt	Exempt
Government	Exempt	Exempt	Exempt
Light Industrial	\$0.34	\$0.41	\$0.49
Heavy Industrial	\$0.07	\$0.09	\$0.10
Other Non-Residential	\$0.29	\$0.35	\$0.42

**Fresno Regional Transportation Mitigation Fee
NEXUS STUDY REPORT**

Table of Contents

	<u>Page</u>
1. INTRODUCTION	<u>1</u>
Regional Transportation Mitigation Fee Study	<u>1</u>
Basis for Impact Fees	<u>1</u>
Purpose of the Impact Fee.....	<u>1</u>
Use of the Impact Fee.....	<u>2</u>
Determining the “Reasonable Relationships”	<u>2</u>
Structure of the Analysis	<u>3</u>
2. VALIDATING THE TRAFFIC MODEL.....	<u>5</u>
Tests of the Traffic Model – Forecasts of Daily Volumes.....	<u>5</u>
Tests of the Traffic Model – Forecasts of PM Peak-Hour Volumes	<u>6</u>
3. DEFICIENCY ANALYSIS	<u>8</u>
Traffic Level-of-Service	<u>8</u>
Existing and Future Deficiencies.....	<u>11</u>
Overview of the Deficiency Analysis Methodology	<u>12</u>
Land Use Assumptions	<u>13</u>
Determining Average Volume and Volume-to-Capacity (V/C) Ratio.....	<u>15</u>
Results to the Deficiency Analysis	<u>15</u>
4. COST REVIEW METHODOLOGY.....	<u>19</u>
Purpose of the Cost Estimate Review	<u>19</u>
Overview of the Cost Review Methodology.....	<u>19</u>
Review of Quantities	<u>21</u>
Review of Components.....	<u>22</u>
High- and Low-End Unit Costs.....	<u>22</u>
Selecting Which Cost to Use.....	<u>23</u>
Updated Costs for Each Project.....	<u>24</u>
Conclusions Regarding Project Costs.....	<u>28</u>

5.	OTHER (NON-RTMF) SOURCES OF FUNDING	<u>30</u>
	Measure "C" Sales Tax	<u>30</u>
	State Transportation Improvement Program (STIP)	<u>31</u>
	Comparing Project Costs to Funding Available	<u>32</u>
6.	COMPUTING THE RTMF FEES AND REVENUES.....	<u>33</u>
	Overview of the Fee Computation Methodology.....	<u>33</u>
	Trip-Generation Rates by Land Use Type.....	<u>35</u>
	Residential and Non-Residential Shares of New Traffic.....	<u>35</u>
	Pass-By Trips	<u>36</u>
7.	RESULTS.....	<u>37</u>
8.	FUTURE ADJUSTMENTS.....	<u>39</u>
	Annual and Periodic Adjustments	<u>39</u>
	Adjustments to the Project List.....	<u>39</u>

APPENDIX: Details of Fee Calculation

List of Tables

	<u>Page</u>
Table 1: Validation Test Results for Daily Forecasts.....	6
Table 2: Validation Test Results for PM Peak-Hour Model	7
Table 3: State Class II Urban Arterials (2.0-4.5 intersections per mile).....	8
Table 4: State Class III Urban Arterials (more than 4.5 intersections per mile)	9
Table 5: Major City/County Urban Roads	9
Table 6: Urban Freeways, Interchanges Less Than 2 Miles Apart.....	9
Table 7: Urban Freeways, Interchanges More Than 2 Miles Apart	10
Table 8: Uninterrupted Flow Rural Highways.....	10
Table 9: Rural Highways with Isolated Signalized Intersections.....	10
Table 10: Rural Interrupted Flow Arterials	10
Table 11: All Rural Freeways	11
Table 12: Freeway Ramps	11
Table 13: Summary of Development Assumptions	13
Table 14: V/C ratio and LOS for Tier 1 Projects.....	16
Table 15: V/C Ratio and LOS for Tier 2 Projects	17
Table 16: V/C Ratio and LOS for FIDS Projects	18
Table 17: Summary of Per-Unit Cost Assumptions	22
Table 18: Updated Costs for Urban Tier 1 Projects	24
Table 19: Updated Costs for Rural Tier 1 Projects.....	25
Table 20: Updated Costs for Urban Tier 2 Projects	25
Table 21: Updated Costs for Rural Tier 2 Projects.....	26
Table 22: Original Measure "C" STIP Funding for Road Projects	31
Table 23: STIP and Sales Tax Revenues Compared to Project Costs (millions of dollars).....	32
Table 24: Fees by Year and Land Use Category	37
Table 25: Expected Distribution of RTMF Funds Among Projects	38

List of Figures

	<u>Page</u>
Figure 1: Overall Structure of the RTMF Study	4
Figure 2: Model Forecast of Daily Traffic versus Traffic Counts	5
Figure 3: Original PM Peak Hour Forecasts versus Traffic Counts	6
Figure 4: Adjusted PM Peak Hour Forecasts versus Traffic Counts	7
Figure 5: Steps in the Deficiency Analysis	12
Figure 6: Spatial Distribution of Anticipated Population Growth, 2005-2030	14
Figure 7: Spatial Distribution of Anticipated Employment Growth, 2005-2030	15
Figure 8: Steps in the Project Cost Review	20
Figure 9: Decision Tree for Selecting Cost Estimate	23
Figure 10: Comparison of Measure "C" and Updated Cost Estimates, Tier 1 Projects	26
Figure 11: Comparison of Measure "C" and Updated Cost Estimates, Tier 2 Projects	27
Figure 12: Caltrans Construction Price Index (1987 prices = 100)	27
Figure 13: Measure "C" Sale Tax Revenue	30
Figure 14: Steps in the Fee Computation	33

List of Acronyms

AB	Assembly Bill
AC	Asphalt Concrete
CCFI	Central California Future Institute
COG	Council of Governments
CTC	California Transportation Commission
FCOG	Council of Fresno County Governments
FCTA	Fresno County Transportation Authority
FDOT	Florida Department of Transportation
FIDS	Fresno-Madera Freeway Interchange Deficiency Study
HBW	Home-Based Work
HBNW	Home-Based Non-Work
ITE	Institute of Transportation Engineers
LF	Linear Foot
NCHRP	National Cooperative Highway Research Program
LOS	Traffic Level-of-Service
NHB	Non-Home-Based
PB	Parsons Brinckerhoff
PDT	Project Development Team
PM	Post Meridian (after twelve noon)
ROW	Right-of-Way
RTP-MC	Regional Transportation Program – Measure “C”
SR	State Route
STIP	State Transportation Improvement Program
V/C	Volume-to-Capacity Ratio
VMT	Vehicle-Miles Traveled

1. INTRODUCTION

Regional Transportation Mitigation Fee Study

This report is the culmination of the Fresno County Regional Transportation Mitigation Fee (RTMF) Study. The study was initiated by the Council of Fresno County Governments (FCOG) in accordance with a provision of Measure "C" that:

Fresno COG shall contract with a qualified individual or firm with experience in the development of such mitigation fees to conduct a RTMF Study, which will serve as the foundation for development of a RTMF program.

RTMF is an important part of the Measure "C" Extension approved by Fresno County voters in 2006. The RTMF is intended to ensure that future development contributes its fair share towards the costs of infrastructure to mitigate the cumulative indirect regional transportation impacts of new growth in a manner consistent with the provisions of the Mitigation Fee Act. The purpose of the RTMF Study is to develop the nexus between development and roadway capacity deficiencies, estimate the fair share of eligible project costs attributable to new development, and determine the appropriate level of fee to be charged to each unit of new development.

Basis for Impact Fees

California's Mitigation Fee Act¹ creates the legal parameters for local governments assessing new development for its fair share of the cost of infrastructure needed to serve new residents and businesses. It stipulates that a local government must take the following steps in establishing an impact fee:

- a) Identify the purpose of the fee.
- b) Identify the use to which the fee is to be put.
- c) Determine how there is a reasonable relationship between fee's use and the development type on which it is imposed.
- d) Determine how there is a reasonable relationship between the need for the facility and the type of development on which the fee is imposed.
- e) Determine 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.

Purpose of the Impact Fee

The purpose of the RTMF is to establish a uniform, cooperative program to mitigate the cumulative indirect regional impacts of future developments on traffic conditions on high-priority state roadways in Fresno County. The fees will help fund improvements needed to maintain the target level of service in the face of the higher traffic volumes brought on by new developments.

¹ Assembly Bill 1600, which forms the basis for Sections 66000-66008 of the California Government Code.

Use of the Impact Fee

The Mitigation Fee Act requires that the local government identify the public facilities that are to be financed through the use of the impact fee. In the case of the RTMF there is guidance in Measure "C" regarding the intended uses of RTMF funds:

"The RTMF shall apply to Regional Transportation Program-Measure "C" projects identified in Tier 1, Tier 2 and other such regional projects as may be identified in the RTMF Study."

"Although it is the primary purpose of the RTP-MC funds to augment Tier 1 funding levels, there is recognition that it is difficult to accurately project revenues / expenditures for a 20-year period. Therefore, in the event that additional resources (e.g. federal or state earmarks) are made available to fully fund all of the Tier 1 projects, then it is acknowledged that the Fresno County Transportation Authority (Authority), in consultation with the Council of Fresno County Governments (Fresno COG), will have the flexibility to fund other urban and rural street and road projects contained in the Tier 2 list of regional transportation projects. This would be accomplished through the Expenditure Plan update process, and appropriate Tier 2 list project(s) would be amended into the Tier 1 funded program. "

"The RTMF shall also be structured to effectively address improvements identified in the Fresno-Madera County Freeway Deficiency Study."

Based on this guidance, FCOG determined that RTMF funds would be used for projects on the Regional Transportation Program Tier 1 list and those identified in the Fresno-Madera County Freeway Interchange Deficiency Study (FIDS). Furthermore, based on input from the member agencies and the public, FCOG adopted a policy that the regional fee should be used only for roads for regional significance. Only projects involving state facilities were considered "regional" under this policy.

Later sections of this report show how projects were identified for inclusion in the RTMF program. The list of projects to receive RTMF funding is shown in Table 25.

Determining the "Reasonable Relationships"

The Mitigation Fee Act requires the local government to determine how there are "reasonable relationships" between: a) the use of the impact fee and the development type on which it is imposed, b) the need for the facility and the type of development on which the fee is imposed, and c) the amount of the impact fee and the facility cost attributable to the development project.

To determine the "use" relationship, the development being assessed an impact fee must be reasonably shown to derive some use or benefit from the facility being built using the fee. In the case of the RTMF the projects to be funded were selected based on their ability to satisfy three sets of criteria, namely: that they were of high priority as expressed by the voters through the Measure "C" Extension priority project lists, that they performed a regional (as opposed to local) function, and that the need for the project was at least in part attributable to new development. The fact that the projects that will be funded by the RTMF are high-priority regional roads means that all of the county's new residents and businesses will benefit in important ways from the maintenance of a reasonable level of service. Most drivers in the new developments can be expected to use these roads regularly², and those that do not will nevertheless benefit because good traffic conditions on the RTMF-funded roads will keep drivers from diverting to other roads and causing congestion in other parts of the county. Even residents or workers in the new

² This is shown in the traffic forecasting work described in a later section of this report.

developments who do not drive at all will benefit from access to goods and services made possible in part by the serviceability of the regional road network.

To determine the “need” relationship the facilities to be financed must be shown to be needed at least in part because of the new development. One of the purposes of the RTMF study is to determine extent to which each of the projects on the Measure “C” project lists are needed because of new land development. This was determined by analyzing the forecast traffic demand with the expected degree of new development and comparing that with the demand without new development. Projects were analyzed individually and the degree to which the need for the project was attributable to new development varied widely from project to project. This analysis is described in a later chapter of this report.

The “amount” relationship requires that there be a reasonable proportionality between the fee charged to each type of development and the cost of the facility being financed. In the case of the RTMF the differences in the traffic generated by different types of development were factored into the fee to be charged for each type, as is described later in this report.

Structure of the Analysis

The overall structure of the RTMF Study is shown in Figure 1. The study was comprised of six major tasks as follows:

Validate Traffic Model - The main analytical tool used in the deficiency analysis was the FCOG traffic model. The first step in the study was to perform a series of tests to ensure that the model functioned properly and could be used as a basis for the fee calculation.

Determine Existing and Future Levels of Service (LOS) – The existing and future levels-of-service for the projects covered by the study were determined using the travel demand model.

Estimate Project Costs – The estimated cost for each project was checked and updated using cost data from recent projects.

Determine Funding Shortfall – Future levels of funding that could be available for funding the projects of interest were estimated for the twenty-year period of the RTMF.

Attribute Demand to Sources – The extent to which the demand for each project stems from existing traffic or future development was determined.

Compute RTMF Fees and Revenues – The final task was to compute the level of fee for different land uses and the total amount of funding that would be generated by the RTMF under several different sets of policy assumptions.

This report describes the methodology used for the analysis and presents the results of the study.

The reader should note that the RTMF was only one of several types of funding sources named in Measure “C” Extension. The suitability or unsuitability of any project for RTMF funding is not related to its suitability for funds from the Measure “C” Extension sales tax or other funding sources, but is dependent on the relative share of project need and the related cost attributable to the impacts of new development in Fresno County in accordance with the provision of the Mitigation Fee Act.

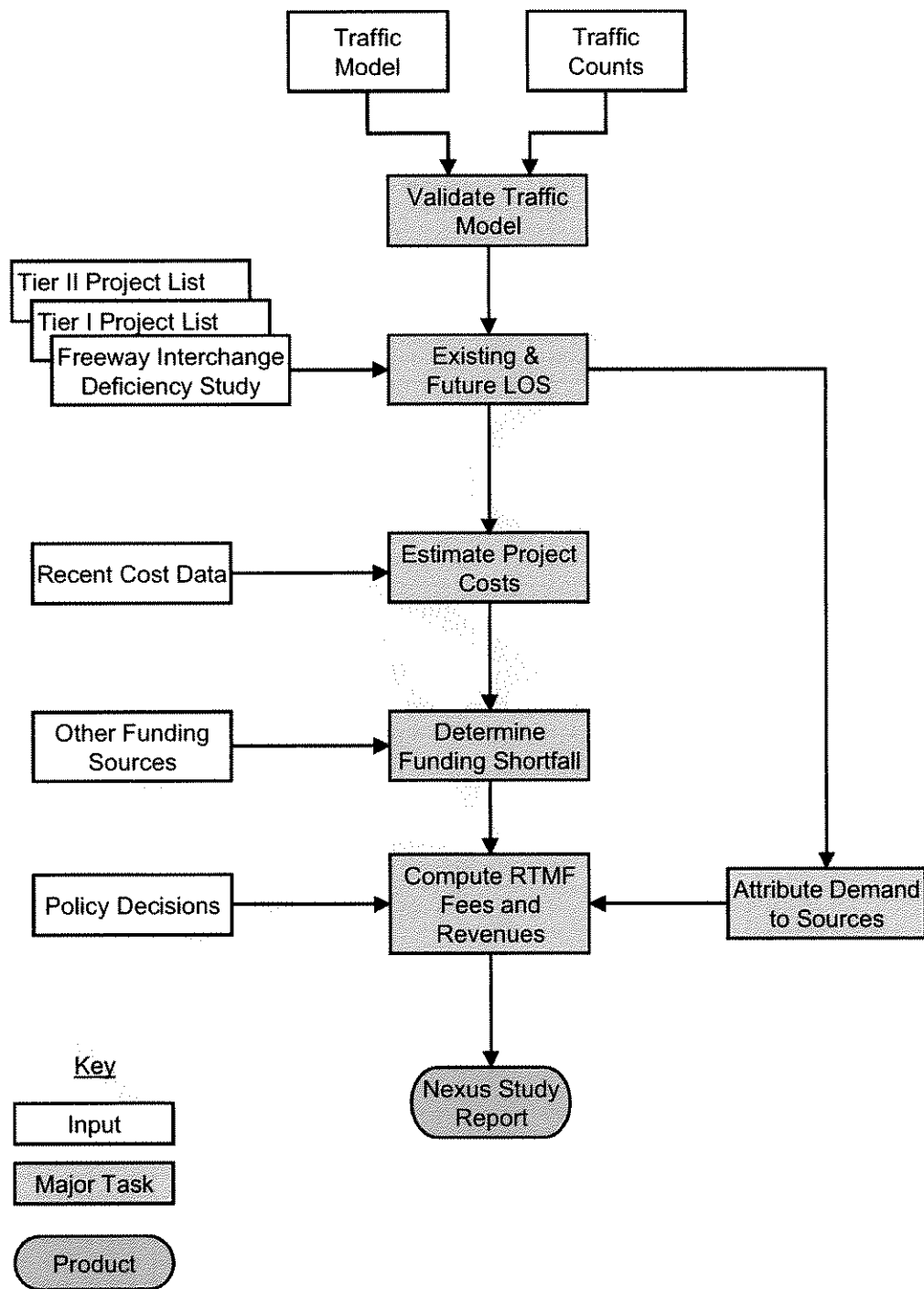


Figure 1: Overall Structure of the RTMF Study

2. VALIDATING THE TRAFFIC MODEL

Because the FCOG traffic model is a key analytical tool in this study, it was important to verify that it is capable of producing reasonable forecasts before using it as the basis for the nexus calculation. Details of the model can be found in *Fresno County Traffic Model Calibration/Validation Report and Model Documentation*³. The tests used to validate the model and the adjustments made to the model are described in the sections below.

Tests of the Traffic Model – Forecasts of Daily Volumes

FCOG's traffic model produces both forecasts of daily traffic volumes and forecasts of evening peak-hour volumes. These were tested separately.

The study team selected a sample of recent traffic count data from twenty-five sites (a total of fifty counts, since each site was counted in both directions) and compared the model's forecast of traffic to the actual traffic volumes found in the counts. Figure 2 shows a comparison of the model forecast of daily traffic to the actual counted traffic. The shaded area shows the acceptable deviation set forth in Caltrans' model validation guidelines⁴. Figure 2 indicates that there is no apparent bias in the daily model (under-estimates and over-estimates occur about equally), that none of the errors is very large, and that more than three-quarters of the sites lie within Caltrans' allowable deviations.

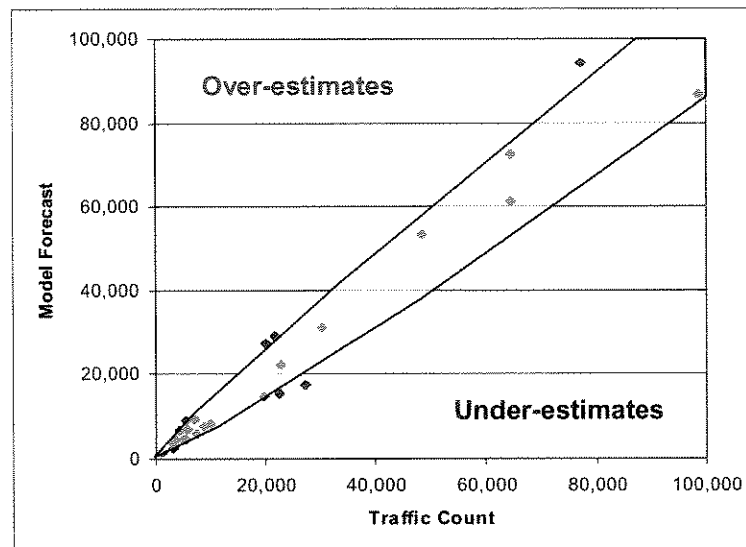


Figure 2: Model Forecast of Daily Traffic versus Traffic Counts

Table 1 shows the results of the tests of the daily forecasts with respect to Caltrans' validation guidelines. As can be seen in the table, the daily forecasts produced by the FCOG traffic model exceed every standard for acceptability.

³ Dowling Associates, September 2001

⁴ *Travel Forecasting Guidelines*, Caltrans, November 1992

Table 1: Validation Test Results for Daily Forecasts		
Validation Item	Criterion for Acceptance	Daily Model
% of Links within Caltrans' Deviation Standard	At least 75%	76% ✓
Sum of 2-way Volume of All Counted Links	Within 10% of Actual	Within 2% ✓
Correlation between Counts and Model Forecast	At least 88%	98% ✓

Tests of the Traffic Model – Forecasts of PM Peak-Hour Volumes

A similar set of performance tests were run on the PM peak-hour forecasts produced by the FCOG traffic model. In this case, however, the results (see Figure 3) were not favorable. The errors are larger and there appeared to be a definite tendency towards over-estimating traffic. The original PM peak hour model therefore did not meet the acceptance criteria for use in the study.

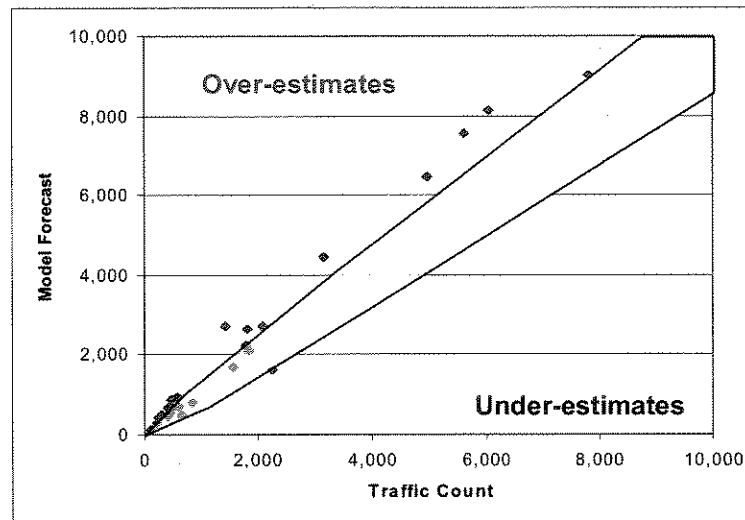


Figure 3: Original PM Peak Hour Forecasts versus Traffic Counts

In consultation with FCOG staff, it was determined that the most likely source of error in the peak-hour model was the peak-hour factor, which is a model parameter that distributes daily traffic among different hours of the day. It was found that by adjusting the peak-hour factor a version of the model could be created that more accurately reflected traffic use in peak-hour LOS calculations. This is shown in Figure 4, which compares the revised model forecast of peak hour traffic to the actual counted traffic. The shaded area shows the acceptable deviation found in Caltrans' validation guidelines. Figure 4 indicates that there is no apparent bias in the revised model (under-estimates and over-estimates occur about equally), that none of the errors are very

large, and that ninety percent of the validation results lie within Caltrans' allowable deviations. Table 2 shows the results of these tests with respect to Caltrans' validation guidelines. As can be seen in the table, the revised version of the model exceeds every standard for acceptability.

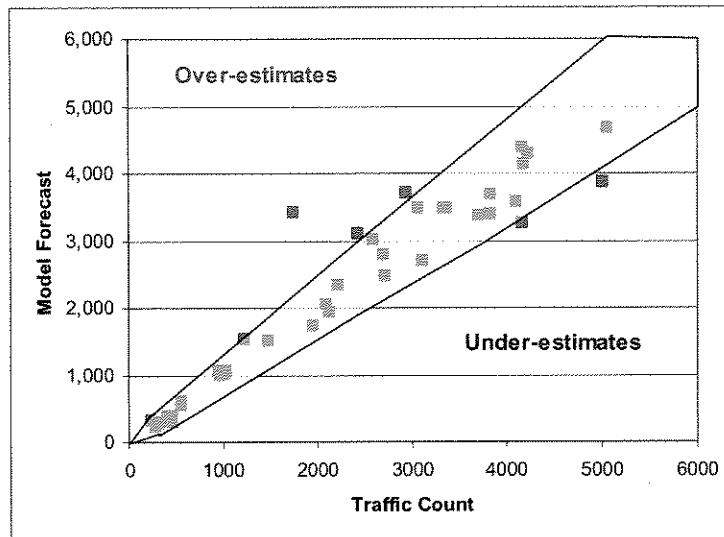


Figure 4: Adjusted PM Peak Hour Forecasts versus Traffic Counts

Table 2: Validation Test Results for PM Peak-Hour Model			
Validation Item	Criterion for Acceptance	Original PM Peak Model	Revised PM Peak Model
% of Links within Caltrans' Deviation Standard	At least 75%	52% X	90% ✓
Sum of 2-way Volume of All Counted Links	Within 10% of Actual	27% X	within 1% ✓
Correlation between Counts and Model Forecast	At least 88%	99% ✓	95% ✓

Source: Caltrans, Parsons Brinckerhoff

Having independently tested the traffic model and found the revised version to meet the acceptance criteria recommended by Caltrans, the Project Development Committee (PDT) accepted the model as a reasonable basis for the RTMF nexus analysis.

3. DEFICIENCY ANALYSIS

The Mitigation Fee Act permits agencies to collect impact fees based on the degree that new development is expected to contribute to deficient traffic conditions. There are several key aspects to this, including the definition of what constitutes deficient conditions, the amount of traffic generated by new development, and the differentiation of the traffic associated with new development from the traffic associated with existing developments. The sections below describe how the deficiencies associated with new development were determined.

Traffic Level-of-Service

Traffic conditions are often described in terms of traffic level of service (LOS), which ranges from LOS "A", indicating that drivers experience little delay, to LOS "F", indicating that drivers are likely to encounter traffic congestion with low speeds and stop-and-go conditions. Like many agencies, FCOG has elected to use the LOS tables developed by the Florida Department of Transportation (FDOT) for general planning studies such as this one. The FDOT tables are documented in FDOT's *2002 Quality/Level of Service Handbook*⁵ and were developed using the methodologies found in the most recent edition of the *Highway Capacity Manual*⁶. The RTMF study makes use of the tables that define the threshold volumes for the range LOS's for various types of roads. These are shown in Tables 3 through 12. The values shown in the tables are the maximum traffic volumes for each level of service (LOS). For example, the first value shown in Table 3 is "11,200", which means that an average 2-way daily volume of 11,100 would be LOS "C", while a 2-way volume of 11,300 would be LOS "D", since it exceeds the maximum volume of 11,200 for LOS "C".

Table 3: State Class II Urban Arterials (2.0-4.5 intersections per mile)							
Number of Lanes	Divided or Undivided	Daily Volume (2-way)			Hourly Volume (1-way)		
		LOS "C"	LOS "D"	LOS "E"	LOS "C"	LOS "D"	LOS "E"
2	Undivided	11,200	15,400	16,300	590	810	850
4	Divided	26,000	32,700	34,500	1,360	1,710	1,800
6	Divided	40,300	49,200	51,800	2,110	2,570	2,710
8	Divided	53,300	63,800	67,000	2,790	3,330	3,500

⁵ State of Florida Department of Transportation, 2002

⁶ *Highway Capacity Manual 2000*, Transportation Research Board, 2000.

Table 4: State Class III Urban Arterials (more than 4.5 intersections per mile)							
Number of Lanes	Divided or Undivided	Daily Volume (2-way)			Hourly Volume (1-way)		
		LOS "C"	LOS "D"	LOS "E"	LOS "C"	LOS "D"	LOS "E"
2	Undivided	5,300	12,600	15,500	280	660	810
4	Divided	12,400	28,900	32,800	650	1,510	1,720
6	Divided	19,500	44,700	49,300	1,020	2,330	2,580
8	Divided	25,800	58,700	63,800	1,350	3,070	3,330

Table 5: Major City/County Urban Roads							
Number of Lanes	Divided or Undivided	Daily Volume (2-way)			Hourly Volume (1-way)		
		LOS "C"	LOS "D"	LOS "E"	LOS "C"	LOS "D"	LOS "E"
2	Undivided	9,100	14,600	15,600	480	760	810
4	Divided	21,400	31,100	32,900	1,120	1,620	1,720
6	Divided	33,400	46,800	49,300	1,740	2,450	2,580
8	Divided	<i>44,133⁷</i>	<i>61,250</i>	<i>63,800</i>	<i>2,310</i>	<i>3,200</i>	<i>3,330</i>

Table 6: Urban Freeways, Interchanges Less Than 2 Miles Apart							
Number of Lanes	Divided or Undivided	Daily Volume (2-way)			Hourly Volume (1-way)		
		LOS "C"	LOS "D"	LOS "E"	LOS "C"	LOS "D"	LOS "E"
4	Divided	52,000	67,200	76,500	2,660	3,440	3,910
6	Divided	81,700	105,800	120,200	4,180	5,410	6,150
8	Divided	111,400	144,300	163,900	5,700	7,380	8,380

⁷ Italicized values are extrapolated from other figures in the Florida DOT tables.

Table 7: Urban Freeways, Interchanges More Than 2 Miles Apart							
Number of Lanes	Divided or Undivided	Daily Volume (2-way)			Hourly Volume (1-way)		
		LOS "C"	LOS "D"	LOS "E"	LOS "C"	LOS "D"	LOS "E"
4	Divided	55,200	67,100	74,600	2,940	3,580	3,980
6	Divided	85,300	103,600	115,300	4,550	5,530	6,150
8	Divided	115,300	140,200	156,000	6,150	7,480	8,320
10	Divided	175,500	213,500	237,100	7,760	9,440	10,480

Table 8: Uninterrupted Flow Rural Highways							
Number of Lanes	Divided or Undivided	Daily Volume (2-way)			Hourly Volume (1-way)		
		LOS "C"	LOS "D"	LOS "E"	LOS "C"	LOS "D"	LOS "E"
2	Undivided	7,900	13,700	27,500	420	730	1,470
4	Divided	40,800	52,400	58,300	2,200	2,830	3,140
6	Divided	61,200	78,600	87,400	3,330	4,240	4,710

Table 9: Rural Highways with Isolated Signalized Intersections							
Number of Lanes	Divided or Undivided	Daily Volume (2-way)			Hourly Volume (1-way)		
		LOS "C"	LOS "D"	LOS "E"	LOS "C"	LOS "D"	LOS "E"
2	Undivided	8,000	10,700	12,100	430	580	650
4	Divided	17,400	23,000	25,200	940	1,240	1,360
6	Divided	27,100	35,500	43,100	1,460	1,910	2,320

Table 10: Rural Interrupted Flow Arterials							
Number of Lanes	Divided or Undivided	Daily Volume (2-way)			Hourly Volume (1-way)		
		LOS "C"	LOS "D"	LOS "E"	LOS "C"	LOS "D"	LOS "E"
2	Undivided	11,000	13,900	14,900	590	740	800
4	Divided	25,500	29,400	31,200	1,360	1,570	1,660
6	Divided	39,400	44,200	46,800	2,100	2,360	2,500

Table 11: All Rural Freeways							
Number of Lanes	Divided or Undivided	Daily Volume (2-way)			Hourly Volume (1-way)		
		LOS "C"	LOS "D"	LOS "E"	LOS "C"	LOS "D"	LOS "E"
4	Divided	47,900	56,600	63,000	2,740	3,240	3,600
6	Divided	73,900	87,400	97,200	4,230	5,000	5,560
8	Divided	1,000	118,400	131,400	5,720	6,770	7,520

Table 12: Freeway Ramps ⁸						
Ramp Type	Daily Volume (2-way)			Hourly Volume (1-way)		
	LOS "C"	LOS "D"	LOS "E"	LOS "C"	LOS "D"	LOS "E"
Loop Ramp	11,200	12,600	14,000	933	1,050	1,167
Diamond Ramp	13,600	15,300	17,000	1,133	1,275	1,417
Freeway-to-Fwy Loop	12,800	14,400	16,000	1,067	1,200	1,333
Freeway-to-Fwy Diamond	16,000	18,000	20,000	1,333	1,500	1,667

A key feature of these tables is that a distinction is made between rural and urban areas, reflecting the fact that drivers' expectations vary depending on the type of area they are driving through. For the purposes of the LOS analysis FCOG directed the RTMF study team to consider all road segments located within the sphere of influence of any incorporated city as "urban" and those located outside of the sphere of influence of an incorporated city as "rural".

The FDOT level-of-service tables do not cover freeway ramps. For projects in this functional class the LOS thresholds developed for FCOG's Regional Transportation Plan were used.

Existing and Future Deficiencies

For the purposes of the RTMF Study, a "capacity deficiency" is defined as a condition where a facility would not meet the level-of-service threshold mandated by FCOG, which is LOS "D". One of the first major steps in the RTMF Study was to identify where deficiencies are likely to occur in the regional road network if the expected level of future development were to take place.

Fees collected under the Mitigation Fee Act must be based on a nexus between the projects to be funded by mitigation fees and the impacts resulting from the development that is being assessed the fee. Mitigation fees cannot be used to correct existing deficiencies and therefore the analysis must distinguish between deficiencies that exist today and those that will arise only if development takes place.

⁸ LOS thresholds for freeway ramps were provided by VRPA Technologies. These figures are consistent with those used to develop the Fresno COG Regional Transportation Plan.

Overview of the Deficiency Analysis Methodology

The methodology used in the deficiency analysis is outlined in Figure 5 below. The major steps include:

- 1) The main analytical tool used in the deficiency analysis was the FCOG traffic model. This model was first developed in 2001 and is frequently updated by FCOG staff. Existing land uses are classified by type and location and stored in a data file as a major input to the model.
- 2) A second major input into the model is a file containing details of the location, capacity, and free-flow speed of the existing roads in Fresno County. The model also has other input parameters, such as trip generation rates, that were left unchanged during the deficiency analysis.
- 3) The existing land use file, the existing road network file, and several other parameters were used as inputs to the model to generate an estimate of existing traffic volumes on each road section in Fresno County.
- 4) FCOG provided the study team with the results of recent traffic counts taken throughout the county.
- 5) The traffic counts were compared to the traffic estimates from the FCOG traffic model to determine whether the model was sufficiently accurate for use in the RTMF study. This was described in the previous chapter.
- 6) The PM peak-hour component of the model was revised to correct for a tendency to over-forecast traffic volumes prior to use in the study.

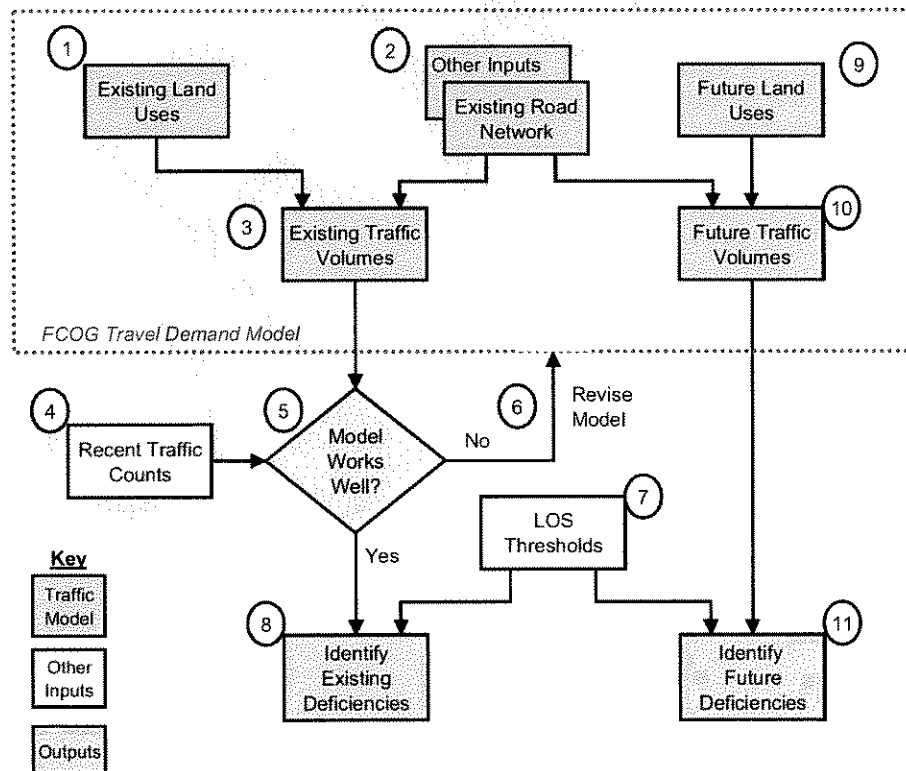


Figure 5: Steps in the Deficiency Analysis

- 7) FCOG established its level-of-service (LOS) thresholds based on the threshold tables developed by the Florida Department of Transportation. The Florida DOT tables are widely used throughout the country as a transparent and easily-administered version of the *Highway Capacity Manual* LOS methodology.
- 8) The existing traffic volumes were then compared to the LOS thresholds to determine where deficiencies already exist.
- 9) FCOG's assumptions regarding future development were then entered into the traffic model.
- 10) The model was run assuming future land uses (existing land uses plus future development) but no changes to the existing road network. The output was a forecast of future traffic volumes under these conditions.
- 11) The traffic volumes were then compared to the LOS tables to determine where future roadway capacity deficiencies are likely to occur if the expected amount of development takes place.

The next section describes the future year land use assumptions used in this analysis.

Land Use Assumptions

FCOG's responsibilities for long-term planning entail the use of population and employment forecasts. The forecasts currently used by FCOG were prepared for the 2000-2025 period by the Central California Future Institute (CCFI) and were later extrapolated to 2030 by FCOG staff⁹. These forecasts are summarized in Table 13 below.

Table 13: Summary of Development Assumptions					
Forecast Item	2005	2015	2025	Total Growth	Average Annual Growth Rate
Population	899,288	1,086,432	1,290,264	43.5%	1.8%
Households	302,621	370,089	443,195	46.5%	1.9%
Total Employment	373,494	461,541	557,364	49.2%	2.0%
Retail	56,041	69,454	83,868	49.7%	2.0%
Service	81,760	115,412	151,442	85.2%	3.1%
Government	36,152	44,370	53,636	48.4%	2.0%
Educational	36,246	48,189	61,252	69.0%	2.7%
Other	163,288	184,548	207,166	26.9%	1.2%

⁹ See 2006 Fresno COG Conformity Analysis Model Documentation

The CCFI forecasts an overall long-term rate of population growth of 1.8%, which is the same as the growth actually measured between the 1990 and 2000 U.S. Census for Fresno County. These forecasts also predict a slightly higher rate of growth for employment than for households, which is a continuation of an existing trend in California.

Other forecasts of population and employment are available from the California State Department of Finance and the State Department of Transportation Office of Transportation Economics. The CCFI growth forecasts fall between the forecasts of these two agencies.

In terms of spatial distribution, the forecasts assume that most population growth will be concentrated within the spheres of influence of the cities of Fresno and Clovis. However, moderate population growth is expected in a wide swath on both sides of Highway 99 (see Figure 6 below). The fastest growth in employment is expected to occur along the eastern edges of the cities of Fresno and Clovis (see Figure 7 below). Outside of the metropolitan area the growth of employment is distributed more evenly than the growth in population.

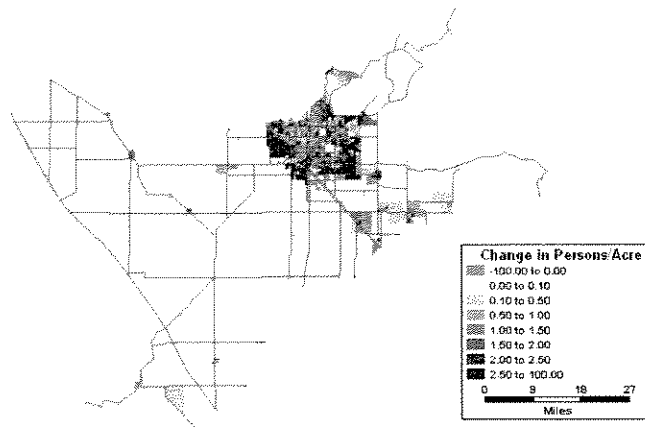


Figure 6: Spatial Distribution of Anticipated Population Growth, 2005-2030

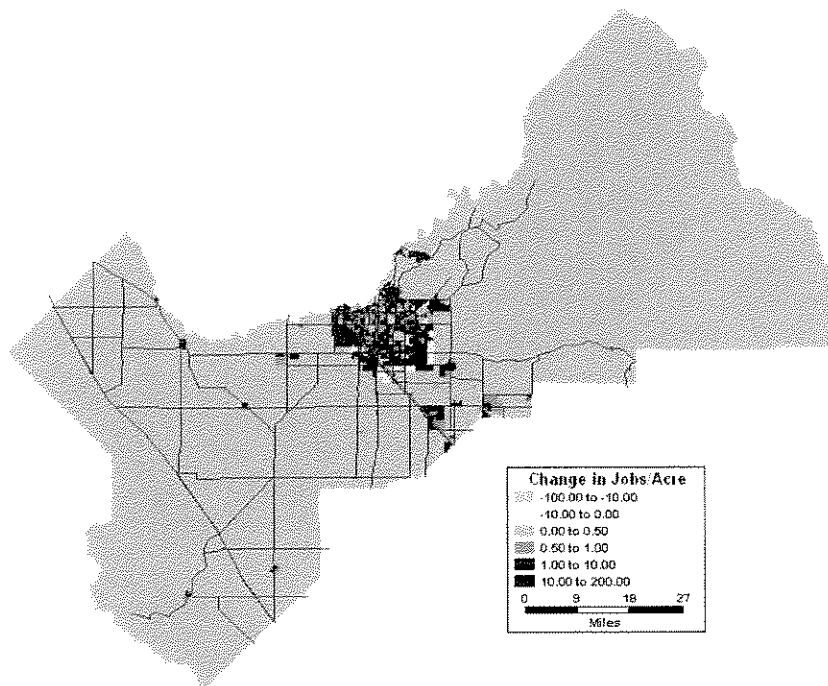


Figure 7: Spatial Distribution of Anticipated Employment Growth, 2005-2030

Determining Average Volume and Volume-to-Capacity (V/C) Ratio

As stated earlier, the average volumes for each project were taken from model runs of the FCOG traffic model. Daily volumes were used for all projects except for those related to freeway interchanges, in which case peak-hour volumes were used.

Most of the proposed projects consisted of more than one link in the model which raised the issue of which link or links should be used to represent the project in the analysis. For the purposes of this analysis the most congested link, as measured by the V/C ratio, was used to represent the facility, based on the reasoning that the congested portion of the facility represents the primary deficiency and would be the impetus for consideration of an improvement project.

There were several special cases that required a somewhat different approach. The traffic signal synchronization project and the traffic management center (Urban Tier 2 Projects EE and NN) are not associated with identifiable links and so cannot be analyzed through an LOS test. They were therefore excluded from the analysis. Certain other projects involve entirely new facilities and so there is no existing traffic or V/C ratio. In such cases the volumes, capacities and V/C ratios of the existing alternate routes that most closely serve the same function as the proposed project were substituted. For example, for the SR-180 eastward extension (Urban Tier 1 Project A) the traffic conditions on Olive Avenue and Belmont Avenue were used since those would be the alternate routes if SR-180 was not extended.

Results to the Deficiency Analysis

The results of the deficiency analysis are shown in Tables 14, 15, and 16. The key results from the point of view of levying a traffic mitigation fee are shown in the shaded cells in the tables. The

yellow-shaded cells in these tables indicate facilities that currently meet FCOG's LOS standard of "D", but will not meet that standard in the future if land development occurs as expected and additional road capacity is not provided. This combination of conditions indicates a nexus between land development and a capacity deficiency and therefore indicates a project that would meet the legal requirement for eligibility for funding through mitigation fees.

The green-shaded cells indicate facilities that already fail to meet FCOG's LOS standard of "D" and whose V/C ratio would worsen in the future if land development proceeds as expected and additional road capacity is not provided. For such projects, a distinction will need to be made between the portion of the future deficiency that is attributable to existing traffic and the portion attributable to future land development. Only the latter portion has a nexus to mitigating the impact of new development and therefore would be eligible for funding through a mitigation fee.

Projects with no shading are expected to meet FCOG's LOS standard of "D" even without capacity improvements. By definition there is no deficiency requiring correction, so these projects would not be eligible for funding through a traffic mitigation fee. However, this does not mean that the project may not be justified under some other criteria used for a different funding source.

Table 14: V/C ratio and LOS for Tier 1 Projects

Project ID	Project Name	Existing		Future	
		V/C Ratio	LOS	V/C Ratio	LOS
URBAN TIER 1	A SR-180 East Seg II	1.79	F	2.62	F
	B SR-180 West Seg II	1.59	F	2.11	F
	C SR-41/SR-168/SR-180	0.90	D	1.42	F
	D Willow Avenue	0.77	D	1.80	F
	E Temperance Avenue	0.79	D	1.54	F
	F Ventura Boulevard	0.67	C or better	1.03	E
	G SR-99 Monterey Bridge Retrofit	0.61	C or better	1.01	E
	H California Ave Widening	0.54	D	1.28	F
	I Peach Ave Widening	1.40	F	1.76	F
	J SR-41 Auxiliary Lane	0.51	C or better	0.70	C or better
	K Herndon Ave Widening	0.66	D	1.09	E
	L Shaw Ave Upgrades	1.28	F	2.29	F
	M SR-99 North & Cedar Interchanges	0.17	C or better	0.65	C or better
	N Veteran's Boulevard	1.91	F	3.17	F
RURAL TIER 1	A SR-180 West	0.62	D	0.99	D
	B SR-180 East Seg III	0.95	D	2.62	F
	C SR-180 East Seg IV	1.00	E	1.34	E
	D SR-180 East Seg V	0.96	D	1.31	E
	E Friant Road Widening	0.24	C or better	0.39	C or better
	F Golden State Boulevard	0.18	C or better	0.47	C or better
	G SR-269 Bridge Improvement	0.57	C or better	0.90	D
	H SR-180 West I5 Extension	0.35	C or better	0.57	C or better
	I Mountain View Ave Widening	0.68	D	1.26	E
	J Mendocino Ave Widening	0.22	C or better	0.30	C or better
	K SR-99 American Ave Interchange	0.15	C or better	0.50	C or better
	L I-5/SR-198 Interchange Improvement	0.17	C or better	0.28	C or better

Table 15: V/C Ratio and LOS for Tier 2 Projects

Project ID	Project Name	Existing		Future	
		V/C Ratio	LOS	V/C Ratio	LOS
URBAN TIER 2	AA SR-99 Ramp Improvement	0.63	C or better	1.10	E
	BB SR-41 O Street Auxiliary Lanes	0.24	C or better	0.31	C or better
	CC Friant Road Widening	0.83	D	1.11	F
	DD SR-99 Shaw Ave Interchange	0.49	D	0.97	D
	EE Traffic Synchronization	Not Computable		Not Computable	
	FF Herndon Ave Widening	0.39	C or better	0.87	D
	GG SR-99 Auxiliary Lanes	0.61	C or better	0.86	D
	HH Blackstone Ave Turn Lanes	1.35	F	1.47	F
	II SR-99 Shields Ave Overcrossing	0.22	C or better	0.45	C or better
	JJ McCall Widening	0.12	C or better	0.30	C or better
	KK Shepherd Ave Widening	0.26	C or better	0.61	C or better
	LL SR-41 Auxiliary Lanes	0.69	C or better	0.82	D
	MM SR-99 Widening	0.53	C or better	0.84	D
	NN Traffic Management Center	Not Computable		Not Computable	
	OO Minnewawa 4-Lane Project	0.71	C or better	1.61	F
RURAL TIER 2	AA SR-99 Interchange Improvement	0.84	D	1.42	F
	BB SR-145 Widening	0.60	C or better	0.84	D
	CC SR-33 Widening	0.44	C or better	0.72	C or better
	DD Academy Parkway	0.41	C or better	0.69	C or better
	EE SR-41 Central & American Interchange	0.45	D	1.41	F
	FF Millerton Road Widening	0.63	D	0.79	D
	GG Manning Ave Widening	0.68	D	0.94	D
	HH SR-43 Widening	0.96	D	1.41	E
	II McCall Ave Connection	0.17	C or better	0.73	C or better
	JJ SR-180 E Seg VI	0.94	D	1.28	E

Table 16: V/C Ratio and LOS for FIDS Projects

Project ID	Project Name	Existing		Future	
		V/C Ratio	LOS	V/C Ratio	LOS
PROJECTS IN THE FREEWAY INTERCHANGE DEFICIENCY STUDY	1 SR-99/Mountain View	0.34	C or better	0.47	C or better
	2 SR-99/Floral	0.23	C or better	0.24	C or better
	3 SR-99/Manning	0.27	C or better	0.49	C or better
	4 SR-99/Central	0.43	C or better	0.32	C or better
	5 SR-99/Ventura	0.44	C or better	0.86	C or better
	6 SR-99/Fresno	0.56	C or better	0.91	D
	7 SR-99/Stanslaus	0.21	C or better	0.71	C or better
	8 SR-99/Belmont	0.72	C or better	1.14	F
	9 SR-99/Olive	0.12	C or better	0.78	C or better
	10 SR-99/Clinton	0.59	C or better	0.88	C or better
	11 SR-99/Ashlan	0.81	C or better	0.91	D
	12 SR-99/Shaw	0.44	C or better	0.71	C or better
	13 SR-99/Herndon	0.26	C or better	0.57	C or better
	14 SR-41/Van Ness	0.36	C or better	0.67	C or better
	15 SR-41/Tulare&Divisadero	0.77	C or better	1.16	F
	16 SR-41/McKinley	0.65	C or better	0.77	C or better
	17 SR-41/Shields	0.59	C or better	0.84	C or better
	18 SR-41/Ashlan	0.65	C or better	1.06	E
	19 SR-41/Shaw	0.57	C or better	1.00	D
	20 SR-41/Bullard	0.64	C or better	1.19	F
	21 SR-41/Friant	1.04	E	1.27	F
	22 SR-180/N. Fulton & Van Ness	0.68	C or better	1.04	E
	23 SR-168/Bullard	0.19	C or better	0.78	C or better
	24 SR-168/Shaw	0.53	C or better	1.02	E

4. COST REVIEW METHODOLOGY

Purpose of the Cost Estimate Review

The cost estimate review undertaken as part of this study is intended to serve several purposes:

- To provide agencies an opportunity to update project cost estimates in light of situations that may have changed since the Measure "C" Extension was developed.
- To provide an independent check on the reasonableness of the estimates, thereby lessening the risk that errors in the cost estimates would result in the RTMF either over- or under-charging new development for needed mitigations.
- To ensure that project cost components meet the legal eligibility requirements set forth in the Mitigation Fee Act and were handled in a reasonably consistent manner for projects from different jurisdictions, while taking into consideration the differences in settings.

The cost estimate review was undertaken in the knowledge that Measure "C" Extension is a twenty-year program with projects in different stages of preparation ranging from little more than a preliminary concept all the way to final designs ready for construction. In many cases detailed information was not available because projects are still in the concept stage. Nevertheless, an effort was made to accomplish the three goals described above to the extent possible. The RTMF program is expected to incorporate a mechanism for regular periodic reviews of the project list that will enable further refinement of project cost estimates as projects progress through the various stages of design.

An overview of the methodology used to develop the forecasts is provided in the section below.

Overview of the Cost Review Methodology

The methodology used in the deficiency analysis is outlined in Figure 8 below. The major steps include:

- 1) The first step was to contact each project's lead agency to request their most recent information on the cost of Measure "C" Extension projects. This request was made either through the agency representatives on the PDT, direct contact by telephone, or at meetings at the agencies' offices.
- 2) Two types of information were requested; namely cross-sections and layouts showing what the project entailed and the cost estimates prepared by the agency.
- 3) The project layouts and cross-sections were used to estimate the quantities of various components of the project, such as cubic feet of earth moved, square feet of pavement constructed, and linear feet of curb and gutter to be provided. These quantities were compared to the quantities used in the agency cost estimates and discrepancies were identified.
- 4) Next, the various components of the project were reviewed to determine if any were clearly ineligible under the Mitigation Fee Act. For example, an otherwise eligible capacity expansion project might include a beautification component whose costs are not allowable under the RTMF.

The agency budgets were also checked to determine if any allowable cost was omitted, such as environmental mitigations during construction or the cost of relocating utilities.

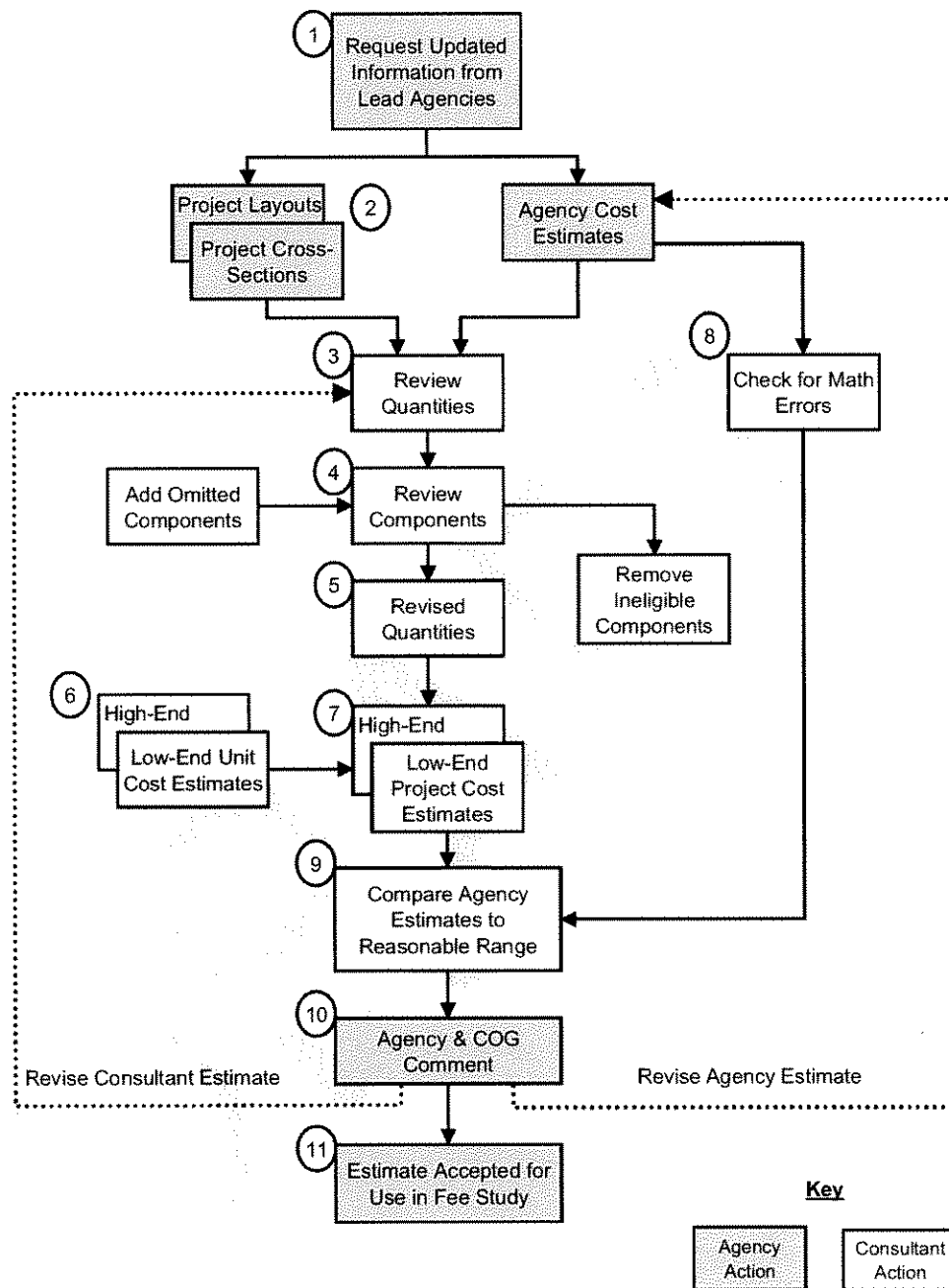


Figure 8: Steps in the Project Cost Review

- 5) The product of the review of quantities and components was a revised estimate of quantities.
- 6) Unit costs for such things as asphalt concrete, storm drainage, and lane striping were taken from a variety of sources, and high- and low-end unit costs were determined for each.
- 7) The high- and low-end unit costs were then multiplied by the revised quantities to produce high- and low-end cost estimates for each project. The high- and low-end costs defined the "expected range" of cost estimates for each project.
- 8) The agency cost estimates were checked for math errors.
- 9) The agency project cost estimates were then compared to the "expected range" to gauge whether the agency estimates could be considered reasonable.
- 10) The draft cost review analysis for each project was sent to the lead agency and to FCOG for comment. In some cases the cost reviews were revised in light of agency comments while in other cases the agency estimates were revised in light of the reviewing engineers' comments.
- 11) Once a project cost estimate was considered reasonable by all three parties (FCOG, the agency, and the reviewing consultants) it was considered complete and acceptable as the basis for the fee analysis.

The next sections provide additional detail regarding some of the key steps in the cost review process.

Review of Quantities

Each lead agency was asked to provide project information, including preliminary cost estimates, a complete project description, and typical section. The information provided for each project ranged greatly, from nothing more than the project description listed in the Measure "C" Extension brochure to detailed tables using the Basic Engineering Estimate System. The information provided for each project dictated the method of approach used to generate a project cost estimate.

For about half of the projects there was little or no detailed information available except for the project description in the Measure "C" Extension ballot materials. In such cases independent cost estimates were generated by the reviewing engineer using this project description and generic unit cost information for similar facilities (e.g. \$4.7 million per mile for new 2-lane roads).

The baseline conditions for each project were determined using aerial photographs. In some cases this task was complicated by the fact that the landscape had changed or was changing due to development activities. In some images, construction equipment could be seen and so the extent of existing improvements was not clear. A limited number of field checks were made to supplement the aerial imagery. In cases where construction seemed to be occurring in Measure "C" Extension project locations, that portion of the project was assumed complete, or at least funded, and was removed from the revised cost estimates and noted in the project assumptions. Roadway standards for each jurisdiction were used to determine the typical section of the proposed improvement for the purpose of establishing roadway quantities and associated costs. In certain cases typical sections were determined by examining adjacent roadway segments that had already been improved and assuming that a consistent geometric design would be carried through to the next section. Agency design standards were used when available, otherwise Caltrans standards were assumed. If no specific project information was provided, the typical section used to generate pavement costs was assumed to be 6.5" of asphalt concrete over 23" of aggregate base.

The aerial imagery programs were also used to determine other potential impacts, such as utility relocations, structure widening, signal improvements, full right-of-way takes, and potential retaining and sound wall locations.

Review of Components

The cost estimates provided by the lead agencies were also checked to verify that the cost of all major items were included such as erosion control, traffic control, environmental mitigation, and right of way. In addition, 31% was added to construction budgets to account for “soft” costs such as design, environmental clearance, and construction management. A contingency factor of 20%-35% was used depending on the quality of the available data, with higher contingencies being used for projects where the data was less complete. The cost for all roadway items includes clearing and grubbing, roadway excavation, and placement of improvement, unless otherwise noted.

High- and Low-End Unit Costs

An independent reviewer's cost estimate was generated using this information with a range of costs associated with specific improvements. This range of costs was developed using standard industry unit pricing. In some instances, the improvement costs were dependent on whether the project was in a rural or urban area. For example, utility adjustments for rural locations tend to cost less than in urban areas because underground utilities are more common in urban areas than rural areas. Table 17 illustrates the improvement line items that were typically used in estimating Measure “C” Extension projects and the costs associated with each.

Table 17: Summary of Per-Unit Cost Assumptions				
Typical Costs	Urban		Rural	
	Low	High	Low	High
12' Lane (AC) (Per additional Lane)	\$90/LF	\$120/LF	\$90/LF	\$120/LF
12' Lane (PCCP) (Per additional Lane)	\$120/LF	\$150/LF	\$120/LF	\$150/LF
Curb, Gutter, and Sidewalk (Both sides)	\$120/LF		\$120/LF (If required)	
Storm Drainage (Both Side)	\$34/LF	\$40/LF	-	-
Drainage (Ditch Excavation)	-	-	\$12.50/LF	\$15/LF
Signing and Striping	\$7/LF	\$20/LF*	\$7/LF	\$20/LF*
Traffic Control	5%	10%	2%	5%
Erosion Control	1%	3%	1%	3%
Shoulder (/ft Shoulder Width/LF of Project)	\$15		\$15	
14' Landscaped Median (w/ curb & irrigation)	\$60/LF		\$60/LF	
Signal Interconnect	\$10/LF		\$10/LF	
Utility Adjustment	\$15/LF	\$60/LF	\$15/LF	\$20/LF
Lighting	\$40/LF	\$60/LF	120,000/Intersection	
Note: * The high end for signing and striping is typically used for freeways and expressways.				

The Caltrans 2006 Contract Cost Data was used to determine unit costs for specific line items. Both statewide and district averages were compared to give a range of costs for those items where data was available. This check provided guidance on items that may have been

under- or over-estimated. For example, some projects' original cost estimates used \$60/ton for asphalt concrete when this item typically costs \$80/ton. If the \$60/ton estimate was used in funding the project and the bids came at \$80/ton, then these projects could potentially have substantial budget shortfalls.

Selecting Which Cost to Use

Once the expected range of costs was defined, the next step was to determine a single cost figure for use in the computation of the RTMF. It should be stressed that the only purpose of these cost estimates was to provide a reasonable basis for collecting an impact fee; the estimates do not imply official approval, nor are they meant to preclude future revisions as each project's situation evolves. As is generally the case for planning-level studies, it was assumed that although the cost estimate for individual projects may prove to be high or low, when the aggregate cost of the entire list of projects is considered the under- and over-estimates for individual projects will tend to cancel each other out.

The method used for selecting the cost estimate is outlined in the form of a decision tree in Figure 9 below:

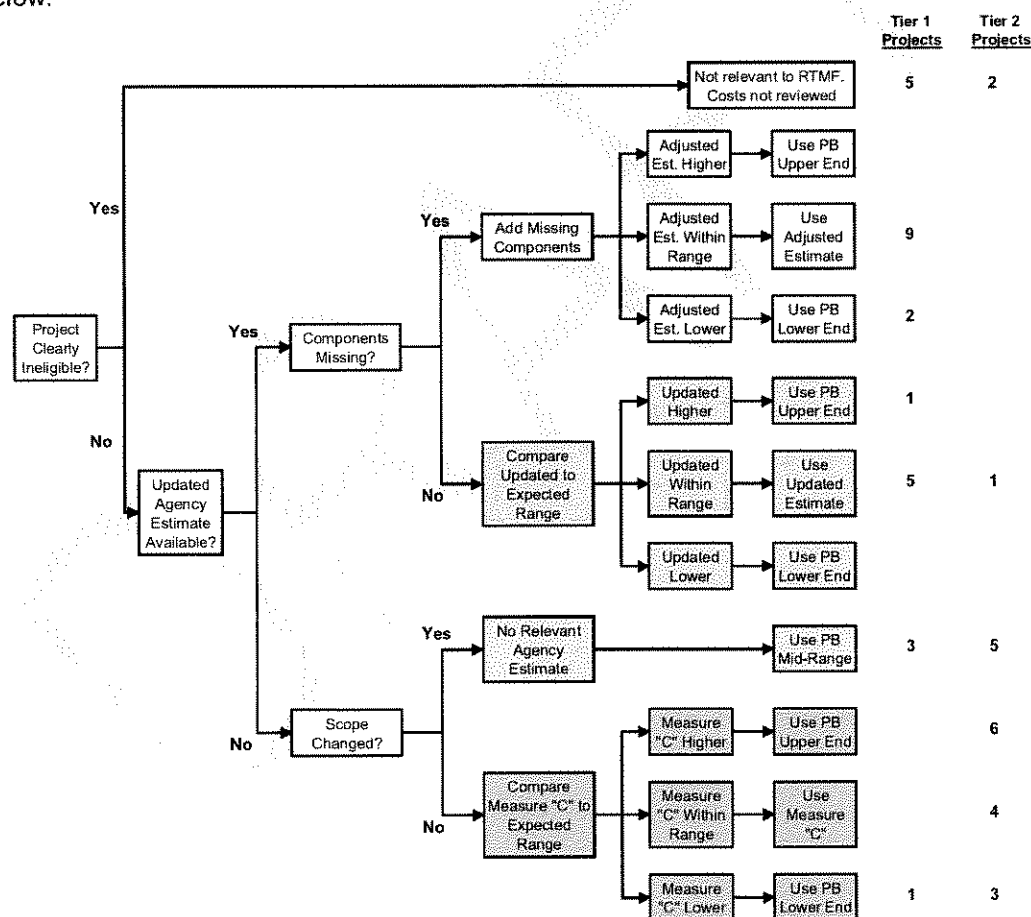


Figure 9: Decision Tree for Selecting Cost Estimate

The first branch in the decision tree was to determine whether the project was clearly ineligible for funding under the Mitigation Fee Act. If the project was clearly ineligible then it is irrelevant to the nexus study and no cost review was performed. The next question was whether or not the sponsoring agency provided an updated project cost estimate. If an updated estimate was available, the next step was to determine whether the updated estimate covered all project components or whether some components were missing. For example, in some cases agencies estimated construction costs but did not include soft costs such as environmental clearance and design, while in other cases a project was to be implemented in stages and estimates were made only for the initial stages. If components were missing, then PB estimated the costs of the missing components and used these to produce an adjusted estimate. In either case the estimate was then compared to the expected range to see whether it fell within the range and, if not, whether it was higher or lower. If the agency estimate fell within the expected range then the agency estimate was used. If not, then if the agency estimate was above the range then the upper limit of the expected range was used, and if it was below the range then the lower limit of the expected range was used.

In cases where the lead agency did not provide an updated cost estimate then the cost review centered on the cost estimate in the original Measure "C" Extension ballot material. If the scope of the project had changed since Measure "C" Extension was passed but the agency had not yet updated its cost estimate, then the middle of the range of the PB estimate was used. If there were no changes to the project scope then the Measure "C" Extension estimate was compared to the expected range to see whether it fell within the range and, if not, whether it was higher or lower. If the Measure "C" Extension estimate fell within the expected range then the Measure "C" Extension estimate was used. If not, then if the Measure "C" Extension estimate was above the range then the upper limit of the range was used, and if it was below the range then lower limit of the range was used.

Updated Costs for Each Project

The updated costs produced through the cost review process described in the previous section are shown in Tables 18 through 21 below.

Table 18: Updated Costs for Urban Tier 1 Projects			
Project ID	Project Name	Measure "C" Cost Estimate	Updated Cost Estimate
A	SR-180 East Segment II	\$33,479,701	\$33,480,000
B	SR-180 West Segment II	\$6,995,758	\$5,450,000
C	SR-41/168/180	\$29,981,821	\$114,000,000
D	Willow Avenue	\$13,991,517	\$19,660,000
E	Temperance Avenue	\$5,996,364	\$4,100,000
F	Ventura Boulevard	\$5,000,000	\$5,000,000
G	SR-99 Monterey Bridge Retrofit	\$1,000,000	\$1,000,000
H	California Ave Widening	\$7,995,152	\$12,550,000
I	Peach Ave Widening	\$24,984,851	\$17,300,000
J	SR-41 Auxiliary Lane	\$3,000,000	\$11,400,000
K	Herndon Ave Widening	\$30,000,000	\$42,200,000
L	Shaw Ave Upgrades	\$31,580,852	\$17,500,000
M	SR-99 North & Cedar Interchanges	\$24,984,851	\$81,220,000
N	Veteran's Boulevard	\$60,000,000	\$117,980,000
Total for Urban Tier 1		\$278,990,867	\$482,830,000

Table 19: Updated Costs for Rural Tier 1 Projects			
Project ID	Project Name	Measure "C" Cost Estimate	Updated Cost Estimate
A	SR-180 West	\$9,993,940	\$8,610,000
B	SR-180 East Segment III	\$14,491,214	\$42,600,000
C	SR-180 East Segment IV	\$38,976,368	\$46,460,000
D	SR-180 East Segment V	\$42,674,126	\$59,920,000
E	Friant Road Widening	\$16,490,002	\$5,900,000
F	Golden State Boulevard	\$34,978,792	\$34,980,000
G	SR-269 Bridge Improvement	\$16,989,699	\$16,990,000
H	SR-180 West I-5 Extension	\$39,975,762	\$183,000,000
I	Mountain View Ave Widening	\$5,496,667	\$25,630,000
J	Mendocino Ave Widening	\$1,998,788	\$3,350,000
K	SR-99 American Ave Interchange	\$24,984,851	\$24,300,000
L	I-5 Interchange Improvement	\$7,995,152	\$12,010,000
Total for Rural Tier 1		\$255,045,361	\$463,750,000

Table 20: Updated Costs for Urban Tier 2 Projects			
Project ID	Project Name	Measure "C" Cost Estimate	Updated Cost Estimate
AA	SR-99 Ramp Improvement	\$7,995,152	\$45,000,000
BB	SR-41 Aux Lanes Herndon to O Str	\$162,000,000	\$63,500,000
CC	Friant Road Widening	\$9,993,940	\$8,100,000
DD	SR-99 Shaw Ave Interchange	\$34,978,792	\$34,980,000
EE	Traffic Synchronization	\$24,984,851	\$24,980,000
FF	Herndon Ave Widening	\$5,796,485	\$16,410,000
GG	SR-99 Auxiliary Lanes	\$59,963,643	\$59,960,000
HH	Blackstone Ave Turn Lanes	\$1,998,788	\$2,200,000
II	SR-99 Shields Ave Overcrossing	\$59,963,643	\$59,960,000
JJ	McCall Widening	\$10,993,334	\$10,990,000
KK	Shepherd Ave Widening	\$15,490,608	\$37,500,000
LL	SR-41 Auxiliary Lanes ¹⁰	\$9,993,940	\$0
MM	SR-99 Widening	\$29,981,821	\$29,981,821
NN	Traffic Management Center	\$993,940	\$990,000
OO	Minnewawa 4-Lane Project	\$34,978,792	\$17,900,000
Total for Urban Tier 2		\$470,107,729	\$412,140,000

¹⁰ This project appears to be a subset of project Urban Tier 2 BB



Table 21: Updated Costs for Rural Tier 2 Projects			
Project ID	Project Name	Measure "C" Cost Estimate	Updated Cost Estimate
AA	SR-99 Interchange Improvement	\$24,984,851	\$50,000,000
BB	SR-145 Widening	\$22,986,063	\$12,800,000
CC	SR-33 Widening	\$8,245,001	\$9,070,000
DD	Academy Parkway	\$23,386,250	\$6,100,000
EE	SR-41 Interchange Upgrade	\$49,969,702	\$32,000,000
FF	Millerton Road Widening	\$11,992,729	\$29,030,000
GG	Manning Ave Widening	\$3,697,758	\$15,200,000
HH	SR-43 Widening	\$89,945,464	\$47,500,000
II	McCall Ave Connection	\$34,978,792	\$19,100,000
JJ	SR-180 E Segment VI	\$40,975,156	\$53,270,000
Total for Rural Tier 2		\$311,161,766	\$274,070,000

The results are shown in a different format in Figures 10 and 11. In the figures the X-axis is the original cost estimate used in the Measure "C" Extension brochure and the Y-axis is the updated cost. An "equal cost line" is shown to indicate where the updated cost equals the cost in the Measure "C" Extension ballot materials. Dots shown above the equal cost line are cases where the updated costs are higher than the original estimates, while dots below the equal cost line are cases where the updated costs are lower. As can be seen in the figures, project cost estimates were revised in both directions since the passage of Measure "C" Extension. However, for Tier 1 projects in particular, the magnitude of the upward revisions for projects with cost increases tends to be larger than the magnitude of the downward revisions for projects with cost decreases.

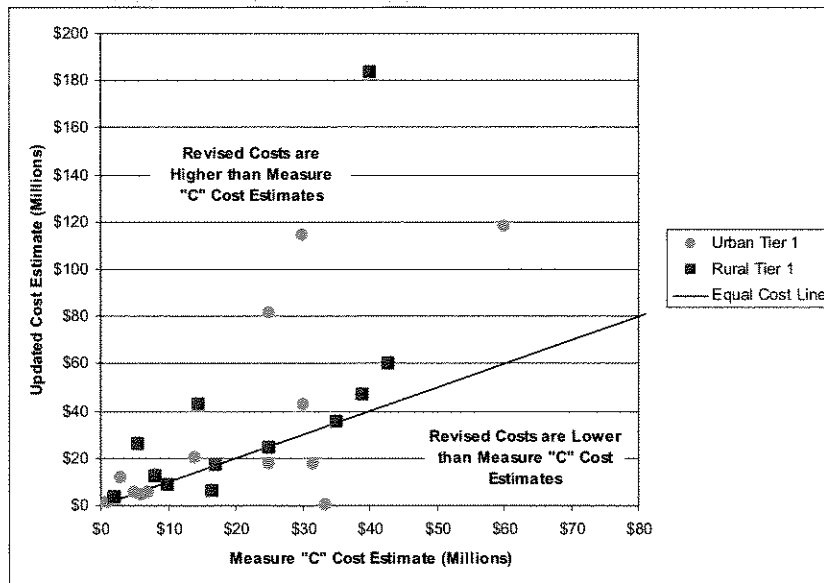


Figure 10: Comparison of Measure "C" and Updated Cost Estimates, Tier 1 Projects

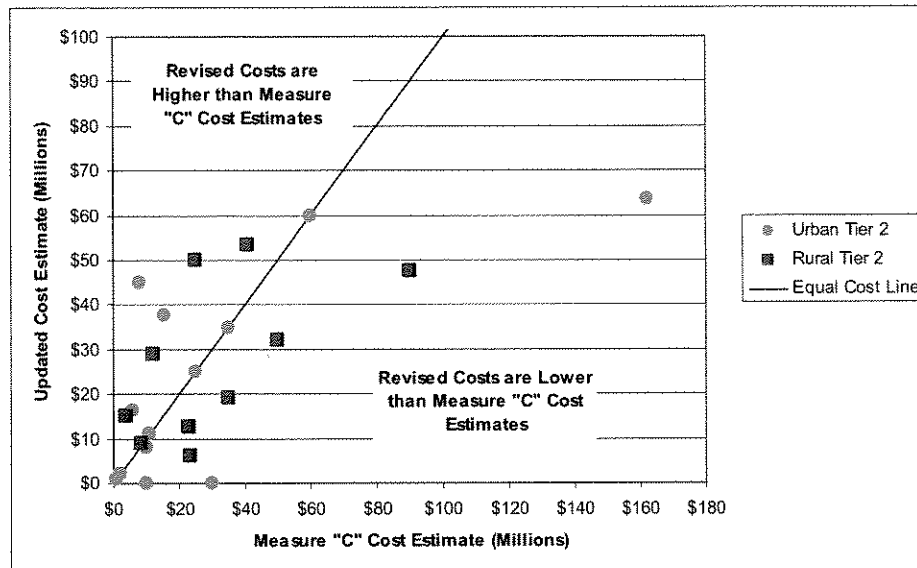


Figure 11: Comparison of Measure "C" and Updated Cost Estimates, Tier 2 Projects

There were many reasons why the costs changed significantly between the time the Measure "C" Extension ballot materials were being prepared and today. Some of the reasons include:

- The cost of construction materials has escalated rapidly in recent years for a variety of reasons including rising land and fuel costs and the effect of a weakening U.S. dollar on the cost of imported construction materials. This can be seen in Figure 12, which shows Caltrans' construction price index for the every year since 1990. Note that prices rose more in 2004 than they did in the previous fifteen years *combined*, followed the next year by a second large price increase. Although prices have since fallen slightly, they are still about double what they were when the original cost estimates were made for most Measure "C" Extension projects.

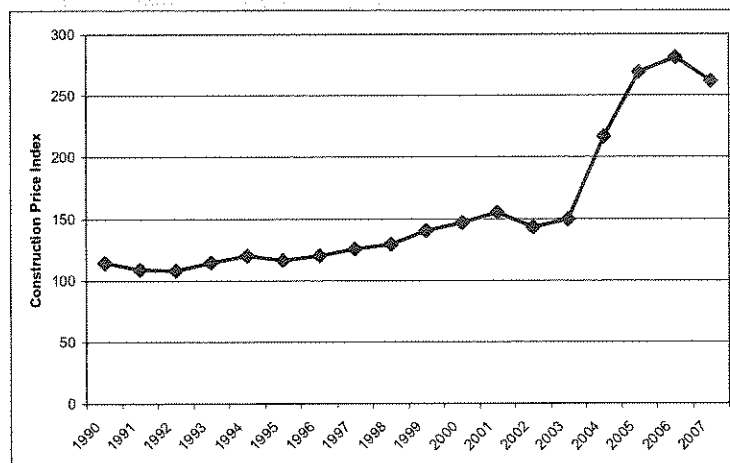


Figure 12: Caltrans Construction Price Index (1987 prices = 100)

- Some of the cost estimates used in the Measure "C" Extension materials appear to have been used by mistake. For example, three totally unrelated projects (California Avenue

widening, the replacement of the North and Cedar Avenue interchanges, and improvements to the American Avenue interchange) are all listed as having identical costs of \$24,984,851. In another example, the \$3 million estimate given for the SR-41 auxiliary lanes between Tulare Street and O Street appears to have come from a budget estimate for a much smaller project to improve the O Street off-ramp that had a similar-sounding name.

- Some projects have moved forward using other funding sources since the Measure “C” Extension ballot materials were prepared, and so the remaining budget request is for less than the original request. For example, the City of Clovis used funds from its own impact fees to implement most of the Shaw Avenue widening project, reducing the funding needed from Measure “C” Extension from \$31.5 million to \$17 million.
- In several cases additional information has come to light that resulted in changes to the project scope. For example, the City of Parlier found that the plan to widen Mendocino Avenue would have been considerably more expensive than originally thought due to the need to remove several commercial gas storage tanks. The City is therefore revising their plan, and instead intends to widen a parallel road, Academy Avenue, to serve the same purpose as the original project. Similarly, for the case of the extension of SR-180 to I-5, the original alignment along Nees Avenue has been dropped in favor of a new alignment with different cost characteristics.
- In other cases the lead agency changed the phasing of a project with consequent changes to costs. For example, SR-180 East Segments IV and V were originally scoped to be 2-lane expressways within a right-of-way capable of accommodating later expansion to a 4-lane facility. Upon reconsideration Caltrans believes that the rapid growth of demand in the area justifies implementing the extension as 4-lanes from the start, especially as the additional cost of doing so is relatively low.

In all cases the approach used in this study was that it is the role of the lead agency, not the consultant, to define or redefine the project. For example, if the lead agency’s concept for the project has evolved away from the concept originally used to prepare Measure “C” Extension then there would be little point in basing the costs used for the RTMF on superseded information. Note, however, that this does not mean that the updated costs will be automatically approved for implementation; such a step could only be taken by the Fresno County Transportation Authority (FCTA).

Conclusions Regarding Project Costs

Measure “C” Extension is a long-term program that will require periodic adjustments as the situation evolves over time. The original Measure “C” Extension ballot materials incorporated the best cost information available at the time of their preparation. However, since that time, some projects have dropped out of Measure “C” Extension as funds became available from other sources, other projects have changed in scope, and prices for construction materials and right-of-way have escalated rapidly. The overall estimated cost for the Tier 1 program has risen from about \$534 million in uninflated 2006 dollars to about \$946 million; an increase of 77%. More than half of the increase can be attributed to two projects, namely:

- The largest increase is attributable to the extension of SR-180 west to I-5. The original alignment followed an existing road so much of the right-of-way had already been purchased; while the new alignment would require the purchase of entirely new ROW. The cost increase for this project affects the overall funding situation for Measure “C” Extension but does not directly impact the RTMF because this project does not meet the eligibility requirements for RTMF funding.
- The second-largest increase is attributable to the SR-41/168/180 braided ramps project. As this project moves through its design stages it is becoming clear both that the project

will require more and longer structures than was originally thought and that the materials to be used in these structures have increased in price.

The estimated costs for most Tier 2 projects had a net reduction of 16%, due to the fact that several projects have already been fully or partially implemented using other funding sources. The net reduction is also due in part to the fact that few Tier 2 projects have reached the design stage, where unexpected cost items are most likely to come to light.

5. OTHER (NON-RTMF) SOURCES OF FUNDING

Measure "C" cites three sources of funding for projects, namely the Measure "C" sales tax, the State Transportation Improvement Program (STIP), and the RTMF. This section describes the levels of funding that can be expected from the first two sources so that the size of the expected unfunded portion can be determined. The figures used in this section are all expressed in uninflated 2008 dollars.

Measure "C" Sales Tax

The most important effect of the original Measure "C" was to establish a sales tax that could be used to fund improvements to the transportation system. The sales tax raised \$671 million over the life of the original Measure "C", \$480 million (73.5%) of which was used for capital projects¹¹.

Sales tax revenues grew steadily over the course of the original Measure "C" and are expected to continue to grow during the period of the extension, though a short downturn is expected in the near term due to the current weak condition of the economy (see Figure 13 below). The key difference between the sales tax revenues in the original Measure "C" and the extension, from the perspective of road improvement programs, is that 73.5% of sales tax revenues were available for capital projects during the original measure compared to only 29.4% being made available for road improvements during the period of the measure extension¹². So the transition from Measure "C" to Measure "C" Extension will result in an approximate halving of funds available for major road improvements for this source.

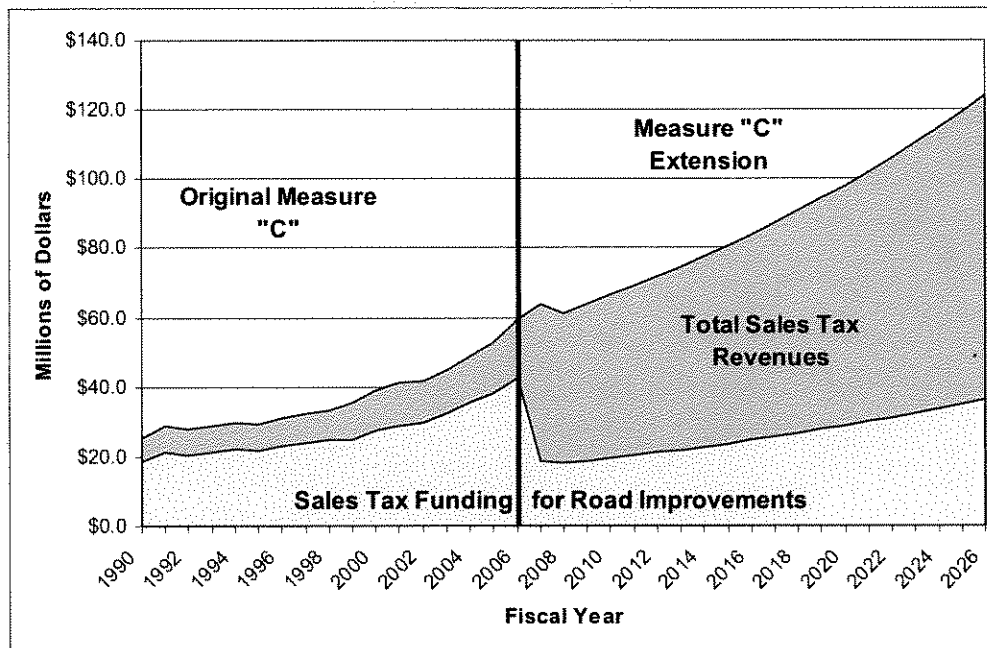


Figure 13: Measure "C" Sale Tax Revenue

¹¹ Another 25.0% was used to support local transportation and the remaining 1.5% was used to cover administrative costs.

¹² Measure "C" Extension also includes funding for public transit and transit-supportive measures, local street maintenance and improvement, bicycle and pedestrian trails, and rail consolidation, among other things.

Based on the most recent estimates it appears that the Measure “C” sales tax will raise approximately \$517 million for road improvements over the life of the extension. In nominal terms this is slightly more than was raised during the original Measure “C”, but when the doubling of construction costs are considered the real level of sales tax support for road improvements will be about half of what it was under the original measure.

State Transportation Improvement Program (STIP)

State and federal funds for transportation improvements are channeled through the STIP, which is administered by the California Transportation Commission (CTC). For the purposes of this study there are two key features of the STIP; namely that the CTC allocates a share of statewide funding to Fresno County which FCOG then allocates among individual projects, subject to later review by the CTC, and that STIP funding is difficult to predict and varies widely from year to year depending on the budget situation on the state level.

Table 22 below shows the STIP funds for projects analogous to those in the Tier 1 and Tier 2 lists for the period of the original Measure “C”.

Table 22: Original Measure "C" STIP Funding for Road Projects		
Year	Project	STIP Funds (millions)
1990	SR-180: SR-99 to SR-41	\$72.4
1990	SR-180: SR-41 to Chestnut	\$75.9
1992	SR-168: SR-180 to Bullard	\$53.2
1992	SR-41: Audubon to Madera Co. Line	\$18.2
1998	SR-180: Chestnut to Clovis	\$90.2
1999	SR-180: SR-99 to Hughes/West Diagonal	\$39.3
2007	SR-180: Clovis to Temperance	\$11.9
Projected	SR-180: Temperance to Academy	\$25.1

Total for 20-Year Measure Period = \$386.1

Average STIP Funding Per Year = \$19.3

The CTC's current estimate for STIP funding for the first half of the Measure “C” Extension period¹³ is \$16.8 million per year. The Measure “C” Extension ballot materials state that 75% of STIP funds will be made available for Tier 1 projects, which would mean that \$12.6 million per year¹⁴ would be available for the projects relevant to the RTMF study. STIP funding would thus be about 35% less during the Measure “C” Extension period than it was during the period of the original Measure “C”¹⁵ in nominal terms. Moreover, since project costs have approximately doubled in recent years, in terms of purchasing power for road construction the STIP will only provide about one-third of the funding support that it did during the period of the original Measure “C”.

¹³ Estimates are not yet available for the second half of the period

¹⁴ 75% of \$16.8 million is \$12.6 million

¹⁵ \$16.8 million is approximately 65% of \$19.3 million

Comparing Project Costs to Funding Available

Taken together, the STIP and the Measure "C" sale tax are expected to generate approximately \$769 million over the course of the Measure "C" extension period¹⁶. This figure is compared to the estimated costs of projects in Table 23 below.

Table 23: STIP and Sales Tax Revenues Compared to Project Costs (millions of dollars)				
Projects Included	Project Costs	STIP & Sales Tax Revenues	Funding Shortfall	Shortfall as % of Project Costs
Tier 1 Only	\$947	\$769	\$178	19%
Tier 1 and FIDS	\$1,066	\$769	\$297	28%
Tier 1, Tier 2, and FIDS	\$1,758	\$769	\$984	56%

The table shows that the STIP and sales tax allocations would cover approximately 80% of the costs of the Tier 1 projects, leaving a shortfall of approximately \$178 million to be funded from other sources. FCOG believes this to be a very conservative estimate of the shortfall since it does not include an allowance for further inflation of project costs; if construction prices continue to rise, the shortfall for Tier 1 projects could be as much as \$500-\$600 million. The clear conclusion is that there will be no surplus of STIP and sales tax allocations for Tier 2 and FIDS projects; if they are to be implemented they would have to be funded entirely from other sources that could include RTMF.

This calculation is intended to provide readers with a context for judging the role of the RTMF as a source of funds for roadway improvements in Fresno County. Readers should note, however, that the maximum fee that can be charged under the RTMF is based solely on the traffic impacts attributable to new development and thus is unrelated to the size of the funding shortfall¹⁷. In other words, if the maximum revenues from the RTMF are insufficient to cover the funding shortfall then the fees cannot be simply factored up to the desired level; by state law the fees cannot go beyond the constraints stipulated in the Mitigation Fee Act. The shortfall would have to be met by some other means, such as finding other sources of funding or seeking to economize on the costs of individual projects.

¹⁶ Assuming that 75% of the STIP and 29.4% of the sale tax revenues are devoted to road improvements, as stated in the Measure "C" Extension ballot materials.

¹⁷ This is true because the shortfall is larger than the amount expected to be raised from the RTMF. Had the shortfall been smaller, then the RTMF would be scaled back to cover only the amount of the shortfall.

6. COMPUTING THE RTMF FEES AND REVENUES

An overview of the methodology used to compute the RTMF is provided in the section below, followed by sections describing the resulting fees and the revenues that would be raised by the RTMF under the different sets of policy options described in the previous chapter.

Overview of the Fee Computation Methodology

The methodology used in the fee computation is outlined in Figure 14 below.

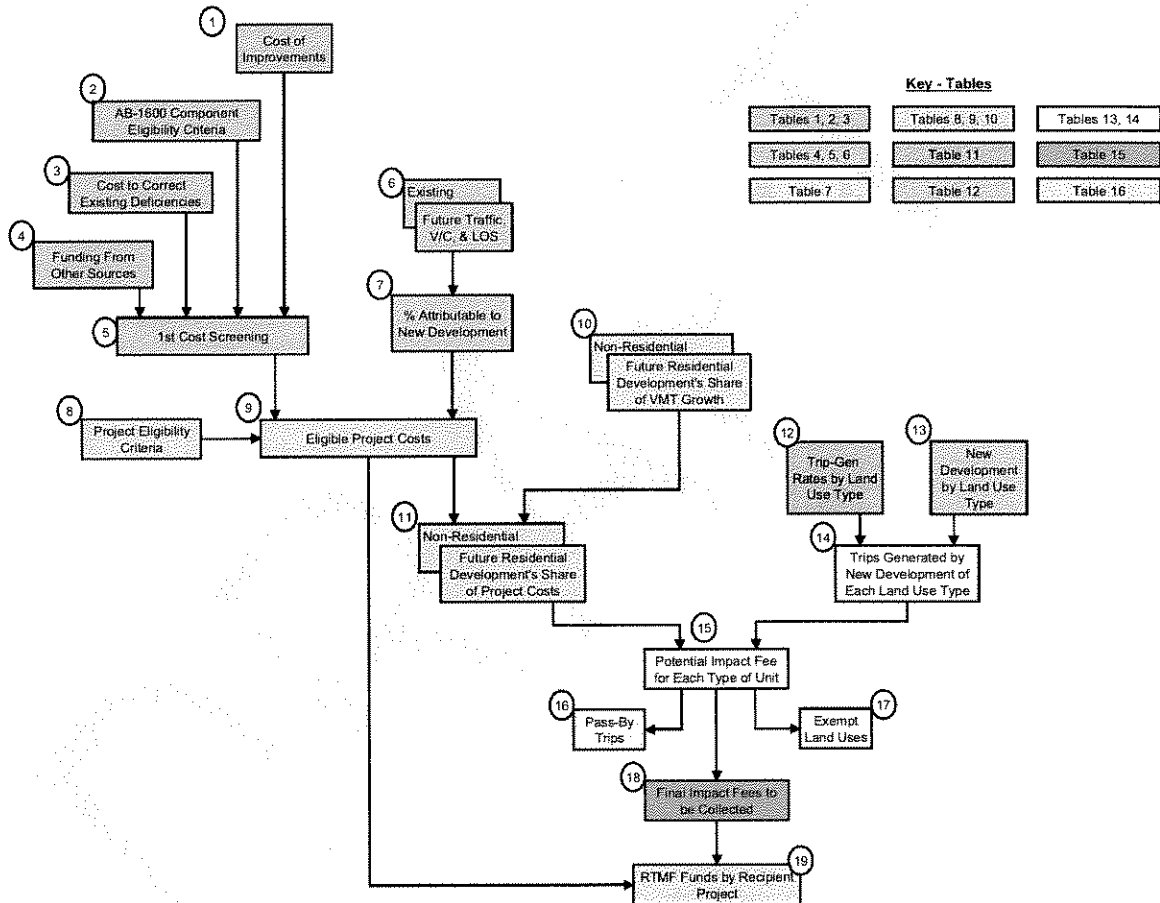


Figure 14: Steps in the Fee Computation

The major steps are described below. The calculations are shown in the appendix and the table numbers refer to tables in the appendix.

- 1) The starting point was the set of revised cost estimates prepared for each project as described in Chapter 4. These are shown in Column A of Tables 1, 2, and 3.
- 2) The costs of certain project components such as beautification work were deducted because they are ineligible by law to receive impact fee revenue. There are only a few of such cases. These are shown in Column B of Tables 1, 2, and 3.

- 3) Next, certain items such as the cost to replace a flooded bridge or the cost to replace a structurally deficient bridge were deducted since the purpose of the project is to correct an existing deficiency. These are shown in Column C of Tables 1, 2, and 3. The Mitigation Fee Act does not permit the use of impact fees to correct existing deficiencies.
- 4) Next, funding from other sources that is expected to be available for the listed projects was deducted from the amount needed from the RTMF, as shown in Column D of Tables 1, 2, and 3.
- 5) The product of the previous four steps was the interim maximum amount of funding that can be sought from the RTMF. These are shown in Column E of Tables 1, 2, and 3. This interim amount was later finalized in Step 8.
- 6) The outputs from the FCOG traffic model were used to determine the volume-to-capacity (V/C) ratio and level-of-service (LOS) for each project under existing and 2030 conditions.
- 7) The change in LOS was used to determine the portion of need for each project that could be attributed to new residential and non-residential development. This is shown in Tables 4, 5, and 6.
- 8) The FCOG and FCTA Boards made policy decisions that only state facilities on the Tier 1 and FIDS lists would be eligible for funding under RTMF.
- 9) The results of Steps 5, 7, and 8 were then combined to determine the portion of each project's cost that could be attributed to new development. This is the maximum amount allowable by law that could potentially be collected using the RTMF. These are shown in Column C of Tables 8, 9, and 10.
- 10) The FCOG traffic model was used to determine the growth in vehicle-miles traveled (VMT) that will be associated with residential and non-residential development. These are shown in Tables 7. For residential land uses the unit of measurement was VMT per day per dwelling unit, while for non-residential uses, trip-generation was measured in terms of VMT per day per job¹⁸.
- 11) The results of Steps 9 and 10 were then combined to determine the portion of each project's cost that could be attributed to new residential and non-residential development. These are shown in Columns I and J of Tables 8, 9, and 10.
- 12) Next, the trip generation rate was determined for each land use type. These are shown in Table 11 for non-residential trips, and in Tables 13 and 14 for residential trips.
- 13) The number of new units of each land use type was taken from the FCOG traffic model. These are shown in Table 12.
- 14) The number of new units for each development type was then multiplied by the trip generation rate to produce the total number of new trips associated with each type of land use development. These are shown in Column C of Tables 13 and 14.
- 15) For residential units, the project costs attributable to residential and non-residential developments (from Step 9) was then divided by the expected number of new trips (from Step 14) to produce the impact fee for each type of unit. This is shown in Column E of Table 13.
- 16) For non-residential trips, a percentage of trips were deducted from the retail land use category to account for pass-by trips. This is shown in Column D of Table 14.

¹⁸ The FCOG traffic model uses units of jobs for most non-residential land uses. This is converted into square feet of new development in a later step.

- 17) The FCOG and FCTA Boards made a policy decision, based on language in Measure “C” Extension, that developments used for education or governmental purposes would be exempt from the RTMF. The fees from these land use types were therefore deducted from the expected RTMF revenues.
- 18) The final RTMF fees per square foot of non-residential development was then computed in Column G of Table 14.
- 19) The FCOG and FCTA Boards made a policy decision that, in light of the severe downturn in the development market occurring at the time that the RTMF was being enacted, the RTMF would be phased in over a period of three years. A benchmark figure of \$1,200 in RTMF fees per single-family dwelling was used for the phase-in, with the other phase-in fees scaled in proportion. The fees for the phase-in period are shown in Columns A and B of Table 15.

The fees for each year were multiplied by the average number of new units expected to be built over the 20-year life of the RTMF to estimate the total amount of RTMF fees generated, as shown in Column H of Table 16. Note that because of the various exemptions and reductions that will be applied to the RTMF, only 57% of the amount theoretically justifiable under the Mitigation Fee Act will be collected.
- 20) The costs attributable to new development, for those projects that met the eligibility requirements, were then factored by the 57% figure from the previous step to determine the amount of RTMF expected for funding individual projects. This is shown in Table 16.

The next sections describe several key steps in the process in more detail.

Trip-Generation Rates by Land Use Type

Trip generation (trip-gen) rates are a key connection between future land development and its expected traffic impacts. FCOG's travel demand model bases its trip-gen equations for residential land uses on the vehicle ownership of the household, with different rates for households with zero, one, and two vehicles. While this approach makes sense for a traffic model, it is impractical to use for an impact fee program because when a new development is proposed the only known quantities are the number of dwellings to be constructed; neither the developer nor the jurisdiction has any way of knowing what the vehicle ownership rates of the future residents will be. A similar situation occurs for non-residential development. The developer and the jurisdiction only know the floor area of the buildings proposed for construction; they have no way of knowing the number of employees who will work in the building (which is likely to vary from year to year in any case). The employee-based trip-gen rates used in the traffic model would thus be awkward to try to use for collecting an impact fee. For these reasons, a different source of information on trip-gen rates is required.

By far the most commonly used reference for trip generation rates in the U.S. is ITE's *Trip Generation*¹⁹ handbook, which was chosen by the PDT as the reference to be used in this study.

Residential and Non-Residential Shares of New Traffic

The amount of traffic generated by a new development is a function of the number of new trips associated with the development and the average length of those trips. Together, these two produce the total vehicle-miles-traveled (VMT) associated with the development.

Outputs from the FCOG Travel Demand Model were used to forecast the growth in VMT for five different types of trips. The growth in VMT from new development was attributed to residential and non-residential developments based on trip type. In this case, the PDT chose to attribute all trips beginning or ending at the traveler's home to the residential land use while all trips not

¹⁹ *Trip Generation 7th Edition*, Institute of Traffic Engineers, 2003

involving a residential location were attributed to non-residential land uses. This approach is consistent with the state of the practice for estimating trip generation as described in NCHRP Report 187²⁰, which is a primary reference for travel estimation techniques used in travel demand modeling. Chapter 2 of the NCHRP report, which details trip generation estimation, states that "HBW (Home Based Work) and HBNW (Home Based Non Work) trips are generated at the households, whereas the NHB (Non-Home Based) trips are generated elsewhere."

Pass-By Trips

Some analyses of traffic impacts provide an allowance for what are termed "pass-by" trips. These are stops at intermediate destinations (coffee shops, gas stations, etc.) that occur in the course of a longer trip taken primarily for some other purpose, such as a home-to-work trip. It could be argued that such trips add little to the overall mileage driven and therefore have only a minor impact on traffic conditions. The PDT chose to use a flat reduction rate of 43% for all retail developments, which was based on the median of measured pass-by rates for the retail uses listed in the ITE Trips Generation Manual (see Table 11).

²⁰ *Quick Response Urban Travel Estimation Techniques and Transferable Parameters User's Guide*, Transportation Research Board, 1978

7. RESULTS

Based on the analysis described above, a nexus was found to exist between the anticipated new development in Fresno County and forecast deficiencies in the regional road network. The projects needed to rectify these deficiencies were identified and the costs of the projects were reviewed for reasonableness and, where necessary, revised. A determination was made as to the share of the costs of these projects that were attributable to new development, and this share was further sub-divided to determine the portion attributable to individual units of new developments of various types.

Over the year-long course of the study numerous policy issues were raised and analyzed. Input was sought and received at more than a dozen public meetings and through web-based correspondence. Based on this input and guidance in Measure "C" ballot language the FCOG and FCTA Boards ultimately approved a plan that:

- Limits the use of RTMF funds to projects for state facilities identified on the Regional Transportation Funding Tier 1 list or in the Freeway Interchange Deficiency Study (FIDS).
- Exempts projects for the development of educational or governmental facilities from paying the fee, and reduces the fee for affordable housing to half of the fee for market-rate housing. Retail developments are to be given a reduction for pass-by trips that are incidental to longer trips that would have occurred anyway.
- Phases in the fee over a three-year period, with reduced fees in 2009 and 2010, and the full fee to take effect in 2011.

The fees adopted by the FCOG and FCTA Boards in October 2008 were as follows:

Table 24: Fees by Year and Land Use Category			
Land Use Category	2009	2010	2011 and thereafter
Residential Developments (\$/dwelling unit)			
Single-Family Dwelling (market-rate)	\$1,200	\$1,450	\$1,727
Single-Family Dwelling (affordable)	\$600	\$725	\$863
Multi-Family Dwelling (market-rate)	\$843	\$1,018	\$1,212
Multi-Family Dwelling (affordable)	\$421	\$509	\$606
Non-Residential Developments (\$/sq.ft.)			
Commercial/Retail	\$1.36	\$1.65	\$1.96
Commercial/Office/Service	\$0.85	\$1.03	\$1.23
Education	Exempt	Exempt	Exempt
Government	Exempt	Exempt	Exempt
Light Industrial	\$0.34	\$0.41	\$0.49
Heavy Industrial	\$0.07	\$0.09	\$0.10
Other Non-Residential	\$0.29	\$0.35	\$0.42

Source: Parsons Brinckerhoff

These fees are expected to contribute the following amounts to individual projects:

Table 25: Expected Distribution of RTMF Funds Among Projects			
Projects Receiving Funds	Total Project Costs	Projected RTMF Funding	% of Total Project Cost
Tier 1			
SR-180 West Seg II	\$5,450,000	\$520,000	10%
SR-41/SR-168/SR-180	\$114,000,000	\$65,223,000	57%
Veteran's Boulevard	\$117,979,000	\$39,102,000	33%
SR-180 East Seg III	\$42,600,000	\$24,373,000	57%
SR-180 East Seg IV	\$46,461,00	\$26,463,000	57%
SR-180 East Seg V	\$59,916,000	\$34,280,000	57%
Freeway Interchange Deficiency Study			
SR99/Belmont	\$6,783,000	\$3,881,000	57%
SR41/Tulare&Divisadero	\$6,838,000	\$3,912,000	57%
SR41/Ashlan	\$5,457,000	\$3,122,000	57%
SR41/Bullard	\$14,107,000	\$8,071,000	57%
SR41/Friant	\$2,751,000	\$1,318,000	48%
SR180/N. Fulton & Van Ness	\$2,500,000	\$1,430,000	57%
SR168/Shaw	\$3,100,000	\$1,774,000	57%
	Total Project Funds	\$213,470,000	
	Administrative Costs (2%)	\$4,360,000	
	Total RTMF Program	\$217,830,000	

8. FUTURE ADJUSTMENTS

The nexus analysis described in this report represents the conditions prevailing at the time of the report's submission. However, conditions can be expected to change over the course of the 20-year time span of the fee program, and so state law requires, and Measure "C" Extension provides guidance for, periodic adjustments to be made to the fee program. The nature of the future adjustments is described below.

Annual and Periodic Adjustments

The Mitigation Fee Act requires that impact fees be subject to periodic review to ensure that the nexus remains valid. Measure "C" Extension reflects this by stipulating that the RTMF be adjusted as follows to reflect new information:

"The RTMF shall be adjusted to reflect actual construction costs every 5 years, but shall be adjusted annually on July 1st to reflect the percentage increase or decrease in the Engineering News Record Index for the California Cities for the twelve (12) month period preceding December of each year."

Adjustments to the Project List

Measure "C" Extension is a long-term program and its framers recognized the need for flexibility to allow the program to evolve as circumstances change. The ballot measure therefore included the following passage:

"Although it is the primary purpose of the RTP-MC funds to augment Tier 1 funding levels, there is recognition that it is difficult to accurately project revenues / expenditures for a 20-year period. Therefore, in the event that additional resources (e.g. federal or state earmarks) are made available to fully fund all of the Tier 1 projects, then it is acknowledged that the Fresno County Transportation Authority (Authority), in consultation with the Council of Fresno County Governments (Fresno COG), will have the flexibility to fund other urban and rural street and road projects contained in the Tier 2 list of regional transportation projects. This would be accomplished through the Expenditure Plan update process, and appropriate Tier 2 list project(s) would be amended into the Tier 1 funded program."

It is uncertain at this time whether the flexibility provided in this passage will ever be used. It is useful to note, though, that Column C in Tables 8 and 9 show Tier 1 and Tier 2 project costs that are attributable to new development that are not included in the RTMF as it is currently structured. So should circumstances arise in which this passage is needed, there are project costs that have already been identified for which a nexus to new development has been shown to exist.

APPENDIX

Details of the Fee Calculation

TABLE 1: ESTIMATED COSTS FOR TIER 1 PROJECTS

	Project ID	Project Name	Updated Cost Estimate	Ineligible Components	Costs Clearly Related to Existing Deficiencies	Funding from Other Sources	Funding Potentially Sought from Measure "C" After 1st Screening
			(A)	(B)	(C)	(D)	(E)=(A)-(B+C+D)
URBAN TIER 1	A	SR-180 East Seg II	\$33,479,701	\$0	\$0	\$33,479,701	\$0
	B	SR-180 West Seg II	\$5,450,000	\$3,483,000	\$0	\$0	\$1,967,000
	C	SR-41/SR-168/SR-180	\$114,000,000	\$0	\$0	\$0	\$114,000,000
	D	Willow Avenue	\$19,656,767	\$0	\$0	\$0	\$19,656,767
	E	Temperance Avenue	\$4,098,477	\$0	\$0	\$0	\$4,098,477
	F	Ventura Boulevard	\$5,000,000	\$0	\$5,000,000	\$0	\$0
	G	SR-99 Monterey Bridge Retrofit	\$1,000,000	\$0	\$1,000,000	\$0	\$0
	H	California Ave Widening	\$12,548,738	\$0	\$0	\$0	\$12,548,738
	I	Peach Ave Widening	\$17,300,000	\$0	\$0	\$0	\$17,300,000
	J	SR-41 Auxiliary Lane	\$11,400,000	\$0	\$0	\$0	\$11,400,000
	K	Hemdon Ave Widening	\$42,200,000	\$0	\$0	\$0	\$42,200,000
	L	Shaw Ave Upgrades	\$17,500,000	\$0	\$0	\$0	\$17,500,000
	M	SR-99 North & Cedar Interchanges	\$81,220,000	\$0	\$0	\$0	\$81,220,000
	N	Veteran's Boulevard	\$117,978,600	\$0	\$0	\$0	\$117,978,600
RURAL TIER 1	A	SR-180 West	\$8,614,915	\$0	\$0	\$0	\$8,614,915
	B	SR-180 East Seg III	\$42,600,000	\$0	\$0	\$0	\$42,600,000
	C	SR-180 East Seg IV	\$46,460,819	\$0	\$0	\$0	\$46,460,819
	D	SR-180 East Seg V	\$59,915,560	\$0	\$0	\$0	\$59,915,560
	E	Friant Road Widening	\$5,900,000	\$0	\$0	\$0	\$5,900,000
	F	Golden State Boulevard	\$34,978,792	\$0	\$34,978,792	\$0	\$0
	G	SR-269 Bridge Improvement	\$16,989,699	\$0	\$16,989,699	\$0	\$0
	H	SR-180 West I5 Extension	\$183,000,000	\$0	\$0	\$0	\$183,000,000
	I	Mountain View Ave Widening	\$25,632,000	\$0	\$0	\$0	\$25,632,000
	J	Mendocino Ave Widening	\$3,350,000	\$0	\$0	\$0	\$3,350,000
	K	SR-99 American Ave Interchange	\$24,300,000	\$0	\$0	\$0	\$24,300,000
	L	I-5/SR-198 Interchange Improvement	\$12,012,000	\$0	\$0	\$0	\$12,012,000
	Total for Tier 1		\$946,586,068	\$3,483,000	\$57,968,491	\$33,479,701	\$851,654,876
	As a percent of total updated estimate			0%	6%	4%	90%

TABLE 2: ESTIMATED COSTS FOR TIER 2 PROJECTS

	Project ID	Project Name	Updated Cost Estimate	Ineligible Components	Costs Clearly Related to Existing Deficiencies	Funding from Other Sources	Funding Potentially Sought from Measure "C" After 1st Screening
			(A)	(B)	(C)	(D)	(E)=(A)-(B+C+D)
URBAN TIER 2	AA	SR-99 Stanislaus & Tuolumne	\$45,000,000	\$0	\$0	\$0	\$45,000,000
	BB	SR-41 O-Street Auxiliary Lanes	\$63,500,000	\$0	\$0	\$0	\$63,500,000
	CC	Friant Road Widening	\$8,100,000	\$0	\$0	\$0	\$8,100,000
	DD	SR-99 Shaw Ave Interchange	\$34,978,792	\$0	\$0	\$0	\$34,978,792
	EE	Traffic Synchronization	\$24,984,851	\$24,984,851	\$0	\$0	\$0
	FF	Hemdon Ave Widening	\$16,411,238	\$0	\$0	\$0	\$16,411,238
	GG	SR-99 Auxiliary Lanes	\$59,963,643	\$0	\$0	\$0	\$59,963,643
	HH	Blackstone Ave Turn Lanes	\$2,200,000	\$0	\$0	\$0	\$2,200,000
	II	SR-99 Shields Ave Overcrossing*	\$59,963,643	\$0	\$0	\$0	\$59,963,643
	JJ	McCall Widening	\$10,993,334	\$0	\$0	\$0	\$10,993,334
	KK	Shepherd Ave Widening	\$37,500,000	\$0	\$0	\$0	\$37,500,000
	LL	SR-41 Auxiliary Lanes	\$0	\$0	\$0	\$0	\$0
	MM	SR-99 Widening	\$29,981,821	\$0	\$0	\$29,981,821	\$0
	NN	Traffic Management Center	\$993,940	\$993,940	\$0	\$0	\$0
	OO	Minnewawa 4-Lane Project	\$17,900,000	\$0	\$0	\$0	\$17,900,000
RURAL TIER 2	AA	SR-99 Central & Chestnut	\$50,000,000	\$0	\$0	\$0	\$50,000,000
	BB	SR-145 Widening	\$12,800,000	\$0	\$0	\$0	\$12,800,000
	CC	SR-33 Widening	\$9,069,501	\$0	\$0	\$0	\$9,069,501
	DD	Academy Parkway*	\$6,100,000	\$0	\$0	\$0	\$6,100,000
	EE	SR-41 Central & American Interchange	\$32,000,000	\$0	\$0	\$0	\$32,000,000
	FF	Millerton Road Widening	\$29,034,327	\$0	\$0	\$0	\$29,034,327
	GG	Manning Ave Widening	\$15,200,000	\$0	\$0	\$0	\$15,200,000
	HH	SR-43 Widening	\$47,500,000	\$0	\$0	\$0	\$47,500,000
	II	McCall Ave Connection*	\$19,100,000	\$0	\$0	\$0	\$19,100,000
	JJ	SR-180 E Seg VI	\$53,267,703	\$0	\$0	\$0	\$53,267,703
	Total for Tier 2		\$686,542,793	\$25,978,791	\$0	\$29,981,821	\$630,582,181
				4%	0%	4%	92%

TABLE 3: ESTIMATED COSTS FOR FREEWAY INTERCHANGE PROJECTS

	Project ID	Project Name	Updated Cost Estimate	Ineligible Components	Costs Clearly Related to Existing Deficiencies	Funding from Other Sources	Funding Potentially Sought from Measure "C" After 1st Screening
			(A)	(B)	(C)	(D)	(E)=(A)-(B+C+D)
PROJECTS IN THE FREEWAY INTERCHANGE DEFICIENCY STUDY	1	SR-99/Mountain View	\$4,524,000	\$0	\$0	\$0	\$4,524,000
	2	SR-99/Floral	\$5,389,750	\$0	\$0	\$0	\$5,389,750
	3	SR-99/Manning	\$11,233,750	\$0	\$0	\$0	\$11,233,750
	4	SR-99/Central	\$6,720,500	\$0	\$0	\$0	\$6,720,500
	5	SR99/Ventura	\$275,000	\$0	\$0	\$0	\$275,000
	6	SR99/Fresno	\$2,500,000	\$0	\$0	\$0	\$2,500,000
	7	SR99/Stanslaus	\$966,500	\$0	\$0	\$0	\$966,500
	8	SR99/Belmont	\$6,783,000	\$0	\$0	\$0	\$6,783,000
	9	SR99/Olive	\$5,930,500	\$0	\$0	\$0	\$5,930,500
	10	SR99/Clinton	\$406,000	\$0	\$0	\$0	\$406,000
	11	SR99/Ashlan	\$6,954,500	\$0	\$0	\$0	\$6,954,500
	12	SR99/Shaw	\$14,532,500	\$0	\$0	\$0	\$14,532,500
	13	SR99/Hemdon	\$2,527,000	\$0	\$0	\$0	\$2,527,000
	14	SR41/Van Ness	\$550,000	\$0	\$0	\$0	\$550,000
	15	SR41/Tulare&Divisadero	\$6,837,500	\$0	\$0	\$0	\$6,837,500
	16	SR41/McKinley	\$4,861,250	\$0	\$0	\$0	\$4,861,250
	17	SR41/Shields	\$7,477,750	\$0	\$0	\$0	\$7,477,750
	18	SR41/Ashlan	\$5,456,750	\$0	\$0	\$0	\$5,456,750
	19	SR41/Shaw	\$6,044,750	\$0	\$0	\$0	\$6,044,750
	20	SR41/Bullard	\$14,107,500	\$0	\$0	\$0	\$14,107,500
	21	SR41/Friant	\$2,751,000	\$0	\$0	\$0	\$2,751,000
	22	SR180/N. Fulton & Van Ness	\$2,500,000	\$0	\$0	\$0	\$2,500,000
	23	SR168/Bullard	\$2,348,500	\$0	\$0	\$0	\$2,348,500
	24	SR168/Shaw	\$3,100,000	\$0	\$0	\$0	\$3,100,000
Total for FIDS Projects			\$124,778,000	\$0	\$0	\$0	\$124,778,000
				0%	0%	0%	100%

Total Tier 1 Costs \$946,586,068
 Total Tier 2 Costs \$686,542,793
 Total FIDS Costs \$124,778,000
 Total Costs for All Projects \$1,757,906,861 in uninflated 2006 dollars

Total Amount that Could Potentially be Eligible for RTMF \$1,482,237,057 84%
 Amount needed from other sources \$275,669,804 16%
 100%

TABLE 4: V/C RATIO AND LOS FOR TIER 1 PROJECTS

	Project ID	Project Name	Existing				Future Without Improvements				% of Deficiency Attributable to New Development (I)=(G-D)/(D-1)
			Volume	Capacity	V/C Ratio	LOS	Volume	Capacity	V/C Ratio	LOS	
			(A)	(B)	(C)=(A)/(B)	(D)	(E)	(F)	(G)=(E)/(F)	(H)	
URBAN TIER 1	A	SR-180 East Seg II *	22,500	12,600	1.78	F	32,964	12,600	2.62	F	51%
	B	SR-180 West Seg II *	20,091	12,600	1.59	F	26,536	12,600	2.11	F	46%
	C	SR-41/SR-168/SR-180	4,865	5,410	0.90	D	7,673	5,410	1.42	F	100%
	D	Willow Avenue	11,815	15,400	0.77	D	27,759	15,400	1.80	F	100%
	E	Temperance Avenue	12,229	15,400	0.79	D	23,755	15,400	1.54	F	100%
	F	Ventura Boulevard	20,319	31,100	0.67	C or better	32,072	31,100	1.03	E	100%
	G	SR-99 Monterey Bridge Retrofit	9,311	15,300	0.61	C or better	15,523	15,300	1.01	E	100%
	H	California Ave Widening	17,612	12,600	1.40	F	16,077	12,600	1.28	F	100%
	I	Peach Ave Widening	53,803	105,800	0.51	C or better	73,704	105,800	0.70	C or better	No Deficiency
	J	SR-41 Auxiliary Lane	29,485	44,700	0.66	D	48,879	44,700	1.09	E	100%
	K	Herndon Ave Widening	18,759	14,600	1.28	F	33,399	14,600	2.29	F	78%
	L	Shaw Ave Upgrades	217	1,275	0.17	C or better	823	1,275	0.65	C or better	No Deficiency
	M	SR-99 North & Cedar Interchanges	29,485	15,400	1.91	F	48,879	15,400	3.17	F	58%
	N	Veteran's Boulevard *	8,506	13,700	0.62	D	13,539	13,700	0.99	D	No Deficiency
RURAL TIER 1	A	SR-180 West	13,080	13,700	0.95	D	35,946	13,700	2.62	F	100%
	B	SR-180 East Seg III	13,721	13,700	1.00	E	18,408	13,700	1.34	E	100%
	C	SR-180 East Seg IV	13,110	13,700	0.96	D	17,896	13,700	1.31	E	100%
	D	SR-180 East Seg V	12,711	52,400	0.24	C or better	20,269	52,400	0.39	C or better	No Deficiency
	E	Front Road Widening	5,299	29,400	0.18	C or better	13,713	29,400	0.47	C or better	No Deficiency
	F	Golden State Boulevard	7,832	13,700	0.57	C or better	12,311	13,700	0.90	D	No Deficiency
	G	SR-269 Bridge Improvement	4,754	13,700	0.35	C or better	7,850	13,700	0.57	C or better	No Deficiency
	H	SR-180 West 15 Extension	9,353	13,700	0.68	D	17,247	13,700	1.26	E	100%
	I	Mountain View Ave Widening	3,030	13,700	0.22	C or better	4,140	13,700	0.30	C or better	No Deficiency
	J	Mendocino Ave Widening	194	1,275	0.15	C or better	642	1,275	0.50	C or better	No Deficiency
	K	SR-99 American Ave Interchange	210	1,275	0.17	C or better	360	1,275	0.28	C or better	No Deficiency
	L	I-5/SR-198 Interchange Improvement									

TABLE 5: V/C RATIO AND LOS FOR TIER 2 PROJECTS

	Project ID	Project Name	Existing				Future Without Improvements				% of Deficiency Attributable to New Development (I)=(G-D)/(D-1)
			Volume	Capacity	V/C Ratio	LOS	Volume	Capacity	V/C Ratio	LOS	
			(A)	(B)	(C)=(A)/(B)	(D)	(E)	(F)	(G)=(E)/(F)	(H)	
URBAN TIER 2	AA	SR-99 Stanislaus & Tuolumne	806	1,275	0.63	C or better	1,401	1,275	1.10	E	100%
	BB	SR-41 O-Street Auxiliary Lanes	25,591	105,800	0.24	C or better	32,857	105,800	0.31	C or better	No Deficiency
	CC	Front Road Widening	27,217	32,700	0.83	D	36,349	32,700	1.11	F	100%
	DD	SR-99 Shaw Ave Interchange	6,154	12,600	0.49	D	12,215	12,600	0.97	D	No Deficiency
	EE	Traffic Synchronization	-	-	-	-	-	-	-	-	Not Computable
	FF	Herndon Ave Widening	5,949	15,400	0.39	C or better	13,419	15,400	0.87	D	No Deficiency
	GG	SR-99 Auxiliary Lanes	64,406	105,800	0.61	C or better	91,163	105,800	0.86	D	No Deficiency
	HH	Blackstone Ave Turn Lanes	7,185	32,700	0.22	C or better	47,998	32,700	1.47	F	26%
	II	SR-99 Shields Ave Overcrossing*	5,834	49,200	0.12	C or better	14,865	49,200	0.45	C or better	No Deficiency
	JJ	McCall Widening	8,394	32,700	0.26	C or better	19,883	32,700	0.61	C or better	No Deficiency
	KK	Shepherd Ave Widening	72,613	105,800	0.69	C or better	87,154	105,800	0.82	D	No Deficiency
	LL	SR-41 Auxiliary Lanes	35,328	67,200	0.53	C or better	56,707	67,200	0.84	D	No Deficiency
	NN	Traffic Management Center	-	-	-	-	-	-	-	-	Not Computable
	OO	Minnewaska 4-Lane Project	10,951	15,400	0.71	C or better	24,776	15,400	1.61	F	100%
RURAL TIER 2	AA	SR-99 Central & Chestnut	553	660	0.84	D	937	660	1.42	F	100%
	BB	SR-145 Widening	9,189	15,400	0.60	C or better	12,975	15,400	0.84	D	No Deficiency
	CC	SR-33 Widening	6,826	15,400	0.44	C or better	11,159	15,400	0.72	C or better	No Deficiency
	DD	Academy Parkway*	4,348	10,700	0.41	C or better	7,358	10,700	0.69	C or better	No Deficiency
	EE	SR-41 Central & American Interchange	297	660	0.45	D	930	660	1.41	F	100%
	FF	Millerton Road Widening	8,581	13,700	0.63	D	10,844	13,700	0.79	D	No Deficiency
	GG	Manning Ave Widening	9,336	13,700	0.68	D	12,853	13,700	0.94	D	No Deficiency
	HH	SR-43 Widening	13,142	13,700	0.96	D	19,331	13,700	1.41	E	100%
	II	McCall Ave Connection*	2,367	13,900	0.17	C or better	10,130	13,900	0.73	C or better	No Deficiency
	JJ	SR-180 E Seg VI	12,883	13,700	0.94	D	17,604	13,700	1.28	E	100%

TABLE 6: V/C RATIO AND LOS FOR FREEWAY INTERCHANGE PROJECTS

	Project ID	Project Name	Existing				Future Without Improvements				% of Deficiency Attributable to New Development (I)=(G-D)/(D-1)
			Volume	Capacity	V/C Ratio	LOS	Volume	Capacity	V/C Ratio	LOS	
			(A)	(B)	(C)=(A)/(B)	(D)	(E)	(F)	(G)=(E)/(F)	(H)	
PROJECTS IN THE FREEWAY INTERCHANGE DEFICIENCY STUDY	1	SR-99/Mountain View	430	1,275	0.34	C or better	604	1,275	0.47	C or better	No Deficiency
	2	SR-99/Fioral	292	1,275	0.23	C or better	312	1,275	0.24	C or better	No Deficiency
	3	SR-99/Manning	348	1,275	0.27	C or better	618	1,275	0.49	C or better	No Deficiency
	4	SR-99/Central	552	1,275	0.43	C or better	410	1,275	0.32	C or better	No Deficiency
	5	SR99/Ventura	560	1,275	0.44	C or better	1,098	1,275	0.86	C or better	No Deficiency
	6	SR99/Fresno	711	1,275	0.56	C or better	1,164	1,275	0.91	D	No Deficiency
	7	SR99/Stanislaus	274	1,275	0.21	C or better	910	1,275	0.71	C or better	No Deficiency
	8	SR99/Belmont	915	1,275	0.72	C or better	1,447	1,275	1.14	F	100%
	9	SR99/Olive	167	1,275	0.13	C or better	994	1,275	0.78	C or better	No Deficiency
	10	SR99/Clinton	749	1,275	0.59	C or better	1,120	1,275	0.88	C or better	No Deficiency
	11	SR99/Ashlan	1,034	1,275	0.81	C or better	1,154	1,275	0.91	D	No Deficiency
	12	SR99/Shaw	567	1,275	0.44	C or better	906	1,275	0.71	C or better	No Deficiency
	13	SR99/Herndon	333	1,275	0.26	C or better	722	1,275	0.57	C or better	No Deficiency
	14	SR41/Van Ness	456	1,275	0.36	C or better	854	1,275	0.67	C or better	No Deficiency
	15	SR41/Tulare&Divisadero	985	1,275	0.77	C or better	1,478	1,275	1.16	F	100%
	16	SR41/McKinley	827	1,275	0.65	C or better	983	1,275	0.77	C or better	No Deficiency
	17	SR41/Shields	746	1,275	0.59	C or better	1,070	1,275	0.84	C or better	No Deficiency
	18	SR41/Ashlan	834	1,275	0.65	C or better	1,353	1,275	1.06	E	100%
	19	SR41/Shaw	722	1,275	0.57	C or better	1,269	1,275	1.00	D	No Deficiency
	20	SR41/Bullard	813	1,275	0.64	C or better	1,522	1,275	1.19	F	100%
	21	SR41/Friant	1,096	1,050	1.04	E	1,333	1,050	1.27	F	84%
	22	SR180N, Fulton & Van Ness	864	1,275	0.68	C or better	1,322	1,275	1.04	E	100%
	23	SR168/Bulard	202	1,050	0.19	C or better	817	1,050	0.78	C or better	No Deficiency
	24	SR168/Shaw	557	1,050	0.53	C or better	1,070	1,050	1.02	E	100%

Notes:

* V/C Ratio of existing facilities that currently serve this function

Italicized values in the Volume and Capacity columns are for the peak-hour; non-italicized are daily values

Shaded cells in LOS columns indicate that the facility does not meet FCOG's LOS standard of "D" or better

TABLE 7: PERCENTAGE OF VMT GROWTH ATTRIBUTABLE TO RESIDENTAL DEVELOPMENT

Trip Purpose	2007 Vehicle Miles Traveled		2030 Vehicle Miles Traveled		Trip End Attribution*		Growth in VMT	
					Residential	Non-Res	Residential	Non-Res
	(A)		(B)		(C)	(D)	(E) = (A-B) * (C)	(F) = (A-B) * (D)
Home-Work VMT	5,824,570	25%	9,312,158	24%	2.0	0.0	6,975,177	-
Home-Shop VMT	2,465,152	10%	4,151,433	11%	2.0	0.0	3,372,562	-
Home-Other VMT	6,702,090	28%	11,038,334	28%	2.0	0.0	8,672,487	-
Other-Work VMT	2,300,702	10%	3,804,637	10%	0.0	2.0	-	3,007,870
Other-Other VMT	6,409,288	27%	10,709,570	27%	0.0	2.0	-	8,600,565
Total Vehicle Trips	23,701,802	100%	39,016,133	100%			19,020,227	11,608,434
							62%	38%

* Each trip has two ends, the origin end and the destination end. RTMF policy, based on National Cooperative Highway Research Program Report 187, is to allocate both ends of any trip involving a residence to the residence

TABLE 8: TIER 1 PROJECT COSTS POTENTIALLY ATTRIBUTABLE TO NEW DEVELOPMENT

Project ID	Project Name	% of Deficiency Attributable to New Development	RTMF-Eligible Costs	RTMF-Eligible Costs Attributable to New Development	Project Eligibility Policies		Final Computation of RTMF-Eligible Costs*	% Attributable to		Eligible Attributable to:	
		(A)	(B)	(C) = (A) * (B)	State Facility?	Tier 1 or FIS?	(F)	Residential Trips (G)	Non-Res Trips (H)	New Residential Development (I) = (F) * (G)	New Non- Residential Development (J) = (F) * (H)
		(from Table 4)	(from Table 1)	(C) = (A) * (B)	(D)	(E)	(F)	(from Table 8)	(from Table 8)	(I) = (F) * (G)	(J) = (F) * (H)
URBAN TIER 1	A SR-180 East Seg II	51%	\$0	\$0	Yes	Yes	\$0	62%	38%	\$0	\$0
	B SR-180 West Seg II	46%	\$1,967,000	\$909,681	Yes	Yes	\$909,681	62%	38%	\$564,907	\$344,774
	C SR-41/SR-168/SR-180	100%	\$114,000,000	\$114,000,000	Yes	Yes	\$114,000,000	62%	38%	\$70,793,361	\$43,206,639
	D Willow Avenue	100%	\$19,656,767	\$19,656,767	No	Yes	\$0	62%	38%	\$0	\$0
	E Temperance Avenue	100%	\$4,098,477	\$4,098,477	No	Yes	\$0	62%	38%	\$0	\$0
	F Ventura Boulevard	100%	\$0	\$0	No	Yes	\$0	62%	38%	\$0	\$0
	G SR-99 Monterey Bridge Retrofit	100%	\$0	\$0	Yes	Yes	\$0	62%	38%	\$0	\$0
	H California Ave Widening	100%	\$12,548,738	\$12,548,738	No	Yes	\$0	62%	38%	\$0	\$0
	I Peach Ave Widening	47%	\$17,360,000	\$8,215,914	No	Yes	\$0	62%	38%	\$0	\$0
	J SR-41 Auxiliary Lane	No Deficiency	\$11,400,000	\$0	Yes	Yes	\$0	62%	38%	\$0	\$0
	K Herndon Ave Widening	100%	\$42,200,000	\$42,200,000	No	Yes	\$0	62%	38%	\$0	\$0
	L Shaw Ave Upgrades	78%	\$17,500,000	\$13,628,384	No	Yes	\$0	62%	38%	\$0	\$0
	M SR-99 North & Cedar Ave Interchanges	No Deficiency	\$81,220,000	\$0	Yes	Yes	\$0	62%	38%	\$0	\$0
	N Veteran's Boulevard	58%	\$117,978,600	\$68,343,647	Yes	Yes	\$68,343,647	62%	38%	\$42,441,022	\$26,902,625
RURAL TIER 1	A SR-180 West	No Deficiency	\$8,614,819	\$0	Yes	Yes	\$0	62%	38%	\$0	\$0
	B SR-180 East Seg III	100%	\$42,600,000	\$42,600,000	Yes	Yes	\$42,600,000	62%	38%	\$26,454,381	\$16,145,639
	C SR-180 East Seg IV	100%	\$46,460,819	\$46,263,581	Yes	Yes	\$46,263,581	62%	38%	\$28,723,219	\$17,530,369
	D SR-180 East Seg V	100%	\$59,915,560	\$59,915,560	Yes	Yes	\$59,915,560	62%	38%	\$37,207,227	\$22,708,333
	E Friant Road Widening	No Deficiency	\$5,960,000	\$0	No	Yes	\$0	62%	38%	\$0	\$0
	F Golden State Boulevard	No Deficiency	\$0	\$0	No	Yes	\$0	62%	38%	\$0	\$0
	G SR-269 Bridge Improvement	No Deficiency	\$0	\$0	No	Yes	\$0	62%	38%	\$0	\$0
	H SR-180 West IS Extension	No Deficiency	\$183,000,000	\$0	Yes	Yes	\$0	62%	38%	\$0	\$0
	I Mountain View Ave Widening	100%	\$25,632,000	\$25,632,000	No	Yes	\$0	62%	38%	\$0	\$0
	J Mendocino Ave Widening	No Deficiency	\$3,350,000	\$0	No	Yes	\$0	62%	38%	\$0	\$0
	K SR-99 American Ave Interchange	No Deficiency	\$24,300,000	\$0	Yes	Yes	\$0	62%	38%	\$0	\$0
	L I-5 Interchange Improvement	No Deficiency	\$12,012,000	\$0	Yes	Yes	\$0	62%	38%	\$0	\$0
			\$851,654,876	\$458,002,750	54% < (% of B Total)		\$332,022,469	39% < (% of B Total)		\$206,184,093	\$125,838,378

* Project must meet both project eligibility criteria (have a "Yes" in columns D and E) in order for the costs to be eligible

TABLE 9: TIER 2 PROJECT COSTS POTENTIALLY ATTRIBUTABLE TO NEW DEVELOPMENT

Project ID	Project Name	% of Deficiency Attributable to New Development	RTMF-Eligible Costs	RTMF-Eligible Costs Attributable to New Development	Project Eligibility Policies		Final Computation of RTMF-Eligible Costs*	% Attributable to		Eligible Attributable to:	
		(A)	(B)	(C) = (A) * (B)	State Facility?	Tier 1 or FIS?	(F)	Residential Trips (G)	Non-Res Trips (H)	New Residential Development (I) = (F) * (G)	New Non- Residential Development (J) = (F) * (H)
		(from Table 5)	(from Table 2)	(C) = (A) * (B)	(D)	(E)	(F)	(from Table 8)	(from Table 8)	(I) = (F) * (G)	(J) = (F) * (H)
URBAN TIER 2	AA SR-99 Stanislaus & Tuolumne	100%	\$45,000,000	\$45,000,000	Yes	No	\$0	62%	38%	\$0	\$0
	BB SR-41 O Street Ramps	No Deficiency	\$63,500,000	\$0	Yes	No	\$0	62%	38%	\$0	\$0
	CC Friant Road Widening	100%	\$8,100,000	\$8,100,000	No	No	\$0	62%	38%	\$0	\$0
	DD SR-99 Shaw Ave Interchange	No Deficiency	\$34,978,792	\$0	Yes	No	\$0	62%	38%	\$0	\$0
	EE Traffic Synchronization	Not Computable	\$0	\$0	No	No	\$0	62%	38%	\$0	\$0
	FF Herndon Ave Widening	No Deficiency	\$16,411,238	\$0	No	No	\$0	62%	38%	\$0	\$0
	GG SR-99 Auxiliary Lanes	No Deficiency	\$58,963,643	\$0	Yes	No	\$0	62%	38%	\$0	\$0
	HH Blackstone Ave Turn Lanes	26%	\$2,260,000	\$586,179	No	No	\$0	62%	38%	\$0	\$0
	II SR-99 Shields Ave Overcrossing*	No Deficiency	\$58,963,643	\$0	No	No	\$0	62%	38%	\$0	\$0
	JJ McCall Widening	No Deficiency	\$10,993,334	\$0	No	No	\$0	62%	38%	\$0	\$0
	KK Shepherd Ave Widening	No Deficiency	\$37,500,000	\$0	No	No	\$0	62%	38%	\$0	\$0
	LL SR-41 Auxiliary Lanes	No Deficiency	\$0	\$0	Yes	No	\$0	62%	38%	\$0	\$0
	MM SR-99 Widening	No Deficiency	\$0	\$0	No	No	\$0	62%	38%	\$0	\$0
	NN Traffic Management Center	Not Computable	\$0	\$0	No	No	\$0	62%	38%	\$0	\$0
RURAL TIER 2	OD Minnewawa 4-Lane Project	100%	\$17,900,000	\$17,900,000	No	No	\$0	62%	38%	\$0	\$0
	AA SR-99 Central & Chestnut	100%	\$50,000,000	\$50,000,000	Yes	No	\$0	62%	38%	\$0	\$0
	BB SR-145 Widening	No Deficiency	\$12,800,000	\$0	Yes	No	\$0	62%	38%	\$0	\$0
	CC SR-33 Widening	No Deficiency	\$8,068,501	\$0	Yes	No	\$0	62%	38%	\$0	\$0
	DD Academy Parkway	No Deficiency	\$8,160,000	\$0	No	No	\$0	62%	38%	\$0	\$0
	EE SR-41 Central & American Interchange	100%	\$32,000,000	\$32,000,000	Yes	No	\$0	62%	38%	\$0	\$0
	FF Millerton Road Widening	No Deficiency	\$28,034,327	\$0	No	No	\$0	62%	38%	\$0	\$0
	GG Manning Ave Widening	No Deficiency	\$15,200,000	\$0	No	No	\$0	62%	38%	\$0	\$0
	HH SR-43 Widening	100%	\$47,500,000	\$47,500,000	Yes	No	\$0	62%	38%	\$0	\$0
	II McCall Ave Connection*	No Deficiency	\$16,100,000	\$0	No	No	\$0	62%	38%	\$0	\$0
	JJ SR-180 E Seg VI	100%	\$53,267,703	\$53,267,703	Yes	No	\$0	62%	38%	\$0	\$0
			\$630,582,181	\$294,333,892	40% < (% of B Total)		\$0	0% < (% of B Total)		\$0	\$0

* Project must meet both project eligibility criteria (have a "Yes" in columns D and E) in order for the costs to be eligible

TABLE 10: FREEWAY INTERCHANGE PROJECT COSTS POTENTIALLY ATTRIBUTABLE TO NEW DEVELOPMENT

Project ID	Project Name	% of Deficiency Attributable to New Development	RTMF-Eligible Costs	RTMF-Eligible Costs Attributable to New Development	Project Eligibility Policies		Final Computation of RTMF-Eligible Costs*	% Attributable to		Eligible Attributable to:	
		(A)	(B)	(C) = (A) * (B)	State Facility?	Tier 1 or FIS?	(F)	Residential Trips (G)	Non-Res Trips (H)	New Residential Development (I) = (F) * (G)	New Non- Residential Development (J) = (F) * (H)
		(from Table 6)	(from Table 3)	(C) = (A) * (B)	(D)	(E)	(F)	(from Table 8)	(from Table 8)	(I) = (F) * (G)	(J) = (F) * (H)
PROJECTS IN THE FREEWAY INTERCHANGE DEFICIENCY STUDY	1 SR-99/Mountain View	No Deficiency	\$4,524,000	\$0	Yes	Yes	\$0	62%	38%	\$0	\$0
	2 SR-99/Friant	No Deficiency	\$5,389,750	\$0	Yes	Yes	\$0	62%	38%	\$0	\$0
	3 SR-99/Manning	No Deficiency	\$11,233,750	\$0	Yes	Yes	\$0	62%	38%	\$0	\$0
	4 SR-99/Central	No Deficiency	\$6,720,500	\$0	Yes	Yes	\$0	62%	38%	\$0	\$0
	5 SR99/Ventura	No Deficiency	\$275,000	\$0	Yes	Yes	\$0	62%	38%	\$0	\$0
	6 SR99/Fresno	No Deficiency	\$2,500,000	\$0	Yes	Yes	\$0	62%	38%	\$0	\$0
	7 SR99/Stanslaus	No Deficiency	\$966,500	\$0	Yes	Yes	\$0	62%	38%	\$0	\$0
	8 SR99/Belmont	100%	\$6,783,000	\$6,783,000	Yes	Yes	\$6,783,000	62%	38%	\$4,212,205	\$2,570,795
	9 SR99/Olive	No Deficiency	\$5,930,500	\$0	Yes	Yes	\$0	62%	38%	\$0	\$0
	10 SR99/Cinton	No Deficiency	\$406,000	\$0	Yes	Yes	\$0	62%	38%	\$0	\$0
	11 SR99/Ashlan	No Deficiency	\$6,954,500	\$0	Yes	Yes	\$0	62%	38%	\$0	\$0
	12 SR99/Shaw	No Deficiency	\$14,532,500	\$0	Yes	Yes	\$0	62%	38%	\$0	\$0
	13 SR99/Herndon	No Deficiency	\$2,527,000	\$0	Yes	Yes	\$0	62%	38%	\$0	\$0
	14 SR41/Van Ness	No Deficiency	\$550,000	\$0	Yes	Yes	\$0	62%	38%	\$0	\$0
	15 SR41/Tulare/Divisadero	100%	\$6,837,500	\$6,837,500	Yes	Yes	\$6,837,500	62%	38%	\$4,246,049	\$2,591,451
	16 SR41/McKinley	No Deficiency	\$4,861,250	\$0	Yes	Yes	\$0	62%	38%	\$0	\$0
	17 SR41/Shields	No Deficiency	\$7,477,750	\$0	Yes	Yes	\$0	62%	38%	\$0	\$0
	18 SR41/Ashlan	100%	\$5,456,750	\$5,456,750	Yes	Yes	\$5,456,750	62%	38%	\$3,388,611	\$2,068,139
	19 SR41/Shaw	No Deficiency	\$8,044,750	\$0	Yes	Yes	\$0	62%	38%	\$0	\$0
	20 SR41/Bullard	100%	\$14,107,500	\$14,107,500	Yes	Yes	\$14,107,500	62%	38%	\$8,760,678	\$5,346,822
	21 SR41/Friant	84%	\$2,751,000	\$2,303,525	Yes	Yes	\$2,303,525	62%	38%	\$1,430,476	\$873,049
	22 SR180N Flutton & Van Ness	100%	\$2,500,000	\$2,500,000	Yes	Yes	\$2,500,000	62%	38%	\$1,552,486	\$947,514
	23 SR168/Bullard	No Deficiency	\$2,348,500	\$0	Yes	Yes	\$0	62%	38%	\$0	\$0
	24 SR168/Shaw	100%	\$3,100,000	\$3,100,000	Yes	Yes	\$3,100,000	62%	38%	\$1,925,083	\$1,174,917
			\$124,778,000	\$41,088,275	33% < (% of B Total)		\$41,088,275	33% < (% of B Total)		\$25,515,588	\$15,572,686

* Project must meet both project eligibility criteria (have a "Yes" in columns D and E) in order for the costs to be eligible

TABLE 11: CALCULATION OF BLENDED TRIP GENERATION RATES

Land Use Category	ITE Reference	Weekday Trips per KSF*	Weekday Trips per Employee*	Square Feet per Employee	PM Peak Pass-by Trips**
Retail					
Building Materials and Lumber	812	45.16	32.12		
Discount Superstore	813	49.21			28%
Specialty Retail Center	814	44.32	22.36		
Discount Store	815	56.02	28.84		17%
Hardware Store	816	51.29	53.21		26%
Nursery (Garden Center)	817	36.08	22.13		
Shopping Center	820	42.94			34%
Factory Outlet Center	823	26.59			
New Car Sales	841	33.34	21.14		
Auto Parts Store	843	61.91			43%
Tire Store	848	24.87			28%
Supermarket	850	102.24	87.82		36%
Convenience Market	851	737.99			61%
Convenience Market with Fuel Pumps	853	845.60			63%
Discount Supermarket	854	96.82			23%
Discount Club	861	41.80	32.21		
Home Improvement Superstore	862	29.80			48%
Electronics Superstore	863	45.04			40%
Pharmacy with Drive Through	881	88.16			49%
Furniture Store	890	5.06	12.19		53%
Quality Restaurant	931	89.95			44%
High Turnover (Sit-Down) Restaurant	932	127.15			43%
Fast Food Restaurant with Drive Through	934	496.12			49%
Median		49.21	28.84	586	43%
Service					
Hospital	610	17.57	5.20		
Clinic	630	31.45	7.75		
General Office	710	11.01	3.32		
Medical-Dentist Office Building	720	36.13	8.91		
Office Park	750	11.42	3.50		
Business Park	770	12.76	4.04		
Walk-in Bank	911	21.49			
Median		17.57	4.62	263	
Government/Public Sector					
Government Office Building	730	68.93	11.95		
Education					
Elementary School	520		15.71		
High School	530		19.74		
University/College	550		9.13		
Median			15.71		
Other					
General Light Industry	110	6.97	3.02	433	
General Heavy Industry	120	1.50	0.82	547	
Truck Terminal	30	9.85	6.99		
Industrial Park	130	6.96	3.34		
Manufacturing	140	3.82	2.13		
Warehousing	150	4.96	3.89		
Median		5.96	3.18	534	

Notes:

* Average weekday daily trip generation data derived from ITE Trip Generation (Seventh Edition), 2003

** Average weekday PM peak pass-by trip rates derived from ITE Trip Generation Handbook, June 2004

TABLE 12: COMPUTATION OF NUMBER OF NEW UNITS

Land Use Category	Unit	2007 (A)	2030 (B)	# of New Units (C)=(B)-(A)	Average New Units/Year (D) = (C) / 20 years
Single-Family Dwellings (market rate)	Dwelling Unit	171,962	264,932	92,971	4,649
Single-Family Dwellings (affordable)*	Dwelling Unit	14,953	23,038	8,084	404
Multi-Family Dwellings (market rate)	Dwelling Unit	81,508	128,435	46,926	2,346
Multi-Family Dwellings (affordable)*	Dwelling Unit	7,088	11,168	4,081	204
Commercial/Retail	Employee	51,887	83,340	31,453	1,573
Commercial/Office/Service	Employee	83,501	156,069	72,568	3,628
Government	Employee	35,540	54,592	19,052	953
Education	Employee	33,871	60,567	26,696	1,335
Light Industrial	Employee	15,036	20,427	5,391	270
Heavy Industrial	Employee	30,072	40,854	10,782	539
Other Non-Residential	Employee	105,253	142,989	37,736	1,887

* per information provided by Fresno COG, 8% of new housing is to be considered affordable

TABLE 13: COMPUTATION OF RTMF FOR RESIDENTIAL DEVELOPMENTS

Land Use Category	Number of New Dwelling Units (A)	Trip-Gen Rate (B)	Total Trips Generated (C)	Fee Per New Dwelling Unit (E)=(B)*Cost/Trip
Single-Family Dwellings (market rate)	92,971	9.57	889,729	\$1,727
Single-Family Dwellings (affordable)	8,084	9.57	77,368	\$863
Multi-Family Dwellings (market rate)	46,926	6.72	315,346	\$1,212
Multi-Family Dwellings (affordable)	4,081	6.72	27,421	\$606

Total of New Residential Trips > 1,309,863
 Costs Attribution to New Residential Trips (from Tables 8, 9, 10) > \$231,699,682
 Administrative Costs for RTMF > 2%
 Cost per New Residential Trip = \$180

50% Percent discount given to affordable housing as specified in Appendix D of Measure "C"

TABLE 14: COMPUTATION OF RTMF FOR NON-RESIDENTIAL DEVELOPMENTS

Land Use Category	Number of New Employees (A)	Trip-Gen Rate (B)	Total Trips Generated (C)	Pass-By Reduction (D)	Fee Per New Employee (E)=(B)*Cost/Trip*(1-D)	Square Feet/ Employee (F)	Fee/ Square Foot (G) = (E)/(F)
Commercial/Retail	31,453	28.84	907,105	43%	\$1,165	586	\$1.99
Commercial/Office/Service	72,568	4.62	335,264		\$328	263	\$1.25
Government	19,052	11.95	227,671		Exempt	Exempt	Exempt
Education	26,696	15.71	419,394		Exempt	Exempt	Exempt
Light Industrial	5,391	3.02	16,280		\$214	433	\$0.49
Heavy Industrial	10,782	0.82	8,841		\$58	547	\$0.11
Other Non-Residential	37,736	3.18	119,999		\$225	534	\$0.42

Total of New Non-Residential Trips > 2,034,555
 Costs Attribution to New Non-Residential Trips (from Tables 8, 9, 10) > \$141,411,062
 Administrative Costs for RTMF > 2%
 Cost per New Non-Residential Trip = \$71

TABLE 15: FEES AS APPROVED AND ESTIMATED RTMF REVENUES

Land Use Category	2009* (A)	2010* (B)	2011 and thereafter (C) from Tables 13 & 14	Average New Units/Year (D) from Table 12	Fees Generated in 2009** (E)=(A)*(D)/2	Fees Generated in 2010 (F)=(B)*(D)	Fees Generated in 2011-2028 (G)=(C)*(D)*18	Total Fees Generated 2009-2028 (H)=(E)+(F)+(G)
Residential Developments (\$/dwelling unit)								
Single-Family Dwelling (market-rate)	\$1,200	\$1,450	\$1,727	4,649	\$2,789,118	\$6,740,369	\$144,477,323	\$154,006,809
Single-Family Dwelling (affordable)	\$600	\$725	\$863	404	\$121,266	\$293,060	\$6,281,623	\$6,695,948
Multi-Family Dwelling (market-rate)	\$843	\$1,018	\$1,212	2,346	\$988,544	\$2,388,982	\$51,206,960	\$54,584,487
Multi-Family Dwelling (affordable)	\$421	\$509	\$606	204	\$42,980	\$103,869	\$2,226,390	\$2,373,239
Non-Residential Developments (\$/sq.ft.)								
Commercial/Retail	\$1.38	\$1.67	\$1.99	1,573	\$1,087	\$2,626	\$56,292	\$60,005
Commercial/Office/Service	\$0.87	\$1.05	\$1.25	3,628	\$1,571	\$3,795	\$81,353	\$86,719
Education	Exempt	Exempt	Exempt	953	\$0	\$0	\$0	\$0
Government	Exempt	Exempt	Exempt	1,335	\$0	\$0	\$0	\$0
Light Industrial	\$0.34	\$0.41	\$0.49	270	\$46	\$112	\$2,397	\$2,555
Heavy Industrial	\$0.07	\$0.09	\$0.11	539	\$20	\$48	\$1,032	\$1,100
Other Non-Residential	\$0.29	\$0.35	\$0.42	1,887	\$277	\$669	\$14,350	\$15,297
					\$3,944,909	\$9,533,530	\$204,347,720	\$217,826,159
					Total Cost of Tier 1 & FIDS Projects (from Tables 1 & 3) >			\$1,071,364,068
					% Covered by RTMF >			20%

* FCOG and FCTA Boards approved a 2-year phase-in based on \$1,200 per single-family dwelling in 2009, with fees for other development types getting a proportionate reduction.

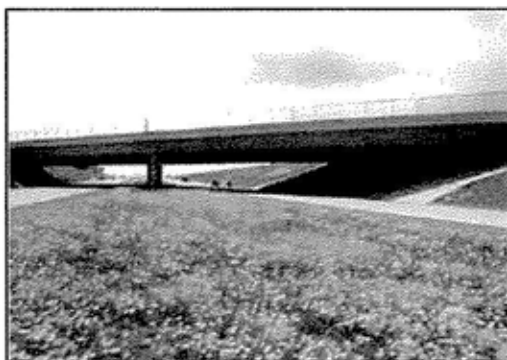
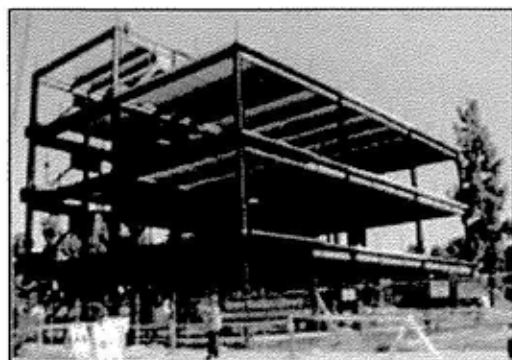
** Assumes fee will take effect July 1, 2009

Estimated Revenues After Exemptions and Reductions \$217,826,159
 Administrative Costs (2%) \$4,356,523
 RTMF Funds Available for Projects \$213,469,636
 Costs Eligible for RTMF from Column (F) in Tables 8, 9, and 10 \$373,110,744
 Percent of Eligible Costs Covered 57%

TABLE 16: COMPUTATION OF RTMF FUNDS BY PROJECT

Projects Receiving Funds	Total Project Costs	Costs Attributable to New Development	RTMF Coverage After Exemptions & Reductions	Projected RTMF Funding	% of Total Project Cost
	From Tables 1, 2, 3	From Tables 8, 9, 10	From Table 15	(D)=(B)*(C)	(E)=(D)/(A)
Tier 1					
SR-180 West Seg II	\$5,450,000	\$909,681	57%	\$520,460	10%
SR-41/SR-168/SR-180	\$114,000,000	\$114,000,000	57%	\$65,223,366	57%
Veteran's Boulevard	\$117,978,600	\$68,343,647	57%	\$39,101,778	33%
SR-180 East Seg III	\$42,600,000	\$42,600,000	57%	\$24,372,942	57%
SR-180 East Seg IV	\$46,460,819	\$46,253,581	57%	\$26,463,283	57%
SR-180 East Seg V	\$59,915,560	\$59,915,560	57%	\$34,279,776	57%
Freeway Interchange Deficiency Study					
SR99/Beimont	\$6,783,000	\$6,783,000	57%	\$3,880,790	57%
SR41/Tulare&Divisadero	\$6,837,500	\$6,837,500	57%	\$3,911,972	57%
SR41/Ashlan	\$5,456,750	\$5,456,750	57%	\$3,121,996	57%
SR41/Bullard	\$14,107,500	\$14,107,500	57%	\$8,071,392	57%
SR41/Friant	\$2,751,000	\$2,303,525	57%	\$1,317,927	48%
SR180/N. Fulton & Van Ness	\$2,500,000	\$2,500,000	57%	\$1,430,337	57%
SR168/Shaw	\$3,100,000	\$3,100,000	57%	\$1,773,618	57%

Total Urban	\$128,353,635	60%
Total Rural	\$85,116,001	40%
Total RTMF Funds for Projects	\$213,469,636	100%



This model uses the County of Fresno as an example. Highlighted sections show where this reference may need to be changed for cities.

ORDINANCE NO. _____

AN ORDINANCE OF THE COUNTY OF FRESNO

AUTHORIZING PARTICIPATION IN THE COUNCIL OF FRESNO COUNTY GOVERNMENTS
REGIONAL TRANSPORTATION MITIGATION FEE PROGRAM

The Board of Supervisors of the County of Fresno (the "Board of Supervisors") ordain as follows:

Section 1: Title

This Ordinance shall be known as the "Fresno County Regional Transportation Mitigation Fee Ordinance of 2009" (the "Ordinance").

Section 2: Findings

A. This Ordinance establishes the "Fresno County Regional Transportation Mitigation Fee" (the "RTMF") as directed by the "Fresno County Transportation, Safety, Road Repair Measure" approved by the voters of Fresno County on November 7, 2006 (the "Measure 'C' Extension").

B. The County is a Member Agency of the Council of Fresno County Governments ("FCOG"), a joint powers agency consisting of the County of Fresno (the "County"), and the incorporated cities situated in Fresno County (the "Cities"). As a Member Agency of FCOG, the County participated in the preparation of a certain "Fresno County Regional Transportation Mitigation Nexus Study", dated February, 2009 (the "RTMF Nexus Study") prepared pursuant to California Government Code, Section 66000 et seq., the Mitigation Fee Act.

C. Consistent with the findings made in the RTMF Nexus Study, the Board of Supervisors has been informed and advised, and hereby finds, that future development within the County and the Cities will result in traffic volumes exceeding the capacity of certain facilities on the freeway and regional arterial highway network (referred to as the "network") as it presently exists.

D. Consistent with the findings made in the RTMF Nexus Study, the Board of Supervisors has been further informed and advised, and hereby finds, that if the capacity of the network is not enlarged, the result will be additional traffic congestion in the County, with unacceptable Levels of Service on facilities throughout the County by 2030.

E. The Board of Supervisors has been further advised, and so finds that existing and known future funding sources will be inadequate to provide necessary improvements to the network, resulting in an unacceptably high level of traffic congestion within and around the County.

F. The Board of Supervisors has reviewed the RTMF Nexus Study, and hereby finds that future development within the County and the Cities will adversely affect the network, and that unless such development contributes its fair share of the cost of improving the network, the network will operate at unacceptable Levels of Service.

G. The Board of Supervisors further finds and determines that there is a reasonable and rational relationship between the use of the RTMF and the type of development projects on which the fees are imposed because the fees will be used to construct the transportation improvements that are necessary for the safety, health and welfare of the residential and non-residential users of the development projects on which the RTMF will be levied.

H. The Board of Supervisors finds and determines that there is a reasonable and rational relationship between the need for the improvements to the network and the type of development projects on which the RTMF is imposed because it will be necessary for the residential and non-residential users of such

- G. **“Commercial/Office/Service Development”** means any development project that is predominately dedicated to business activities associated with professional, administrative or clerical services, and typically consist of corporate offices, financial institutions, legal and medical offices.
- H. **“Commercial/Retail Development”** means any development project that is predominately dedicated to selling goods, wares or merchandise directly to the ultimate consumer.
- I. **“Light Industrial”** means any development project employing fewer than 500 people that is predominately dedicated to processing of small articles such as printing, assembly of data processing equipment, and other similar types of enterprise.
- J. **“Heavy Industrial”** means any development project that is predominately dedicated to the manufacture, fabrication, processing reduction or destruction of any article, substance or commodity, or any other treatment thereof in such a manner as to change the form, character, or appearance thereof, and including storage elevators, truck storage yards, warehouses, wholesale storage and other similar types of enterprise.
- K. **“Other Non-Residential”** means any development project that is predominately non-residential and does not meet any of the definitions of Education Development, Government Development, Commercial/Office/Service Development, Commercial/ Retail Development, Light Industrial, or Heavy Industrial.
- L. **“Development”** means any work or improvement that requires a building permit or development approval but shall not include any work or improvement for offsite construction or improvements to be dedicated to public use as a condition of a development entitlement.
- M. **“New Development”** means any development on vacant land or additions or expansions on existing development wherein square footage of the development, in the case of non-residential use, or the number of dwelling units, in the case of residential use, is increased, or where the use is changed. It shall not include remodels or reuse wherein the number of dwelling units or overall square footage is not increased or the use has not changed.
- N. **“Actual Construction Costs”** mean, for the purpose of imposing a fee adjustment pursuant to Section 4, Paragraph C, any actual and estimated costs of the network improvements, including, but not limited to, debt service, lease payments and construction and acquisition costs.

Section 4: Establishment of the Regional Transportation Mitigation Fee

- A. **Fee.** All new development in the County [or the City, as applicable] shall be responsible for paying the RTMF unless otherwise exempted by this Ordinance.
- B. **Fee Calculation.** The fees shall be assessed according to the RTMF fee provided in the Regional Mitigation Fee Schedule and the methodology set forth in the Fee Calculation Handbook adopted (date), as amended from time to time. The following shall be observed for purposes of calculating the fee:
 - i. For residential projects, the fee rate utilized shall be computed on a per-dwelling unit basis.
 - ii. For non-residential projects, the fee rate utilized shall be based on a per-square-foot of the building or structure identified in the building permit as determined by the highest and best use based on the underlying zoning approved for the site.
 - iii. Pursuant to California Government Code, Section 66005.1, the RTMF shall be applied at a reduced rate for those developments meeting the criteria set forth in the Section. The fee reduction shall follow whatever guidelines are established by the State of California for administration of this section of the California Government Code.

Section 5: Reimbursements

Should the developer construct network improvements in excess of the RTMF fee obligation, the developer shall be reimbursed based on reasonable actual costs. Reimbursements shall be enacted through a three party agreement including the developer, FCTA, and the County [or the City, as applicable], contingent on funds being available. In all cases, however, reimbursements under such special agreements must coincide with construction of the transportation improvements as scheduled in the most current Measure "C" Implementation Plan adopted by FCTA.

Section 6: Procedures for the Levy, Collection and Disposition of Fees

A. **Authority of the Building Department.** The Director of Public Works [for some jurisdictions this will be the Director of Community Development or Planning], or his/her designee, is hereby authorized to levy and collect the RTMF and make all determinations required by this Ordinance.

B. **Payment.** Payment of the fees shall be as follows:

- i. The fees shall be paid no later than the time a certificate of occupancy is issued for the Development pursuant to County [or City] policy [refer to code section].
- ii. The amount of the fee to be paid shall be the fee amount in effect at the time that payment is made under this Ordinance
- iii. If all or part of any development project is sold prior to payment of the fee, the property shall continue to be subject to the requirement for payment of the fee, accordingly, the fees shall run with the land.
- iv. Applicants shall pay a processing fee of twenty-five dollars (\$25.00) per application that shall be used to help cover the cost to the County [or the City, as applicable] of administering the RTMF program. This fee shall be paid at the same time as the RTMF fee. [Each jurisdiction should decide how much, if anything, to charge applicants. The amounts charged cannot exceed the actual cost of administering the program]

C. **Disposition of Fees.** All fees collected hereunder shall be transmitted to the Executive Director of FCTA within ninety days for deposit, investment, accounting and expenditure in accordance with the provisions of this Ordinance and the Mitigation Fee Act.

D. **Appeals.** Appeals shall be filed with FCTA in accordance with the administrative procedures established by FCTA. Appealable issues shall be the application of the fee, application of credits, application of reimbursement, and application of exemption. Appeals may also be made that the fee level for development of unique types of land uses be evaluated on an individual basis. Such unique projects and specific evaluation shall be paid for by the project applicant and performed by Fresno COG or its designee.

E. **Reports to FCTA.** The Director of Public Works [Community Development or Planning], or his/her designee, shall prepare and deliver to the Executive Director of FCTA, periodic reports as will be established under the RTMF administrative handbook.

Section 7: Severability

If any one or more of the terms, provisions or sections of this Ordinance shall to any extent be judged invalid, unenforceable and/or voidable for any reason whatsoever by a court of competent jurisdiction, then each and all of the remaining terms, provisions and sections of this Ordinance shall not be affected thereby and shall be valid and enforceable.

Regional Transportation Mitigation Fee Schedule

Land Use Category	2009	2010	2011 and thereafter
Residential Developments (\$/dwelling unit)			
Single-Family Dwelling (market-rate)	\$1,200	\$1,450	\$1,727
Single-Family Dwelling (affordable)	\$600	\$725	\$864
Multi-Family Dwelling (market-rate)	\$843	\$1,018	\$1,212
Multi-Family Dwelling (affordable)	\$421	\$509	\$606
Non-Residential Developments (\$/sq.ft.)			
Education	exempt	exempt	exempt
Government	exempt	exempt	exempt
Commercial/Retail	\$1.36	\$1.65	\$1.96
Commercial/Office/Service	\$0.85	\$1.03	\$1.23
Light Industrial	\$0.34	\$0.41	\$0.49
Heavy Industrial	\$0.07	\$0.09	\$0.10
Other Non-Residential	\$0.29	\$0.35	\$0.42

POLICY ADVISORY COMMITTEE

ACTION/DISCUSSION ITEMS

AGENDA ITEM III. H.



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February 23, 2009

PUBLIC NOTICE
Notice of Public Listening Session:
Council of Fresno County Governments Federal Certification Review

A Public hearing is scheduled for Wednesday, March 25, 2009 to receive input on how to improve the region's transportation planning process.

The Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) will be conducting the certification review and evaluation of the region's transportation planning process carried out by the Council of Fresno County Governments (Fresno COG) and its partners. Every four years the FHWA and FTA jointly conduct this review. As part of the review, the public is invited to comment on the transportation planning process at the following public meeting:

Date: Wednesday, March 25, 2009
Time: 5:30 pm to 7:30 p.m.
Location: Council of Fresno County Governments, 2035 Tulare Street, Suite 201
 Fresno, California

Oral and written comments may be presented at the meeting. Written comments can also be sent via e-mail to cert.review@fhwa.dot.gov or by regular mail to:

Scott Carson **or**
Federal Highway Administration
650 Capitol Mall, Suite 4-100
Sacramento, CA 95814

Paul Page
Federal Transit Administration
201 Mission Street, Suite 2210
San Francisco, CA 94105

Public written comments will be accepted through April 25, 2009.

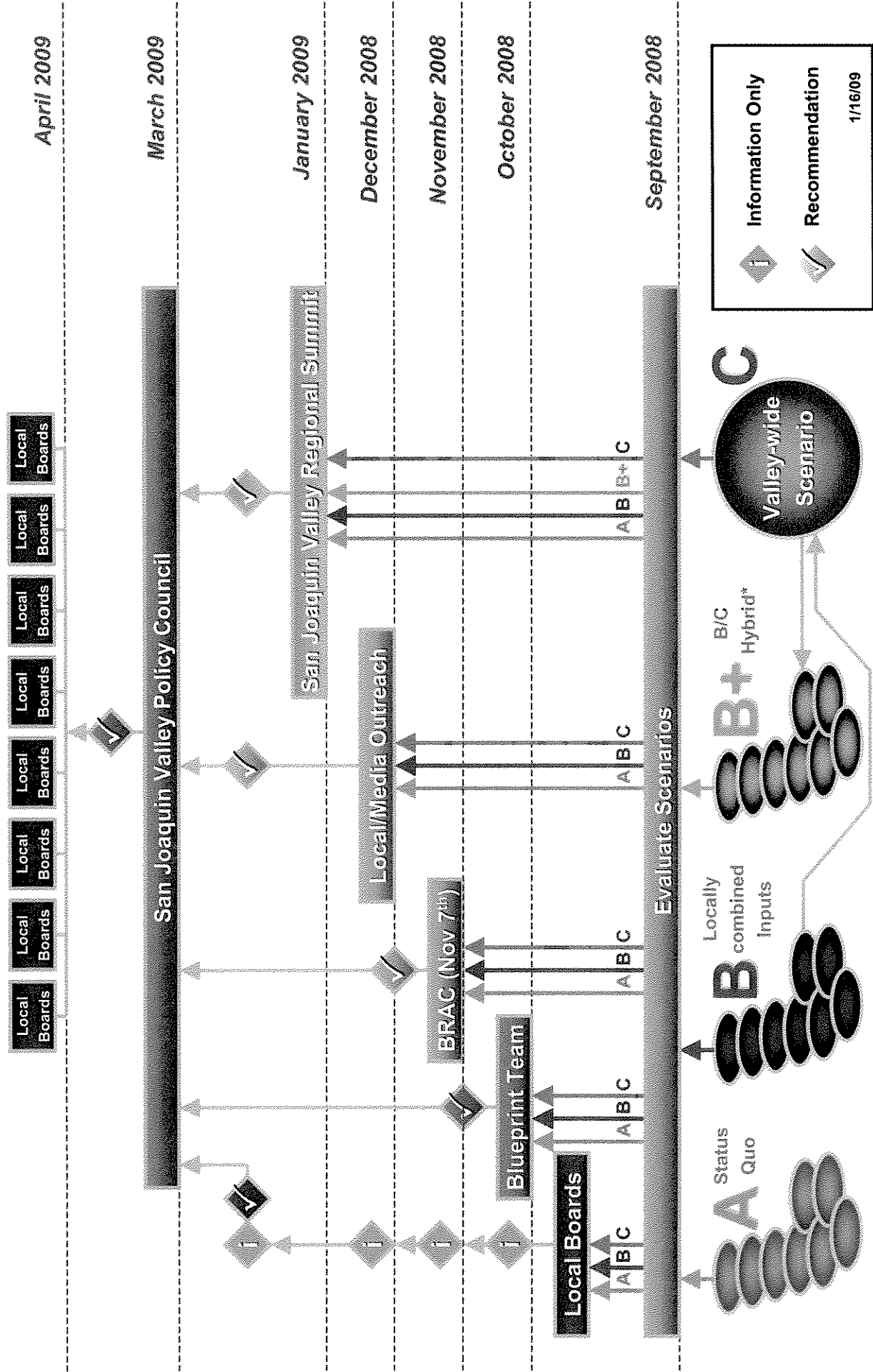
Any questions regarding these hearings should be directed to Tony Boren, Executive Director at (559) 233-4148.

/s/ TONY BOREN, Executive Director
Council of Fresno County Governments
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POLICY ADVISORY COMMITTEE

ACTION/DISCUSSION ITEMS

AGENDA ITEM III. I.



**This scenario was created after the BRAC, based on direction from the Policy Council.*

