

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

Final Staff Report: Rule 9410

December 17, 2009

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

FINAL STAFF REPORT

Rule 9410 (Employer Based Trip Reduction)

December 17, 2009

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I. SUMMARY

The District is required and committed to adopt an employer based trip reduction rule. Both the federal and California Clean Air Acts require ozone nonattainment areas like the San Joaquin Valley to adopt all reasonable and feasible measures to reduce ozone precursor emissions. The California Health and Safety Code Section authorizes and sets expectations for the District to adopt an employer trip reduction program. Rule 9410 (Employer Based Trip Reduction) satisfies a federally-enforceable commitment in District State Implementation Plans (the *2007 Ozone Plan* and the *2008 PM2.5 Plan*) and is designed to share the air pollution clean-up burden traditionally targeted at stationary sources.

Through employer based trip reduction, employers establish programs to help employees use ridesharing and alternative transportation. Studies show that comprehensive, multi-faceted programs that combine marketing, program support, services and facilities, alternative schedules, and incentives are the most successful.

Although there are several regional trip reduction programs in existence in California, the District has engaged in an extensive process to tailor the program to the unique

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needs of diverse Valley employers. District staff researched relevant commute studies, law, and human resources issues and proactively created numerous opportunities for the District to discuss the rule and listen to stakeholder suggestions and concerns. The District held 11 public meetings as well as 20 meetings with interested employers, industry groups, and service organizations. The District also met with each of the Valley's eight counties and 10 largest cities, as these are some of the Valley's largest employers. In total, District addressed about 400 individuals representing hundreds of thousands of commuters.

This dialog helped define the specifications for a successful rule. The Valley has a great diversity of employers representing a variety of industries, regions, urban and rural areas, and work cultures. Employers emphasized that transit is not available everywhere and that ridesharing may potentially impact productivity, as in production line environments. Thus, employers need flexibility to adopt suitable trip reduction programs, and employers must consider labor laws and union contracts. Employers also emphasized the need for low administrative costs and technical assistance.

The District developed Rule 9410 to meet these specifications. The menu-option approach addresses the Valley's diversity of employers and transit limitations, offering each employer flexibility to implement programs that can work for their worksites and employees. The District is committing to extensive and continuous employer implementation assistance with training sessions, guidance, templates, newsletters, and turnkey program components. District staff researched potential labor law and union issues and incorporated appropriate provisions into the rule, such as distinguishing production line workers in applicable measures and special provisions for employers with employees protected by the Migrant and Seasonal Agricultural Worker Protection Act.

Proposed Rule 9410 will be successful in achieving the goals of the rule with minimal disruption to employers. Staff has designed the rule to assure that each employer has sufficient options for rule compliance, and employer programs will help employees choose to use ridesharing and alternative transportation. Rule 9410 is tailored for the Valley, providing a straight-forward and attainable approach for Valley employers as compared to South Coast Rule 2202's mandated participation levels and fees. As such, Rule 9410 is expected to kick-start a change in the Valley's commute behaviors and achieve the goal of reducing vehicle miles traveled (VMT) and trips.

Through Rule 9410, employers provide the infrastructure that facilitates employees choosing to use ridesharing and alternative transportation. Rule 9410 also provides accountability needed for credit in the State Implementation Plan. Employers will submit annual reports to the District, and this information will allow the District to verify emissions reductions to the U.S. Environmental Protection Agency (EPA).

The District's Personnel Department assessed potential workers' compensation, labor law, and liability issues, ensuring that each menu-option is feasible from a human resources perspective. The District's Outreach and Communications Department has developed a plan for the significant outreach that will be required during rule implementation. With this diverse internal involvement and extended stakeholder outreach, Rule 9410 has truly been a comprehensive effort.

A. Reasons for Rule Development and Implementation

The San Joaquin Valley Air Basin is designated nonattainment for the National Ambient Air Quality Standard (NAAQS) for 8-hour ozone and for PM2.5. The Valley is also nonattainment for the California ozone and PM standards. By reducing VMT, Rule 9410 can decrease emissions of ozone precursors, direct PM2.5, and PM2.5 precursors. Decreasing VMT can also contribute to efforts to reduce greenhouse gases (GHG).

Reducing mobile source emissions is key to the success of the San Joaquin Valley's (Valley) attainment strategies for the federal 8-hour ozone and PM2.5 (particulate matter that is 2.5 microns or less in diameter) standards. About 75% of the Valley's oxides of nitrogen (NOx) emissions come from mobile sources, and NOx is a key ingredient in both ozone and secondary particulate matter formation. However, state and federal laws preempt the San Joaquin Valley Air Pollution Control District's (District) authority to regulate tail-pipe emissions for mobile sources.

The California Air Resources Board (ARB) is responsible for regulating emissions from on-road motor vehicles, and ARB also establishes fuel specifications for California. Local governments, such as cities and counties, can influence air quality by addressing emissions from vehicles in their land-use and transportation planning processes and projects. For example, reducing urban sprawl and increasing street connectivity reduce emissions and help improve air quality.

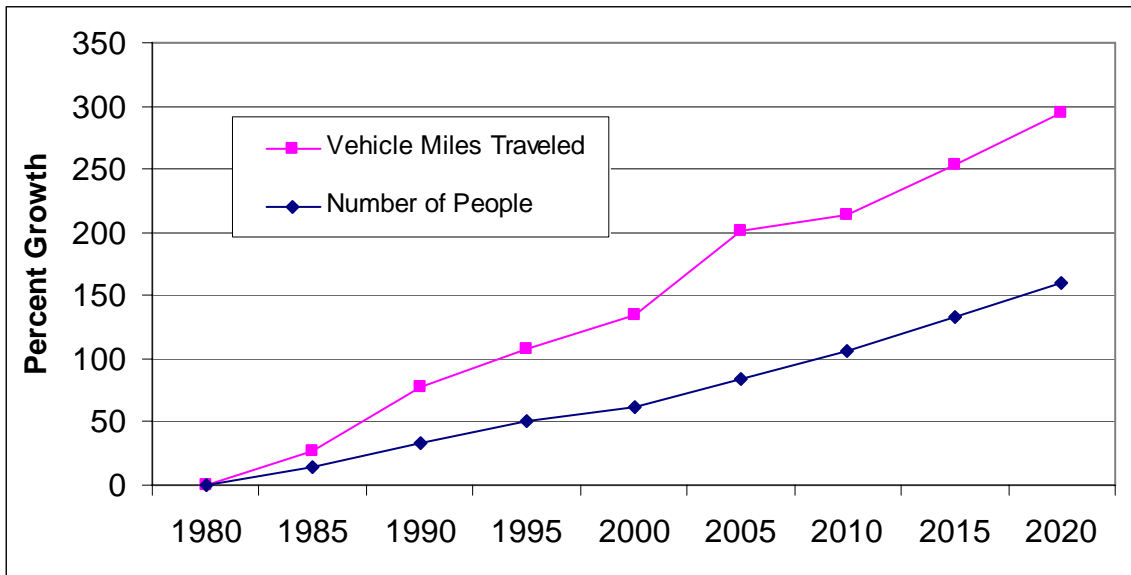
While the District cannot regulate the vehicles themselves or the fuels the vehicles use, the District can reduce mobile source emissions through other avenues. The District's Emissions Reduction Incentive Program (ERIP) provides financial incentives to help replace older cars and engines through a few different programs. One program targets cars with histories of needing smog repairs, but are currently legally registered and able to be driven. Based on the results of an emission test, incentives are available for up to \$5000 to replace an older car. Other incentives are also given so older engines are replaced with newer, cleaner engines years before these engines would be required to be replaced through regulation or natural attrition. The District encourages carpooling, trip linking, and similar activities through Healthy Air Living, the District's principle public outreach effort. Through the District's Indirect Source Review (ISR) rule 9510, the added vehicle miles traveled that results from new development is mitigated through

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onsite and off-site measures. The District will also reduce vehicle emissions through adoption and implementation of Rule 9410, Employer Based Trip Reduction. The District committed to this rule in both the *2007 Ozone Plan* and the *2008 PM2.5 Plan*.

Between 2000 and 2020, the population of the San Joaquin Valley is expected to grow by 60%. In contrast, the total population for the state of California is expected to grow 29% over the same time period.¹ Population growth typically leads to increased vehicle activity and increased emissions of ozone precursors, slowing the progress made by regulations that require newer automobiles to pollute less than older models. Furthermore, the Valley's total vehicle miles traveled (VMT) is increasing at an even faster rate than the population (see Figure1). So the Valley has more people, and they're generally driving more.

Figure 1 San Joaquin Valley Percent Growth in Population and Vehicle Miles Traveled as compared to 1980



Despite VMT increases, total passenger vehicle emissions have decreased significantly with improvements in technology and fuel formulations (see Figure 2). The Department of Transportation (DOT) Federal Highway Administration (FHWA) projects that VOC emissions could rise slowly after 2010 in areas projecting annual VMT increases of more than 2 percent, even though emissions are projected to remain well below 1990 levels through at least 2015. NOx emissions reductions are also projected to offset VMT growth through at least 2010 in areas expecting more rapid growth and beyond 2015 in those areas expecting slower VMT increases. However, with EPA's new health-based

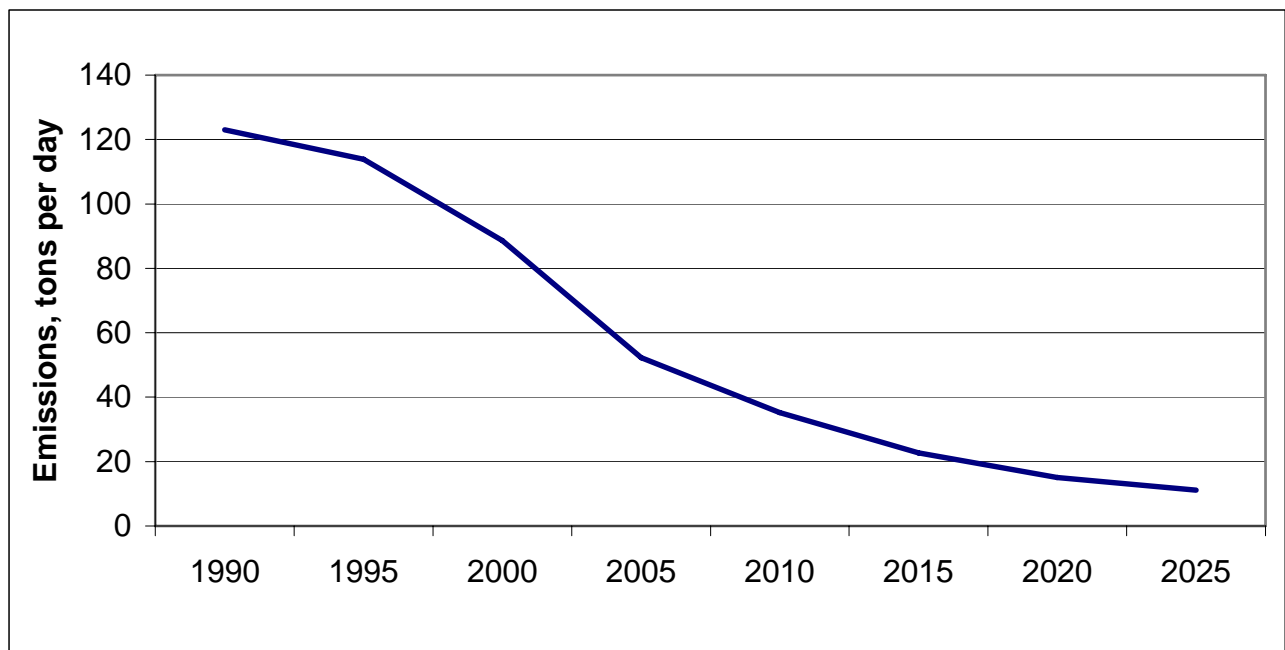
¹ Based on data from www.arb.ca.gov/app/emsinv/trends.em_trends.php, developed using reports from the California Department of Finance.

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standards for PM_{2.5} and 8-hour ozone adopted in 2006 and 2008, respectively, the immense attainment challenges before the Valley demand further reductions from a variety of sources. The proposed Employer Based Trip Reduction rule will achieve some of the additional mobile source emissions reductions needed to contribute to the Valley's progress towards EPA's increasingly stringent air quality standards.

According to the Department of Transportation's (DOT) National Household Travel Survey², as a nation-wide average, trips to and from work account for 17% of all private vehicle trips (see Figure 3). The survey also found that private vehicle use is the largest mode of transportation to and from work, accounting for about 92% of all work commutes (see Figure 4).

Figure 2 Mobile Source Emissions, Light Duty Passenger and Light Duty Trucks



² The 2001 surveys were released in July 2005. A 2008 update is in progress with a target completion date in fall 2009.

Figure 3 Private Vehicle Trip Purposes, 1990-2001

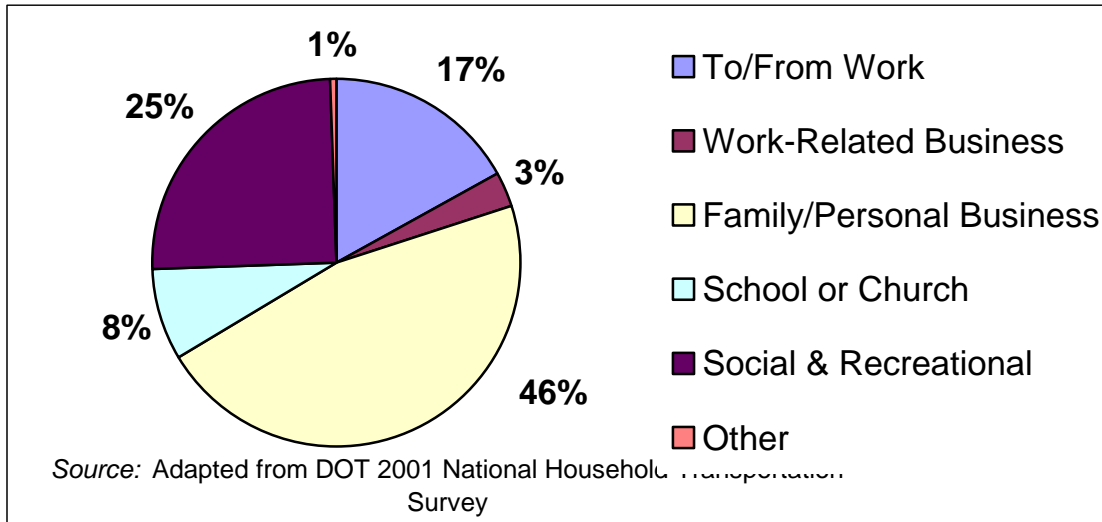
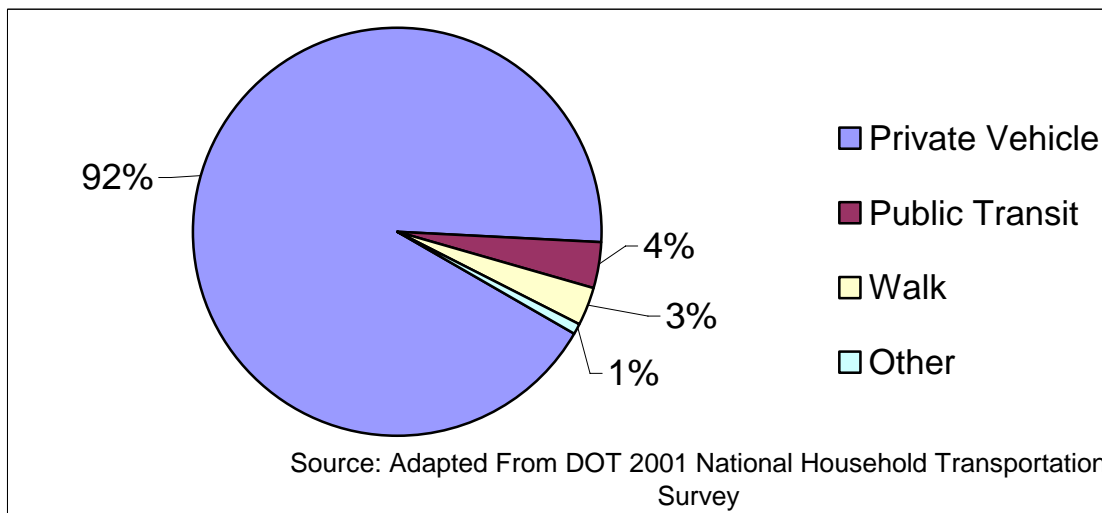


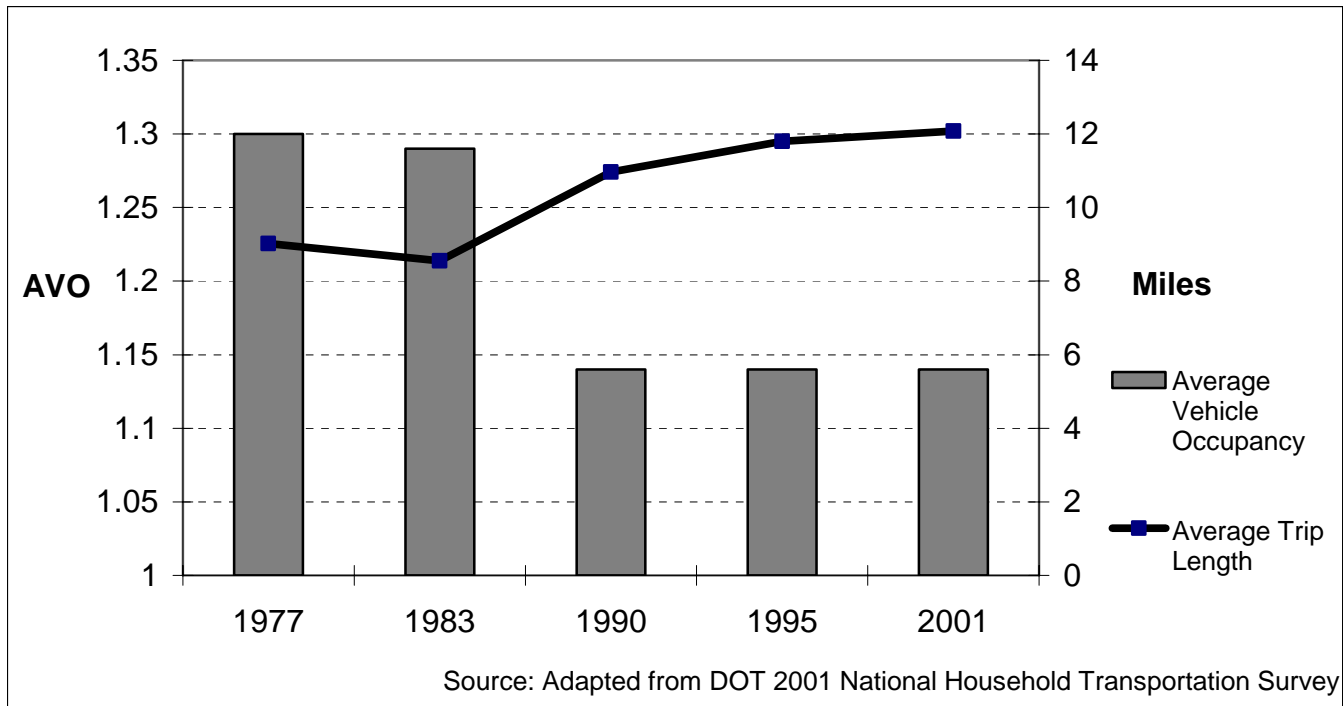
Figure 4 Modes of Transportation To and From Work, 1990-2001



The DOT survey also found that average vehicle occupancy to and from work has declined since 1977, and the average distance for commuting to work has continued to increase over the same time period (see Figure 5). The work commute is not the only arena where vehicle miles traveled can be reduced, but it carries some significant advantages and benefits. For example, carpooling to work is convenient in that coworkers are going to the same place at the same time. Using carpooling to decrease

single occupancy vehicle use and vehicle miles traveled during the common work commute times can decrease congestion as well as improve air quality.

Figure 5 Average Vehicle Occupancy (AVO) and Trip Length To and From Work



B. Description of Project

Consistent with the District’s plan commitments, Rule 9410 would require larger employers (those with 100 or more eligible employees) to establish employee trip reduction programs to reduce VMT, reducing emissions associated with work commutes. The Proposed Rule uses a menu-based Employer Trip Reduction Implementation Plan (ETRIP) and periodic reporting requirements to evaluate performance on a phased-in compliance schedule. The goal of the ETRIP is to provide employees with opportunities that make ridesharing and alternative transportation more accessible while not requiring a certain number of participants, as employers cannot legally mandate their employees’ activities outside of working hours. Employers can choose which services and programs work best for their operations and their employees. Starting in 2014, employers would also conduct periodic employee Commute Verification to be reported to the District annually. This accountability that has been built into the rule will help verify emissions reductions and rule effectiveness to the U.S. Environmental Protection Agency (EPA). The Proposed Rule also includes a section on District support, where the District is committing to providing trainings,

guidance, and turnkey program elements to assist employers with program implementation.

C. Rule Development Process

As part of the rule development process, District staff conducted public scoping meetings in February 2009. At the scoping meetings, District staff presented the objectives of the proposed rulemaking project and solicited suggestions from affected stakeholders on how best to achieve the goals of the project. The knowledge gathered during the scoping meetings was incorporated into Draft Rule 9410 presented in subsequent workshops.

In July 2009, a voluntary survey was sent to large employers to solicit information about their current work environment, including employee information and rideshare programs currently in place. Information provided through the survey assisted the District in the development of Rule 9410 and supporting materials.

The first Draft Rule and revised Draft Staff Report were presented at workshops held in July 2009, followed by a public comment period. A socioeconomic focus group was held directly after one of the workshops to solicit comments and information to be used for the socioeconomic and environmental analyses. The results of the socioeconomic analysis will be published in a report and presented along with the proposed rule during the final workshop.

The second round of workshops was held in September 2009, followed by a public comment period. The revised Draft Rule and revised Draft Staff Report were published prior to the meeting. Socioeconomic and cost effective analyses were discussed at the workshops and available for comments.

The final workshops were held October 26 and 28, 2009 to allow for further time for stakeholders to comment and provide information to the District regarding the costs associated with rule implementation. These final workshops also provided an opportunity for outreach to those who had not yet been involved in the Rule 9410 development process.

Throughout the rulemaking process, District staff has met with many potentially impacted stakeholders, particularly the Valley's counties and larger cities. At these meetings, District Personnel, Outreach, and Planning staff have fostered multi-faceted discussions of rule elements and received stakeholder feedback contributing to a rule that can be successful at a wide range of worksites. The dialogue between the District and affected stakeholders led to a number of rule improvements throughout the process.

The Proposed Rule and staff report with appendices, and final draft socioeconomic analysis report was published and available to affected sources and interested parties prior to a public hearing before the District Governing Board to consider adoption of Rule 9410 on December 17, 2009. The notice of the public hearing for the proposed rule was published in a general circulation newspaper in each of the eight San Joaquin Valley counties. The public notice was also mailed to affected sources and interested parties. The notice of public hearing solicits written comments, and identifies the name and telephone number of District staff who can answer questions and respond to comments. A public comment on the Proposed Rule was held from November 16 – November 30, 2009.

II. BACKGROUND

A. History and Legislative Authority

On January 20, 1994, the District Governing Board adopted Rule 9001 (Commute Based Trip Reduction) in response to California Clean Air Act (CCAA) requirements to reduce single occupancy commute vehicle trips and to reduce motor vehicle emissions. In October 1995, Senate Bill (SB) 437 created Health and Safety Code (H&SC) section 40929(a) (renumbered to 40717.9), which prohibited any public agency from requiring an employer to implement an employee trip reduction program unless expressly required by federal law. District staff determined that Rule 9001 was inconsistent with the new H&SC section, so the District ceased enforcement of the trip reduction rule as of October 9, 1995, and the rule was repealed on February 15, 1996.

More recent legislation gives the District authority to implement measures such as an employer based trip reduction rule or a commute options program:

- 2008 California Assembly Bill (AB) 2522 (Arambula) authorizes the San Joaquin Valley Air District to adopt rules and regulations to reduce vehicle trips in order to reduce air pollution from vehicular sources (H&SC Section 40612(a)(2)).
- 2003 California SB 709 (Florez) authorizes the San Joaquin Valley Air District to adopt rules and regulations to require businesses that employ at least 100 people to establish a rideshare program (H&SC Section 40601(d)).

Also, under Clean Air Act Section 182(d)(1)(B) and 182(e), severe and extreme nonattainment areas may adopt control measures requiring employers to implement programs to reduce work-related vehicle trips and miles traveled by employees.

The District's *2007 Ozone Plan* identified Employer Based Trip Reduction as one of the innovative strategies for reducing ozone precursors. The *2008 PM2.5 Plan* also committed to adopt a rule requiring employers with 100 or more employees to establish employee trip reduction programs.

B. Related Legislation

Related state laws include California Labor Code Section 3600.8, which states that when an employee voluntarily participates in an alternative commute program that is provided or subsidized by an employer complying with an air district trip reduction mandate, this commute is not within the scope of employment.

In addition, H&SC Section 43845 states that employers are to offer their employees a parking cash-out program if:

- The worksite is in an area (such as the San Joaquin Valley) that does not attain state ambient air quality standards;
- The employer has at least 50 employees; and
- The employer does not own the parking area (i.e., the employer leases the parking area).

Under a parking cash-out program, an employer provides a cash allowance to employees who do not use a parking space, with this cash allowance being equivalent to the cost of parking space. H&SC Section 43845 was put into place by AB 2109 (1992) in response to studies showing that employees are more likely to rideshare when they have to pay the full cost of parking spaces, and employer subsidized parking encourages single-occupancy vehicle commuting. H&SC Section 43845 was recently amended by SB 728 (Lowenthal, approved by the Governor on October 11, 2009) in response to reports that H&SC was not being enforced. SB 728 amends H&SC Section 43845 to authorize either ARB or a local agency (such as a city, county, or air district) to establish penalties to ensure employer compliance with this statute. Local agencies are not required to enforce H&SC Section 43845, but the amendment provides the option of doing so through adoption of a local regulation. AB 1186 (Blumenfield, 2009) would have incorporated additional provisions, but AB 1186 was vetoed by the Governor.

The District will be in contact with ARB to discuss parking cash-out enforcement needs. Further study is needed to determine how many Valley employers are be subject to the state law and assess the emission reduction potential of enforcement. Although the District is not adding parking cash-out to Rule 9410, employers can earn ETRIP points for offering a monetary incentive to employees, regardless of whether it is characterized as parking-cash out.

The federal Migrant and Seasonal Agricultural Worker Protection Act (MSPA) also affects employers in the Valley subject to this rule. MSPA applies to migrant and seasonal workers employed in the term "Agricultural Employment:"

“Agricultural employment means employment in any service or activity included within the provisions of section 3(f) of the Fair Labor Standards Act of 1938 (29 U.S.C. 203(f)), or section 3121(g) of the Internal Revenue Code of 1954 (26 U.S.C. 3121(g)) and the handling, planting, drying, packing, packaging, processing, freezing, or grading prior to delivery for storage of any agricultural or horticultural commodity in its unmanufactured state.” 29 U.S.C. 1801, et seq., Sec. 3 (3).

Dialogue with affected stakeholders demonstrated that employers with eligible employees protected by the MSPA would not be in conflict with the federal regulation if required to comply with Phase 1 and Phase 2 point targets only. Phase 3 options that would require employers to facilitate or promote ridesharing and alternative transportation would be inconsistent with federal regulations on these employers.

C. Supporting Studies

The proposed rule emphasizes education and infrastructure for trip reduction programs through implementation of four ETRIP strategies representing various ways to promote and facilitate employee trip reduction. Studies have shown significant participation rates associated with a comprehensive ETRIP that would be established through the implementation of proposed Rule 9410.

The Victoria Transport Policy Institute TDM Encyclopedia states that a comprehensive trip reduction program, such as what this rule will require, “typically reduces peak-period automobile trips by 5-20% at a worksite and more if supported by regional TDM strategies such as transit improvements.”

The DOT and EPA Commuter Choice Primer found:

- Employer based trip reduction programs that emphasized commute alternatives (such as vanpools) realized an average trip reduction of 8.5%.
- Programs that focused on financial incentives and disincentives (such as transit subsidies and parking pricing) reduced an average of 16.4% of employee commutes.
- Employers that combined both commute alternatives (e.g., vanpool program) with incentives or disincentives (e.g., vanpool subsidies) achieved an average trip reduction of 24.5%.

The DOT FHWA report “Multi-Pollutant Emissions Benefits of Transportation Strategies,” supports similar findings in their discussion of employer based Transportation Demand Management (TDM) programs and evaluation of program impacts using EPA’s COMMUTER model. The report’s example showed increases in participation dependent on the measures offered in the trip reduction program such as:

- Offering information on alternative transportation and a quarter-time transportation coordinator resulted in carpool and vanpool participation increases by 15% and 20%, respectively.
- Programs that offered commute information and coordinator as well as ridematching and flex schedules to help accommodate transit achieved participation increases of 10% in carpools, 40% in vanpools, and a 50% increase in transit use.

Based off of the FHWA report, District staff utilized EPA's COMMUTER model to estimate the impacts of some ETRIP scenarios, resulting in consistent findings. Multiple tools are available for employers to assess their trip reduction program or possibilities for their worksite such as EPA's COMMUTER Model, DOT's Commuter Choice Decision Support Tool, and best Workplaces for Commuters Business Savings Calculator.

III. SUMMARY OF PROPOSED RULE

A. Employer Requirements of Draft Rule 9410

Rule 9410 would require larger employers (those with 100 or more eligible employees) to establish employee trip reduction programs to reduce VMT associated with work commutes. Eligible employees do not include the following:

- Employees who do not report to work between 6 AM and 10 AM.
- Emergency health and safety employees such as sworn peace officers and firefighters
- Employment agency personnel
- Farm workers
- Field personnel
- Field construction workers
- Home garage employees
- On-call employees
- Part-time workers
- Seasonal workers (employed 16 weeks or less per year)
- Volunteers

Rule 9410 would apply to an estimated 1,883 worksites throughout the Valley, representing a wide range of sectors and accounting for approximately 500,000 commuting employees. This rule distinguishes those facilities into two tiers. Tier One Worksites are those with 100-249 eligible employees and Tier Two Worksites have 250 or more eligible employees. There are an estimated 1,342 Tier One Worksites and 541 Tier Two Worksites.

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Rule 9410 proposes a menu-based Employer Trip Reduction Implementation Plan (ETRIP) with periodic reporting. The District is assuring the success of the rule through a phased-in compliance schedule and commitments to provide extensive support to minimize the administrative burden of rule implementation.

There are three main components of employer compliance in Proposed Rule 9410:

- Employer registration
- Employer Trip Reduction Implementation Plan (ETRIP)
- Commute Verification with Annual Reporting

Employer registration: Employers subject Rule 9410 (i.e., worksites with 100 or more eligible employees) would register with the District by July 1, 2010 (see Section 6.1 of the Draft Rule).

- Employers who become subject to Rule 9410 after January 1, 2010, due to a change in the workforce, would register within 180 days after becoming subject to Rule 9410 (see Sections 6.1 and 6.6.1 of the Draft Rule).
- Employers who fall below the 100 eligible employee level after registering with the District for this rule would notify the District in writing of their change in status within 90 days of their change in status (see Section 6.6.1.1 of the Draft Rule).

ETRIP: The ETRIP is a check-list of menu options, through which employers plan facility and operation changes that make ridesharing and alternative transportation more accessible to employees. The menu approach allows employers the flexibility to choose measures to implement that are appropriate for their employees and their operations.

No employee will be forced to use ridesharing or alternative transportation through Rule 9410, and employers cannot mandate employees to use specific modes of commuting. Most of the menu options are, therefore, not predicated on participation by employees. Each menu option has a point value, and employers must achieve specified point targets, depending on the size of their worksite (Tier 1 worksites, with 100 to 249 eligible employees, and Tier 2 worksites, with 250 or more eligible employees).

Employers must meet specified point targets in the rule for their total ETRIP and for four strategy areas. The strategies are being phased in over a three-year period to allow time for education and awareness of trip reduction opportunities and benefits as well as to minimize the cost impact on employers. The phase in schedule is as follows:

- Phase 1: “Marketing Strategy” and “Program Support Strategy” should be added to the ETRIP by September 2011, with implementation by January 2012.
 - The Marketing strategy includes measures to increase program awareness, such as being a Healthy Air Living partner, distributing a rideshare newsletter, or posting a bulletin board dedicated to ridesharing and alternative transportation.

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- The Program Support strategy makes ridesharing and alternative transportation easier for employees through programs like guaranteed ride home or ride matching services.
- Phase 2: “Services and Facilities Strategy” should be added to ETRIP by September 2012, with implementation by January 2013.
 - Services and Facilities measures are deployed in the workplace so that employees are less likely to need to travel offsite a break times. Examples include on-site food service and on-site postal service (i.e., stamps available for sale and a place to leave personal stamped mail).
- Phase 3: “Transportation, Alternative Schedules, and Incentives Strategy” should be added to ETRIP by September 2013, with implementation by January 2014. Employers also select additional measures from any strategy to reach a total ETRIP target, which is greater than the sum of the minimums for the four strategy areas.
 - Transportation, Alternative Schedules, and Incentives include a wide range of options: comprehensive vanpool programs, comprehensive carpool programs, monetary incentives for using ridesharing, subsidized transit passes, telecommuting, etc.
 - The “Additional Points Needed” category puts the total ETRIP target at a higher level than the sum of the four strategy area minimums. Additional points can come from any of the four strategy areas or from measures prorated and applied to employees or worksites that are otherwise exempt from the rule.

Employers with eligible employees protected by the federal Migrant and Seasonal Agricultural Worker Protection Act will be required to comply with Phase 1 and Phase 2 point targets only. Phase 3 requirements would be inconsistent with federal regulations on these employers.

Table 1 shows the ETRIP-phase in schedule. Beginning in 2015 (or after the employer has become subject to the rule and has submitted their first ETRIP), the employer will submit the complete ETRIP form to the District annually by March 31. Any changes the employer made to their trip reduction program will be reflected on their new ETRIP. The District would act on ETRIPs within 45 days of submittal. Employers would keep records of steps taken to implement measures for the ETRIP on file for at least five years, making records available to the District or EPA upon request. Figure 1 shows the 2013 ETRIP template, a straight forward check list employers could use to report ETRIP measures to the District.

Each measure on the ETRIP list is expected to help employees choose to leave their cars at home, using ride sharing and alternative transportation instead. Each ETRIP measure has an associated point value, and employers are to choose the collection of measures that work best for their worksites while achieving the point targets specified in

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the rule. In the rule, measures are organized by strategy area. Here, the measures are ranked by point value. Points were assigned based on two factors:

- (1) Level of effort and cost (initially and ongoing) to the employer
- (2) Expected effectiveness in facilitating employee usage of ridesharing and alternative transportation

Assessment of these factors was based on available commute literature and interviews of Valley employers and employees. Measures that ranked highly in both of these areas are assigned higher point values (15 being the highest), while measures that ranked relatively low in both of these areas are assigned comparatively low point values (1 being the lowest). Table 2 shows ETRIP measures, definitions, and points analysis.

Table 1: ETRIP Point Targets				
ETRIP	Tier One Worksite	Tier Two Worksite	Initial Submittal Deadline	Starting Implementation
Minimum points per strategy ¹				
Phase 1: Marketing Strategy	6	10	September 2011	January 2012
Phase 1: Program Support Strategy	6	8	September 2011	January 2012
Phase 2: Services and Facilities Strategy	8	10	September 2012	January 2013
Phase 3: Transportation, Alternative Schedules, and Incentives Strategy	14	20	September 2013	January 2014
<i>Phase 3: Additional Points Needed (from any measure or combination of measures)</i>	<i>10</i>	<i>18</i>	<i>September 2013</i>	<i>January 2014</i>
Total Points Goal	44	66	September 2013	January 2014
¹ Employers with workers protected by the Migrant and Seasonal Workers Protection Act will complete Phase 1 and Phase 2 ETRIP requirements only.				

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Figure 1: Sample ETRIP Template, 2013
Proposed Rule 9410 Employer Based Trip Reduction Rule
ETRIP – 2013

Employer Name:
 Worksite Address:
 Contact Person and Phone Number:
 Number of Eligible Employees:

ETRIP Point Targets	Tier One Worksite	Tier Two Worksite
Total Points Goal	44	66
Minimum points per strategy		
Phase 1: Marketing Strategy	6	10
Phase 1: Program Support Strategy	6	8
Phase 2: Services and Facilities Strategy	8	10
Phase 3: Transportation, Alternative Schedule, and Incentives Strategy	14	20
Phase 3: Additional Points Needed <i>(from any measure or combination of measures)</i>	10	18

Marketing Strategy		Points
Tier One: 6 points Tier Two: 10 points	Healthy Air Living Partner	6 <input type="checkbox"/>
	Employer rideshare event	5 <input type="checkbox"/>
	Alt. Transportation meetings (semiannually)	5 <input type="checkbox"/>
	Alt. Transportation focus groups (semiannually)	5 <input type="checkbox"/>
	Onsite transit information center	3 <input type="checkbox"/>
	Alt. Transportation bulletin boards	3 <input type="checkbox"/>
	Attendance at a marketing class	3 <input type="checkbox"/>
	Employer rideshare newsletter (quarterly)	3 <input type="checkbox"/>
	“Best Workplaces for Commuters” Recognition	3 <input type="checkbox"/>
	Rideshare flyer (quarterly)	1 <input type="checkbox"/>
	CEO communication	1 <input type="checkbox"/>
	Employer-adopted alt. transportation policy	1 <input type="checkbox"/>
	Rideshare orientation for new employees	1 <input type="checkbox"/>
	Rideshare agency registration	1 <input type="checkbox"/>
	Other approved strategy:	<input type="checkbox"/>
	Total Marketing Strategy:	
Program Support Strategy		Points
Tier One: 6 points Tier Two: 8 points	Internal ride matching	5 <input type="checkbox"/>
	Internal Guaranteed Ride Home service	
	For Production Workers	5 <input type="checkbox"/>
	For staff who are not Production Workers	5 <input type="checkbox"/>
	Personalized commute assistance	5 <input type="checkbox"/>
	Ride match bulletin board	3 <input type="checkbox"/>
	External employee ride matching services	3 <input type="checkbox"/>
	External Guaranteed Ride Home service	3 <input type="checkbox"/>
	Other approved strategy:	<input type="checkbox"/>
Total Program Support Strategy:		

Continued on next page.

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ETRIP – 2013**

Services and Facilities Strategy		Points	
Tier One: 8 points Tier Two: 10 points	Onsite food service, or food service within ¼ mile of worksite	7	<input type="checkbox"/>
	Onsite child care	7	<input type="checkbox"/>
	Showers and/or Lockers onsite	7	<input type="checkbox"/>
	Onsite break room and kitchenette	5	<input type="checkbox"/>
	Electric vehicle recharging	5	<input type="checkbox"/>
	Onsite bike repair	2	<input type="checkbox"/>
	Onsite ATM	2	<input type="checkbox"/>
	Onsite vending machines	2	<input type="checkbox"/>
	Bike racks	2	<input type="checkbox"/>
	Health facilities	2	<input type="checkbox"/>
	Employer provided bicycles	2	<input type="checkbox"/>
	Fitness area and/or classes	2	<input type="checkbox"/>
	Employer organized lunch delivery (twice/month)	1	<input type="checkbox"/>
	Direct deposit	1	<input type="checkbox"/>
	Check cashing	1	<input type="checkbox"/>
	Break and/or lunch activities	1	<input type="checkbox"/>
	Dry cleaning	1	<input type="checkbox"/>
	Postal service, or post office within ¼ mile of worksite	1	<input type="checkbox"/>
	Onsite picnic tables	1	<input type="checkbox"/>
	Maps to local conveniences	1	<input type="checkbox"/>
Other approved strategy: _____		<input type="checkbox"/>	
Total Services and Facilities Strategy:			

Please note: Any projects funded in whole or in part by the District can not be used for ETRIP points.

If applicable, please provide the amount and frequency of distribution for any monetary incentive or subsidy offered in Phase 3:
 Incentive/subsidy amount: _____
 Distribution frequency: _____

Transportation, Alternative Schedule, and Incentives		Points	
Tier One: 14 points Tier Two: 20 points	Compressed Work Week		<input type="checkbox"/>
	A: For percentage based on all Eligible Employees	A	B
	B: For percentage based on all Eligible Employees except Production Workers		
	75% participation rate	15	8
	50% participation rate	12	6
	25% participation rate	9	4
	10% participation rate	6	2
	Telecommuting program	9	<input type="checkbox"/>
	Comprehensive Vanpool program	8	<input type="checkbox"/>
	Comprehensive Carpool program	8	<input type="checkbox"/>
	Comprehensive Bicycle program	7	<input type="checkbox"/>
	Shuttles	5	<input type="checkbox"/>
	Flex time schedules		
	For Production Workers	3	<input type="checkbox"/>
	For staff who are not Production Workers	3	<input type="checkbox"/>
	Staggered work schedules	3	<input type="checkbox"/>
	Monetary incentive	12	<input type="checkbox"/>
	Extra time off	7	<input type="checkbox"/>
	Vanpool subsidy	5	<input type="checkbox"/>
	Transit subsidy	5	<input type="checkbox"/>
Bicycle subsidy	5	<input type="checkbox"/>	
Startup incentive	3	<input type="checkbox"/>	
Discount transit passes	3	<input type="checkbox"/>	
Discounted/free meals (once/month)	3	<input type="checkbox"/>	
Preferential parking	1	<input type="checkbox"/>	
Points program	1	<input type="checkbox"/>	
Prize drawing (quarterly)	1	<input type="checkbox"/>	
Other approved strategy: _____		<input type="checkbox"/>	
Total Transportation, Alternative Schedule, and Incentive Strategy:			
Total ETRIP			
Tier One: 44 points			
Tier Two: 66 points			

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Table 2: ETRIP measures, definitions, and points analysis				
Strategy	ETRIP measure and description	Points	Effort & Cost	Effective -ness
Trans., Alt Schedules, and Incentives	<p>Compressed Work Week (CWW) – A regular, full-time work schedule which eliminates at least one round-trip commute trip (both home-to-work and work-to-home) at least once every two (2) weeks for participating employees. A CWW schedule must be implemented in a manner that reduces trips to the worksite, as an alternative to completing the basic work requirement of five eight-hour workdays in one week, or ten eight hour workdays in two weeks.</p> <ul style="list-style-type: none"> • 9/80 Schedule – The employee works eight nine-hour days, and one eight-hour day. The employee is thus off of work one day every ten days. • 4/10 Schedule – The employee works four ten-hour days each week. The employee thus takes one day off work in every five day period. • 3/36 Schedule – The employee works three twelve-hour days and takes two days off work every five days. 	Up to 15 depends on participation rate	High	High
Trans., Alt Schedules, and Incentives	<p>Monetary Incentive – The employer, or other funding sources, provides eligible employees with cash subsidies, at least on a quarterly basis, for participation in the trip reduction program. The District recommends that the monetary incentive equals at least two times the state minimum wage at least once per month. The measure can provide a monetary incentive to eligible employees who use alternative transportation a predetermined, minimum number of times per month or pay period.</p>	12	High	High

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Table 2: ETRIP measures, definitions, and points analysis				
Strategy	ETRIP measure and description	Points	Effort & Cost	Effective -ness
Trans., Alt Schedules, and Incentives	Telecommuting Program – A system of working at home, offsite, or at a telecommuting center for a full workday. Telecommuting should eliminate the trip to work or reduce the travel distance to the worksite by more than 80 percent. The employer should make telecommuting available to at least 10 percent of its Eligible Employees excluding production workers, field construction workers, and employees who spend 20 percent or less of their work time per week at the worksite. In making telecommuting available to at least 10 percent of applicable employees, the employer can claim ETRIP points for this measure even the possible participants do not take advantage of the program. Each participant who telecommutes should be allowed to telecommute at least one day per week.	9	High	High
Trans., Alt Schedules , and Incentives	Comprehensive Vanpool Program – Employer-promoted program designed to encourage the use of existing vanpools or the development of new vanpools. The employers must provide Eligible Employees information on vanpool availability, benefits of vanpooling, and any incentives offered by the employer or an outside agency.	8	Medium	High
Trans., Alt Schedules, and Incentives	Comprehensive Carpool Program – Employer-promoted program designed to encourage the use of existing carpools or the development of new carpools. This is intended to be a multi-faceted program that includes internal ride matching or personalized commute assistance, ridesharing information, and resources on how to start a carpool. The employer should also publicize any local ridesharing events to its employees.	8	Medium	High

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Strategy	ETRIP measure and description	Points	Effort & Cost	Effective -ness
Trans., Alt Schedules, and Incentives	Comprehensive Bicycle Program – Employer-promoted program which encourages bicycle commuting. This is intended to be a multi-faceted program that includes bicycle racks, information (such as bicycle lanes and safety considerations), and a repair kit or tools (such as a tire pump). The employer should also publicize any local Bike to Work events, typically held in May, to its employees.	7	Medium	Medium
Services & Facilities	Onsite Food Service, or food service within ¼ mile of worksite – Employer provides an onsite area where eligible employees can consistently purchase meals, such as a cafeteria or lunch truck service. Food service within ¼ mile of worksite qualifies.	7	Medium	Medium
Services & Facilities	Onsite Child Care, or child care within ¼ mile of worksite – Daycare service provided to eligible employees.	7	High	Low
Services & Facilities	Showers and/or Lockers onsite	7	High	Low
Trans., Alt Schedules, and Incentives	Extra Time Off – The employer provides eligible employees additional time off for participation in the trip reduction program. This can include, but is not limited to, allowing eligible employees to accrue time off for every time they use alternative transportation or ridesharing.	7	Medium	Medium
Marketing	Healthy Air Living Partner – Register with the San Joaquin Valley Air Pollution Control District as a Healthy Air Living Partner and remain a partner in good standing. See www.healthyairliving.com for more information.	6	Medium	Medium
Program Support	Internal Ride Matching – The employer provides rideshare matching service, zip code list or assistance in finding commute alternatives for all eligible employees. Information must be updated semiannually.	5	Medium	Medium

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Table 2: ETRIP measures, definitions, and points analysis

Strategy	ETRIP measure and description	Points	Effort & Cost	Effective -ness
Program Support	<p>Internal Guaranteed Ride Home Service – The employer directly provides eligible employees with a return trip to the point of commute origin, when a need for the return trip arises and the employer participated in ridesharing or alternative transportation that day. This need, as defined by the employer, may be a personal emergency, an unplanned situation or business-related activities (such as overtime). This service may be provided by employer vehicle, rental car, taxi, another employee or by a TMA/TMO. For Production Workers – 5 For staff who are not Production Workers (i.e., office staff) - 5</p>	5	Medium	Medium
Program Support	<p>Personalized Commute Assistance – The employer provides personalized assistance such as transit itineraries, carpool matching and personal follow-up to eligible employees at least annually. Examples of ways an employer can provide this service to eligible employees are:</p> <ul style="list-style-type: none"> • Organize carpool/vanpool formation meeting(s). • Assist in identifying park and ride lots. • Assist in identifying bicycle and pedestrian routes. • Assist in providing personalized transit routes and schedule information. • Provide personalized follow-up assistance to maintain participation in the commute program. 	5	Medium	Medium

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Table 2: ETRIP measures, definitions, and points analysis				
Strategy	ETRIP measure and description	Points	Effort & Cost	Effective -ness
Marketing	Employer Rideshare Event – Employer sponsored events available to all eligible employees which promote rideshare opportunities, such as: <ul style="list-style-type: none"> • Employee Rideshare Fair that has multiple agencies or resources about alternative transportation in the vicinity of the worksite • Presentation on the alternative transportation opportunities and services available to the worksite and benefits of ridesharing. This should be at least a one-hour meeting for all eligible employees or the equivalent. • Week-long Alternative Transportation/Rideshare event where eligible employees are encouraged to try alternative transportation throughout the week. 	5	Medium	Medium
Marketing	Employer Rideshare/Alternative Transportation Meetings – Semiannual meetings available to all eligible employees to help those employees identify those who live in similar areas to foster the rideshare coordination.	5	Medium	Medium
Marketing	Employer Rideshare/Alternative Transportation Focus Group(s) – Meetings conducted at least semiannually with a sample of eligible employees to solicit input on commute behavior, incentives to rideshare, and any constraints to alternative commute modes.	5	Medium	Medium
Services & Facilities	Onsite break room and kitchenette – Eating area at the worksite that includes, at a minimum, a sink and microwave.	5	Medium	Medium
Services & Facilities	Electric vehicle recharging	5	Medium	Medium
Trans., Alt Schedules, and Incentives	Shuttles – Employers provide a shuttle for daily work commutes between employer worksites or between transportation stations and the worksite.	5	Medium	Medium

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Table 2: ETRIP measures, definitions, and points analysis

Strategy	ETRIP measure and description	Points	Effort & Cost	Effective -ness
Trans., Alt Schedules, and Incentives	Vanpool Subsidy – Employers pay for all or part of the cost of commuting by vanpool for eligible employees that use these services. The employer must provide the monetary value of the vanpool subsidy and the frequency of distribution.	5	Medium	Medium
Trans., Alt Schedules, and Incentives	Transit Subsidy – Employers pay for all or part of the cost of commuting by local transit, commuter rail or train for eligible employees that use these services. The employer must provide the monetary value of the transit subsidy and the frequency of distribution.	5	Medium	Medium
Trans., Alt Schedules, and Incentives	Bicycle Subsidy – Employers pay for all or part of the purchase of a bicycle and/or bicycle improvements, repair, and storage for eligible employees that use these services and regularly commute by bicycle. The employer must provide the monetary value of the bicycle subsidy and the frequency of distribution.	5	Medium	Medium
Marketing	Onsite Transit Information Center – Employer-provided transit information center for general transit information and/or the onsite sale of public transit passes, tickets or tokens to that worksite’s eligible employees. Information must be verified and updated, as necessary, at least quarterly.	3	Low	Medium
Marketing	Rideshare and Alternative Transportation Bulletin Boards – A communication tool that displays materials that publicizes incentives and encourages participation in a rideshare program. The bulletin board should be in a location that would be most likely viewed by the majority of the eligible employees. It may be necessary to have more than one bulletin board. The board should be verified and updated, as necessary, at least quarterly.	3	Low	Medium

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Table 2: ETRIP measures, definitions, and points analysis				
Strategy	ETRIP measure and description	Points	Effort & Cost	Effective -ness
Marketing	Attendance at a Marketing Class/Focus Group – Annual attendance by the ETC at an Employee Trip Reduction program marketing class provided by the District or its designee.	3	Low	Medium
Marketing	Employer Rideshare Newsletter – An employer-generated newsletter that discusses alternative transportation modes, outlines incentives, and encourages participation in a rideshare program. Must be distributed at least quarterly to all eligible employees. A newsletter should be at least two pages long and be text-driven to provide eligible employees with detailed information about ridesharing and alternative transportation. Could be an electronic newsletter.	3	Low	Medium
Marketing	“Best Workplaces for Commuters” Recognition – Businesses who, through application to the Best Workplaces for Commuters program, are found to meet the National Standard of Excellence in commuter benefits can be included in the national list of Best Workplaces for Commuters. This is a standard created by the Center for Urban Transportation Research and the U.S. Environmental Protection Agency. See www.bestworkplaces.org for more information.	3	Medium	Low
Program Support	Ride match bulletin board – The employer provides an area for employees to find coworkers who may be interested in ridesharing.	3	Low	Medium
Program Support	External Employee Ride Matching Services – The employer promotes the use of a third-party rideshare program to help eligible employees identify appropriate opportunities for ridesharing. Employers must promote these services at least annually.	3	Low	Medium

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Table 2: ETRIP measures, definitions, and points analysis

Strategy	ETRIP measure and description	Points	Effort & Cost	Effective -ness
Program Support	External Guaranteed Ride Home Service – The employer utilizes a third-party service to provide eligible employees with a return trip to the point of commute origin, when a need for the return trip arises and the employer participated in ridesharing or alternative transportation that day. This need may be a personal emergency, an unplanned situation or business-related activities (such as overtime). The employer needs to indicate if this service would be provided by employer vehicle, rental car, taxi, another employee or by a TMA/TMO.	3	Low	Medium
Trans., Alt Schedules, and Incentives	Flex Time Schedule – Eligible employees are permitted to adjust their work hours in order to accommodate public transit schedules or rideshare arrangements. For production workers 3 For staff who are not production workers (i.e., office staff) 3	3	Medium	Low
Trans., Alt Schedules, and Incentives	Staggered Work Schedule – The employer selects different start and stop times for departments or individuals within the company to promote ridesharing and accommodate public transit.	3	Medium	Low
Trans., Alt Schedules, and Incentives	Startup Incentive – Designed to reward commuters who previously commuted via single occupancy vehicle by offering a one-time or short-term incentive when they begin using ridesharing or alternative transportation on a regular basis.	3	Low	Medium
Trans., Alt Schedules, and Incentives	Discount Transit Passes – Employers pay for part of the cost of commuting by local transit, commuter rail or train for eligible employees that use these services.	3	Low	Medium

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Strategy	ETRIP measure and description	Points	Effort & Cost	Effective -ness
Trans., Alt Schedules, and Incentives	Discounted/Free Meals – Employers provide participating eligible employees with meals free or at least 50% discounted for their participation in the commute reduction program. The employer must offer meals to all eligible, participating employees at least once per month.	3	Medium	Low
Services & Facilities	Onsite Bike Repair – Services that would allow a bicycle repair person to repair and/or tune up employee bicycles onsite at least twice per month if or when eligible employees sign up and agree to pay for said services.	2	Medium	Low
Services & Facilities	Onsite ATM	2	Medium	Low
Services & Facilities	Onsite vending machines	2	Medium	Low
Services & Facilities	Bike Racks – Racks and secure bike parking is provided to accommodate eligible employees who bike to work. The employer must provide secure bike parking for the foreseeable need of the bicycle commuters.	2	Medium	Low
Services & Facilities	Onsite Health Facilities, or health facilities within ¼ mile of worksite – Services that provide first aid to eligible employees including, but not limited to, first aid, onsite nurse, etc.	2	Medium	Low
Services & Facilities	Employer Provided Bicycles – Provided by the employer and made available for employee use during lunch and breaks.	2	Medium	Low

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Strategy	ETRIP measure and description	Points	Effort & Cost	Effective -ness
Services & Facilities	Fitness Area and/or Classes onsite, or within ¼ mile of worksite – Employer provided area to exercise during breaks or lunches. Examples may include, but are not limited to: <ul style="list-style-type: none"> • Fitness area with exercise equipment available for employee use • Room designated for an exercise video or fitness instruction during lunch at least once per week 	2	Medium	Low
Marketing	Rideshare Flyer – A flyer that provides updates to eligible employees on alternative commute modes and incentives offered by the employer to encourage participation in a rideshare program. The flyer would be one page and may include graphics and short summaries to highlight program basics and updates. Must be distributed at least quarterly to all eligible employees.	1	Low	Low
Marketing	CEO Communication – Direct communication by the employer’s CEO to introduce alternative commute modes, outline incentives, and encourage participation in a rideshare program. This must occur, at a minimum, on an annual basis. Might occur as verbal or written communication.	1	Low	Low
Marketing	Employer-adopted policy statement supporting employee ridesharing and alternative transportation	1	Low	Low
Marketing	Rideshare Orientation for New Employees – Explanation of alternative transportation modes and employer incentives to promote and encourage participation in a rideshare program during the employer’s regular orientations for new, eligible employees.	1	Low	Low
Marketing	Rideshare agency registration – Provide worksite information to a regional rideshare agency and maintain or update information as appropriate and requested by the regional agency	1	Low	Low

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Table 2: ETRIP measures, definitions, and points analysis				
Strategy	ETRIP measure and description	Points	Effort & Cost	Effective -ness
Services & Facilities	Employer-Organized Lunch Delivery – Employer-organized lunch delivery at least twice per month.	1	Low	Low
Services & Facilities	Check cashing	1	Low	Low
Services & Facilities	Direct Deposit	1	Low	Low
Services & Facilities	Break and/or Lunch Activities – Employer-sanctioned or employer-promoted activities that may reduce the amount of eligible employees going offsite during breaks and/or lunches at least two times per month. May include activities such as games, movies, etc.	1	Low	Low
Services & Facilities	Dry Cleaning – Onsite pick up and delivery through an outside agency.	1	Low	Low
Services & Facilities	Postal Service, or post office within ¼ mile of worksite – Stamps for sale onsite and onsite mail pick up for eligible employees' personal mail. Post office within ¼ mile of worksite qualifies	1	Low	Low
Services & Facilities	Onsite picnic tables	1	Low	Low
Services & Facilities	Maps to local conveniences Employer-provided map and/or listing of stores, restaurants, etc. within walking distance of the worksite.	1	Low	Low
Trans., Alt Schedules, and Incentives	Points Program – Program where eligible employees earn points for each day of participation in the trip reduction program. Points are redeemed for such rewards as time off, gift certificates, cash or merchandise.	1	Low	Low

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Strategy	ETRIP measure and description	Points	Effort & Cost	Effective -ness
Trans., Alt Schedules, and Incentives	<p>Preferential Parking – The employer provides preferential parking spaces for use by eligible employees when they participated in ridesharing. These spaces must be clearly posted or marked in a manner that identifies them for carpool or vanpool use only. Of all parking spaces available for any eligible employees (not including spaces reserved for management, visitors, or employer fleet), at least 5% should be permanently designated as carpool spaces.</p>	1	Low	Low
Trans., Alt Schedules, and Incentives	<p>Prize Drawing – Eligible employees are provided with a chance to win prizes, at least quarterly, for participation in the trip reduction program.</p>	1	Low	Low

Commute Verification

Starting in the 2014 calendar year, employers would collect information on their eligible employees' commute modes through Commute Verification. Results are informational, helping the employer and the District assess the ETRIP's success in facilitating alternative transportation and ridesharing. The data collected will also be a measure of accountability to EPA, helping the District to verify emissions reductions. The Commute Verification process asks the employees how they commuted to work (i.e., drove to work alone, carpooled, bicycled, zero emissions vehicle, or public transit) each day for a typical workweek. The employer can implement Commute Verification one of two ways:

- In the first option, the employer distributes Mandatory Commute Verification Forms to all eligible employees. Employers can use District-provided templates and reporting options. Employers may be able to incorporate this into an existing process, such as regular staff meetings, timesheets, or other employee form collection.
- In the second option, the employer may propose an alternative data collection approach to collect data from a representative sample of eligible employees. Employers would submit their methodologies to the District for approval at least 120 days prior to the start of the calendar year in which the method would be used.

Employers would keep Commute Verification records on file for at least five years, making records available to the District or EPA upon request. Commute Verification results would be reported to the District by March 31 of every year, beginning in 2015. Figure 2 shows a sample Commute Verification form that employers could distribute to and collect from their employees.

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Figure 2: Commute Verification form

Commute Verification Form										
Commute Verification Form Number: _____						Date: _____				
	Monday		Tuesday		Wednesday		Thursday		Friday	
	Got to work	Left work	Got to work	Left work	Got to work	Left work	Got to work	Left work	Got to work	Left work
Single occupant car, truck, or motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Carpool, 2 people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Carpool, 3 or more people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vanpool, 6 or more people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> • Public transit, or • Bicycle, or • Walk, or • Electric vehicle, or • Telecommute, or • Compressed schedule non-work day 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> • Did not work today, or • Did not work in the San Joaquin Valley today 	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	

B. District Commitments in Draft Rule 9410

The District is committing to provide resources, templates, and trainings in the regulatory language of the rule to provide assurance to employers that the District will work to make ETRIPs and surveys as turnkey and successful as possible. These commitments are summarized in Table 3.

C. Healthy Air Living

Healthy Air Living is the Air District’s campaign to help Valley residents and businesses make air quality a priority in day-to-day decision making. The Healthy Air Living campaign has provided public education informing Valley residents and businesses alternative transportation possibilities and ways to reduce emissions. The Healthy Air Living initiative also offers toolkits to employers, including the Employee Trip Reduction Resource Book (www.healthyliving.com/docs/Trip%20Reduction%20Book.pdf). The Healthy Air Living program will continue to serve Valley residents. For more information, visit healthyliving.com/business.htm.

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Healthy Air Living would be coupled with Rule 9410 as a compliance option and as a vehicle to provide turnkey program elements. Employers who elect to become Healthy Air Living Business Partners under the District’s revamped Partners program would receive credit towards Rule 9410 compliance, and Partners would periodically receive sample newsletters, trainings, recognition, and other strategic support. In exchange, Partners would commit to various outreach strategies, such as distributing outreach materials to employees.

Table 3: Rule Compliance Support Materials to be Provided by the District

District-provided Resource	Corresponding Employer Requirement	Deadline
District webpage and listserv dedicated to Rule 9410	NA	February 1, 2010
Employer Registration Template and online Registration option	Section 6.1	February 1, 2010
Marketing and Program Support Strategies guidance and templates	Marketing and Program Support Strategies, Section 5.2	March 1, 2011
Marketing training sessions, organized and facilitated by the District	Marketing Strategy, Section 5.2	First training to be held by April 1, 2011, with public noticing and outreach at least 30 days before the first training session
Services and Facilities guidance and resources	Services and Facilities Strategy, Section 5.2	March 1, 2012
Transportation, Alternative Schedules and Incentives Strategy guidance and resources	Transportation, Alternative Schedules and Incentives Strategy, Section 5.2	March 1, 2013
Transportation, Alternative Schedules, and Incentives training sessions, organized and facilitated by the District	Transportation, Alternative Schedules and Incentives Strategy, Section 5.2	First training to be held by April 1, 2013, with public noticing and outreach at least 30 days before the first training session
Commute Verification Form templates and online reporting options	Sections 6.4 and 6.5	September 1, 2013

IV. DISCUSSION

A. Regulations in other California Air Districts

South Coast Air Quality Management District adopted Rule 2202 On-Road Motor Vehicle Mitigation Options on December 8, 1995. South Coast Air Quality Management District Rule 2202 requires larger employers (250 or more employees) to achieve annual emission reduction targets by paying into the Air Quality Investment Program, using mobile source Emission Reduction Credits, or implementing Vehicle Miles Traveled (VMT) reduction programs, or a combination of these strategies. Employers can be exempted by achieving an employee average vehicle ridership of 1.3 to 1.75, depending on the employer's location in one of three zones.

Bay Area Air Quality Management District's Rule 1 Trip Reduction Requirements for Large Employers, under Regulation 13, was adopted in 1992 and vacated by SB 437 (Lewis) in 1996. This rule required employers with 100 or more employees to implement a trip reduction plan. Currently, Bay Area AQMD promotes voluntary employer based trip reduction programs through their Transportation Control Measures (TCMs) stated in the 2000 Clean Air Plan and updated in the 2005 Ozone Strategy. TCM 1 states that the Metropolitan Transportation Commission will continue to administer the regional ridesharing program funded by Bay Area AQMD's Transportation Fund for Clean Air (TFCA). TFCA also funds TCM 13 Transit Use Incentives providing 58 employers with monthly transit passes, TCM 14 Rideshare and Vanpool Services, and TCM 16 Intermittent Control Measure/Public Education Spare the Air Program which is currently partnered with 1,021 employers.

Also in the Bay Area, the cities of San Francisco, Berkeley, and Richmond have city ordinances requiring employers with at least 20 employees to provide transportation benefit programs of employer-paid alternative transportation or pre-tax programs for alternative commute modes.

B. Additional Resources

There is a multitude of employer based and regional programs in and outside of California that provide services to reduce VMT and emissions. Though they have been successful, the efforts still remain voluntary in nature and limited in scope. Mandatory trip reduction programs have the potential to provide widespread change and achieve significant reductions in VMT. Employers may be able to partner with existing programs and services, or employers may benefit from implementing programs similar to those that have already been shown to be successful.

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Best Workplaces for Commuters: Best Workplaces for Commuters is a nation-wide program dedicated to employer recognition and resources for commuter benefits. Applicants agree to offer a selection of commuter benefits and ensure a minimum level of employee participation. This program was created by the Center for Urban Transportation Research and the U.S. Environmental Protection Agency. See www.bestworkplaces.org for more information. The San Joaquin Valley Air District applied for Best Workplaces for Commuters recognition in February 2009.

Valley Transit Services: Employers in some areas may be able to take advantage of local transit services in their area. Table 4 summarizes some of the major Valley bus systems.

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Table 4: Valley Bus Information

City	Bus System	Fare	Website	Hours Available	Routes Available Online
Bakersfield	GET (Golden Empire Transit)	\$0.90	www.getbus.org/	6:00am-10:45pm	Yes
Clovis	Stageline and FAX Route 28	\$1	www.cityofclovis.com/UMAP.asp?FolderID=249	6:00am-8:25pm	Yes
Fresno	FAX (Fresno Area Express)	\$1	www.fresno.gov/DiscoverFresno/PublicTransportation/default.htm	5:30am-10:00pm	Yes
Hanford	KART (Kings Area Rural Transit)	\$1	www.kartaits.com/karthome.htm	5:50am-11:00pm	Yes
Lodi	Grape Line	\$1	www.loidi.gov/transit/introductions.html	6:00am-7:00pm	Yes
Madera	MAX (Madera Area Express)	\$0.75	www.maderactc.org/pubtrans.html	7:00am-6:30pm	Yes
Manteca	Manteca Transit	\$1	www.ci.manteca.ca.us/mantecatransit/general.htm	6:00am-7:00pm	Yes
Merced	The BUS	\$1	www.mercedthebus.com/index.html	7:00am-6:00pm	Yes
Modesto	MAX (Modesto Area Express)	\$1.25	www.modestoareaexpress.com/default.htm	6:30am-6:00pm	Yes
Porterville	Porterville Transit	\$1	www.portervilletransit.org/	7:00am-7:00pm	Yes
Stockton	RTD (Regional Transit District)	\$1.50	www.sanjoaquinrtd.com/Default.htm	6:00am-10:45pm	Yes
Tracy	Tracer	\$1	www.mvtransit.com/Tracer_home.htm	7:00am-7:00pm	Yes
Turlock	BLAST (Bus Line Service of Turlock)	\$1.25	www.ci.turlock.ca.us/citydepartments/developmentservices/transitservices/blastbus/	5:35am-6:15pm	Yes
Visalia	VCC (Visalia City Coach)	\$1	www.ci.visalia.ca.us/depts/transit/visalia_city_coach_(vcc)/default.asp	6:00am-9:30pm	Yes

Resources for Ridesharing

There are many programs operating regionally throughout California to provide alternative transportation services such as ride matching, commute calculators, employer resources, incentives and discounts and Guaranteed Ride Home services. Though it is not nearly exhaustive, the following list is of a few notable programs in the San Joaquin Valley:

- Commute Connection (www.commuteconnection.com) is a regional rideshare program operated by the San Joaquin Council of Governments, in partnership with Stanislaus Council of Governments, and helps commuters find suitable alternative transportation options. The program includes free services such as commuter ride matching, Guaranteed Ride Home and employer assistance, while raising public awareness about the connection between transportation choices, air quality, and traffic congestion. Commute Connection currently serves almost 10,000 commuters in San Joaquin, Stanislaus, Calaveras and Tuolumne Counties.
- Kings County Area Public Transit Agency (www.kartaits.com) sponsors two programs that serve Kings County as well as other surrounding communities. Kings Area Rural Transit (KART) is Kings County's complete public rural and urban transportation provider. KART provides service within the Downtown areas of Hanford and Lemoore and regular route service between Hanford and the cities and communities of Armona, Avenal, Corcoran, Fresno, Grangeville, Hardwick, Kettleman City, Laton, Lemoore, Stratford, and Visalia. The AITS program is a vanpool program, also sponsored by Kings County Area Public Transit Agency, which provides agricultural workers in Kings, Tulare and Fresno Counties with safe, affordable vans they can use to drive themselves and others to work. AITS offers start-up grants to purchase the vans, and riders pay only a nominal fee to cover the cost to operate, maintain and insure the vehicle. The vans are also each equipped with a Global Positioning System, first aid kits, fire extinguishers and roadside safety items.
- Kern Commuter Connection (www.commutekern.org) serves Kern County offering information on carpooling, vanpooling and other modes of alternative transportation as well as air quality and road information and employer resources.
- Merced Rides (www.mercedrides.com) serves Merced County with information on transit, ridesharing, and the "Car-less Commute" program.
- South Valley Rideshare (www.southvalleyrideshare.com) is an innovation of Visalia City Coach in collaboration with the Kings County Area Public Transit Agency serving Madera, Fresno, Kings, Tulare, and Kern Counties. The website provides listings of open carpools and vanpools and provides other transit information.
- Valley Rides (www.valleyrides.com) is a cooperative effort between California State University Fresno and the Council of Fresno County Governments serving

the Central Valley students and businesses. Valley Rides offers information on park and ride lots in the area and carpooling tips.

C. Successes

Successes in Ridesharing

The following worksites have successfully incorporated carpooling, vanpooling, or other mass transit options in their trip reduction efforts:

- The San Joaquin Valley Air District currently operates a voluntary Alternative Transportation Incentive Program for its employees. This program provides monetary incentives and preferential parking for those employees who use alternative modes of transportation, such as carpooling, biking, and public transit for at least 60% of commutes to and from work. Currently, this program has about 37% participation and has been a role model for the Valley.
- Paramount Farms in Northwestern Kern County operate employee vanpools for its sites in Lost Hills and Kings County.
- Pelco in Fresno has a wide variety of employee focused programs that reduce vehicle miles travelled, including bike to work and bus incentives.
- IKEA Wholesale in Bakersfield participates in and encourages carpooling and other alternative transportation with subsidies and competitions between employees.
- Tejon Ranch is implementing a vanpool to serve the many employees at IKEA and Tejon Industrial Complex.
- Diamond Foods in Fowler are in the process of getting bus service to their site and will provide a bus schedule to all employees.
- Frito-Lay is establishing a rideshare program at the worksites in Crows Landing and Bakersfield to help reduce vehicle trips.
- Cal State University Bakersfield encourages student use of busses by subsidizing bus passes, and by sponsoring an Alternative Transportation Day. They are also exploring ways to get more people involved such as incentivizing alternative transportation with gift drawings.
- Chevron facilities in Fresno operate vanpools to outlying field areas.
- Aera Energy operates vanpools from the offices in Bakersfield.
- Dreyers Ice Cream in Bakersfield encourages their employees to walk, bike, and carpool to work.

Successes in Services and Facilities

Onsite facilities and services make choosing alternative transportation more convenient. Programs currently in place that offer additional services to employees as a part of their trip reduction efforts include:

- The District offers its employees various facilities like showers and lockers, bike racks, bikes available for break and lunchtime use, lunch activities, postal

services, order in lunches, and dry cleaning pickup and delivery. These additional services help reduce vehicle trips at lunch and for running errands, especially complementing those who do commute alternatively.

- Paramount Farms has a cafeteria in the Lost Hills facility to keep employees from commuting offsite for meals.
- Pelco has an onsite food service, postal services, and dry cleaning service helping to decrease additional trips employees need to make.
- IKEA contracts with a catering service to keep employees on site for meals.
- CSUB offers many internet classes and has dining facilities, postage facilities, and provides daycare for students and staff.
- The Chevron facility has a gym on site, provides lunch service, postal service, and bicycle storage.
- Aera Energy also has a gym on site, ATM, and provides lunch service for employees.

Successes in Alternative Work Schedules and Telecommuting

Many employers utilize flexible schedules and telecommuting to help reduce vehicle trips, congestion, and pollution:

- The District has implemented flexible work schedules and telecommuting to reduce vehicle trips to and from work and meetings. The District's flexible work schedule consists of working 9 days out of a two week period but still achieving 80 hours (9/80 schedule). This is done by working 9 hours a day Monday through Thursday and then 8 hours on the working Friday and then off on the second Friday therefore reducing a day of commuting to work.
- Paramount Farms saves travel with teleconferencing between offices in Lost Hills and Santa Monica, and allows employee telecommuting.
- Pelco allows flex work schedules to better suit employees.
- IKEA has a telecommuting program that allows some job classifications to work from home.
- Chevron also operates on a 9/80 schedule to help reduce vehicle trips.
- Aera Energy operates on a 9/80 schedule in addition to their other trip reduction efforts.
- Dreyers utilizes video-conferencing and telecommuting to cut down on travel.

D. Benefits of a Trip Reduction Program

The Employer Based Trip Reduction program is part of the District's strategy for bringing the San Joaquin Valley Air Basin into attainment of EPA's health-based air quality standards for PM2.5 and 8-hour ozone. A majority of the Valley's NOx emissions come from mobile sources, and these emissions contribute to both ozone and PM concentrations. Employer based trip reduction programs can provide a step in

reducing vehicle trips in the Valley to reduce mobile source emissions and improve air quality.

California Senate Bill 375

The District's Employer Based Trip Reduction rule can also reduce GHG emissions and help the Valley comply with California Senate Bill (SB) 375. Under SB 375, approved on August 22, 2008 and codified in the California Government Code and Public Resources Code, metropolitan planning organizations (MPOs) must adopt a Sustainable Communities Strategy as part of their regional transportation plans. SB 375 links regional planning to Assembly Bill (AB) 32, which requires the State of California to reduce greenhouse gas (GHG) emissions to 1990 levels no later than 2020. Under SB 375, ARB will provide MPOs with GHG emission reduction targets. The MPOs will then incorporate strategies like better use of mass transit and bicycle lanes as well as mixed-use or denser development practices into their Sustainable Communities Strategies to reduce GHG emissions. This effort and the District's Employer Based Trip Reduction are complementary programs, incorporating similar strategies to achieve separate goals.

Additional Benefits

Workplace trip reduction programs can have a wide range of benefits, depending on how programs are implemented, and the benefits can affect multiple parties. Table 5 summarizes some of the potential benefits of trip reduction programs.

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Table 5: Possible Benefits of a Trip Reduction Program

Benefits	Employee	Employer	Community
Decrease parking fees and costs	✓	✓	
Expanded employee benefits at low/no cost	✓	✓	
Lower absenteeism and tardiness	✓	✓	
Increased employment opportunities for disabled and others unable to meet traditional work hours	✓	✓	
Enhanced employee productivity through teleconferencing and telework options	✓	✓	
Increase in transport options	✓		✓
Increase road safety	✓		✓
Save money on gas and insurance	✓		
Decrease vehicle wear and tear	✓		
Boost mental health by decreasing stress from driving and traffic	✓		
Relieve overcrowded parking areas		✓	
Reduced overhead costs such as office space requirements if telecommuting		✓	
Tax Benefits		✓	
Enhanced employee recruitment and retention		✓	
Expanded service hours if changes made to work hour schedules		✓	
Reducing road and parking facility requirements		✓	
Decrease congestion			✓
Improve air quality			✓
Reduce road and traffic service costs			✓
More efficient land use			✓
Community livability			✓

E. Conjunction with Other District Programs

The District has programs already in place that reduce emissions from mobile sources. One example is the District's Healthy Air Living program, discussed earlier in this staff report. Since reductions achieved through Healthy Air Living are voluntary, the District does not quantify or credit these reductions in the attainment planning process. In contrast, the District's Indirect Source Review (ISR) program, Rule 9510, is a quantifiable and creditable mechanism for reducing mobile source emissions, specifically those associated with new development. New development can increase emissions both during construction and after, when increased vehicle traffic to and from the development increases an area's VMT. ISR requires developers of larger residential, commercial, and industrial projects to reduce emissions indirectly generated by their projects through either onsite measures (like siting near transit or retail services) or through off-site measures. For off-site measures, the developer pays an off-site mitigation fee to the District, and then those funds are used in the District's existing grant programs to fund emissions reductions projects.

Some of the mobile source reductions obtained through the District's Emissions Reduction Incentive Program (ERIP) are a result of ISR funds, and some funding comes from other sources. ERIP provides a variety of financial incentives and grants for projects that reduce air pollutant emissions from mobile or non-mobile sources. Some ERIP projects that reduce emissions from mobile sources include subsidized van pools. The District has also awarded a grant to the Visalia City Coach that subsidizes the cost of monthly transit passes (called "Hop Pass"), providing a discount for new bus commuters for up to six months.

Rule 9410 provides another important opportunity for the District to help the Valley achieve additional, much-needed mobile source emissions reductions. While Employer Based Trip Reduction has potential to reach a different and larger target group of commuters than those reached through ISR and ERIP, it is possible that some employees will be reducing trips by utilizing programs and services put in place through ISR and ERIP. The District must not count the same emissions reductions in two different programs.

Through ERIP record keeping, the District maintains information on vanpool ridership and transit pass subsidies. The District will compare this to information collected through Rule 9410 record keeping to prevent double counting of emissions reductions. At this time, the District expects the only a very small percentage of those participating in Employer Based Trip Reduction will also receive District transportation subsidies.

IV. EMISSIONS REDUCTION ESTIMATE

District staff has estimated the potential emissions reduction to be achieved from implementing the proposed Rule 9410. Please refer to Appendix B of this staff report for the analysis and detail on the emissions reduction estimate.

V. ECONOMIC ANALYSIS

Pursuant to H&SC 40728.5, District staff has prepared a cost effectiveness and socioeconomic analysis to analyze the economic feasibility of the proposed rule. See Appendices C and D of this Staff Report.

VI. ENVIRONMENTAL IMPACTS

Pursuant to Section 15061 of the California Environmental Quality Act (CEQA), staff has investigated the possible environmental impacts of the proposed amendments to Rule 9410 and prepared an Initial Study. Based on the lack of evidence to the contrary, staff has concluded that the proposed amendments to the rules will not have any significant adverse effects on the environment. Staff recommends filing a Notice of Exemption under the provisions of Public Resource Code 15061 (b)(3).

VII. RULE CONSISTENCY ANALYSIS

Before adopting, amending, or repealing a rule or regulation, an air district must identify and evaluate any existing federal rules or rules within that air district that apply to the same equipment or source type (California Health and Safety Code Section 40727.2). Elements of review include work practice, reporting, and recordkeeping requirements. Through Rule 9410, employers will put measures in place that facilitate ridesharing and alternative transportation. Employers will also Commute Verification Forms collecting information on employee commute modes. There are no existing federal or District regulations that apply to employee commutes. Therefore, adoption of Rule 9410 would not conflict with any existing federal or District requirements.

VIII. REASONABLY AVAILABLE CONTROL TECHNIQUES (RACT) ANALYSIS

Clean Air Act Section 182(b)(2) states that ozone attainment plans shall assure that RACT for VOC is applied at major stationary sources and on any source category for which the US EPA has issued a Control Technique Guideline (CTG). Section 182(f) of the CAA extends federal RACT requirements to NOx, both for CTG categories and

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major stationary sources. Although Rule 9410 represents a very progressive and innovative emission control measure, District staff believes that it is not subject to federal RACT requirements for two main reasons. First, employee commute trips are not covered by any EPA-issued CTG. Second, the rule does not address emissions under the direct control of any stationary source, whether major or minor. Rule 9410 merely requires employers to establish programs to encourage their employees to use alternative transportation. As such, District staff concludes that a RACT analysis is not appropriate or necessary.

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IX. REFERENCES

1. San Joaquin Valley APCD. *2007 Ozone Plan*. April 30, 2007.
2. San Joaquin Valley APCD. *2008 PM2.5 Plan*. April 30, 2008.
3. SJVAPCD Healthy Air Living Business Page www.healthyairliving.com/business.htm
4. SJVAPCD HAL Employee Trip Reduction Resource Book
<http://www.healthyairliving.com/docs/Trip%20Reduction%20Book.pdf>
5. U.S. Department of Transportation and Federal Highway Administration. "Summary of Travel Trends: 2001 National Household Travel Survey". December, 2004.
6. SJVAPCD Alternative Transportation Incentive Program
7. Employment Development Department, Labor Market Information Division. Third Quarter, 2007. <http://www.labormarketinfo.edd.ca.gov/?pageid=138>
8. Bay Area AQMD. "Regulation 13 - Transportation Control Measures. Rule 1 - Trip Reduction Requirements for Large Employers". Adopted December 16, 1992. Suspended by the CA Legislature January 1, 1996.
9. Bay Area AQMD. "2005 Ozone Strategy". January 4, 2006.
10. South Coast AQMD. "Rule 2202. On-Road Motor Vehicle Mitigation Options" and "Employee Commute Reduction Program Guidelines". February 6, 2004.
11. Commute Connection www.commuteconnection.com
12. South Valley Rideshare www.southvalleyrideshare.com
13. Commute Kern <http://commutekern.org/>
14. Valley Rides for Central California www.valleyrides.com
15. Best Workplaces For Commuters www.bestworkplaces.org/index.htm
16. Kern Commuter Connection commutekern.org/index.html
17. Merced Rides www.mercedrides.com
18. Kings County Area Public Transit Agency www.kartaits.com
19. Victoria Transport Policy Institute. "Travel Impacts", TDM Encyclopedia: Commute Trip Reduction Programs That Encourage Employees to Use Efficient Commute Options, 2009.
20. U.S. DOT FTA and FHWA, U.S. EPA. "Summary of Choices – What works?", Commuter Choice Primer.
21. U.S. DOT FHWA. "Employer-Based TDM Programs", Multi-Pollutant Emissions Benefits of Transportation Strategies, 2006.
22. U.S. EPA, Commuter Model,
http://www.epa.gov/oms/stateresources/policy/pag_transp.htm
23. U.S. DOT, Commuter Choice Decision Support Tool,
<http://ops.fhwa.dot.gov/PrimerDSS/guidancetool/step1.htm?i=>
24. Best Workplaces for Commuters, Business Savings Calculator,
http://www.bestworkplaces.org/?page_id=28

APPENDIX A
Public Comments

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Written Comments on the Draft Staff Report for Rule 9410

Comment period held from October 26 through November 4, 2009.

Comments were received from the following people and organizations:

Bolthouse Farms (Bolthouse)
California League of Food Processors and the Manufacturers Council of the Central Valley (CLFP/MCCV)
City of Clovis (Clovis)
City of Fresno Department of Public Utilities, Wastewater Management Division (FWMD)
Coalition for Clean Air (CCA)
Hospital Council of Northern and Central California (HCNCC)
Kern County Department of Human Services (Kern DHS)
Modesto Irrigation District (MID)
Rain for Rent (RFR)
Turlock Irrigation District (TID)

General

1. **Comment:** We do not see the need for the formal oversight, inspections, and possible fines for this rule, particularly when employers may already have many program options in place. (Bolthouse)
Response: The formality and reporting of the rule are important for verifying emissions reductions needed for the Valley's significant attainment challenges. The District will be making a variety of templates, resources, and trainings available as the rule is implemented to assist employers. For employers that already have programs in place, the additional efforts required for this rule should be minimal.
2. **Comment:** You have no jurisdiction or authority to control or regulate travel. We will not be forced to limit the freedom of travel our employees enjoy. (RFR)
Response: The District will not be regulating individuals' travel in this rule. The District's authority for this rule comes California Health and Safety Code (H&SC) Sections 40601 and 40612 as well as federal Clean Air Act Section 182(d)(1)(B).
3. **Comment:** We appreciate the District's approach of not imposing a one-size-fits-all program, and we appreciate the changes that have been made in the rule so far. (MID, TID)
Response: Comment noted.

4. **Comment:** According to the San Joaquin Valley Express Transit Study, many of the services necessary for trip reduction are not currently available in the Valley. It is also clear that the MPOs view this rule as a source of funding. (CLFP/MCCV)
Response: Available services will vary between worksites, and more services may become available as the rule is implemented. The ETRIP menu options provide a sufficient variety of measures for successful trip reduction programs for all worksites, based on the services available for those sites. Generally, MPOs offer ride matching and other resources at no cost.

5. **Comment:** The District should consider a specific and unique set of guidelines for hospitals and other employers that serve the public safety and well-being. Hospitals are 24/7/365 operations that cannot easily postpone products or services to accommodate ridesharing. (HCNCC)
Response: In consideration for the public health benefits of Rule 9410, hospitals can be important partners in this effort. To determine whether a hospital is subject to Rule 9410, the hospital would exclude from their eligible employee count any part time employee, on-call employees, and employees who do not start work between 6 AM and 10 AM. As with other employers, no hospital employees will be forced to use ridesharing or alternative transportation, and those employees with more predictable shifts would be the most likely employees to use ridesharing and alternative transportation. Many hospitals will likely find that they have many ETRIP measures already in place, such as on-site food service and compressed work weeks.

Excluded Employees

6. **Comment:** The home garage definition should include employees who receive a vehicle allowance for use of their private vehicle for business purposes in lieu of being provided an employer-owned vehicle. (Clovis) The number of home garage employees may change from day to day, so not all employees take home an employer-owned vehicle every day. (TID)
Response: Home garage employees are excluded from the rule due to the potential liabilities associated with an employer-owned vehicle; however, these liabilities are not an issue in a personal vehicle that may be subject to an employer vehicle allowance. In cases where the number of home garage employees change from day to day, the employer should use an average for the work week.

7. **Comment:** Employees already established in a compressed work week schedule or ride-sharing program should be excluded. (FWMD)
Response: For reporting purposes and for simplicity of employer implementation, these employees are not excluded from the rule. Through this

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rule, it is expected that more employees will be established in compressed work week schedules or ride-sharing programs.

8. **Comment:** Employees traveling from rural, isolated areas and whose facility is in a rural area which requires a travel distance of six miles or more one-way should be excluded. (FWMD)

Response: Employees who travel longer distances from work may be able to carpool with coworkers who live closer to work, picking them up on the way. Employees who travel longer distances to work may be good candidates for vanpooling or telecommuting, depending on the work environment.

9. **Comment:** Employees whose scheduled work week includes Saturdays and Sundays should be excluded. (FWMD)

Response: Employees who do not report to work during the peak period are excluded employees in Rule 9410. The “peak period” is defined as 6 AM to 10 AM Monday through Friday. Therefore, shifts worked on Saturdays and Sundays are not considered as the employer determines whether they are subject to the rule. However, employees who may work on Saturdays and Sundays are counted as eligible employees for shifts worked during the peak period.

10. **Comment:** Employees who are on-call/stand-by 24/7 should be excluded. (FWMD) Many of our employees are emergency responders that must sometimes deal with unanticipated situations and work unexpected hours. (MID)

Response: The rule has been revised to include a definition for on-call employees, with these employees excluded from the rule if the definition is met.

11. **Comment:** The definition of field employees is a concern for us. Many of our employees do not meet this definition because, although they spend less than 20% of their time at the central work location, they report at the central location at the beginning and end of the work day to pick up and return an employer-provided vehicle and other supplies. Many of these employees may have to work overtime or be on-call, so their shift may be unpredictable. (TID, MID) Many ETRIP measures would not be available to field employees. (MID)

Response: Employers should keep their off-site employees in mind in selecting ETRIP measures. While some ETRIP measures would not be available, they may not relate to issues of concern for off-site employees. For example, these employees may not be as likely to take advantage of onsite food service, but because they may be able to stop for food in their work vehicle, access to food is not an impediment to ridesharing and alternative transportation. No employee will be forced to use ridesharing or alternative transportation. Employees with more predictable schedules or with schedules similar to coworkers will be the most likely to use ridesharing or alternative transportation.

12. **Comment:** The definition of emergency personnel should be expanded to include patient care providers in hospitals. Trip reduction rules and programs should distinguish between direct patient care providers (who often have varying and unpredictable shifts or may have to be on-call) and administrative staff show work more “traditional” hours. (HCNCC)
Response: Employees with predictable schedules will be the most likely to use ridesharing or alternative transportation. Many direct care providers may have routine schedules. On-call staff have been defined in the revised rule and are included in the definition of excluded employees.
13. **Comment:** The rule should include a provision that would waive Rule 9410 provisions for hospitals for times of disasters. (HCNCC)
Response: Most ETRIP measures remain in place once implemented and would not be impacted by disaster situations. Many other rule elements (such as the commute verification process, rideshare newsletters, employer rideshare events, etc) have flexibility to allow the employer to decide the best time for implementation, so employers can work around times of disasters, busier work product times, and other situations.

ETRIP measures

14. **Comment:** Compressed work weeks cannot be applied to all of our employees due to the nature of our work. (FWMD)
Response: There are several levels of points and participation for the compressed work week ETRIP measure so employers can receive points according to their ability to implement the measure. District staff understands that compressed work weeks will not work for all employers.
15. **Comment:** We would like to see more flexibility in Phase 3, as these measures can be very challenging for employers (TID).
Response: A degree of additional flexibility is being incorporated into Phase 3 for Tier Two Worksites in the Proposed Rule 9410; the District has slightly lowered the point target for “Transportation, Alternative Schedules, and Incentives” but increased the “Additional Points Needed” so that the total ETRIP points stays the same but employers have more choices on which strategy to emphasize. Phase 3 measures are important because they can increase employee participation in alternative transportation and ridesharing.
16. **Comment:** Monetary incentives can be problematic for a public utility. (TID)
Response: Monetary incentives are part of employee compensation. Employers can still attain enough ETRIP points while deemphasizing monetary incentives by prioritizing other measures.

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17. **Comment:** Contract negotiations with unions dictate terms and conditions for employment. (TID)

Response: ETRIP measures that may be subject to contract negotiations have been phased in for the 2013 ETRIP submittal with implementation by 2014. Employers therefore have a few years to introduce ETRIP measures into negotiations.

18. **Comment:** Compressed work week and telecommuting are options for many of our staff, but not at the percentages specified in the ETRIP measures. These measures might be modified to base percentages on eligible employees not including field staff. (TID)

Response: The Proposed Rule now excludes field staff from the telecommuting measure. Field staff may still be eligible for compressed work weeks, depending on the nature of their work.

19. **Comment:** Employer-imposed requirements for employees to live within a set, short distance from work could be an ETRIP measure. (MID)

Response: This would not be a reasonable option for the majority of Valley employers. An employer may include an option like this as part of "Other measures approved by the District" if it will ensure alternative transportation or ridesharing.

20. **Comment:** Can the "rideshare newsletter" be an existing/general employee newsletter that includes a rideshare section that advises staff of resources and rideshare events? (Kern DHS)

Response: Yes.

21. **Comment:** For the Preferential Parking measures, the 5% requirement for carpool spaces might be too high when parking is at a premium and the spaces might not be used. (Kern DHS)

Response: The 5% minimum helps increase the visibility of the ridesharing option and creates a desirable incentive to those who carpool. Employers who decide that 5% is too high can elect not to use the preferential parking ETRIP measure. These employers may find it beneficial to start with a lower number of carpool spaces and gradually increase the number as these spaces are used.

22. **Comment: Comment:** The number of available ETRIP options in a manufacturing environment is very limited. Consequently, we believe that manufacturing facilities, as previously defined be required to comply with the Phase 1 and Phase 2 point totals only. (CLFP/MCCV)

Response: To increase flexibility, the "Transportation, Alternative Schedules, and Incentives Strategy" point target for Tier Two worksites has also been

decreased with the Additional Points needed increasing to allow for more flexibility in the ETRIP options.

23. Comment: Many of the Phase III transportation and alternative schedule measures are incongruous with a manufacturing work environment and with union negotiations. First, the union focuses on compensation increases that benefit every member of the group and subsidies or incentives that will only be paid to participating employees will not effectively represent their entire constituency. Incentives or subsidies may also increase union dues since fees are established based on the wages of union members. Second, some manufacturers are governed by labor contracts that are multi-state or national in scope. The only clear exceptions to this during contract negotiations on national contracts are specific to State Wage and Hour Laws, and these exceptions would then apply to every site within that state, not just one site located in the San Joaquin Valley. (CLFP/MCCV)

Response: Provisions have been added to the Telecommuting, Flex Schedule and Compressed Work Week schedule measures so that points can be awarded when offered to workers not on a production line. See also Comment 22.

24. Comment: There may some manufacturing employers who cannot attain the requisite points in the Program Support Strategy. (CLFP/MCCV)

Response: The District modified the Program Support Strategy to include separate points available for offering Internal Guaranteed Ride Home Service to production line workers and other workers such as office staff, due to the legal and practical challenges in manufacturing facilities.

25. Comment: An employer/worksites should be allowed to utilize points from other strategies to make up a deficit in another category. (CLFP/MCCV)

Response: The minimum point target in each strategy was set so that employers implement a comprehensive trip reduction program and the additional points needed foster flexibility to offer more options in the employer's strategy of choice.

Other Definitions

26. Comment: Manufacturing line workers should reflect the definition in the Industrial Welfare Commission Wage Orders 1 - 2001, Manufacturing Industry; 3 - 2001; 3 - 2001, Canning, Freezing, and Preserving Industry; and/or 8 - 2001, Industries Handling Products After Harvest. The IWC wage order definitions are legally recognized and most precisely categorize the manufacturing sector. (CLFP, MCCV)

Response: The Proposed Rule includes a definition for Production Line Worker that incorporates the IWC wage orders.

27. **Comment:** The rule should define a “standard work week” as Monday through Friday. The “standard reporting to work time” should be included in the rule and defined as 6 am to 10 am. (FWMD)

Response: “Peak period” is defined in Section 3.0 of the rule as 6 AM to 10 AM Monday through Friday.

Survey

28. **Comment:** Survey requirements are cumbersome and impractical (Bolthouse).

Response: Periodic data collection on employee commute modes are crucial demonstrations of accountability that can help the Valley avoid more stringent ridesharing mandates. Proposed Rule 9410 shifts away from the “survey” concept and reframes commute data collection as “Commute Verification” to communicate the importance of this data. The Proposed Rule also reflects a change in frequency and return rates for data collection. The current approach is simple, straight forward, and keeps the administrative burden at a minimum.

29. **Comment:** The 90% survey response rate is unrealistic and creates an undue administrative tracking burden. (Clovis, CLFP/MCCV, TID, MID, Kern DHS) A 50% response rate is more realistic and should provide a sufficient amount of data for the District to infer emissions reductions. Additional ETRIP points could be awarded to employers who achieve higher return rates. (Clovis) The District would refrain from setting a minimum at this time and, instead, see what survey response rates are like for the first year of surveys and set a survey return rate requirement based on the first year. (TID)

Response: See Comment 28. The Proposed Rule includes two ways for the employer to implement Commute Verification. In the first option, the employer distributes Commute Verification Forms to all eligible employees. Employers can use District-provided templates and reporting options. Employers may be able to incorporate this into an existing process, such as regular staff meetings, timesheets, or other employee form collection. In the second option, the employer may propose an alternative data collection approach to collect data from a representative sample of eligible employees. Employers would submit their methodologies to the District for approval at least 120 days prior to the start of the calendar year in which the method would be used.

30. **Comment:** Requiring additional surveys for employers who do not achieve the 90% survey return rate adds unnecessary administrative burdens. (Clovis, CLFP/MCCV) It is likely that the same people will be responding each time, and with repeated surveys, they may stop responding. We don't think repeated surveys will give the District accurate information. (TID, MID)

Response: See Comments 28 and 29.

31. **Comment:** A baseline survey should be required prior to the implementation of any of the rules requirements. This will allow the Air District to gauge improvements once the rule implementation begins. (CCA)

Response: Requiring a baseline survey would increase compliance costs. Valley-specific data collected by the U.S. Census Bureau in 2006-2008 (part of the “American Community Survey”) establishes an appropriate baseline from which to evaluate changes in commute behaviors and emissions reductions. Prioritizing the ETRIP early in implementation also allows employers to focus their implementation efforts on the actions that can facilitate commute changes. Implementing Commute Verification after the full ETRIP is put into place gives ETRIP measures a chance to work.

32. **Comment:** Requiring multiple surveys each year would improve representativeness of the data. Requiring additional surveys only when survey response is limited, is an improvement from previous drafts but still does not do enough to gather useful data nor to discourage possible gaming of the survey mechanism. (CCA)

Response: Commute verification would be based on a five-day work week. The District estimates that about 500,000 employees in the Valley would be eligible employees subject to Commute Verification. Thus, Proposed Rule 9410 generates about 2.5 million data points every year, a vast amount of data that should be sufficient to verify emission reductions. Requiring additional data collection would increase compliance time and costs without necessarily improving the representativeness of data. Because compliance with the rule is not based on the number of employees who participate in ridesharing and alternative transportation, and because employers are required to save survey records for at least five years for possible APCO requests, there should be no incentive or motivation for manipulating the integrity of the Commute Verification forms.

Cost

33. **Comment:** We think we will have to hire someone dedicated to ensuring Rule 9410 compliance (Bolthouse).

Response: Hiring a full time staff person dedicated to Rule 9410 would be excessive for the vast majority of employers. The District will be providing templates, trainings, guidance documents, and other tools to minimize the administrative burdens of Rule 9410 as much as possible. Although some ETRIP measures will require some effort when they are initially put into place, many require little to no ongoing effort. Employers may be able to delegate Rule 9410 tasks among several existing staff to minimize the burden on any one

person. Alternatively, employers may find that an intern or temporary staff person may be able to help put Rule 9410 measures and efforts in place.

34. **Comment:** As written, Rule 9410 does not look “low or no cost.” (Bolthouse) The costs associated with this rule are a burden in an the already-challenging economy. (RFR, Clovis) The rule will require diverting already scarce internal resources. (HCNCC)

Response: See Comment 33.

35. **Comment:** We do not want to pay more taxes to support excess government spending. (RFR)

Response: There are no fees paid to the District to comply with Rule 9410.

36. **Comment:** The District should do modeling of how these rules will impact specific sub-sets of employers, including hospitals. (HCNCC)

Response: Please refer to the Socioeconomic Analysis in Appendix C of the Staff Report.

Cost Effectiveness and Socioeconomic Analysis

37. **Comment:** We believe the District has significantly underestimated the costs associated with this Rule. Data from our members indicate a cost ranging from \$49,007 per ton to \$74,194 per ton, far above the \$25,000 cost effectiveness threshold and of that estimated in the staff report. The District underestimates the average hourly rate and the amount of time it will take to administer the program. Another gross underestimation is the average rate of pay for the policy review and administration of the program. Local industry averages validate that these assumptions are off as much as \$19 per hour. Also, while the current worksheet does account for employee labor to fill out the survey, it does not include the cost of lost production hours which our member companies factor into their cost vs. return models. (CLFP/MCCV)

Response: The District used a Valley-wide average hourly rate (including benefits) calculated from the Employment Development Department (EDD). The District based time estimates on the District’s in-house programs, and these are considered reasonable in light of the resources the District will provide employers to reduce administrative time and costs. The amount of time needed for employees to complete Commute Verification should be minimal and should not result in significant lost production time. The District recommends that employers choose the least time consuming manner to administer Commute Verification. Employers may be able to incorporate this into an existing process, such as regular staff meetings, timesheets, or other employee form collection.

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38. **Comment:** Why did the District use employment data from just one quarter rather than an average based on several years of data? Using third quarter data may skew the data due to seasonal food processing employment.

(CLFP/MCCV)

Response: Employment data from one quarter was used because it was the most specific information available, providing the number of employees broken down by employer size. It was also the most recent information available at that time which would reflect the current economic situation.

39. **Comment:** How did the District derive that 36.27 percent of Valley employees work at sites with more than 100 employees? (CLFP/MCCV)

Response: The EDD data was used to total the number of employees at worksites with more than 100 employees and then adjusted to account for possible excluded employees and exempt sites.

40. **Comment:** According to the San Joaquin Valley Express Transit Study, approximately 25 percent of the Valley workforce already commutes to work using some means other than a single passenger vehicle. Was this taken into account? (CLFP/MCCV)

Response: The District was unable to find this particular statistic in the document cited by the commenter. However, calculations based on 2006-2008 Census data for the eight counties in the San Joaquin Valley support 22% of Valley employees use alternative transportation. Though this percentage is close to that cited by the commenter, it is not representative of the employees subject to Rule 9410. The census data includes the large number of employees in the agricultural sector participating in successful carpool and vanpool programs, many of which are exempt from this rule. Therefore, the given percentage was not used to calculate baseline emissions.

41. **Comment:** On page C-7 of the October 21, 2009 staff report, the total number of eligible employees is listed as 390,650 (Table C-4). How was this number derived? Why didn't the District use this figure to estimate total NOx emissions reduction potential—it would reduce the estimate by about 23 percent and significantly decreases the cost effectiveness of the Rule. (CLFP/MCCV)

Response: The number of eligible employees in Table C-4 was calculated based on an average number of eligible employees used only to estimate costs for Tier One and Tier Two worksites. To estimate costs, it was assumed that Tier One worksites have 150 eligible employees and Tier Two worksites have 350 eligible employees.

42. **Comment:** The socioeconomic analysis conducted by ADE seems to indicate that there are 398,016 total private sector employees at work sites with over 100 workers. However, this seems to be a total number, not adjusted for the number

of eligible employees. Further, why is this number higher than the 390,650 figure used by the District in Table C-4? How can the private sector total exceed the total for all employers? (CLFP/MCCV)

Response: The Socioeconomic Analysis has been updated to include discussion on these points.

43. **Comment:** The socioeconomic analysis provided did not include many of the cost benefits to businesses or the employees from the ETRIP rule. (CCA)

Response: The District recognizes there are potential cost savings associated with implementing many of the ETRIP measures. The purpose of the socioeconomic analysis is to describe how the implementation costs would affect industries and sectors throughout the Valley. While savings are identified for some measures, such as direct deposit, the analysis does not take into account less quantifiable cost benefits. Some of the general benefits are described in the staff report. Employee savings are expected to be significant, but these are not analyzed as direct cost savings for the employer.

Emissions Reductions

44. **Comment:** The rule needs to identify how the District will measure the impact of trip reduction relative to reduced emissions. (Clovis)

Response: The District's emission reduction estimate and methodology are included in Appendix B of the Staff Report. The District will use employer-submitted Commute Verification data to verify reductions.

Compliance

45. **Comment:** Rule 9410 should include clearly stated penalties for noncompliance. (CCA)

Response: California Health and Safety Code Sections 42402 – 42403 provides the penalty tiers for noncompliance with California air district rules.

Noncompliance penalties are often assessed on a per-day-of-noncompliance basis, and the ultimate goal is to bring violators into compliance of the rule. When the District identifies that someone is out of compliance with a District rule, the District issues a notice to comply or a notice of violation, depending on the nature and severity of the violation. The consequences of a violation depend on the nature and persistence of the violation, the length of time over which the violation occurred, the frequency of past violations, and the action taken by the business to mitigate the violation. The District will verify compliance with Rule 9410 through records review and periodic inspections.

46. **Comment:** The District should include the state's parking cash-out law in Rule 9410. (CCA)

Response: The District has reviewed existing state laws for parking cash-out. The District will be in contact with ARB to discuss enforcement needs. Further study is needed to determine how many Valley employers are be subject to the state law and assess the emission reduction potential of enforcement. Although the District is not adding parking cash-out to Rule 9410, employers can earn ETRIP points for offering a monetary incentive to employees, regardless of whether it is characterized as parking-cash out.

Employer Liability

47. **Comment:** It is a concern that the more an employer becomes involved in the activities outside of work, in this case the commute to and from work, the more the burden of accountability shifts from the employee to the employer. California Labor Code Section 3600.8 states "An employee who is injured while acting outside the course of his or her employment, or his or her dependents in the event of the employee's death, shall not be barred from bringing an action at law for damages against his or her employer as a result of this section." (CLFP/MCCV)

Response: No governmental entity can ever fully guarantee that a particular regulation will not be the subject of litigation. The District's position is that the requirements of Rule 9410 are drafted in such a way that it will not subject employers to meritorious claims. Labor Code section 3600.8 makes it very clear that employers who have employees that voluntarily participate in alternative commute programs mandated by a governmental entity (such as Rule 9410) are not subject to worker's compensation liability. The Commenter raises concerns that this section may not insulate employers against other forms of liability, such as tort liability, and that such legal questions remain untested. However, the courts have repeatedly determined that things such as commute stipends, even when part of a collective bargaining agreement, do not subject employers to liability for auto accidents occurring during the employee's commute. See *Anderson v. PG&E* (1993) 14 Cal.App.4th 254; *Caldwell v. A.R.B., Inc.* (1986) 176 Cal.App.3d 1028; *Harris v. Oro-Dam Constructors* (1969) 269 Cal.App.2d 911. Although the amount of control an employer exercises over a particular activity is relevant to the analysis, the District believes all of the measures that an employer can choose for Rule 9410 compliance can be implemented in a manner that requires limited or no employer control. Thus, although the District advises employers to check with their legal counsel when determining which measures work for them, the District does not believe that Rule 9410 has liability issues that cannot be easily overcome.

Written Comments on the Proposed Rule 9410

Comment period held from November 16 through November 30, 2009.

Comments were received from the following people and organizations:

**Merced County (Merced)
Nabors Well Services Company (NWSC)
Greater Madera County Industrial Association (GMCIA)
Coalition for Clean Air (CCA)**

General

48. **Comment:** According to the San Joaquin Valley Express Transit Study, approximately 25 percent of the Valley workforce already commutes to work using some means other than a single passenger vehicle. (GMCIA)
Response: Refer to Comment 40.

Excluded Employees

49. **Comment:** NWSC field employees report to a main location to then participate in a “continued rideshare” to a satellite field location to reduce trips. These types of field employees should be excluded from the eligible employee count. “Continued rideshare” should also be added as one of the menu options in the ETRIP. (NWSC)
Response: Field employees who report to a central location before reporting to the field still have an opportunity to rideshare or use alternative transportation when commuting to the central location. Continued rideshare is a great way to reduce trips and can be submitted as “Other measures approved by the District.”

Cost Effectiveness and Socioeconomic Analysis

50. **Comment:** District staff should conduct a cumulative cost analysis on affected industries including requirements from other regulatory agencies and the abilities of companies to invest in emissions reductions projects. (NWSC)
Response: While the impacts of other regulations and agencies is beyond the scope of the District’s economic analysis, cumulative impacts are addressed in the baseline employment and profitability trends of each affected sector of industry in the socioeconomic analysis. Stakeholders are encouraged to relay economic information to District staff and the District’s economic consultant so that specific impacts can be acknowledged.

51. **Comment:** Has the District considered the cost and time of documentation required by Wage Order 4 for meals and breaks of all employees, including telecommuters, in the cost analysis? (NWSC)

Response: The cost analysis only considered costs specifically associated with the requirements for this rule. The requirements of Wage Order 4 are not specifically mandated by this rule, as the employer would need to follow them regardless.

Cost

52. **Comment:** We believe the District has significantly underestimated the costs associated with this Rule. The District underestimates the average hourly rate and the amount of time it will take to administer the program. Another gross underestimation is the average rate of pay for the policy review and administration of the program. Also, while the current worksheet does account for employee labor to fill out the survey, it does not include the cost of lost production hours which our member companies factor into their cost vs. return models. (GMCIA)

Response: Refer to Comment 37.

53. **Comment:** Given the intense requirements of the rule, the county, with three Tier Two worksites, will need to hire at least one new staff member to oversee the implementation of the programs necessary to meet the point targets. With all of the employee layoffs and furloughs, the remaining workforce does not have the capacity to take on additional duties of running new programs. The amount of time before registration in July 2010 is not sufficient to designate a coordinator. (Merced)

Response: Refer to Comment 33.

Survey

54. **Comment:** The survey should require a 50% return rate only and additional points should be given to companies that achieve higher survey return rates than 50%. (NWSC)

Response: Refer to Comments 28 and 29.

55. **Comment:** Given the relatively low cost of implementation of this rule, based on the socioeconomic report, a baseline survey should be required prior to the implementation of any of the rules requirements. This will allow the Air District to gauge improvements once the rule implementation begins. The District has yet to provide any actual data that supports that a baseline survey would be too expensive to require of employers. (CCA)

Response: Refer to Comment 31. Though a baseline survey would be helpful, it is not completely necessary and would only create additional unneeded costs and burden on employers especially in the current economic climate.

56. **Comment:** Requiring commute verification multiple times each year would improve representativeness of the data and be harder to manipulate to show improvement in participation. (CCA)

Response: Refer to Comment 32.

ETRIP measures

57. **Comment:** The Program Support Strategy has several incompatible options that will add to the degree of difficulty for compliance in manufacturing environments. Without additional flexibility, there may be some manufacturing employers who cannot attain the point totals in the Program Support Strategy. (GMCIA)

Response: Refer to Comment 24.

58. **Comment:** High point targets and low values given to many of the most low-cost and achievable ETRIP measures will make it difficult for employers to meet the overall point goal. In most cases, measures with the lowest point values are really the only options for local governments under the strain of a massive recession and severe State funding cuts. The point values for ETRIP options should be altered to increase available options for organizations that are struggling financially and may not be able to implement several of the more costly options. (Merced)

Response: The point values were determined based on the amount of time, cost and effort the measure would require as well as the effectiveness the option would provide in reducing trips. Please refer to the points analysis in this Staff Report. Based off of dialogue with multiple stakeholders, many employers already have multiple options in place at their worksites that can aid in meeting the ETRIP point targets. The District is providing many resources and tools to help employers implement turnkey strategies and will be available to work with employers to determine cost effective options for their worksites.

59. **Comment:** The “Additional Points Needed” section is unnecessarily burdensome and should be eliminated. It negates the reduction in the point target for the Transportation, Alternative Schedules, and Incentives Strategy. The point target for Phase III is excessive and will prohibit most employers from cost effectively complying by having to choose expensive options or multiple low-cost options requiring more money and new staff to operate. Phase III should be satisfied by implementing no more than one or two measures, as each constitute a major undertaking for employers. The point value for Comprehensive Carpool

Program should increase from 8 points to 10 points to help employers comply with Phase III targets. (Merced)

Response: The “Additional Points Needed” targets allow employers to have more flexibility in choosing ETRIP options and creating successful trip reduction programs. The “Additional Points Needed” point targets can easily be achieved by becoming a Healthy Air Living partner and committing to the marketing options included in that. Refer to Comments 53 and 58.

60. **Comment:** The county has implemented Compressed Work Week schedules; however, participation is below the 10% threshold. Local governments are limited in the implementation of alternative schedules in ways private industries are not by needing to provide public services during normal business hours. Even if a 10% threshold was achieved, the points allotted do not adequately assist in Rule 9410 compliance. (Merced)

Response: In speaking to all Valley counties and many large cities during the rule development process, the District learned that many municipalities have already implemented or are planning to implement Compressed Work Week. Although the offices are closed one day every two weeks in a 9/80 schedule, people have been able to take advantage of these offices being open one hour later every day. The multiple participation levels added to the Compressed Work Week option has increased the availability of that option for many employers. Refer to Comment 58.

Employer Liability

61. **Comment:** Many ETRIP options that are implemented or arranged by the employer will increase liability and legal risk to the employer or are not conducive to a manufacturing environment. (GMCIA)

Response: Refer to Comment 47.

Compliance

62. **Comment:** Rule 9410 should include clearly stated penalties for noncompliance and provide additional clarification as to what kind of noncompliance practices would result in what level of punishment to help deter noncompliance. (CCA)

Response: Refer to Comment 45.

63. **Comment:** The District should include the state’s parking cash-out law in Rule 9410. Since a parking cash-out adoption was initially included in an earlier version of the rule it should not be difficult to add it to the current rule. (CCA)

Response: Parking cash-out is already required by state law and applies to a larger set of employers than Rule 9410. Refer to Comment 46.

Written Comments on the Proposed Rule 9410

The following comments were received between December 1 and December 17, 2009.

Comments were received from the following people and organizations:

Modesto City Schools (Modesto Schools)
Stanislaus County (Stanislaus)
Anlin Window Systems (Anlin)
Hedrick's Chevrolet (Hedrick's)
Bingham Toyota/Scion (Bingham)

Compliance

64. **Comment:** How does the Air District propose to track applicable employers?
(Modesto Schools)

Response: District staff have compiled a lengthy mailing list with employers throughout the Valley that have over 100 employees. Notices have been sent to each employer on the list. Employers are responsible for registering with the District.

65. **Comment:** What are the penalties for non-compliance? (Modesto Schools)

Response: Refer to Comment 45.

66. **Comment:** The inflexibility of the rule and the costs associated with implementing such a plan without funding is impractical especially for local government entities. Many of the measures may have tax and union implications that would limit the availability of measures to reach the point targets. The administrative and financial resources are not available to administer and monitor the program. The District should administer Commute Verification to employees to reduce the burden for employers. (Stanislaus)

Response: The menu-based approach provides flexibility while the minimum point targets ensure a comprehensive and well-rounded program will be put in place. Employer based trip reduction programs have been shown to be successful in multiple studies which are outlined in the staff report. The District's Personnel Department has evaluated the ETRIP measures and determined there should not be any overarching tax implications. The District should be contacted if a unique situation may determine otherwise. See also Comment 17. The District will provide various methods to submit Commute Verification data such as online, by phone and timecards as well as multiple tools and templates to decrease the administrative time and cost.

Cost

67. **Comment:** Will the District provide direct and personal assistance to local public school districts to ensure compliance is achieved in the most cost effective manner? (Modesto Schools)

Response: District staff are available to employers. The District will also provide multiple tools, resources and trainings as outlined in Section 7.0 in the rule.

68. **Comment:** The requirements of the rule would require hiring a part time employee to perform record keeping, thereby reducing employee related cost elsewhere. The District should not burden businesses with an additional expense during the current economic climate, providing yet another reason why businesses are leaving California. (Bingham) How will the rule achieve any measurable reduction in air pollution? (Anlin) Mandates should be on the consumer not passed along to the businesses. (Hedrick's)

Response: Refer to Comment 33.

Emission Reductions

69. **Comment:** How will the rule achieve any measurable reduction in air pollution? (Anlin)

Response: Refer to Comment 44.

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Letters Submitted on the Proposed Rule 9410

Two hundred and two individuals submitted similar letters as summarized below. The letters were received between December 10 and December 17, 2009.

K. Walser, Modesto	B. Quintana, Soulsbyville
S. Herman, Sacramento	P. Roe, Turlock
Y. Peck, Orangevale	T. Harrington, Sonora
K. Achee, Bakersfield	R. Kuhn, Fresno
D. Buckheim, Atascadero	K. Steele, Pleasanton
D. Ledden, Rancho Murieta	J. Satchell, Sacramento
D. Watson, Sacramento	K. Linarez, Carmichael
P. Nelson, Twain Harte	B. Hochendoner, Patterson
M. Meyer, Wawona	C. Bowman, Sacramento
K. Norton, Sacramento	R. Clarke-Roberts, Riverbank
R. Robinson, Sacramento	L. Lynch, Elk Grove
H. Beauchaine, Tulare	K. Bithell, Madera
J. Sorby, Stockton	M. Taylor, Sacramento
C. Fink, Stockton	S. Anderson, Stockton
K. Manning, Sacramento	T. Alice, Mariposa
F. Palmer, Sacramento	P. Meierding, Yosemite
V. Hartman, El Portal	J. Sabo, Escalon
B. Etgen, Sacramento	N. Novak, Fresno
C. Carr, Big Oak Flat	S. Holzberg, Folxom
M. Yang, Turlock	D. Cobb, Stockton
C. Graybill, Sacramento	E. Storar, Sacramento
J. Young, Carmichael	B. Newstrom, Stockton
E. Obara, San Ramon	S.E. Miranda, Antelope
L. Smith, California Hot Springs	F. Mathes, Madera
R. Halliwell, Danville	S. Commons, Sacramento
T. Hutchinson, California City	P. Helman, Pleasanton
D. Cho, Tracy	P. Tidwell, Visalia
K. Harper, Citrus Heights	J. Buhowsky, San Ramon
T. Clark, Arroyo Grande	D. Asay, Sacramento
C. Benedict, Merced	K. Wang, Turlock
M. Baker, Tehachapi	S. Goldstein, Danville
R. Robinson, Fresno	R. Glover, Fresno
L. Rank, Auberry	R. Sullivan, Sacramento
S. Roberts, Wawona	J. Tessman, Sacramento
A. Louin, Fresno	J. Kirk, Modesto
B. Olson, Sanger	J. Nonya, Sacramento
J. Tabacco, Riverbank	M. Hamlett, Sacramento
H. White, Coarsegold	C. LeBlanc, Sacramento

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Appendix A: Public Comments

December 17, 2009

C. Roe, Fresno
T. Moore, Coarsegold
W. Webster, Danville
K. Avance, Sacramento
J. Ball, Sacramento
B. Hughes, Ridgecrest
R. Morris, Bakersfield
K. Avance, Sacramento
D. Dorinson, North Fork
R. Harvey, Paso Robles
J. Koshear, Coarsegold
P. Rockey, Oakdale
M. Setaro, Modesto
T. Gonzalez, Lancaster
J. Nommensen, Bakersfield
W. Wilke, Fresno
K. Silva, Tulare
B. Steele, Springville
D. Murray, Sacramento
D. Ramsey, Sacramento
M. Skercevic, Sacramento
J. Columbia, Bakersfield
E. Thayer, Brentwood
N. Kelly, Fresno
P. Del Prato, Sacramento
M. Ott, Pleasanton
E. Adan, Carmichael
J. Greer, Denair
R. Bates, Fresno
R. Longer, Elk Grove
K. Jones, Sacramento
S. Still, Sonora
C. Wieland, San Ramon
K. Evans, Sacramento
L. Arenas, Fresno
D. Sproull, Stockton
M. Graf, Bakersfield
J. Perugini, Folsom
J. Nakata, Citrus Heights
G. Watkins, Elverta
W. Mittig, Mariposa
I. Macias, Sacramento
G. Lynn, Bakersfield

D. D'Amico, Carmichael
M. Brinich, Chowchilla
S. Summers, Carmichael
D. Woolf, Catheys Valley
S. Edie, Antelope
L. White, Folsom
L. Fultz, Fresno
L. Roberts, Fresno
J. Acuna, Sacramento
E. Seekamp, San Ramon
B. Peloquin, Bakersfield
R. Cassinelli, Sacramento
J. Bowman, Sacramento
S. Hampton, Sacramento
M. Mallett, Sacramento
J. Ostoich, Sacramento
D. DeTora, Citrus Heights
C. Michaelides, Galt
R. Vosburg, Bakersfield
J. Womble, Lodi
B. Vanhorn, Gustine
C. Yee, Sacramento
L. Young, Mariposa
R. Sennett, San Luis Obispo
R. Young, Sacramento
M. Clipka, Lathrop
G. Kinsey, Elk Grove
J. Rutledge, Antelope
F. Reyes, Los Banos
L. Austin, Sacramento
P. Sparry, Morgan Hill
E. Robin, Bakersfield
K. Monk, Citrus Heights
H. McLean, Sacramento
L. Slattery, Modesto
P. Gullam, Bakersfield
S. Arteaga, Modesto
S. Hafer, Sacramento
R. Sullivan, Woodbridge
L. Hicks, Fresno
L. Coffman, Atascadero
C. Chenkin, Citrus Heights
L. Norried, Valley Springs

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T. Philipson, Danville
R. Reed, Tollhouse
G. Sheets, Merced
S. Hodges, Sacramento
J. Krase, San Ramon
L. Redding, Sacramento
B. Martin, Fresno
J. Seghieri, Manteca
R. Grace, Morgan Hill
J. Harvey, Pioneer
C. Riley, Citrus Heights
A. Lopez, Folsom
T. Manning, Springville
M.C. Nothern, Danville
K. Dolder, Danville
M. Gracey, Danville
J. Murphy, Modesto
P. Edmonston, Mariposa
K. Dawdy, San Ramon
J.R. Donaldson, Fresno

J. Trujillo, Tehachapi
C. Shadish, Mariposa
D. Santone, San Ramon
A. Peterson, Stockton
B. Cohen, Fresno
E. Stanley, Sacramento
D. Figge, Fresno
E. Rees, Folsom
P. Sessa, Sacramento
J. Dettman, Sonora
G. Crapson, Exeter
K. Peck, Carmichael
A. Arcure, Fresno
S. Taylor, Sacramento
J. Myrick, Morgan Hill
N. Cohn, Atascadero
S. Odry, Fish Camp
R. Blakemore, Mariposa
M. Todd, Folsom
B. Odelberg, Kirkwood

70. **Comment:** I support your efforts to reduce emissions from mobile sources by implementing Rule 9410, the employer-based trip reduction program. In the adoption of Rule 9410, I urge you to incorporate strong accountability measures that include clear penalties for non-compliance, a baseline survey to help measure progress, and further annual surveys that gather data on the effectiveness of the rule. I believe that a strong 9410 would help to reduce the dangerous air pollution that we suffer in the valley and at our nearby national parks.

Response: Refer to Comments 31, 32 and 45.

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APPENDIX B
Emission Reduction Analysis

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EMISSIONS REDUCTION ANALYSIS

The 2008 PM_{2.5} Plan contained an emissions inventory for On-Road Motor Vehicles based on the ARB emissions inventory (CEFS v1.06). The inventory included categories that would be used for commuting, specifically light and medium duty passenger cars and trucks. This rule affects oxides of nitrogen (NO_x), volatile organic compounds (VOC), and direct PM_{2.5} from these vehicles. Table B-1 shows the baseline emissions inventory for these pollutants.

Table B-1 Total Emissions from Light and Medium Duty Vehicles
(tons per day, or tpd)

	2010	2014	2023
NO _x	44.7	32.1	16.4
VOC	41.9	31.9	20.6
PM _{2.5}	2.3	2.6	3.2

The Department of Transportation's (DOT) National Household Travel Survey found that, as a nation-wide average, work commute Vehicle Miles Traveled (VMT) account for about 27% of total VMT for personal vehicle use³. Table B-2 shows the emissions from work commute VMT.

Table B-2 Emissions from Light and Medium Duty Vehicles for Work Trips
(tpd)

	2010	2014	2023
NO _x	12.1	8.7	4.4
VOC	11.3	8.6	5.6
PM _{2.5}	0.62	0.69	0.87

³ U.S. Department of Transportation (DOT) and Federal Highway Administration (FHWA). "Commute VMT and Total VMT by Year" Table 24, page 42. National Household Travel Survey, 2004.

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According to the Employment Development Department, about 36% of Valley employees are employed at worksite with 100 or more employees.⁴ Table B-3 shows the emissions from commute trips of those subject to the rule.

Table B-3 Emissions for work trips at employers with at least 100 employees (tpd)

	2010	2014	2023
NOx	4.4	3.1	1.6
VOC	4.1	3.1	2.0
PM2.5	0.23	0.25	0.32

The California Department of Transportation (Caltrans) California Statewide Household Travel Survey⁵ states that the weekday average vehicle occupancy (AVO) for home to work trips is 1.1, equating to 11 persons per 10 vehicles ($11 \div 10 = 1.1$). The proposed rule emphasizes education and infrastructure for trip reduction programs through various ETRIP measures phased in at a worksite over time. A collaborative report⁶ prepared by the U.S. DOT Federal Transit Administration (FTA), Federal Highway Administration (FHWA), and EPA states that combining commute alternatives with incentives results in an average trip reduction of 24.5%, which equates to an AVO of approximately 1.32 ($AVO = 1 / [1 - 0.245]$). Other reports have shown similar participation rates given the amount of measures provided in the comprehensive ETRIP.^{7,8} Given that these studies evaluated voluntary programs, the District is confident a regulatory program will surpass the average participation achieved from these programs. With the combination of various strategies to create a comprehensive ETRIP, the District expects an AVO for affected employers of between 1.3 and 1.4. Table B-4 shows the emissions that will be eliminated by the implementation of this rule.

⁴Adjusted to account for possible exempt employees. Employment Development Department (EDD). "Number of Employees by Size Category" Table 3B, Labor Market Information Division, Third Quarter, 2007.

<http://www.labormarketinfo.edd.ca.gov/?pageid=138>

⁵ Caltrans. "Table B: 2000-2001 Key Trip Statistics", California Statewide Household Travel Survey, 2002.

⁶ U.S. DOT FTA and FHWA, U.S. EPA. "Summary of Choices – What works?", Commuter Choice Primer.

⁷ U.S. DOT FHWA. "Employer-Based TDM Programs", Multi-Pollutant Emissions Benefits of Transportation Strategies, 2006.

⁸ Victoria Transport Policy Institute. "Travel Impacts", TDM Encyclopedia: Commute Trip Reduction Programs That Encourage Employees to Use Efficient Commute Options, 2009.

Table B-4 Rule 9410 emissions reductions from projected AVO (tpd)

	2014	2023
NOx	0.6	0.3
VOC	0.6	0.4
PM2.5	0.05	0.06

The following discussion shows the emissions reductions calculations for NOx, VOC and PM2.5 in greater detail.

To account for Valley commuters who already use alternative transportation, pre-baseline emissions were established using a scenario where 100% of eligible employees in the Valley are using single occupancy vehicles. Pre-baseline emissions were found by multiplying the baseline AVO⁹ of 1.1 by the rule baseline emissions in Table B-3 and are represented in Table B-6.

Table B-6 Hypothetical pre-baseline emissions resulting from 100% SOV use (tpd)

	2014	2023
NOx	3.4	1.8
VOC	3.4	2.2
PM2.5	0.28	0.35

Next, the District has set an AVO target range of 1.3 to 1.4 for eligible employees. To calculate projected emissions resulting from the target AVO, the pre-baseline emissions are divided by the range midpoint, 1.35, as shown in Table B-7.

Table B-7 Emissions produced at 1.35 AVO (tpd)

	2014	2023
NOx	2.5	1.3
VOC	2.5	1.6
PM2.5	0.2	0.3

⁹ See footnote 5.

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The emission reductions resulting from achieving the 1.35 average target is the difference between the baseline emissions for Rule 9410 and the projected emissions in Table B-7.

An example of the calculation for the estimated reductions of NOx in 2014 is as follows:

3.1 tpd rule baseline x 1.1 baseline AVO = 3.4 tpd pre-baseline emissions (representing 100% single occupancy vehicles)

3.4 tpd pre-baseline emissions / 1.35 projected AVO
= 2.6 tpd projected emissions (representing 1.35 AVO)

3.1 tpd rule baseline - 2.6 tpd projected emissions
= 0.6 tpd NOx reduced by Rule 9410

The estimated NOx emissions reductions calculated in this staff report are higher than the projected emissions reductions in the *2007 Ozone Plan*. This can be attributed to an updated emissions inventory and employment and commute data made available by the DOT National Household Travel Survey and Employment Development Department. Table B-8 demonstrates the difference in the Rule 9410 baseline compared to that of the *2007 Ozone Plan*. The current proposed rule baseline is only a portion of that of the *2007 Ozone Plan*. In the *2007 Ozone Plan*, the control measure baseline only included light duty vehicles, whereas the Rule inventory baseline, at this time, includes medium duty vehicles as well to account for SUVs and van use. The updated information has helped the District better determine the potential of this rule.

Table B-8 Rule 9410 baseline percentage of 2007 Ozone Plan baseline (%)

	2014	2023
NOx	65.5	67.1
VOC	7.75	8.29

Though the estimated VOC emissions reductions calculated in this report are slightly lower in tons per day than what was committed to in the *2007 Ozone Plan*, this rule should achieve a higher percent of VOC reductions of the updated baseline emissions inventory than the plan projected. Table B-9 compares the emissions reductions from the *2007 Ozone Plan* to proposed Rule 9410 as compared to their respective baselines. There will be surplus emissions reductions from other measures committed to in the *2007 Ozone Plan* to account for the discrepancy in actual tons per day. Exempt worksites may also participate in trip reduction efforts with the tools developed for this

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rule, achieving additional reductions. However, since these reductions are not enforceable, they can not be credited in the State Implementation Plans.

Table B-9 Emissions reductions comparison between Rule 9410 and the 2007 Ozone Plan (%)

	2014		2023	
	Ozone Plan	Rule 9410	Ozone Plan	Rule 9410
NOx	5	18	12	18
VOC	2	18	3	18

The emissions reductions in the 2008 PM2.5 Plan were under review and not determined at the time of plan adoption. Therefore, no specific target PM2.5 reductions were projected in the 2008 PM2.5 Plan.

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APPENDIX C

Costs and Cost Effectiveness Analysis

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I. INTRODUCTION

California Health and Safety Code (CH&SC) Section 40920.6(a) requires the San Joaquin Valley Unified Air Pollution Control District to conduct both an "absolute" cost effectiveness analysis and an "incremental" cost effectiveness analysis of available emission control options prior to adopting each Best Available Retrofit Control Technology (BARCT) rule. The purpose of conducting a cost effectiveness analysis is to evaluate the economic reasonableness of the pollution control measure or rule as it applies to operators in the San Joaquin Valley Air Basin. The analysis also serves as a guideline in developing the control requirements of a rule.

Incremental cost effectiveness (ICE) is intended to measure the change in costs (in \$/year) and emissions reductions (in tons reduced/year) between two progressively more effective control options or technologies. ICE compares the differences in costs and the differences in emissions reductions of candidate control options. ICE does not reveal the emission reduction potential of the control options. Unlike the absolute cost effectiveness analysis that identifies the control option with the greatest emission reduction, ICE does not present any correlation between emissions reductions and cost effectiveness. Therefore, the relative values produced in the ICE analysis and the absolute cost effectiveness values are not comparable and cannot be evaluated in the same way as absolute cost effectiveness numbers.

II. SUMMARY

Rule 9410 would require large worksites to promote and facilitate trip reduction from their employees to reduce vehicle miles traveled (VMT) and emissions of oxides of nitrogen (NOx), volatile organic compounds (VOC), and particulate matter 2.5 microns in diameter or less (PM2.5) associated with work commutes. Worksites would have to implement an Employer Trip Reduction Implementation Plan (ETRIP) by choosing applicable measures from a menu of options to achieve a specified point target.

Rule 9410 will apply to an estimated 1883 facilities throughout the Valley. This rule separates those facilities into two tiers based on the number of eligible employees at the worksite. Tier One Worksites are those with 100-249 eligible employees and Tier Two Worksites have 250 or more eligible employees. There are an estimated 1,342 Tier One Worksites and 541 Tier Two Worksites.

Worksites that employ migrant and/or seasonal workers that would fall under the Migrant and Seasonal Agricultural Worker Protection Act (MSPA) have different requirements under Rule 9410 to avoid inconsistency with existing regulations. The MSPA worksites have an altered compliance plan implementing only Phase One and

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Phase Two of the ETRIP. Of the estimated 1,883 facilities this rule applies to, 28 of those employ workers protected by MSPA.

A. Absolute Cost Effectiveness

Absolute cost effectiveness (ACE) of a control option is the added cost of a control technology or technique, divided by the emission reduction achieved (in tons reduced per year). The costs include capital equipment costs, labor, and maintenance costs. The estimated ACE range for this analysis is \$8,000 - \$15,000 per ton of NOx, VOC, and PM2.5 emissions reduced as estimated from Appendix B. The ACE for each type of worksite is shown in Table C-1. Factors affecting the ACE are summarized in Section IV.

Table C-1 District Estimate of Absolute Cost Effectiveness	
Type of Worksite	Absolute Cost Effectiveness (\$/tpy reduced)
Tier One	13,894
MSPA Tier One	14,796
Tier Two	8,375
MSPA Tier Two	12,221
Weighted Average	11,253

Manufacturing stakeholders' provided an ACE range from \$49,000 - \$74,000 per ton of NOx, VOC, and PM2.5 emissions reduced per year and are summarized in Table C-2. The stakeholder provided ACE is based off of a previous version of the staff report. The following table also includes the District's adjustment of stakeholder's cost effectiveness based on the final draft staff report showing an improvement in the stakeholder ACE by 45%. The estimates provided are for Tier One and Tier Two manufacturing facilities only.

Table C-2 Manufacturing Stakeholder Estimate of Absolute Cost Effectiveness		
Type of Manufacturing Worksite	Stakeholder Provided Absolute Cost Effectiveness (\$/tpy reduced)	District Adjusted^A Stakeholder Estimated Absolute Cost Effectiveness (\$/tpy reduced)
Tier One	\$74,194	\$41,044
Tier Two	\$49,007	\$27,040
Total	\$60,609	\$33,481

^ADistrict staff adjusted the stakeholder provided ACE using the updated emissions reductions provided in Appendix B of the Final Draft Staff Report and stakeholder provided costs and number of facilities.

B. Incremental Cost Effectiveness

Incremental cost effectiveness (ICE) is intended to measure the change in costs (in \$/year) and emissions reductions (in tons reduced/year) between two progressively more effective control options or technologies. Rule 9410 provides worksites with the flexibility to comply with the requirements by choosing the required minimum number measures from a list of menu options or developing measures of their own not specified in the rule for District approval. In general, since worksites have the flexibility to choose from a list of menu options, District staff believe worksites will likely choose the option with the best cost effectiveness for their particular operation. As a result, District staff believes an ICE analysis is not appropriate for this rule.

III. ESTIMATED COMPLIANCE COSTS

Throughout the rule development process, multiple worksites throughout the Valley have been utilized as examples of worksites with successful trip reduction measures in place. While there may be many facilities with some of the menu options already in place, this report does not take into account those possibilities. Costs will be provided for every menu option as well as an ACE analysis of a feasible ETRIP applicable to the majority of facilities within the Valley. District staff estimated costs for one-time and recurring administrative and employee labor, materials, and other operations as well as annualized capital cost for equipment and installation for each year of implementation.

As stated previously, costs were estimated for Tier One and Tier Two regular and MSPA worksites. Please refer to Attachments 1-6 for the estimated compliance costs.

A. Estimated Costs

Rule 9410 will be phased in over a period of six years beginning in 2010. Costs were calculated incorporating one-time, annualized capital, and recurring costs for each year of rule implementation. Costs are calculated separately according to tier and MSPA worksites. Estimated annual costs are summarized in Table C-3. See Attachments 1-4 for detailed cost estimates.

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Type of Worksite	2010	2011	2012	2013	2014	2015+	Average Annual cost, 2010-2014
Tier One	\$44	\$1,373	\$3,801	\$3,033	\$3,298	\$4,462	\$2,310
Tier Two	\$44	\$1,816	\$5,635	\$3,604	\$5,143	\$6,827	\$2,460
MSPA Tier One	\$44	\$1,373	\$1,734	\$4,733	\$4,413	\$6,295	\$3,249
MSPA Tier Two	\$44	\$1,816	\$2,399	\$9,714	\$9,729	\$11,944	\$4,741

Reporting requirements have changed from a semiannual survey requirement to Commute Verification, as outlined in Section 6.4 of the Rule, since the costs were estimated and would affect costs occurring in 2014 and thereafter. Administrative costs will likely be lower as a result of these changes but the cost range estimated for the previous semiannual survey requirement is reasonable for the Commute Verification requirement and was not altered.

Stakeholder estimated annual costs for manufacturing sites are summarized in Table C-4. Stakeholder estimated costs are higher than those estimated by the District due to increased estimated time needed to administer the program, increased wage scale for some of the administrative costs, specifically policy development, and using a cost versus return model for the survey requirements. Stakeholder estimates also do not reflect more recent changes to the reporting requirements, specifically the change from the semiannual survey requirement to Commute Verification.

Type of Worksite	2010	2011	2012	2013	2014	2015+	Average Annual cost, 2010-2014
Tier One	\$76	\$3,100	\$7,377	\$12,392	\$11,174	\$13,929	\$6,824
Tier Two	\$76	\$4,100	\$10,493	\$18,132	\$19,651	\$22,971	\$10,490

Costs estimated by District staff, though lower than those provided by stakeholders, offer a reasonable range for various reasons. The District used a Valley-wide average hourly rate including benefits, not specific to one industry, calculated from the Employment Development Department (EDD). The administrative time estimates to develop and administer the program were calculated based on information from the District's in-house options and considered reasonable especially in light of the number of resources the District has committed to providing to reduce administrative time and costs, such as sample policies and templates. Since stakeholder costs have been

submitted the reporting requirements in the proposed Rule 9410 have been revised and as a result, the costs should be lower. Stakeholder estimated costs for the survey reporting requirements incorporated a cost versus return model for lost production time. The amount of time needed for employees to complete the mandatory Commute Verification form should be minimal over the course of the year and should not result in significant lost production time. The District recommends that the employer chooses the least time consuming manner to administer the Commute Verification method of their choice.

B. Sources of Cost Data

District staff used cost information provided by stakeholders through interviews and voluntary surveys and based information on existing programs, such as the District's own trip reduction program. Administrative and employee participation hours were estimated and were reviewed by the District's Personnel and Administration Departments.

District staff actively solicited written and verbal cost data from stakeholders and incorporated these comments into the cost effectiveness analysis. Manufacturing stakeholders provided cost estimates and have been summarized in this analysis.

C. Assumptions Used in Calculating Estimated Costs

District staff has assumed certain specifications to perform the cost effectiveness analysis including the following:

1. Administrative and employee hours were estimated for development and participation in the worksite's trip reduction program. The use of District templates and resources that will be provided to employers was taken into account.
2. The measures that offer a financial incentive to participating employees would be agreed upon as part of the employee compensation package and therefore, would have no additional cost not already included in the employer's set budget. Employee compensation negotiations occur regardless of Rule 9410.
3. The assumptions made for the emissions reduction calculation in Appendix B apply to the emissions reductions portion in this Appendix.
4. The total annualized compliance cost for all compliance scenarios include all the appropriate annualized capital costs as well as any additional annual operation, maintenance, and labor costs.

IV. COST EFFECTIVENESS ANALYSIS

A. Cost Effectiveness Analysis Procedure

Following is the procedure used by District staff in conducting the cost effectiveness analysis of this rule:

- (1) Identify a compilation of menu options for an ETRIP applicable to any type of Tier One and Tier Two worksite;
- (2) Estimate the one-time and recurring administrative and employee participation hours associated with each of the menu options;
- (3) Estimate the one-time and recurring materials and operations costs for each of the menu options;
- (4) Estimate the equipment annualized cost of each applicable menu option;
- (5) Calculate the annual cost to implement each phase of the ETRIP and the administrative requirements;
- (6) Calculate the emissions reduction based on participation in a comprehensive trip reduction program; and
- (7) Calculate the absolute cost effectiveness of the given ETRIP.

As previously mentioned, cost effectiveness of a control technology is calculated by dividing the annualized cost of a control technique with the annual emission reduction achieved by the control technique. The cost effectiveness is expressed in dollars per ton of pollutants reduced (\$/ton).

B. Emissions Reduction Analysis

District staff analyzed the potential emissions reduction of Draft Rule 9410 as detailed in Appendix B of the Draft Staff Report. The summary of the estimated emissions reduction is shown in Table C-5.

Table C- 5 Emissions Reduction		
Pollutant	2014	
	tons/day	tons/yr
NOx	0.571	208
VOC	0.571	208
PM2.5	0.046	17
Total	1.188	433

Staff then estimated emission reductions for each type of worksite by apportioning the total reductions according to the total number of employees as used for the estimated costs, shown in Table C-6.

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Type of Worksite	Average Number of Employees per Worksite^A	Number of Worksites	Total Number of Employees^B	Reductions (tons/yr)
Total		1,883	390,650	433
Tier One	150	1,322	198,300	220
MSPA Tier One	150	20	3,000	3
Tier Two	350	533	186,550	207
MSPA Tier Two	350	8	2,800	3

^A The average number of employees listed per worksite were used only for the cost estimates. 150 employees were used to estimate Tier One costs and 350 employees were used to estimate Tier Two costs.

^B Estimated number of employees = Tier One Average number of employees x Number of worksites. Example for Tier One: 150 employees x 1,322 worksites = 198,300 employees. The estimated total number of employees were calculated only for the cost effectiveness and not used elsewhere.

Staff then divided the annual average cost for each type of worksite by the annual average emission reduction to generate cost effectiveness values for each type of worksite and the rule as a whole. Table C-7 shows the cost effectiveness of Rule 9410 as calculated by District staff.

Type of Worksite	Number of worksites	Average annual cost/worksites until 2014 (from Table C-3)	Annual cost for all worksites^C (\$/ton/yr)	Emissions Reduction (tons/yr)	Absolute Cost Effectiveness (\$/ton reduced)
Tier One	1,322	\$2,310	\$3,053,820	220	13,894
MSPA Tier One	20	\$2,460	\$49,200	3	14,796
Tier Two	533	\$3,249	\$1,731,717	207	8,375
MSPA Tier Two	8	\$4,741	\$37,928	3	12,221
Total	1883	\$3,190	\$4,872,665	433	11,253

^C Annual cost for all worksites = Average annual cost per worksite x number of worksites. Example for Tier One: \$2,310/worksites x 1,322 worksites = \$3,053,820/year total cost; \$3,053,820/year total cost ÷ 220 ton/year reduction = \$13,894/ton reduced

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Stakeholders provided the following estimated costs and ACE for manufacturing sites summarized in Table C-8. Differences from District cost estimates are discussed in Section III A of this analysis. Stakeholders used the number of manufacturing worksites provided in the Socioeconomic Report Table 3. The Socioeconomic Report provided a conservative estimate by not taking into account the possible excluded employees when stating the number of worksites with 100 or more employees. Therefore, the number of manufacturing worksites is likely less than stated in the following table.

Table C-8 Cost and Absolute Cost Effectiveness Provided by Stakeholders for Manufacturing Facilities					
Type of Manufacturing Worksite	Number of worksites^D	Average annual cost/worksite until 2014	Annual cost for all worksites	Emissions Reduction (tons/yr)^E	Absolute Cost Effectiveness (\$/tpy reduced)
Tier One	157	\$6,824	\$1,071,368	14.44	\$74,194
Tier Two	79	\$10,490	\$828,710	16.91	\$49,007
Total	236		\$1,900,078	31.35	\$60,609

^D Manufacturing sites only as based on data provided in the socioeconomic report. Actual number may be lower.

^E Emissions reductions calculated from data provided by the District.

Similar to Table C-2, the stakeholder provided ACE is expected to improve based on the revision to the Emissions Reductions Analysis in Appendix B in the Final Draft Staff Report.

**ATTACHMENTS 1- 6
COST ESTIMATE TABLES**

Attachment 1: Tier 1 Estimated Costs for Feasible ETRIP

Rule Element	Description of Expenditure	Frequency	One-Time Costs						Capital Costs	Recurring Costs						Total Costs Each Year (\$/yr)												
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)	Total Recurring Costs (\$/yr)	2010	2011	2012	2013	2014	2015+				
Tier One Worksites Annual Total																	44	1373	3801	3033	3298	4462						
ADMINISTRATIVE REQUIREMENTS																												
Employer Registration	Admin labor	one-time	2	44				44	0							0	44											
Employer Trip Reduction Implementation Plan (ETRIP)																												
Notify Employees	Admin labor	one-time	2	44				44	0							0		44										
Develop each phase of ETRIP	Admin labor	recurring						0	0	60	1,329					1,329		1329	1329	1329								
Survey 2x/yr starting in 2014																												
Preparation	Admin labor	recurring						0	0	15	332					332						332	332					
Distribution	Admin labor	recurring						0	0	15	332					332						332	332					
Completion by employees	Employee labor	recurring						0	0			75	1,661			1,661						1661	1661					
Materials	Materials	recurring						0						100		100						100	100					
Annual Report starting in 2015																												
Compile Survey Results	Admin labor	recurring						0	0	35	775					775							775					
Revise ETRIP	Admin labor	recurring						0	0	35	775					775							775					
Approval, submission to District	Admin labor	recurring						0	0	15	332					332							332					
MARKETING STRATEGY																												
Host a Rideshare event																												
Plan event	Admin labor	recurring						0	0	4	89					89			89	89	89	89	89					
Employee time to attend	Employee labor	recurring						0	0			37.5	831			831			831	831	831	831	831					
Employee time to host event	Admin labor	recurring						0	0	2	44					44			44	44	44	44	44					
Materials from District	Materials	recurring						0	0					0		0			0	0	0	0	0					
E-mail blasts to employees																												
Prepare using District templates	Admin labor	recurring						0	0	1	22					22			22	22	22	22	22					
Register with local rideshare agency																												
Time to fill out form	Admin labor	one-time	1	22				22	0							0			22									
Distribute District information to employees																												
Request and distribute materials	Admin labor	recurring						0	0	1	22					22			22	22	22	22	22					
Distribute CEO letter/email																												
Prepare using District templates	Admin labor	recurring						0	0	1	22					22			22	22	22	22	22					
Onsite transit information center																												
Develop policy and procedures	Admin labor	one-time	8	177				177	0							0			177									
Organize/post info	Admin labor	recurring						0	0	4	89					89			89	89	89	89	89					
Accounting - for transit passes	Admin labor	recurring						0	0	6	133					133			133	133	133	133	133					
Energy consumption and space	Materials	recurring						0	0					0		0			0	0	0	0	0					
Rideshare & alternative transportation bulletin boards																												
Initial purchases & set-up	Materials	one-time	2	44		55		99	0							0			99									
Update information Quarterly	Admin labor	recurring						0	0	4	89					89			89	89	89	89	89					
Receive training at a District marketing class																												

Attachment 1: Tier 1 Estimated Costs for Feasible ETRIP

Rule Element	Description of Expenditure	Frequency	One-Time Costs						Capital Costs		Recurring Costs						Total Costs Each Year (\$/yr)							
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)	Total Recurring Costs (\$/yr)	2010	2011	2012	2013	2014	2015+
Annual class	Admin labor	recurring						0		0	6	133					133			133	133	133	133	
Employer rideshare newsletter																								
	Prepare using District templates	Admin labor	recurring					0		0	4	89					89			89	89	89	89	
	Paper and ink	Materials	recurring					0		0					80		80			80	80	80	80	
Healthy Air Living Partner																								
Administrative																								
	Download forms	Admin labor	one-time	0.5	11			11		0							0			11				
	Complete/submit forms	Admin labor	one-time	1.5	33			33		0							0			33				
	Develop policy and procedures	Admin labor	one-time	8	177			177		0							0			177				
PROGRAM SUPPORT STRATEGY																								
Internal Guaranteed Ride Home Service																								
	Policy development	Admin labor	one-time	8	177			177		0							0			177				
	Outreach to Employees	Admin labor	one-time	2	44			44		0							0			44				
	2 requests/month	Admin labor	recurring					0		0	2	44					44			44	44	44	44	
External Employee Ride Matching Program																								
	Outreach to employees	Admin labor	one-time	2	44			44		0							0			44				
SERVICES AND FACILITIES STRATEGY																								
On-site Vending Machines																								
	Solicit and review proposals	Admin labor	one-time	16	354			354		0							0			354				
	Service contract preparation	Admin labor	one-time	16	354			354		0							0			354				
	Space required is 100 sq. feet (machines - 1 soft drink and 1 snack)	space costs, \$/sq. ft./month	recurring					0		0					160		160			160	160	160	160	
	Electricity costs - operate 24/7 - power is already available	same cost as refrigerator	recurring					0		0					428		428			428	428	428	428	
Onsite Breakroom and Kitchenette																								
	Solicit and review proposals	Admin labor	one-time	24	532			532		0							0			532				
	Contract preparation	Admin labor	one-time	24	532			532		0							0			532				
	Refrigerator	delivery fee	capital					0	947	154							0			154	154	154	154	
	Microwave oven		capital					0	262	43							0			43	43	43	43	
	2 dining tables and 8 chairs		capital					0	950	155							0			155	155	155	155	
	Cabinets, Counter, Sink - 6 feet		capital					0	2,016	328							0			328	328	328	328	
	Space required is 200 sq. feet	cost, \$/sq. ft./month	recurring					0		0					320		320			320	320	320	320	
	Cleaning	Labor/month	recurring					0		0	20	443					443			443	443	443	443	
	Supplies		recurring					0		0					240		240			240	240	240	240	
Direct Deposit Payroll																								
	Cost for 150 employees	Cost per employ	recurring					0		0					17938		17,938			17938	17938	17938	17938	
	Savings - Postage & Printing							0		0					-22227		(22,227)			-22227	-22227	-22227	-22227	
Postal Service																								
	Prepare policy and procedures	Admin labor	one-time	8	177			177		0							0			177				

Attachment 1: Tier 1 Estimated Costs for Feasible ETRIP

Rule Element	Description of Expenditure	Frequency	One-Time Costs							Capital Costs	Recurring Costs							Total Costs Each Year (\$/yr)						
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)	Total Recurring Costs (\$/yr)	2010	2011	2012	2013	2014	2015+
Balance accounts, purchase and sell stamps, inventory stamps	Admin labor	recurring						0	0	0	4	89				89				89	89	89		
TRANSPORTATION AND ALTERNATIVE SCHEDULES STRATEGY																								
Carpool Program																								
Policy development	Admin labor	one-time	8	177				177	0							0						177		
Coordinate information	Admin labor	recurring						0	0	6	133					133					133	133		
Provide information to employees	Admin labor	recurring						0	0	4	89					89					89	89		
Staggered Work Schedules																								
Policy development	Admin labor	one-time	8	177				177	0							0						177		
INCENTIVES STRATEGY																								
Preferential Parking																								
Painting & Stenciling bumpers	Labor	one-time	3	66				66	0							0						66		
Materials - paint & stencils		one-time					165	165	0							0						165		
Discount Transit Passes																								
Development of policy and procedures	Admin labor	one-time	6	133				133	0							0						133		
Balance accounts, purchase and distribute passes, inventory passes	Admin labor	recurring						0	0	8	177					177						177	177	
Notes and assumptions																								
Number of employees																								
Labor rate for wages, benefits, overhead																								
Sales tax rate, \$/\$1.00																								
Electricity costs \$/kwhr																								
Cost recovery factor for annualized costs																								
Material costs includes supplies and small equipment costs																								

Attachment 2: Tier 2 Estimated Costs for Feasible ETRIP

Rule Element	Description of Expenditure	Frequency	One-Time Costs						Capital Costs		Recurring Costs						Total Costs Each Year (\$/yr)											
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)	Total Recurring Costs (\$/yr)	2010	2011	2012	2013	2014	2015+				
Tier Two Worksites Annual Total																	44	1816	5635	3604	5143	6827						
ADMINISTRATIVE REQUIREMENTS																												
Employer Registration	Admin labor	one-time	2	44			44	0								0	44											
Employer Trip Reduction Implementation Plan (ETRIP)																												
Notify Employees	Admin labor	one-time	2	44			44	0								0	44											
Develop each phase of ETRIP	Admin labor	recurring					0	0	80	1,772						1,772	1772	1772	1772									
Survey 2x/yr starting in 2014																												
Preparation	Admin labor	recurring					0	0	20	443						443					443	443						
Distribution	Admin labor	recurring					0	0	20	443						443					443	443						
Completion by employees	Employee labor	recurring					0	0			175	3,876				3,876					3876	3876						
Materials	Materials	recurring					0	0					100		100						100	100						
Annual Report starting in 2015																												
Compile Survey Results	Admin labor	recurring					0	0	40	886						886								886				
Revise ETRIP	Admin labor	recurring					0	0	40	886						886								886				
Approval, submission to District	Admin labor	recurring					0	0	20	443						443								443				
MARKETING STRATEGY																												
Host a Rideshare event																												
Plan event	Admin labor	recurring					0	0	4	89						89			89	89	89	89						
Employee time to attend	Employee labor	recurring					0	0			87.5	1,938				1,938			1938	1938	1938	1938						
Employee time to host event	Admin labor	recurring					0	0	2	44						44			44	44	44	44						
Materials from District	Materials	recurring					0	0					0		0			0	0	0	0							
E-mail blasts to employees																												
Prepare using District templates	Admin labor	recurring					0	0	1	22						22			22	22	22	22						
Register with local rideshare agency																												
Time to fill out form	Admin labor	one-time	1	22			22	0								0			22	0	0	0						
Distribute District information to employees																												
Request and distribute materials	Admin labor	recurring					0	0	1	22						22			22	22	22	22						
Distribute CEO letter/email																												
Prepare using District templates	Admin labor	recurring					0	0	1	22						22			22	22	22	22						
Onsite transit information center																												
Develop policy and procedures	Admin labor	one-time	8	177			177	0								0			177									
Organize/post info	Admin labor	recurring					0	0	4	89						89			89	89	89	89						
Accounting - for transit passes	Admin labor	recurring					0	0	8	177						177			177	177	177	177						
Energy consumption and space	Material	recurring					0	0						0		0		0	0	0	0							
Rideshare & alternative transportation bulletin boards																												
Initial purchases & set-up	Materials	one-time	2	44		55	99	0								0			99									
Update information Quarterly	Admin labor	recurring					0	0	4	89						89			89	89	89	89						
Receive training at a District marketing class																												

Attachment 2: Tier 2 Estimated Costs for Feasible ETRIP

Rule Element	Description of Expenditure	Frequency	One-Time Costs						Capital Costs		Recurring Costs						Total Costs Each Year (\$/yr)									
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)	Total Recurring Costs (\$/yr)	2010	2011	2012	2013	2014	2015+		
Annual class	Admin labor	recurring						0		0	6	133					133				133	133	133	133		
Employer rideshare newsletter																										
Prepare using District templates	Admin labor	recurring						0		0	6	133					133				133	133	133	133		
Paper and ink	Materials	recurring						0		0					120		120				120	120	120	120		
Healthy Air Living Partner																										
Administrative																										
Download forms	Admin labor	one-time	0.5	11				11		0							0							11		
Complete/submit forms	Admin labor	one-time	1.5	33				33		0							0							33		
Develop policy and procedures	Admin labor	one-time	8	177				177		0							0							177		
PROGRAM SUPPORT STRATEGY																										
Internal Guaranteed Ride Home Service																										
Policy development	Admin labor	one-time	8	177				177		0							0								177	
Outreach to Employees	Admin labor	one-time	4	89				89		0							0								89	
5 requests/month	Admin labor	recurring						0		0	5	111					111								111	
External Employee Ride Matching Program																										
Outreach to employees	Admin labor	one-time	4	89				89		0							0								89	
SERVICES AND FACILITIES STRATEGY																										
On-site Vending Machines																										
Solicit and review proposals	Admin labor	one-time	16	354				354		0							0								354	
Service contract preparation	Admin labor	one-time	16	354				354		0							0								354	
Space required is 300 sq. feet (machines - 6 soft drink and 6 snacks)	space costs, \$/sq. ft./month	recurring						0		0						480	480								480	
Electricity costs - operate 24/7 - power is already available	same cost as refrigerator	recurring						0		0						428	428								428	
Bicycle Racks																										
Space (outdoor) required is 100 sq. feet per rack for 6 bicycles	No cost	recurring						0		0						0	0								0	
3 Racks - 6 bicycles/rack	Cost & labor to install	capital						0	1,377	224							0								224	
Onsite Breakroom and Kitchenette																										
Solicit and review proposals	Admin labor	one-time	24	532				532		0							0								532	
Contract preparation	Admin labor	one-time	24	532				532		0							0								532	
3 Refrigerators	delivery fee	capital						0	2,621	426							0								426	
5 Microwave ovens	delivery fee	capital						0	1,474	240							0								240	
5 dining tables and 20 chairs	delivery fee	capital						0	3,161	514							0								514	
Cabinets, Counter, Sink - 5 x 6 feet		capital						0	10,081	1640							0								1640	
Space required is 3 x 100 sq. feet	cost, \$/sq. ft./month	recurring						0		0						480	480								480	
Cleaning	Labor/month	recurring						0		0	20	443					443								443	
Supplies		recurring						0		0						720	720								720	

Attachment 2: Tier 2 Estimated Costs for Feasible ETRIP

Rule Element	Description of Expenditure	Frequency	One-Time Costs						Capital Costs		Recurring Costs						Total Costs Each Year (\$/yr)										
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)	Total Recurring Costs (\$/yr)	2010	2011	2012	2013	2014	2015+			
Check Cashing																											
	Prepare policy and procedures	Admin labor	one-time	16	354					354	0						0								354		
	Set up costs (assume payroll is processed electronically)	Admin labor	one-time	20	443					443	0						0								443		
	Balance accounts, process checks	Admin labor	recurring							0	0	15	332				332								332	332	332
Direct Deposit Payroll																											
	Cost for 350 employees	Cost per empl	recurring							0	0					29768	29,768							29768	29768	29768	
	Savings - Postage & Printing									0	0					-39776	(39,776)								-39776	-39776	-39776
Postal Service																											
	Prepare policy and procedures	Admin labor	one-time	8	177					177	0						0								177		
	Balance accounts, purchase and sell stamps, inventory stamps	Admin labor	recurring							0	0	8	177				177								177	177	177
TRANSPORTATION AND ALTERNATIVE SCHEDULES STRATEGY																											
Vanpool Program																											
	Policy development	Admin labor	one-time	8	177					177	0						0										177
	Coordinate information	Admin labor	recurring							0	0	8	177				177								177	177	177
	Provide information to employees	Admin labor	recurring							0	0	8	177				177								177	177	177
Carpool Program																											
	Policy development	Admin labor	one-time	8	177					177	0						0										177
	Coordinate information	Admin labor	recurring							0	0	8	177				177								177	177	177
	Provide information to employees	Admin labor	recurring							0	0	6	133				133								133	133	133
INCENTIVES STRATEGY																											
Monetary Incentive																											
	Development of policy and procedures	Admin labor	one-time	8	177					177	0						0									177	
	Incentive	10% employee participation	recurring							0	0					0	0								0	0	0
Notes and assumptions																											
	Number of employees									350																	
	Labor rate for wages, benefits, overhead									\$22.15																	
	Sales tax rate, \$/\$1.00									0.09																	
	Electricity costs \$/kwhr									0.15																	
	Cost recovery factor for annualized costs									0.1627																	
	Material costs includes supplies and small equipment costs																										

Attachment 3: MSPA Tier 1 Worksites Estimated Costs for Feasible ETRIP

Rule Element	Description of Expenditure	Frequency	One-Time Costs						Capital Costs		Recurring Costs						Total Costs Each Year (\$/yr)											
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)	Total Recurring Costs (\$/yr)	2010	2011	2012	2013	2014	2015+				
MSPA Worksites Annual Total (Omitting Phase 3 Costs)																	44	1373	1734	4733	4413	6295						
ADMINISTRATIVE REQUIREMENTS																												
Employer Registration	Admin labor	one-time	2	44				44	0							0	44											
Employer Trip Reduction Implementation Plan (ETRIP)																												
Notify Employees	Admin labor	one-time	2	44				44	0							0		44										
Develop each phase of ETRIP	Admin labor	recurring						0	0	60	1,329					1,329		1329	1329									
Survey 2x/yr starting in 2014																												
Preparation	Admin labor	recurring						0	0	1	22					22							22	22				
Distribution	Admin labor	recurring						0	0	1	22					22							22	22				
Completion by employees	Employee labor	recurring						0	0			75	1,661			1,661							1661	1661				
Materials	Materials	recurring						0						100		100							100	100				
Annual Report starting in 2015																												
Compile Survey Results	Admin labor	recurring						0	0	35	775					775								775				
Revise ETRIP	Admin labor	recurring						0	0	35	775					775								775				
Approval, submission to District	Admin labor	recurring						0	0	15	332					332								332				
MARKETING STRATEGY																												
Rideshare & alternative transportation bulletin boards																												
Initial purchases & set-up	Materials	one-time	2	44			55	99	0							0								99				
Update information Quarterly	Admin labor	recurring						0	0	1	22					22								22				
Receive training at a District marketing class																												
Annual class	Admin labor	recurring						0	0	6	133					133							133	133				
PROGRAM SUPPORT STRATEGY																												
Rideshare map																												
Outreach to Employees	Admin labor	one-time	2	44				44	0							0								44				
Paper and ink	Materials	one-time	0.2	4			58.00	62								0								62				
External Employee Ride Matching Program																												
Outreach to employees	Admin labor	one-time	2	44				44	0							0								44				
SERVICES AND FACILITIES STRATEGY																												
Onsite Breakroom and Kitchenette																												
Solicit and review proposals	Admin labor	one-time	24	532				532	0							0								532				
Contract preparation	Admin labor	one-time	24	532				532	0							0								532				
Refrigerator	delivery fee	capital						0	947	154						0								154				
Microwave oven		capital						0	262	43						0								43				
2 dining tables and 8 chairs		capital						0	950	155						0								155				
Cabinets, Counter, Sink - 6 feet		capital						0	2,016	328						0								328				
Space required is 200 sq. feet	cost, \$/sq. ft./month	recurring						0		0				320		320								320				
Cleaning	Labor/month	recurring						0		0	20	443				443								443				
Supplies		recurring						0		0				240		240								240				
On-site Vending Machines																												
Solicit and review proposals	Admin labor	one-time	16	354				354	0							0								354				

Attachment 3: MSPA Tier 1 Worksites Estimated Costs for Feasible ETRIP

Rule Element	Description of Expenditure	Frequency	One-Time Costs						Capital Costs	Recurring Costs						Total Costs Each Year (\$/yr)										
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)	Total Recurring Costs (\$/yr)	2010	2011	2012	2013	2014	2015+		
Service contract preparation	Admin labor	one-time	16	354						0							0					354				
Space required is 100 sq. feet (machines - 1 soft drink and 1 snack)	space costs, \$/sq. ft./month	recurring								0					160		160					160	160	160		
Electricity costs - operate 24/7 - power is already available	same cost as refrigerator	recurring								0					428		428					428	428	428		
Onsite picnic tables																										
Solicit and review proposals	Admin labor	one-time	16	354						354													354			
Space (outdoor) required	No cost	recurring								0					0		0					0				
2 6' Picnic Table	Equipment	capital		0						0	1120.00	182											182	182	182	
Notes and assumptions																										
	Number of employees																									
	Labor rate for wages, benefits, overhead																									
	Sales tax rate, \$/\$1.00																									
	Electricity costs \$/kwhr																									
	Cost recovery factor for annualized costs																									
	Material costs includes supplies and small equipment costs																									

Attachment 4: MSPA Tier 2 Worksites Estimated Costs for Feasible ETRIP

Rule Element	Description of Expenditure	Frequency	One-Time Costs						Capital Costs		Recurring Costs						Total Costs Each Year (\$/yr)										
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)	Total Recurring Costs (\$/yr)	2010	2011	2012	2013	2014	2015+			
MSPA Worksites Annual Total (Omitting Phase 3 Costs)																	44	1816	2399	9714	9729	11944					
ADMINISTRATIVE REQUIREMENTS																											
Employer Registration	Admin labor	one-time	2	44			44	0								0	44										
Employer Trip Reduction Implementation Plan (ETRIP)																											
Notify Employees	Admin labor	one-time	2	44			44	0								0	44										
Develop each phase of ETRIP	Admin labor	recurring					0	0	80	1,772						1,772	1772	1772	1772								
Survey 2x/yr starting in 2014																											
Preparation	Admin labor	recurring					0	0	1	22						22						22	22				
Distribution	Admin labor	recurring					0	0	1	22						22						22	22				
Completion by employees	Employee labor	recurring					0	0			175	3,876				3,876						3876	3876				
Materials	Materials	recurring					0	0					100		100							100	100				
Annual Report starting in 2015																											
Compile Survey Results	Admin labor	recurring					0	0	40	886						886								886			
Revise ETRIP	Admin labor	recurring					0	0	40	886						886								886			
Approval, submission to District	Admin labor	recurring					0	0	20	443						443								443			
MARKETING STRATEGY																											
Rideshare & alternative transportation bulletin boards																											
Initial purchases & set-up	Materials	one-time	2	44		55	99	0								0								99			
Update information Quarterly	Admin labor	recurring					0	0	1	22						22								22			
Receive training at a District marketing class																											
Annual class	Admin labor	recurring					0	0	1	22						22								22			
Employer rideshare newsletter																											
District provided newsletter	Admin labor	recurring					0	0	1	22						22								22			
Paper and ink	Materials	recurring					0	0					0		0									0			
Rideshare flyer																											
District provided flyer	Admin labor	recurring					0	0	1	22						22								22			
Paper and ink	Materials	recurring					0	0					0		0									0			
PROGRAM SUPPORT STRATEGY																											
Rideshare map																											
Outreach to Employees	Admin labor	one-time	2	44			44	0								0								44			
Paper and ink	Materials	one-time	0.2	4		58.00	62	0								0								62			
External Employee Ride Matching Program																											
Outreach to employees	Admin labor	one-time	4	89			89	0								0								89			
Internal Guaranteed Ride Home Service																											
Policy development	Admin labor	one-time	8	177			177	0								0								177			
Outreach to Employees	Admin labor	one-time	2	44			44	0								0								44			
2 requests/month	Admin labor	recurring					0	0	2	22						22								22			
SERVICES AND FACILITIES STRATEGY																											
Onsite Breakroom and Kitchenette																											
Solicit and review proposals	Admin labor	one-time	24	532			532	0								0								532			
Contract preparation	Admin labor	one-time	24	532			532	0								0								532			
3 Refrigerators	delivery fee	capital					0	2,621	426							0								426			
5 Microwave ovens	delivery fee	capital					0	1,474	240							0								240			

Attachment 5: Tier One Estimated Costs for Every Menu Option

Rule Element	Description of Expenditure	Frequency	One-Time Costs							Capital Costs		Recurring Costs					
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)
ADMINISTRATIVE REQUIREMENTS																	
Employer Registration	Admin labor	one-time	2	44					44		0						0
TOTAL									44		0						0
Employer Trip Reduction Implementation Plan (ETRIP)																	
Notify Employees	Admin labor	one-time	2	44					44		0						0
Develop each phase of ETRIP	Admin labor	recurring							0		0	60	1,329				1,329
TOTAL									44		0						1329
Survey 2x/yr starting in 2014																	
Preparation	Admin labor	recurring							0		0	15	332				332
Distribution	Admin labor	recurring							0		0	15	332				332
Completion by employees	Employee labor	recurring							0		0			75	1,661		1,661
Materials	Materials	recurring							0		0				100		100
TOTAL									0		0						2426
Annual Report starting in 2015																	
Compile Survey Results	Admin labor	recurring							0		0	35	775				775
Revise ETRIP	Admin labor	recurring							0		0	35	775				775
Approval, submission to District	Admin labor	recurring							0		0	15	332				332
TOTAL									0		0						1883
MARKETING STRATEGY																	
Healthy Air Living Partner																	
Administrative																	
Download forms	Admin labor	one-time	0.5	11					11		0						0
Complete/submit forms	Admin labor	one-time	1.5	33					33		0						0
Develop policy and procedures	Admin labor	one-time	8	177					177		0						0
TOTAL									222		0						0
Host a Rideshare event																	
Plan event	Admin labor	recurring							0		0	4	89				89
Employee time to attend	Employee labor	recurring							0		0			37.5	831		831
Employee time to host event	Admin labor	recurring							0		0	2	44				44
Materials from District	Materials	recurring							0		0				0		0
TOTAL									0		0						964

Attachment 5: Tier One Estimated Costs for Every Menu Option

Rule Element	Description of Expenditure	Frequency	One-Time Costs							Capital Costs		Recurring Costs					
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)
E-mail blasts to employees																	
	Prepare using District templates	Admin labor	recurring							0		0	1	22			22
TOTAL										0		0					22
Register with local rideshare agency																	
	Time to fill out form	Admin labor	one-time	1	22					22		0					0
TOTAL										22		0					0
Distribute District information to employees																	
	Request and distribute materials	Admin labor	recurring							0		0	1	22			22
TOTAL										0		0					22
Distribute CEO letter/email																	
	Prepare using District templates	Admin labor	recurring							0		0	1	22			22
TOTAL										0		0					22
Onsite transit information center																	
	Develop policy and procedures	Admin labor	one-time	8	177					177		0					0
	Organize/post info	Admin labor	recurring							0		0	4	89			89
	Accounting - for transit passes	Admin labor	recurring							0		0	6	133			133
	Energy consumption and space	Materials	recurring							0		0				0	0
TOTAL										177		0					222
Rideshare & alternative transportation bulletin boards																	
	Initial purchases & set-up	Materials	one-time	2	44			55		99		0					0
	Update information Quarterly	Admin labor	recurring							0		0	4	89			89
TOTAL										99		0					89
Receive training at a District marketing class																	
	Annual class	Admin labor	recurring							0		0	6	133			133
TOTAL										0		0					133
Employer rideshare newsletter																	
	Prepare using District templates	Admin labor	recurring							0		0	4	89			89
	Paper and ink	Materials	recurring							0		0				80	80

Attachment 5: Tier One Estimated Costs for Every Menu Option

Rule Element	Description of Expenditure	Frequency	One-Time Costs						Capital Costs		Recurring Costs						
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)
TOTAL								0		0							
TOTAL for Healthy Air Living Partner								520		0							1473
Rideshare & alternative transportation meetings																	
	Semiannual meetings	Admin labor	recurring					0		0	5	111					111
	Employee Attendance	Employee labor	recurring					0		0	150	3,323					3,323
	Energy, space, materials	Materials	recurring					0		0				0			0
TOTAL								0		0							3433
Rideshare & alternative transportation focus group																	
	Semiannual meetings	Admin labor	recurring					0		0	5	111					111
	Employee Attendance	Employee labor	recurring					0		0	20	443					443
	Energy, space, materials	Materials	recurring					0		0				0			0
TOTAL								0		0							554
"Best Workplaces for Commuters" Recognition																	
	Complete a new application	Admin labor	one-time	2	44			44		0							0
	Collect supporting materials	Admin labor	one-time	0.5	11			11		0							0
	Annual Status Update	Admin labor	recurring	1	22			22		0							0
	Annual Membership Fee		recurring					0		0					230		230
TOTAL								78		0							230
Rideshare flyer																	
	Prepare using District templates	Admin labor	recurring					0		0	1	22					22
	Paper and ink	Materials	recurring					0		0				40			40
TOTAL								0		0							62
Rideshare orientation for new employees																	
	Initial development	Admin labor	one-time	4	89			89		0							0
	Presentation to new employees	Employee labor	recurring					0		0	0.8	18					18
	Paper, ink	Materials	recurring					0		0				0			0
TOTAL								89		0							18
Employer-adopted alternative transportation policy statement																	
	Initial development	Admin labor	one-time	4	89			89		0							0
TOTAL								89		0							0

PROGRAM SUPPORT STRATEGY

Attachment 5: Tier One Estimated Costs for Every Menu Option

Rule Element	Description of Expenditure	Frequency	One-Time Costs						Capital Costs		Recurring Costs						
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)
Internal Ride Matching																	
	Develop application		one-time	450	9968					9968		0					0
	Outreach to Employees	Admin labor	one-time	1	22					22		0					0
TOTAL										9990		0					0
External Employee Ride Matching Program																	
	Outreach to employees	Admin labor	one-time	2	44					44		0					0
TOTAL										44		0					0
Personalized commute assistance																	
	Research and post information		one-time	1	22					22		0					0
	Annual Outreach to employees	Admin labor	recurring							0		0	1	22			22
TOTAL										22		0					22
Internal Guaranteed Ride Home Service																	
	Policy development	Admin labor	one-time	8	177					177		0					0
	Outreach to Employees	Admin labor	one-time	2	44					44		0					0
	2 requests/month	Admin labor	recurring							0		0	2	44			44
TOTAL										222		0					44
External Guaranteed Ride Home Service																	
	Policy development	Admin labor	one-time	8	177					177		0					0
TOTAL										177		0					0
Rideshare map																	
	Outreach to Employees	Admin labor	one-time	2	44					44		0					0
	Paper and ink	Materials	one-time	0.2	4			58.00		62		0					0
TOTAL										107		0					0
SERVICES AND FACILITES STRATEGY																	
Onsite/Local Food Service																	
	Develop policy and procedures	Admin labor	one-time	4	89					89		0					0
	Organize/post info	Admin labor	recurring							0		0	2	44			44
	Outreach to Employees	Admin labor	one-time	2	44					44		0					0
TOTAL										133		0					44
Onsite/Local Child Care																	
	Develop policy and procedures	Admin labor	one-time	4	89					89		0					0
	Organize/post info	Admin labor	recurring							0		0	1	11			11

Attachment 5: Tier One Estimated Costs for Every Menu Option

Rule Element	Description of Expenditure	Frequency	One-Time Costs							Capital Costs		Recurring Costs					
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)
Outreach to Employees	Admin labor	one-time	2	44					44		0						0
TOTAL									133		0						11
Showers and Lockers Onsite																	
Solicit and review proposals	Admin labor	one-time	24	532					532		0						0
Contract preparation	Admin labor	one-time	24	532					532		0						0
10 x 12 feet bathroom with closet (Project Cost)		one-time							0	26250	4271						0
Cleaning	Labor/month	recurring							0		0	20	443				443
TOTAL									1063		4271						443
Onsite Breakroom and Kitchenette																	
Solicit and review proposals	Admin labor	one-time	24	532					532		0						0
Contract preparation	Admin labor	one-time	24	532					532		0						0
Refrigerator	delivery fee	capital							0	947	154						0
Microwave oven		capital							0	262	43						0
2 dining tables and 8 chairs		capital							0	950	155						0
Cabinets, Counter, Sink - 6 feet		capital							0	2,016	328						0
Space required is 200 sq. feet	cost, \$/sq. ft./month	recurring							0		0					320	320
Cleaning	Labor/month	recurring							0		0	20	443				443
Supplies		recurring							0		0				240		240
TOTAL									1063		679						1003
Electric Vehicle Recharging																	
Solicit and review proposals	Admin labor	one-time	16	354					354		0						0
Service contract		one-time		0				9260	9260		0						0
Electricity costs - owner pays (like getting gas)									0		0						0
TOTAL									9614		0						0
Onsite Bike Repair																	
Develop policy and procedures	Admin labor	one-time	4	89					89		0						0

Attachment 5: Tier One Estimated Costs for Every Menu Option

Rule Element	Description of Expenditure	Frequency	One-Time Costs							Capital Costs		Recurring Costs						
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)	Total Recurring Costs (\$/yr)
	Space (outdoor) required	No cost	recurring							0		0					0	0
	Outreach to Employees	Admin labor	one-time	2	44					44		0						0
TOTAL										133		0						0
Onsite ATM																		
	Solicit and review proposals	Admin labor	recurring	16	354					354		0						0
	Space required is 100 sq. feet	space costs, \$/sq. ft./month	recurring					40.00		40		0						0
TOTAL										394		0						0
Onsite Vending Machines																		
	Solicit and review proposals	Admin labor	one-time	16	354					354		0						0
	Service contract preparation	Admin labor	one-time	16	354					354		0						0
	Space required is 100 sq. feet (machines - 1 soft drink and 1 snack)	space costs, \$/sq. ft./month	recurring							0		0					160	160
	Electricity costs - operate 24/7 – power is already available	same cost as refrigerator	recurring							0		0					428	428
TOTAL										709		0						588
Bicycle Racks																		
	Space (outdoor) required is 100 sq. feet per rack for 6 bicycles	No cost	recurring							0		0					0	0
	2 Racks – 6 bicycles/rack	Cost & labor to install	capital							0	1,048	171						0
TOTAL										0		171						0
Health Facilities																		
	Develop policy and procedures	Admin labor	one-time	6	133					133		0						0
	Space required	No cost	recurring							0		0					0	0
	Outreach to Employees	Labor	recurring		0					0		0	2	44				44
TOTAL										133		0						44
Employer provided bicycles																		
	Solicit and review proposals	Admin labor	one-time	16	354					354		0						0

Attachment 5: Tier One Estimated Costs for Every Menu Option

Rule Element	Description of Expenditure	Frequency	One-Time Costs						Capital Costs		Recurring Costs							
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)	Total Recurring Costs (\$/yr)
	Space required is 100 sq. feet	space costs, \$/sq. ft./month	recurring							0		0					160	160
	5 Bikes		capital							0	750.00	198						0
	Tire pump		capital							0	24.00	6						0
	5 Helmets		capital							0	100.00	26						0
	5 Locks		capital							0	70.00	18						0
TOTAL										354		249						160
Fitness Area and/or Classes																		
	Develop policy and procedures	Admin labor	one-time	6	133					133		0						0
	Space required	No cost	recurring							0		0					0	0
	Setup/Cleanup	Labor	recurring		0					0		0	12	266				266
	Outreach to Employees	Labor	recurring		0					0		0	3	66				66
TOTAL										133		0						332
Employer Organized Lunch Delivery (twice/month)																		
	Coordinate and distribute lunch	Admin labor	recurring							0		0	534	11,828				11,828
	Gas for employer vehicle		recurring							0		0				30		30
	Process forms & payment	Admin labor	recurring							0		0	438	9,702				9,702
TOTAL										0		0						21560
Direct Deposit Payroll																		
	Cost for 150 employees	Cost per employ	recurring							0		0					17938	17,938
	Savings - Postage & Printing									0		0					-22227	(22,227)
TOTAL										0		0						-4289
Check Cashing																		
	Prepare policy and procedures	Admin labor	one-time	16	354					354		0						0
	Set up costs (assume payroll is processed electronically)	Admin labor	one-time	20	443					443		0						0
	Balance accounts, process checks	Admin labor	recurring							0		0	10	222				222
TOTAL										797		0						222
Break and/or Lunch Activities																		

Attachment 5: Tier One Estimated Costs for Every Menu Option

Rule Element	Description of Expenditure	Frequency	One-Time Costs							Capital Costs		Recurring Costs					
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)
Setup/Cleanup	Labor	recurring		0					0		0	30	665				665
Outreach to Employees	Labor	recurring		0					0		0	7	159				159
TOTAL									0		0						824
Dry Cleaning																	
Prepare policy and procedures	Admin labor	one-time	4	89					89		0						0
Outreach to Employees	Labor	recurring		0					0		0	2	44				44
TOTAL									89		0						44
Postal Service																	
Prepare policy and procedures	Admin labor	one-time	8	177					177		0						0
Balance accounts, purchase and sell stamps, inventory stamps	Admin labor	recurring							0		0	4	89				89
TOTAL									177		0						89
Onsite picnic tables																	
Solicit and review proposals	Admin labor	one-time	16	354					354		0						0
Space (outdoor) required	No cost	recurring							0		0					0	0
2 6' Picnic Table	Equipment	capital		0					0	1120.00	182						0
TOTAL									354		182						0
Map to local conveniences																	
Outreach to Employees	Admin labor	one-time	2	44					44		0						0
Paper and ink	Materials	one-time	0.2	4			58.00		62		0						0
Organize/post info	Admin labor	recurring							0		0	2	44				44
TOTAL									107		0						44
TRANSPORTATION AND ALTERNATIVE SCHEDULES STRATEGY																	
Compressed Work Week Schedules																	
Policy development	Admin labor	one-time	12	266					266		0						0
TOTAL									266		0						0
Telecommuting Program																	
Policy development	Admin labor	one-time	12	266					266		0		-				0

Attachment 5: Tier One Estimated Costs for Every Menu Option

Rule Element	Description of Expenditure	Frequency	One-Time Costs							Capital Costs		Recurring Costs						
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)	Total Recurring Costs (\$/yr)
Alternate Site Inspections	Admin and Employee Labor	recurring	22.5	498	23	498			997			3	66	3	66			133
Training	Admin and Employee Labor	recurring	7.5	166	7.5	166			332			1	22	1	22			44
Provide information to employees	Admin labor	recurring	2	44					44		0	2	44					44
TOTAL									1639		0							222
Vanpool Program																		
Policy development	Admin labor	one-time	8	177					177		0							0
Coordinate information	Admin labor	recurring							0		0	6	133					133
Provide information to employees	Admin labor	recurring							0		0	4	89					89
TOTAL									177		0							222
Carpool Program																		
Policy development	Admin labor	one-time	8	177					177		0							0
Coordinate information	Admin labor	recurring							0		0	6	133					133
Provide information to employees	Admin labor	recurring							0		0	4	89					89
TOTAL									177		0							222
Bicycle Program																		
Policy development	Admin labor	one-time	8	177					177		0							0
Coordinate information	Admin labor	recurring							0		0	6	133					133
Provide information to employees	Admin labor	recurring							0		0	4	89					89
Space (outside) required is 100 sq. feet per rack for 6 bicycles	No cost	recurring							0		0						0	0
2 Racks – 6 bicycles/rack	Cost & labor to install	capital							0	1,048	171							0
Storage		capital							0	396	64							0
Repair Kit		capital							0	17	3							0
TOTAL									177		238							222
Shuttles																		
Solicit and review proposals	Admin labor	one-time	16	354					354									0

Attachment 5: Tier One Estimated Costs for Every Menu Option

Rule Element	Description of Expenditure	Frequency	One-Time Costs							Capital Costs		Recurring Costs						
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)	Total Recurring Costs (\$/yr)
Contract Information	Admin labor	one-time	16	354					354									0
Shuttle (Extended Van)	5 years, 6% Interest	capital							0	41179	8,055							0
Gas		recurring							0							4529		4,529
Maintenance		recurring							0							5460		5,460
Insurance		recurring							0							7153		7,153
Outreach to Employees	Admin labor	one-time	2	44					44									0
TOTAL									753		8055							17142
Flex Work Schedules																		
Policy development	Admin labor	one-time	8	177					177		0							0
TOTAL									177		0							0
Staggered Work Schedules																		
Policy development	Admin labor	one-time	8	177					177		0							0
TOTAL									177		0							0
INCENTIVES STRATEGY																		
Monetary Incentive																		
Development of policy and procedures	Admin labor	one-time	8	177					177		0							0
Incentive	10% employee participation	recurring							0						3240			3,240
Incentive	Compensation Package	recurring							0		0				-3240			(3,240)
TOTAL									177		0							0
Extra Time Off																		
Development of policy and procedures	Admin labor	one-time	8	177					177		0							0
Incentive	10% employee participation	recurring							0				180	3987				3,987
Incentive	Compensation Package	recurring							0		0			-3987				(3,987)
TOTAL									177		0							0
Vanpool Subsidy																		

Attachment 5: Tier One Estimated Costs for Every Menu Option

Rule Element	Description of Expenditure	Frequency	One-Time Costs							Capital Costs		Recurring Costs						
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)	Total Recurring Costs (\$/yr)
	Development of policy and procedures	Admin labor	one-time	8	177					177		0						0
	Incentive	8% employee participation	recurring							0						2400		2,400
	Incentive	Compensation Package	recurring							0		0				-2400		(2,400)
TOTAL										177		0						0
Transit Subsidy																		
	Development of policy and procedures	Admin labor	one-time	8	177					177		0						0
	Incentive	1% employee participation	recurring							0						360		360
	Incentive	Compensation Package	recurring							0		0				-360		(360)
TOTAL										177		0						0
Bicycle Subsidy																		
	Development of policy and procedures	Admin labor	one-time	8	177					177		0						0
	Incentive	1% employee participation	recurring							0						360		360
	Incentive	Compensation Package	recurring							0		0				-360		(360)
TOTAL										177		0						0
Startup Incentive																		
	Development of policy and procedures	Admin labor	one-time	8	177					177		0						0
	Incentive	10% employee participation	recurring							0						2250		2,250
	Incentive	Compensation Package	recurring							0		0				-2250		(2,250)
TOTAL										177		0						0
Discount Transit Passes																		
	Development of policy and procedures	Admin labor	one-time	6	133					133		0						0
	Balance accounts, purchase and distribute passes, inventory passes	Admin labor	recurring							0		0	8	177				177

Attachment 5: Tier One Estimated Costs for Every Menu Option

Rule Element	Description of Expenditure	Frequency	One-Time Costs						Capital Costs		Recurring Costs						
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)
TOTAL								133		0							177
Discounted Meals																	
	Development of policy and procedures	Admin labor	one-time	4	89			89		0							0
	50% discount meal (1/month)	10% employee participation	recurring					0		0					630		630
	Coordinate and distribute meals		recurring					0		0	3	66					66
TOTAL								89		0							696
Preferential Parking																	
	Painting & Stenciling bumpers	Labor	one-time	3	66			66		0							0
	Materials - paint & stencils	Materials	one-time				165	165		0							0
TOTAL								231		0							0
Points Program																	
	Development of policy and procedures	Admin labor	one-time	4	89			89		0							0
	Outreach to employees	Admin labor	one-time	1	22			22		0							0
	Track employee points, give out prizes	Admin labor	recurring					0		0	25	554					554
	Prize	Some provided by District	recurring					0		0				80			80
TOTAL								111		0							634
Prize Drawing																	
	Development of policy and procedures	Admin labor	one-time	4	89			89		0							0
	Outreach to employees	Admin labor	one-time	1	22			22		0							0
	Receive entries, drawing, notify employees	Admin labor	recurring					0		0	2	44					44
	Prize		recurring					0		0				80			80
TOTAL								111		0							124
Notes and assumptions																	
	Number of employees			150													
	Labor rate for wages, benefits, overhead			\$22.15													

Attachment 5: Tier One Estimated Costs for Every Menu Option

Rule Element	Description of Expenditure	Frequency	One-Time Costs							Capital Costs		Recurring Costs						
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)	Total Recurring Costs (\$/yr)
	Sales tax rate, \$/\$1.00	0.09																
	Electricity costs \$/kwhr	0.15																
	Cost recovery factor for annualized costs	0.1627																
	Cost recovery factor for annualized costs (5 years)	0.26380																
	Material costs includes supplies and small equipment costs																	

Attachment 6: Tier Two Estimated Costs for Every Menu Option

Rule Element	Description of Expenditure	Frequency	One-Time Costs							Capital Costs		Recurring Costs					
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)
ADMINISTRATIVE REQUIREMENTS																	
Employer Registration	Admin labor	one-time	2	44					44		0						0
TOTAL									44		0						0
Employer Trip Reduction Implementation Plan (ETRIP)																	
	Notify Employees	Admin labor	one-time	2	44				44		0						0
	Develop each phase of ETRIP	Admin labor	recurring						0		0	80	1,772				1,772
TOTAL									44		0						1772
Survey 2x/yr starting in 2014																	
	Preparation	Admin labor	recurring						0		0	20	443				443
	Distribution	Admin labor	recurring						0		0	20	443				443
	Completion by employees	Employee labor	recurring						0		0			175	3,876		3,876
	Materials	Materials	recurring						0		0				100		100
TOTAL									0		0						4862
Annual Report starting in 2015																	
	Compile Survey Results	Admin labor	recurring						0		0	40	886				886
	Revise ETRIP	Admin labor	recurring						0		0	40	886				886
	Approval, submission to District	Admin labor	recurring						0		0	20	443				443
TOTAL									0		0						2215
MARKETING STRATEGY																	
Healthy Air Living Partner																	
Administrative																	
	Download forms	Admin labor	one-time	0.5	11				11		0						0
	Complete/submit forms	Admin labor	one-time	1.5	33				33		0						0
	Develop policy and procedures	Admin labor	one-time	8	177				177		0						0
TOTAL									222		0						0
Host a Rideshare event																	
	Plan event	Admin labor	recurring						0		0	4	89				89
	Employee time to attend	Employee labor	recurring						0		0			87.5	1,938		1,938
	Employee time to host event	Admin labor	recurring						0		0	2	44				44
	Materials from District	Materials	recurring						0		0				0		0
TOTAL									0		0						2071
E-mail blasts to employees																	
	Prepare using District templates	Admin labor	recurring						0		0	1	22				22
TOTAL									0		0						22

Attachment 6: Tier Two Estimated Costs for Every Menu Option

Rule Element	Description of Expenditure	Frequency	One-Time Costs							Capital Costs		Recurring Costs					
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)
Register with local rideshare agency																	
	Time to fill out form	Admin labor	one-time	1	22					22		0					0
TOTAL										22		0					0
Distribute District information to employees																	
	Request and distribute materials	Admin labor	recurring							0		0	1	22			22
TOTAL										0		0					22
Distribute CEO letter/email																	
	Prepare using District templates	Admin labor	recurring							0		0	1	22			22
TOTAL										0		0					22
Onsite transit information center																	
	Develop policy and procedures	Admin labor	one-time	8	177					177		0					0
	Organize/post info	Admin labor	recurring							0		0	4	89			89
	Accounting - for transit passes	Admin labor	recurring							0		0	8	177			177
	Energy consumption and space	Material	recurring							0		0				0	0
TOTAL										177		0					266
Rideshare & alternative transportation bulletin boards																	
	Initial purchases & set-up	Materials	one-time	2	44			55		99		0					0
	Update information Quarterly	Admin labor	recurring							0		0	4	89			89
TOTAL										99		0					89
Receive training at a District marketing class																	
	Annual class	Admin labor	recurring							0		0	6	133			133
TOTAL										0		0					133
Employer rideshare newsletter																	
	Prepare using District templates	Admin labor	recurring							0		0	6	133			133
	Paper and ink	Materials	recurring							0		0				120	120
TOTAL										0		0					120
TOTAL for Healthy Air Living Partner										520		0					2625
Rideshare & alternative transportation meetings																	
	Semiannual meetings	Admin labor	recurring							0		0	5	111			111
	Employee Attendance	Employee labor	recurring							0		0	350	7,753			7,753

Attachment 6: Tier Two Estimated Costs for Every Menu Option

Rule Element	Description of Expenditure	Frequency	One-Time Costs							Capital Costs		Recurring Costs							
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)	Total Recurring Costs (\$/yr)	
	Energy, space, materials	Materials	recurring							0		0					0		0
TOTAL										0		0							7863
Rideshare & alternative transportation focus group																			
	Semiannual meetings	Admin labor	recurring							0		0	5	111					111
	Employee Attendance	Employee labor	recurring							0		0	20	443					443
	Energy, space, materials	Materials	recurring							0		0							0
TOTAL										0		0							554
"Best Workplaces for Commuters" Recognition																			
	Complete a new applica	Admin labor	one-time	2	44					44		0							0
	Collect supporting mater	Admin labor	one-time	0.5	11					11		0							0
	Annual Status Update	Admin labor	recurring	1	22					22		0							0
	Annual Membership Fee		recurring						230	230		0							0
TOTAL										308		0							0
Rideshare flyer (quarterly)																			
	Prepare using District templates	Admin labor	recurring							0		0	1	22					22
	Paper and ink	Materials	recurring							0		0					40		40
TOTAL										0		0							62
Rideshare orientation for new employees																			
	Initial development	Admin labor	one-time	4	89					89		0							0
	Presentation to new employees	Employee labor	recurring							0		0	1.7	37					37
	Paper, ink	Materials	recurring							0		0				0.00			0
TOTAL										89		0							37
Employer-adopted alternative transportation policy statement																			
	Initial development	Admin labor	one-time	4	89					89		0							0
TOTAL										89		0							0
PROGRAM SUPPORT STRATEGY																			
Internal Ride Matching																			
	Develop application		one-time	450	9968					9967.5		0							0
	Outreach to Employees	Admin labor	one-time	1	22					22		0							0
TOTAL										9990		0							0
External Employee Ride Matching Program																			
	Outreach to employees	Admin labor	one-time	4	89					89		0							0

Attachment 6: Tier Two Estimated Costs for Every Menu Option

Rule Element	Description of Expenditure	Frequency	One-Time Costs							Capital Costs		Recurring Costs					
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)
TOTAL								89		0							0
Personalized commute assistance																	
	Research and post information		one-time	1	22					22		0					0
	Annual Outreach to employees	Admin labor	recurring							0		0	1	22			22
TOTAL								22		0							22
Internal Guaranteed Ride Home Service																	
	Policy development	Admin labor	one-time	8	177					177		0					0
	Outreach to Employees	Admin labor	one-time	4	89					89		0					0
	5 requests/month	Admin labor	recurring							0		0	5	111			111
TOTAL								266		0							111
External Guaranteed Ride Home Service																	
	Policy development	Admin labor	one-time	8	177					177		0					0
TOTAL								177		0							0
Rideshare map																	
	Outreach to Employees	Admin labor	one-time	2	44					44		0					0
	Paper and ink	Materials	one-time	0.2	4				58	62		0					0
TOTAL								107		0							0
SERVICES AND FACILITIES STRATEGY																	
Onsite/Local Food Service																	
	Develop policy and procedures	Admin labor	one-time	4	89					89		0					0
	Organize/post info	Admin labor	recurring							0		0	2	44			44
	Outreach to Employees	Admin labor	one-time	3	66					66		0					0
TOTAL								155		0							44
Onsite/Local Child Care																	
	Develop policy and procedures	Admin labor	one-time	4	89					89		0					0
	Organize/post info	Admin labor	recurring							0		0	0.5	11			11
	Outreach to Employees	Admin labor	one-time	2	44					44		0					0
TOTAL								133		0							11
Showers and Lockers Onsite																	
	Solicit and review proposals	Admin labor	one-time	24	532					532		0					0
	Contract preparation	Admin labor	one-time	24	532					532		0					0
	10 x 12 feet bathroom with closet (Project Cost)		one-time							0	52500	8542					0

Attachment 6: Tier Two Estimated Costs for Every Menu Option

Rule Element	Description of Expenditure	Frequency	One-Time Costs							Capital Costs		Recurring Costs						
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)	Total Recurring Costs (\$/yr)
	Cleaning	Labor/month	recurring							0		0	40	886				886
TOTAL										1063		8542						886
Onsite Breakroom and Kitchenette																		
	Solicit and review proposals	Admin labor	one-time	24	532					532		0						0
	Contract preparation	Admin labor	one-time	24	532					532		0						0
	3 Refrigerators	delivery fee	capital							0	2,621	426						0
	5 Microwave ovens	delivery fee	capital							0	1,474	240						0
	5 dining tables and 20 chairs	delivery fee	capital							0	3,161	514						0
	Cabinets, Counter, Sink - 5 x 6 feet		capital							0	10,081	1640						0
	Space required is 3 x 100 sq. feet	cost, \$/sq. ft./month	recurring							0		0					480	480
	Cleaning	Labor/month	recurring							0		0	20	443				443
	Supplies		recurring							0		0				720		720
TOTAL										1063		2821						1643
Electric Vehicle Recharging																		
	Solicit and review proposals	Admin labor	one-time	16	354					354		0						0
	Service contract		one-time						18519	18519		0						0
	Electricity costs - owner pays (like getting gas)									0		0						0
TOTAL										18873		0						0
Onsite Bike Repair																		
	Develop policy and procedures	Admin labor	one-time	4	0					0		0						0
	Space (outdoor) required	No cost	recurring							0		0					0	0
	Outreach to Employees	Admin labor	one-time	2	0					0		0						0
TOTAL										0		0						0
Onsite ATM																		
	Solicit and review proposals	Admin labor	recurring	16	354					354		0						0
	Space required is 100 sq. feet	space costs, \$/sq. ft./month	recurring					0.00		0		0					40	40
TOTAL										354		0						40
Onsite Vending Machines																		

Attachment 6: Tier Two Estimated Costs for Every Menu Option

Rule Element	Description of Expenditure	Frequency	One-Time Costs							Capital Costs		Recurring Costs					
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)
Solicit and review proposals	Admin labor	one-time	16	354					354		0						0
Service contract preparation	Admin labor	one-time	16	354					354		0						0
Space required is 300 sq. feet (machines - 6 soft drink and 6 snacks)	space costs, \$/sq. ft./month	recurring							0		0				480		480
Electricity costs - operate 24/7 – power is already available	same cost as refrigerator	recurring							0		0				428		428
TOTAL									709		0						908
Bicycle Racks																	
Space (outdoor) required is 100 sq. feet per rack for 6 bicycles	No cost	recurring							0		0				0		0
3 Racks – 6 bicycles/rack	Cost & labor to install	capital							0	1,377	224						0
TOTAL									0		224						0
Health Facilities																	
Develop policy and procedures	Admin labor	one-time	6	133					133		0						0
Space required	No cost	recurring							0		0				0		0
Outreach to Employees	Labor	recurring							0		0	4	89				89
TOTAL									133		0						89
Employer provided bicycles																	
Solicit and review proposals	Admin labor	one-time	16	354					354		0						0
Space required is 200 sq. feet	space costs, \$/sq. ft./month	recurring							0		0				320		320
12 Bikes		capital								1800.00	475						
2 Tire pumps		capital								48.00	13						
12 Helmets		capital								240.00	63						
12 Locks		capital								168.00	44						
TOTAL									354		249						160
Fitness Area and/or Classes																	
Develop policy and procedures	Admin labor	one-time	6	133					133		0						0
Space required	No cost	recurring							0		0				0		0
Setup/Cleanup	Labor	recurring							0		0	15	332				332
Outreach to Employees	Labor	recurring							0		0	4	89				89

Attachment 6: Tier Two Estimated Costs for Every Menu Option

Rule Element	Description of Expenditure	Frequency	One-Time Costs							Capital Costs		Recurring Costs					
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)
TOTAL								133		0							421
Employer Organized Lunch Delivery (twice/month)																	
	Coordinate and distribute lunch	Admin labor	recurring							0		192	4253				4,253
	Gas for employer vehicle		recurring							0			0		30		30
	Process forms & payment	Admin labor	recurring							0		876	19403				19,403
TOTAL								0		0							23686
Direct Deposit Payroll																	
	Cost for 350 employees	Cost per empl	recurring					0		0					29768		29,768
	Savings - Postage & Printing							0		0					-39776		(39,776)
TOTAL								0		0							-10009
Check Cashing																	
	Prepare policy and procedures	Admin labor	one-time	16	354			354		0							0
	Set up costs (assume payroll is processed electronically)	Admin labor	one-time	20	443			443		0							0
	Balance accounts, process checks	Admin labor	recurring					0		0	15	332					332
TOTAL								797		0							332
Break and/or Lunch Activities																	
	Setup/Cleanup	Labor	recurring					0		0	30	665					665
	Outreach to Employees	Labor	recurring					0		0	7	159					159
TOTAL								0		0							824
Dry Cleaning																	
	Prepare policy and procedures	Admin labor	one-time	4	89			89		0							0
	Outreach to Employees	Labor	recurring					0		0	2	44					44
TOTAL								89		0							44
Postal Service																	
	Prepare policy and procedures	Admin labor	one-time	8	177			177		0							0
	Balance accounts, purchase and sell stamps, inventory stamps	Admin labor	recurring					0		0	8	177					177
TOTAL								177		0							177

Attachment 6: Tier Two Estimated Costs for Every Menu Option

Rule Element	Description of Expenditure	Frequency	One-Time Costs							Capital Costs		Recurring Costs					
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)
Onsite picnic tables																	
	Solicit and review proposals	Admin labor	one-time	16	354					354		0					0
	Space (outdoor) required	No cost	recurring							0		0				0	0
	3 6' Picnic Table	Equipment	capital		0					0	1680.00	273					0
TOTAL										354		273					0
Map to local conveniences																	
	Outreach to Employees	Admin labor	one-time	2	44					44		0					0
	Paper and ink	Materials	one-time	0.2	4			58.00		62							0
	Organize/post info	Admin labor	recurring							0		0	2	44			44
TOTAL										107		0					44
TRANSPORTATION AND ALTERNATIVE SCHEDULES STRATEGY																	
Compressed Work Week Schedules																	
	Policy development	Admin labor	one-time	12	266					266		0					0
TOTAL										266		0					0
Telecommuting Program																	
	Policy development	Admin labor	one-time	12	266					266		0		-			0
	Alternate Site Inspections	Admin and Employee Labor	recurring	52.5	1163	53	0			1163			5	111	5	111	222
	Training	Admin and Employee Labor	recurring	17.5	388	18	0			388			2	44	2	44	89
	Provide information to employees	Admin labor	recurring	2	44					44		0	2	44			44
TOTAL										1861		0					354
Vanpool Program																	
	Policy development	Admin labor	one-time	8	177					177		0					0
	Coordinate information	Admin labor	recurring							0		0	8	177			177
	Provide information to employees	Admin labor	recurring							0		0	8	177			177
TOTAL										177		0					354
Carpool Program																	
	Policy development	Admin labor	one-time	8	177					177		0					0
	Coordinate information	Admin labor	recurring							0		0	8	177			177
	Provide information to employees	Admin labor	recurring							0		0	6	133			133
TOTAL										177		0					310

Attachment 6: Tier Two Estimated Costs for Every Menu Option

Rule Element	Description of Expenditure	Frequency	One-Time Costs							Capital Costs		Recurring Costs					
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)
Bicycle Program																	
	Policy development	Admin labor	one-time	8	177					177		0					0
	Coordinate information	Admin labor	recurring							0		0	6	133			133
	Provide information to employees	Admin labor	recurring							0		0	4	89			89
	Space (outside) required is 100 sq. feet per rack for 6 bicycles	No cost	recurring							0		0				0	0
	3 Racks – 6 bicycles/rack	Cost & labor to install	capital							0	1,377	224					0
	Storage		capital								550	89					
	Repair Kit		capital								17	3					
TOTAL										177		316					222
Shuttles																	
	Solicit and review proposals	Admin labor	one-time	16	354					354		0					0
	Contract Information	Admin labor	one-time	16	354					354		0					0
	Shuttle (Extended Van)	5 years, 6% Interest	capital								82358	17,831					0
	Gas		recurring									0				9058	9,058
	Maintenance		recurring									0				10920	10,920
	Insurance		recurring									0				14306	14,306
	Outreach to Employees	Admin labor	one-time	2	44					44		0					0
TOTAL										753		17831					34284
Flex Work Schedules																	
	Policy development	Admin labor	one-time	8	177					177		0					0
TOTAL										177		0					0
Staggered Work Schedules																	
	Policy development	Admin labor	one-time	8	177					177		0					0
TOTAL										177		0					0
INCENTIVES STRATEGY																	
Monetary Incentive																	
	Development of policy and procedures	Admin labor	one-time	8	177					177		0					0

Attachment 6: Tier Two Estimated Costs for Every Menu Option

Rule Element	Description of Expenditure	Frequency	One-Time Costs							Capital Costs		Recurring Costs					
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)
Incentive	10% employee participation	recurring						0							478		478
Incentive	Compensation Package	recurring						0		0					-478		(478)
TOTAL								177		0							0
Extra Time Off																	
Development of policy and procedures	Admin labor	one-time	8	177				177		0							0
Incentive	10% employee participation	recurring						0				420	9303				9,303
Incentive	Compensation Package	recurring						0		0			-9303				(9,303)
TOTAL								177		0							0
Vanpool Subsidy																	
Development of policy and procedures	Admin labor	one-time	8	177				177		0							0
Incentive	8% employee participation	recurring						0						5600			5,600
Incentive	Compensation Package	recurring						0		0				-5600			(5,600)
TOTAL								177		0							0
Transit Subsidy																	
Development of policy and procedures	Admin labor	one-time	8	177				177		0							0
Incentive	1% employee participation	recurring						0						840			840
Incentive	Compensation Package	recurring						0		0				-840			(840)
TOTAL								177		0							0
Bicycle Subsidy																	
Development of policy and procedures	Admin labor	one-time	8	177				177		0							0
Incentive	1% employee participation	recurring						0						840			840
Incentive	Compensation Package	recurring						0		0				-840			(840)
TOTAL								177		0							0
Startup Incentive																	

Attachment 6: Tier Two Estimated Costs for Every Menu Option

Rule Element	Description of Expenditure	Frequency	One-Time Costs							Capital Costs		Recurring Costs						
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)	Total Recurring Costs (\$/yr)
	Development of policy and procedures	Admin labor	one-time	8	177					177		0						0
	Incentive	10% employee participation	recurring							0						5250		5,250
	Incentive	Compensation Package	recurring							0		0				-5250		(5,250)
TOTAL										177		0						0
Discount Transit Passes																		
	Development of policy and procedures	Admin labor	one-time	6	133					133		0						0
	Balance accounts, purchase and distribute passes, inventory passes	Admin labor	recurring							0		0	8	177				177
TOTAL										133		0						177
Discounted Meals																		
	Development of policy and procedures	Admin labor	one-time	6	133					133		0						0
	50% discount meal (1/month)	10% employee participation	recurring							0		0				1470		1,470
	Coordinate and distribute meals		recurring							0		0	6	133				133
TOTAL										133		0						1603
Preferential Parking																		
	Painting & Stenciling bumpers	Labor	one-time	6	133					133		0						0
	Materials - paint & stencils		one-time					330		330		0						0
TOTAL										463		0						0
Points Program																		
	Development of policy and procedures	Admin labor	one-time	4	89					89		0						0
	Outreach to employees	Admin labor	one-time	1	22					22		0						0
	Track employee points, give out prizes	Admin labor	recurring							0		0	50	5				5
	Prize	Some provided by District	recurring							0		0				100		100

Attachment 6: Tier Two Estimated Costs for Every Menu Option

Rule Element	Description of Expenditure	Frequency	One-Time Costs						Capital Costs		Recurring Costs						
			Admin Labor (hours)	Admin Labor (\$)	Employee Labor (Hours)	Employee Labor (\$)	Materials (\$)	Other Operations (\$)	Total One-Time Costs (\$/yr)	Equipment & Installation (\$)	Annualized (\$/yr)	Admin Labor (hrs/yr)	Admin Labor (\$/yr)	Employee Labor (hrs/yr)	Employee Labor (\$/yr)	Materials (\$/yr)	Other Operations (\$/yr)
TOTAL								111		0							105
Prize Drawing																	
	Development of policy and procedures	Admin labor	one-time	4	89				89		0						0
	Outreach to employees	Admin labor	one-time	2	44				44		0						0
	Receive entries, drawing, notify employees	Admin labor	recurring						0		0	4	89				89
	Prize		recurring						0		0			80			80
TOTAL								133		0							169
Notes and assumptions																	
	Number of employees		350														
	Labor rate for wages, benefits, overhead		\$22.15														
	Sales tax rate, \$/\$1.00		0.09														
	Electricity costs \$/kwhr		0.15														
	Cost recovery factor for annualized costs		0.1627														
	Cost recovery factor for annualized costs (5 years)		0.26380														
	Material costs includes supplies and small equipment costs																

APPENDIX D

Socioeconomic Analysis

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

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**SOCIO-ECONOMIC IMPACT ANALYSIS
PROPOSED RULE 9410
(EMPLOYER-BASED TRIP REDUCTION)**

DRAFT



NOVEMBER 23, 2009

Prepared for
San Joaquin Valley Unified Air Pollution Control District

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DEVELOPMENT
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1. EXECUTIVE SUMMARY

The District seeks to adopt Rule 9410 (Employer-Based Trip Reduction) to satisfy the goals of the District's 2007 Ozone Plan and 2008 PM2.5 Plan. The analysis shows that a wide range of industries are potentially affected by the proposed rule. The analysis concludes that industries in the private and public sectors are not significantly impacted by the proposed rule. Small businesses are not disproportionately impacted as well.

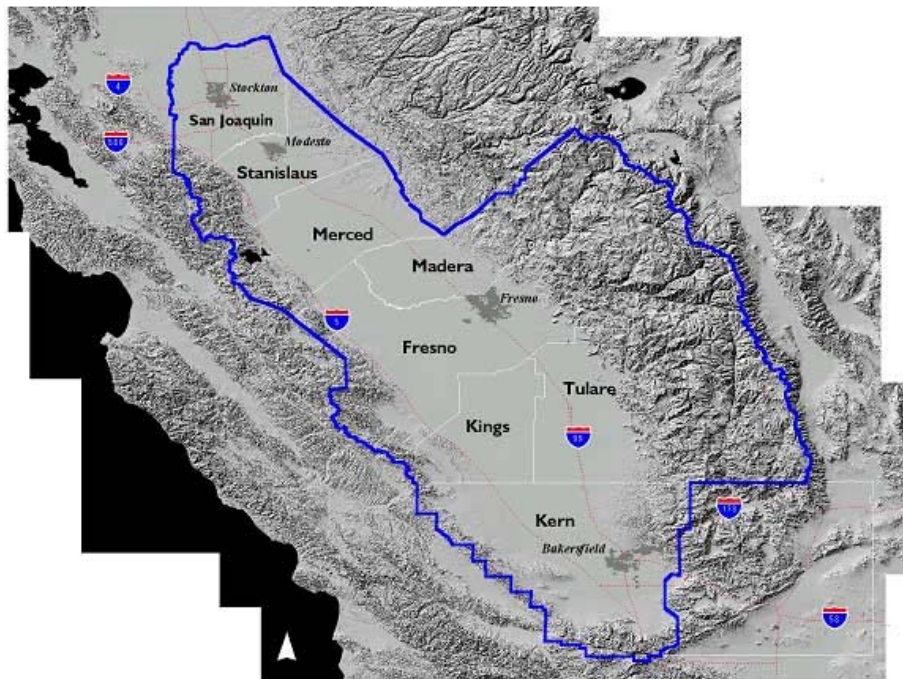
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2. INTRODUCTION

This report describes the socioeconomic impacts of Draft Rule 9410 (Employer-Based Trip Reduction) dated October 15, 2009. Following this introduction, the report summarizes the proposed requirements and describes the methodology for the socioeconomic analysis. In Section 5, the report describes the economic characteristics of sources affected by the proposed requirements. The sixth section analyzes the socioeconomic impacts of compliance costs on the affected sources and the regional economy.

The report is prepared pursuant to the provisions of AB2051 (Section 40728.5 of the California Health and Safety Code), which requires an assessment of socioeconomic impacts of proposed air quality rules. The findings in this report can assist District staff in understanding the socioeconomic impacts of the proposed requirements, and can assist staff in preparing a refined version of the rule. Figure 1 is a map of the eight-county region that comprises the San Joaquin Valley Air Basin. As indicated in the map, Kern County is not completely in the District.

FIGURE 1
MAP OF SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT



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3. DESCRIPTION OF DRAFT RULE 9410

This section of the report begins by reviewing the context within which the District seeks to adopt Rule 9410. Then, this section discusses Rule 9410 as currently written.

Between 2000 and 2020, the population of the San Joaquin Valley is expected to grow by 60%. In contrast, the total population for the state of California is expected to grow 29% over the same time period. Population growth typically leads to increased vehicle activity and increased emissions of ozone precursors, slowing the progress made by regulations that require newer automobiles to pollute less than older models.

Furthermore, the Valley's total vehicle miles traveled (VMT) is increasing at an even faster rate than the population. So the Valley has more people, and they're generally driving more.

While the District cannot regulate the vehicles themselves or the fuels the vehicles use, the District can reduce mobile source emissions through other avenues. The District's Emissions Reduction Incentive Program (ERIP) provides financial incentives to help replace older cars and engines through a few different programs. One program targets cars that have a history of needing smog repairs, but are currently legally registered and able to be driven. Based on the results of an emission test, incentives are available for up to \$5000 to replace an older car. Other incentives are also given so older engines are replaced with newer, cleaner engines years before these engines would be required to be replaced through regulation or natural attrition. The District encourages carpooling, trip linking, and similar activities through Healthy Air Living, the District's principle public outreach effort. Through the District's Indirect Source Review (ISR) Rule 9510, the added vehicle miles traveled that results from new development is mitigated through onsite and off-site measures. The District will also reduce vehicle emissions through adoption and implementation of Rule 9410, Employer Based Trip Reduction. The District committed to this rule in both the *2007 Ozone Plan* and the *2008 PM2.5 Plan*.

Consistent with the District's plan commitments, Rule 9410 would require larger employers (those with 100 or more eligible employees) to establish employee trip reduction programs to reduce VMT, reducing emissions associated with work commutes. The draft rule proposes a menu-based Employer Trip Reduction Implementation Plan (ETRIP) and periodic reporting requirements to evaluate performance on a phased-in compliance schedule. Employers can choose which services and programs work best for their operations and their employees. The goal of the ETRIP is to provide employees with opportunities that make ridesharing and alternative transportation more accessible while not requiring a certain number of participants, as employers cannot legally mandate their employees' activities outside of working hours. The District will make the periodic reporting as simple as possible and will allow for electronic reporting. The reporting component of the rule will help the

employer and the District assess how successful the ETRIP is in facilitating alternative transportation and ridesharing. The District will provide guidance documents detailing the various menu options employers may implement to help to reduce employee commute trips throughout the compliance schedule.

The stated purpose of Draft Rule 9410 is to improve ambient air quality by reducing air pollutant emissions that result from vehicle commute trips to worksites with 100 or more eligible employees. The rule requires employers to implement an Employer Trip Reduction Implementation Plan (ETRIP) to provide employees with opportunities that make ridesharing and alternative transportation more accessible. Employers with at least 100 eligible employees would be subject to Rule 9410. Exempt employees include the following (see Rule definitions for more information):

- Those not arriving at work between 6am-10am
- Agricultural workers
- Emergency health and safety employees
- Employment agency employees
- Field personnel
- Field construction workers
- Independent contractors
- Home garage employees
- Part-time employees
- Seasonal employees
- Volunteers
- On-call employees

There are three main components of compliance in Draft Rule 9410, which are discussed in greater detail in the staff report of September 14, 2009:

- Employer registration
- Employer Trip Reduction Implementation Plan (ETRIP)
- Employee Commute Verification and Annual Report

4. METHODOLOGY

The socioeconomic analysis involves the use of information provided directly by affected sources, as well as secondary data used to describe the industries affected by the proposed Rule 9410. The approach is briefly described below.

Applied Development Economics (ADE) began the analysis by reviewing US Census data called Public Use Microdata Series (PUMS). Using PUMS, ADE identified the specific industries in which employees in the eight-county San Joaquin Valley region who commute between 6:00 am and 10:00 am work. Having identified the industries, ADE then prepared a statistical description of the industry groups of which the affected sources are a part, analyzing data on the number of jobs, sales levels, the typical profit ratios, and other economic indicators for each industry.

This report relies heavily on the most current data available from a variety of sources, such as the 2002 Economic Census and the State of California's Employment Development Department (EDD) Labor Market Information Division. For purposes of estimating profits, ADE reviewed industry-specific financial ratios issued by Dun and Bradstreet and the US Internal Revenue Services.

With the above information, ADE was able to estimate net after tax profit ratios for sources affected by the proposed amendments. ADE calculated ratios of profit per dollar of revenue for affected industries. The result of the socioeconomic analysis shows what proportion of profits the compliance costs represent. Based on assumed thresholds of significance, ADE discusses in the report whether the affected sources are likely to reduce jobs as a means of recouping the cost of rule compliance or as a result of reducing business operations. To the extent that such job losses appear likely, the indirect multiplier effects of the jobs losses are estimated using a regional IMPLAN input-output model.

When analyzing the socioeconomic impacts of proposed new rules and amendments, ADE attempts to work closely within the parameters of accepted methodologies discussed in a 1995 California Air Resources Board report called "Development of a Methodology to Assess the Economic Impact Required by SB513/AB969" (by Peter Berck, PhD, UC Berkeley Department of Agricultural and Resources Economics, Contract No. 93-314, August, 1995). The author of this report reviewed a methodology to assess the impact that California Environmental Protection Agency proposed regulations would have on the ability of California businesses to compete. The California Air Resources Board (ARB) has incorporated the methodologies described in this report in its own assessment of socioeconomic impacts of rules generated by ARB. One methodology relates to determining a level above or below which a rule and its associated costs is deemed to have significant impacts. When analyzing the degree to which its rules are significant or insignificant, ARB employs a

threshold of significance that ADE follows. Berck reviewed the threshold in his analysis and wrote, “The Air Resources Board’s (ARB) use of a 10 percent change in [Return on Equity] ROE (i.e. a change in ROE from 10 percent to a ROE of 9 percent) as a threshold for a finding of no significant, adverse impact on either competitiveness or jobs seems reasonable or even conservative.”

5. IMPACTED INDUSTRIES SUBJECT TO DRAFT RULE 9410

This section of the socioeconomic analysis describes demographic and economic trends in the San Joaquin Valley region. The first part of this section compares the San Joaquin Valley region against California as a whole, and provides a context for understanding demographic and economic changes that occurred within the San Joaquin Valley region between 1998 and 2008. Starting with sub-section 5.2, the second part of this section narrows the focus of the socioeconomic analysis to industries affected by the proposed Rule 9410. The second part of this section describes the economic characteristics of potentially impacted industries that might be subject to these rules.

5.1 REGIONAL DEMOGRAPHIC AND ECONOMIC TRENDS

REGIONAL DEMOGRAPHIC TRENDS

The San Joaquin Valley region experienced tremendous population growth during the 1990s. Many came to this area because of affordable housing. As a result, population increased significantly. The eight-county region's population increased by 24 percent (or approximately 2.2 percent annually), from 3.2 million in 1998 to 3.9 million in 2008. In the last five years, the region's population grew by 2.2 percent annually between 2003 and 2008, the same rate of growth over the ten-year period from 1998 to 2008. While the State of California's population increased by 14 percent (or approximately 1.4 percent annually) between 1998 and 2008, all the counties in the region experienced faster rates of growth than California over the period, as Table 1 shows. While, by many standards, Madera County continues to be a small county— at 150,887 residents according to the Department of Finance—it still experienced an annual growth rate of 2.8 percent between 1998 and 2008. Between 2003 and 2008, this county continued to grow annually but at a slightly lesser rate of 2.7 percent. In the same five-year period, Kern, Merced, and San Joaquin Counties experienced rapid growth, growing annually by 2.9 percent, 2.4 percent, and 2.2 percent respectively, as Table 1 below shows. As demonstrated in the following section on regional economic trends, the demographic changes that occurred in the San Joaquin Valley region during the 1990s and into the new century significantly influenced the economy of this eight-county region.

**TABLE 1
POPULATION TRENDS**

	1998	2003	2008	98-03	03-08	98-08
State	33,225,655	35,652,700	38,049,462	1.4%	1.3%	1.4%
Region	3,192,439	3,540,392	3,956,003	2.1%	2.2%	2.2%
Fresno	781,936	846,485	931,098	1.6%	1.9%	1.8%
Kern	637,227	708,753	817,517	2.2%	2.9%	2.5%
Kings	120,957	137,411	154,434	2.6%	2.4%	2.5%
Madera	114,137	131,821	150,887	2.9%	2.7%	2.8%
Merced	203,181	227,132	255,250	2.3%	2.4%	2.3%
San Joaquin	546,852	616,477	685,660	2.4%	2.2%	2.3%
Stanislaus	428,272	483,705	525,903	2.5%	1.7%	2.1%
Tulare	359,877	388,608	435,254	1.5%	2.3%	1.9%

Source: ADE, Inc., based on California Department of Finance

REGIONAL ECONOMIC TRENDS

Economic development practitioners and planners have traditionally divided economies into two broad industrial categories—the economic base and local support industries. Economic base industries are the drivers of local and regional economies in that these industries draw income into a local economy by selling products outside of the local economy, much like the export industries of a national economy. Accrued earnings then circulate throughout the local area in the form of wages and salaries; investments; purchases of fixed assets, goods, and services; and generation of more jobs and wealth. The economic base is typically comprised of industries within the manufacturing, minerals-resource extraction, and agricultural sectors. There are also the “local support industries” such as retail or service sectors, the progress of which is a function of the economic base and demographic changes, and more so the latter than the former. As population increases in a given area, demand for services—such as realtors, teachers, and healthcare—increases, as does demand for basic retail items like groceries, gas for commuting, or clothing at the local apparel shops.

Agriculture is the economic base of the San Joaquin Valley region by virtue of the amount of goods this sector produces and exports throughout the nation and the globe. Slightly less than 14 percent of all workers in the region are employed by industries within agriculture, as Table 2 shows. In 1998, approximately 13.1 percent of all workers worked in agriculture. By 2003, this ratio stood at 14 percent. In fact, over the five-year period between 2003 and 2008, employment in agriculture increased at a modest pace of one percent per year.

Between 2003 and 2008, local support industries gained in prominence within the San Joaquin Valley region. Service-rendering industries employed the most workers as a proportion of total employment in the region. Service-rendering industries comprise 71 percent of all jobs, including public sector positions. In other words, 932,713 jobs out of a total of 1,317,365 jobs are in service-rendering industries. Excluding the public sector, service-rendering jobs account for 52 percent of all jobs in 2008. In 2003, service-rendering industries (excluding the public sector) represented 51 percent of all

jobs, indicating that the transition toward a services economy was in place as early as the mid to late 1990s with the significant increase in the number of people during that time.

Employment increases in service-rendering industries are consistent with regional population growth. In the region, local support industries of local and private education and health increased annually by 3.0 percent and 2.7 percent respectively between 2003 and 2008.

Construction and financial services are two other local support industries that grew in accordance with the region's population surge; however, with the downturn in the national economy, these industries' rates of growth have lowered dramatically. Employment in construction grew by a 6.7 percent per year in the five-year period stretching from 1998 to 2003. Between 2003 and 2008, construction continued to grow but by a slower rate of 0.9 percent per year. Likewise for financial services, which grew annually by 3.9 percent between 1998 and 2003, and has since grown by a slight 0.9 percent per year.

Close examination of Table 2 shows that the region experienced modest growth in manufacturing, as employment in this sector grew annually by 0.9 percent between 2003 and 2008. This modest increase reversed substantial declines experienced between 1998 and 2003, when manufacturing employment dropped annually by 0.6 percent. What was a regional bright spot between 1998 and 2003, transportation and warehousing experienced negative 1.1 percent declines between 2003 and 2008, as compared to the 2.7 percent annual growth in the previous five-year period.

**TABLE 2
ECONOMIC TRENDS: SAN JOAQUIN VALLEY, 1998-2008**

NAICS	-----1998-----			-----2003-----			-----2008-----			Employment Distribution ----- 2008 -----		Employment: Annual Percent Change		
	Estab.	Employment	Average Pay	Estab.	Employment	Average Pay	Estab.	Employment	Average Pay	Region	California	98-03	03-08	
ALL	80,398	1,060,454	\$33,566	92,231	1,209,849	\$40,577	100,414	1,317,365	\$39,543	100.0%	100.0%	2.7%	1.7%	
Ag, Natural Resources	11	7,580	139,953	\$18,285	8,646	169,556	\$23,354	7,371	178,522	\$21,714	13.6%	2.5%	3.9%	1.0%
Utilities	21	251	9,533	\$66,831	213	8,340	\$81,309	185	10,512	\$82,627	0.8%	0.0%	-2.6%	4.7%
Mining	22	165	4,231	\$72,458	179	5,071	\$86,065	169	5,618	\$81,296	0.4%	0.4%	3.7%	2.1%
Construction	23	6,124	49,851	\$38,969	6,074	69,065	\$46,870	6,705	72,312	\$44,716	5.5%	5.7%	6.7%	0.9%
Manufacturing	31-33	2,998	113,344	\$40,989	2,779	110,002	\$48,735	2,662	115,153	\$43,352	8.7%	9.3%	-0.6%	0.9%
Wholesale	42	2,749	33,365	\$47,726	2,722	37,124	\$53,053	3,027	45,299	\$46,510	3.4%	4.6%	2.2%	4.1%
Retail	44-45	9,586	121,132	\$26,446	8,941	132,956	\$31,349	8,882	143,910	\$25,892	10.9%	10.8%	1.9%	1.6%
Transport Warehousing	48-49	2,306	33,821	\$38,946	2,237	38,554	\$44,962	1,957	36,514	\$40,166	2.8%	2.7%	2.7%	-1.1%
Information	51	653	14,885	\$43,401	692	14,257	\$53,695	625	15,328	\$47,417	1.2%	3.0%	-0.9%	1.5%
Finance and Insurance	52	2,637	27,792	\$46,709	3,046	30,690	\$59,530	3,373	32,027	\$50,112	2.4%	4.0%	2.0%	0.9%
Real Estate	53	2,575	13,180	\$26,755	2,607	15,932	\$34,144	2,784	15,897	\$32,633	1.2%	1.8%	3.9%	0.0%
Prof Technical Services	54	4,064	25,130	\$44,216	4,501	31,812	\$52,467	4,839	36,411	\$46,773	2.8%	6.8%	4.8%	2.7%
Mgmt. of Companies	55	321	17,997	\$52,338	316	13,988	\$60,045	288	10,551	\$55,323	0.8%	1.3%	-4.9%	-5.5%
Admn and Waste Services	56	2,910	44,283	\$22,362	2,768	48,182	\$28,986	2,947	58,761	\$27,165	4.5%	6.4%	1.7%	4.0%
Private Educational Serv.	61	459	7,107	\$25,456	480	9,298	\$29,532	497	10,781	\$27,407	0.8%	1.7%	5.5%	3.0%
Health Services	62	6,082	90,304	\$38,243	6,526	110,647	\$47,867	6,983	126,598	\$44,058	9.6%	8.8%	4.1%	2.7%
Arts, Entertainment, Rec	71	617	10,386	\$16,985	621	10,244	\$20,192	641	11,172	\$17,305	0.8%	1.6%	-0.3%	1.7%
Food & Accommodations	72	5,050	70,335	\$12,860	4,942	78,805	\$15,831	5,312	90,404	\$14,020	6.9%	8.3%	2.3%	2.8%
Other Services	81	20,157	41,069	\$21,165	30,390	47,370	\$25,731	35,629	52,505	\$21,606	4.0%	4.6%	2.9%	2.1%
Unclassified	99				85	199	\$38,033	1,769	2,534	\$26,836	0.2%	0.3%		
Local Govt.		409	51,325	\$45,674	437	60,768	\$56,307	477	68,469	\$51,051	5.2%	5.2%	3.4%	2.4%
Local Govt., Education		881	90,200	\$39,664	1,487	109,087	\$48,304	1,792	118,716	\$78,718	9.0%	5.9%	3.9%	1.7%
State, ALL		1,464	23,639	\$46,051	1,166	28,463	\$56,515	1,078	31,639	\$51,222	2.4%	2.9%	3.8%	2.1%
Federal, ALL		360	27,592	\$52,749	376	29,439	\$66,395	424	27,732	\$58,945	2.1%	1.6%	1.3%	-1.2%

Source: ADE, Inc., based on California Employment Development Department, LMID

5.2 DESCRIPTION OF AFFECTED INDUSTRIES

Whereas the previous section described the larger economic context within which the District is contemplating proposed amendments to Rule 9410, this section analyzes trends of industries directly affected by the proposed amendments. This rule affects a broad array of industries in the private and public sectors. While affecting a broad array of industries, the rule itself applies to work-sites with more than 100 eligible workers. For purposes of this analysis, we assume the rule applies to all businesses employing at least 100 workers. As the table below shows, the bulk of employers in the region employ less than 100 workers, or 67,440 out of 68,959 establishments (97 percent).

TABLE 3
NUMBER OF PRIVATE SECTOR ESTABLISHMENTS IN THE SJV REGION SUBJECT TO DRAFT RULE 9410: EMPLOYER-TRIP REDUCTION PROGRAM

NAICS Industry Code	Total Establishments	Establishments Employing Less than 100	Establishments Employing 100-249	Establishments Employing Between 250-499	Establishment Employing More than 500
Agriculture	7,245	6,932	177	84	52
<i>crop</i>	5,563	5,250	177	84	52
<i>livestock</i>	1,661	1,661			
<i>other agriculture</i>	21	21	0	0	0
Mining	367	343	12	8	4
Construction	7,157	7,062	76	14	5
Manufacturing	2,653	2,417	157	50	29
Wholesale	3,318	3,253	57	8	0
Retail	10,198	9,959	199	39	1
Transportation/warehousing	1,840	1,805	29	3	3
Information	641	620	10	8	3
Finance and Insurance	3,493	3,475	9	3	6
Real Estate	3,094	3,089	4	1	0
Professional and Technical	5,146	5,113	25	5	3
Management of Companies	298	289	3	6	0
Administrative/Support/waste	2,986	2,868	83	24	11
Education	637	628	6	0	3
Health	7,686	7,484	150	16	36
Arts and recreation	705	695	3	3	4
Food and accommodations	5,793	5,737	54	2	0
Other services	5,702	5,671	26	3	2
TOTAL	68,959	67,440	1,080	277	162

Source: ADE, Inc., based on US Bureau of Labor Statistics (QCEW) and US Census County Business Patterns

Similar to Table 3 above, the table below identifies the number of workers by industry by size of employers. While almost 97 percent of the establishments in the region employ less than 100 workers, businesses employing no more than one hundred workers in aggregate employ 60 percent of the region's workers. Thus, 40 percent of the workers in the region work for businesses that employ more than one hundred workers, even though these businesses, as a share of all businesses, comprise three percent of all establishments. With respect to agriculture, the analysis controls for seasonal workers by assuming the employment trends for non-seasons represent the

baseline case for employment in agriculture. Data for this adjustment come from the Agricultural Bulletin.¹

TABLE 4
NUMBER OF WORKERS BY SIZE OF EMPLOYERS: PRIVATE SECTOR: SAN JOAQUIN VALLEY
REGION: DRAFT RULE 9410: EMPLOYER-BASED TRIP REDUCTION PROGRAM

NAICS Industry Code	Total Number of Workers	Workers In Establishments Employing Less than 100	Workers in Establishments Employing 100-249	Workers in Establishments Employing Between 250-499	Workers in Establishment Employing More than 500
Agriculture	115,528	37,688	19,363	20,530	37,946
Mining	14,563	4,738	2,387	2,726	4,712
Construction	82,323	62,176	11,934	4,770	3,443
Manufacturing	107,556	39,747	24,018	17,035	26,757
Wholesale	47,526	35,701	9,100	2,726	0
Retail	148,189	103,930	30,283	13,287	689
Transportation/warehousing	25,410	16,970	4,923	1,022	2,495
Information	14,021	7,141	2,089	2,726	2,066
Finance and Insurance	33,179	25,657	1,939	1,022	4,561
Real Estate	16,104	14,570	1,193	341	0
Professional and Technical	38,750	29,554	4,326	1,703	3,166
Management of Companies	7,138	4,050	1,044	2,044	0
Administrative/Support/waste	57,644	27,907	13,128	8,177	8,433
Education	12,395	7,589	1,641	0	3,166
Health	139,342	67,521	23,123	5,451	43,247
Arts and recreation	15,905	8,977	1,193	1,022	4,712
Food and accommodations	94,538	85,056	8,802	681	0
Other services	40,308	33,433	4,475	1,022	1,377
TOTAL	1,010,418	612,403	164,962	86,284	146,770

Source: ADE, Inc., based on US Bureau of Labor Statistics (QCEW) and US Census County Business Patterns

Table 5 below includes estimates on amount of revenue generated by businesses in industries affected by Draft Rule 9410. Total revenues were estimated using a variety of sources. For industries other than agriculture, the US Economic Census 2002 was a key source for estimating revenue. That source was updated using information from the US Census' Annual Survey of Manufacturers and the US Census' Annual Services Report. For agriculture, a key source was the annual agricultural commissioners' report, which tracks a number of economic data by detailed crop and livestock for each county in California. With the information from the variety of sources mentioned above, the consultant then estimated revenues generated by employers with 100 to 249 workers, 250 to 499 workers, and over 500 workers based on a per worker approach using data from Table 4. Crop farm revenues were based on harvested acreage, not number of workers.

¹<http://www.labormarketinfo.edd.ca.gov/?pageid=158>

TABLE 5
ESTIMATED REVENUES: INDUSTRIES IN THE SJV REGION BY SIZE OF EMPLOYER

NAICS Industry Code	Total Revenues	Revenues Of Establishments Employing Less than 100	Revenues of Establishments Employing 100-249	Revenues of Establishments Employing Between 250-499	Revenues of Establishments Employing More than 500
Agriculture	\$23,842,573,927	\$8,013,228,993	\$4,228,530,600	\$4,398,469,266	\$7,202,345,068
Mining	\$7,636,745,280	\$2,543,353,212	\$1,050,571,840	\$1,558,644,560	\$2,484,175,668
Construction	\$16,846,517,975	\$12,765,413,704	\$2,672,906,175	\$801,715,863	\$606,482,232
Manufacturing	\$47,990,478,364	\$14,488,250,057	\$9,390,077,162	\$7,641,317,916	\$16,470,833,229
Wholesale	\$67,361,388,120	\$51,814,641,984	\$11,790,415,750	\$3,756,330,387	\$0
Retail	\$41,610,992,244	\$28,685,335,874	\$9,065,007,887	\$3,680,452,220	\$180,196,263
Transportation/warehousing	\$3,495,567,077	\$2,270,356,037	\$618,643,393	\$114,992,313	\$491,575,334
Information	\$4,041,448,390	\$2,110,907,960	\$649,446,260	\$652,846,622	\$628,247,547
Finance and Insurance	\$17,102,196,191	\$12,764,149,575	\$923,726,765	\$701,598,991	\$2,712,720,860
Real Estate	\$3,126,131,412	\$2,828,755,495	\$231,335,996	\$66,039,922	\$0
Professional and Technical	\$5,516,372,671	\$4,207,327,255	\$615,870,209	\$242,501,554	\$450,673,653
Management of Companies	\$227,883,647	\$129,289,936	\$33,336,600	\$65,257,111	\$0
Administrative/Support/waste	\$3,808,312,584	\$2,001,245,755	\$853,105,572	\$469,617,169	\$484,344,089
Education	\$930,316,661	\$569,551,410	\$123,161,507	\$0	\$237,603,744
Health	\$15,653,142,151	\$6,897,347,337	\$2,020,997,406	\$696,581,189	\$6,038,216,219
Arts and recreation	\$1,384,696,858	\$736,273,812	\$111,338,998	\$102,577,357	\$434,506,691
Food and accommodations	\$4,881,070,941	\$4,366,851,123	\$480,428,773	\$33,791,045	\$0
Other services	\$5,180,823,690	\$4,223,825,126	\$608,937,001	\$133,080,502	\$214,981,062
TOTAL	\$270,636,658,185	\$163,580,014,665	\$45,413,967,898	\$25,263,047,176	\$36,379,628,446

Source: ADE, Inc., based on US Bureau of Labor Statistics (QCEW), US Census County Business Patterns, USDA Agricultural Commissioners' Annual Report, 2002 US Census Economic Census, US Census Annual Manufacturers' Survey, and US Census Annual Services Report

A critical part of any socioeconomic analysis involves estimating net profits generated by industries and sources affected by proposed rules such as Draft Rule 9410. So as not to overstate net profits and thus understate impacts, the consultant employs long-term averages that attempt to smoothen out years when the economy (and industries) generally was doing well from years when the economy was not performing as well. Appendix A lists long-term net profit ratio employed by the consultant for the purpose of this socioeconomic analysis. For agriculture, we employed Dun and Bradstreet net profit ratios for agricultural categories, such as “cash grains”, “field crops”, “vegetables”, “fruit and tree nuts”, “beef cattle (feedlots)”, “beef cattle (except feedlots)”, “dairy farms”, and “hogs”. Net profit ratios for agriculture are also over a long-term period (see Appendix B).

Table 6 includes estimates on amount of net profits generated by industries in the eight-county region. Of the estimated \$8.5 billion in net profits, \$3.5 billion is generated by businesses employing more than 100 workers, which as indicated earlier, represent six percent of the overall number of establishments. In other words, six percent of the region's establishments generate almost 41 percent of the region's estimated net profits, which underscores the importance of large-businesses in any economy.

TABLE 6
ESTIMATED NET PROFITS: INDUSTRIES IN THE SJV REGION BY SIZE OF EMPLOYER

NAICS Industry Code	Total Net Profits (All establishments)	Net Profits Of Establishments Employing Less than 100	Net Profits of Establishments Employing 100- 249	Net Profits of Establishments Employing Between 250- 499	Net Profits of Establishments Employing More than 500
Agriculture	\$1,126,378,595	\$374,678,367	\$195,805,988	\$204,747,443	\$351,146,797
Mining	\$454,386,344	\$151,329,516	\$62,509,024	\$92,739,351	\$147,808,452
Construction	\$553,127,340	\$419,131,083	\$87,760,419	\$26,323,004	\$19,912,833
Manufacturing	\$1,345,379,796	\$433,280,683	\$268,308,311	\$201,108,304	\$442,682,498
Wholesale	\$1,336,000,864	\$1,027,657,066	\$233,843,246	\$74,500,553	\$0
Retail	\$747,855,297	\$517,162,100	\$155,586,867	\$71,412,307	\$3,694,023
Transportation/warehousing	\$157,883,113	\$102,544,414	\$27,942,060	\$5,193,819	\$22,202,819
Information	\$143,471,418	\$74,937,233	\$23,055,342	\$23,176,055	\$22,302,788
Finance and Insurance	\$1,028,982,138	\$767,976,333	\$55,577,560	\$42,212,873	\$163,215,372
Real Estate	\$219,350,221	\$198,484,344	\$16,232,076	\$4,633,801	\$0
Professional and Technical	\$216,977,325	\$165,488,205	\$24,224,228	\$9,538,394	\$17,726,497
Management of Companies	\$8,963,423	\$5,085,404	\$1,311,240	\$2,566,780	\$0
Administrative/Support/waste	\$149,793,628	\$78,715,666	\$33,555,486	\$18,471,609	\$19,050,867
Education	\$35,507,086	\$21,737,879	\$4,700,664	\$0	\$9,068,543
Health	\$521,771,405	\$229,911,578	\$67,366,580	\$23,219,373	\$201,273,874
Arts and recreation	\$46,156,562	\$24,542,460	\$3,711,300	\$3,419,245	\$14,483,556
Food and accommodations	\$153,753,735	\$137,555,810	\$15,133,506	\$1,064,418	\$0
Other services	\$239,526,749	\$195,281,515	\$28,153,187	\$6,152,755	\$9,939,291
TOTAL	\$8,485,265,039	\$5,006,881,791	\$1,304,466,094	\$827,466,704	\$1,346,824,300

Source: ADE, Inc., based on Dun and Bradstreet

6. SOCIO-ECONOMIC IMPACTS

This section of the report analyzes socioeconomic impacts, if any, stemming from the proposed draft rule. The first part of this section discusses annual compliance costs. Section 6.2 discusses general business responses to compliance costs. Section 6.3 analyzes the socioeconomic impacts of the proposed Rule 9410.

6.1 COMPLIANCE COST ESTIMATES

Table 5 summarizes the estimated annualized costs associated with Rule 9410. District staff prepared extensive spreadsheets that detail and itemize how the annual cost were developed. That information is available on the Internet at:

<http://www.valleyair.org/tripreduction.htm>

Below is a summary of the annual cost stemming from Rule 9410. On average, work-sites subject to the rule will spend an estimated \$3,190 a year. On November 4, industry stakeholders presented their estimates on annual costs stemming from proposed Draft Rule 9410. The California League of Food Processors and the Manufacturers Council of the Central Valley presented their respective annual cost estimate for Tiers 1 and 2, or \$6,824 and \$10,490 respectively. We estimated “Migrant and Seasonal Worker Protection Act Tier 1” and “Migrant and Seasonal Worker Protection Act Tier 2” cost in the stakeholder scenario, by combining both the industry stakeholders’ and District’s cost estimates. Overall, work-sites subject to the proposed rule will spend an estimated \$9,972 a year, in the industry stakeholder cost scenario. This \$9,972 average applies only to manufacturers.

TABLE 7
Average Annual Cost Per Worksite: Stemming from Draft Rule 9410:
Industry Stakeholder and District Scenarios

Type of Worksite	District: Average annual cost/worksite until 2014	Stakeholder: Average annual cost/worksite until 2014
Total	\$3,190	\$9,972
Tier 1	\$2,310	\$6,824
Migrant and Seasonal Worker Protection Act Tier T1	\$2,460	\$7,267
Tier 2	\$3,249	\$10,490
Migrant and Seasonal Worker Protection Act Tier T2	\$4,741	\$15,307

Source: ADE, based on San Joaquin Valley Unified Air Pollution Control District and MCCV/CLFP

Table 8 below aggregates costs identified in the table above, in order to compare aggregate net profits against aggregate costs. In aggregate, in the District cost scenario, industries will bear almost \$5.5 million in cost each year as a result of Rule 9410, with agricultural sector bearing a disproportionate amount of the costs, at \$1.4 million. Table 9 includes cost estimates using industry-stakeholder costs. The only difference between the District and industry-stakeholder costs is in the manufacturing line-item. According to the California League of Food Processors and the Manufacturing Council of the Central Valley, manufacturers in the region will bear \$2.4 million in annual costs because of the proposed draft rule. In the industry stakeholder cost scenario, aggregate annual costs amount to \$7.1 million for all industries, not just manufacturing.

TABLE 8
AGGREGATE COSTS STEMMING FROM DRAFT RULE 9410: SAN JOAQUIN VALLEY REGION
INDUSTRIES: DISTRICT COST SCENARIO

NAICS Industry Code	Total Number of Establishments (> 100 workers)	Annual Costs for Establishments Employing 100-249	Annual Costs for Establishments Employing Between 250-499	Annual Costs for Establishments Employing More than 500
Agriculture	\$1,399,610	\$806,281	\$366,826	\$226,503
Mining	\$89,312	\$51,035	\$25,518	\$12,759
Construction	\$315,782	\$255,177	\$44,656	\$15,949
Manufacturing	\$765,531	\$513,544	\$159,486	\$92,502
Wholesale	\$220,090	\$194,573	\$25,518	\$0
Retail	\$775,101	\$647,512	\$124,399	\$3,190
Transportation/warehousing	\$124,399	\$105,261	\$9,569	\$9,569
Information	\$79,743	\$44,656	\$25,518	\$9,569
Finance and Insurance	\$70,174	\$41,466	\$9,569	\$19,138
Real Estate	\$28,707	\$25,518	\$3,190	\$0
Professional and Technical	\$118,019	\$92,502	\$15,949	\$9,569
Management of Companies	\$41,466	\$22,328	\$19,138	\$0
Administrative/Support/waste	\$392,335	\$280,695	\$76,553	\$35,087
Education	\$44,656	\$35,087	\$0	\$9,569
Health	\$660,271	\$494,406	\$51,035	\$114,830
Arts and recreation	\$47,846	\$25,518	\$9,569	\$12,759
Food and accommodations	\$194,573	\$188,193	\$6,379	\$0
Other services	\$111,640	\$95,691	\$9,569	\$6,379
TOTAL	\$5,479,255	\$3,919,443	\$982,441	\$577,371

Source: ADE, Inc.

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TABLE 9
AGGREGATE COSTS STEMMING FROM DRAFT RULE 9410: SAN JOAQUIN VALLEY REGION
INDUSTRIES: INDUSTRY STAKEHOLDER SCENARIO (MANUFACTURING ONLY)

NAICS Industry Code	Total Number of Establishments (> 100 workers)	Annual Costs for Establishments Employing 100-249	Annual Costs for Establishments Employing Between 250-499	Annual Costs for Establishments Employing More than 500
Agriculture	\$1,399,610	\$806,281	\$366,826	\$226,503
Mining	\$89,312	\$51,035	\$25,518	\$12,759
Construction	\$315,782	\$255,177	\$44,656	\$15,949
Manufacturing	\$2,353,411	\$1,565,616	\$498,604	\$289,190
Wholesale	\$220,090	\$194,573	\$25,518	\$0
Retail	\$775,101	\$647,512	\$124,399	\$3,190
Transportation/warehousing	\$124,399	\$105,261	\$9,569	\$9,569
Information	\$79,743	\$44,656	\$25,518	\$9,569
Finance and Insurance	\$70,174	\$41,466	\$9,569	\$19,138
Real Estate	\$28,707	\$25,518	\$3,190	\$0
Professional and Technical	\$118,019	\$92,502	\$15,949	\$9,569
Management of Companies	\$41,466	\$22,328	\$19,138	\$0
Administrative/Support/waste	\$392,335	\$280,695	\$76,553	\$35,087
Education	\$44,656	\$35,087	\$0	\$9,569
Health	\$660,271	\$494,406	\$51,035	\$114,830
Arts and recreation	\$47,846	\$25,518	\$9,569	\$12,759
Food and accommodations	\$194,573	\$188,193	\$6,379	\$0
Other services	\$111,640	\$95,691	\$9,569	\$6,379
TOTAL	\$7,067,134	\$4,971,515	\$1,321,559	\$774,060

Source: ADE, Inc.

6.2 BUSINESS RESPONSES TO COMPLIANCE COSTS

Industries impacted by the proposed amendments may respond in a variety of ways when faced with new regulatory costs. These responses may range from simply absorbing the costs and accepting a lower rate of return, to shutting down the affected business operation altogether and, where practical, shift from lower-value to higher-value product and or service. Impacted industries might also seek to pass costs to users of services or purchasers of goods. Affected sources may also seek to renew efforts to increase productivity and reduce costs elsewhere in their operation in order to recoup the regulatory costs and maintain profit levels.

Stakeholders who attended two socioeconomic workshops expressed concern about the overall state of the economy, wondering if now is a time to adopt measures such as the proposed Rule 9410. In addition, concern was expressed by representatives from the agricultural sector, who expressed concerns regarding car-pooling by ag laborers, particularly if legal questions were fully vetted with respect to the potential for risk. Concern was also voiced that analysts use best available data with respect to ag employment and net profits generated by ag industries, so as to not understate impacts

to this sector, particularly because this sector as a “price taker” is not in a position to pass costs to consumers.

Dialogue between the District and affected stakeholders led to a number of rule improvements to address stakeholder’s concerns such as phasing in the rule over several years to provide employers time for planning their individualized approaches to the rule and refining the scope of requirements in order to avoid conflicts with the federal Migrant and Seasonal Agricultural Worker Protection Act. The District also explicitly committed to provide extensive support to mitigate employers’ administrative burden

6.3 IMPACTS ON AFFECTED INDUSTRIES

This section of the report analyzes estimated after tax net profits of affected industries against anticipated costs associated with implementation of proposed Rule 9410.

SOCIO-ECONOMIC ANALYSIS AND SMALL BUSINESS DISPROPORTIONATE IMPACT ANALYSIS: INDUSTRIES AFFECTED BY PROPOSED DRAFT RULE 9410

As Tables 10 and 11 show, annual costs stemming from the proposed project when expressed as a ratio of net profit are below the ten-percent threshold used for purposes of determining whether costs are significant. Because the rule is aimed at businesses employing more than 100 workers, this rule also does not disproportionately impact small businesses.

**TABLE 10
SOCIOECONOMIC IMPACT ANALYSIS OF DRAFT RULE 9410: DISTRICT ANNUAL COST SCENARIO**

NAICS Industry Code	Cost as Percent of Net Profits	Costs as a Percent of Net Profits for Establishments Employing 100-249	Costs as a Percent of Net Profits for Establishments Employing Between 250-499	Costs as a Percent of Net Profits for Establishments Employing More than 500
Agriculture	0.12%	0.22%	0.19%	0.11%
Mining	0.02%	0.03%	0.04%	0.01%
Construction	0.06%	0.06%	0.05%	0.06%
Manufacturing	0.06%	0.12%	0.06%	0.05%
Wholesale	0.02%	0.02%	0.01%	0.00%
Retail	0.10%	0.13%	0.08%	0.00%
Transportation/warehousing	0.08%	0.10%	0.03%	0.18%
Information	0.06%	0.06%	0.11%	0.04%
Finance and Insurance	0.01%	0.01%	0.02%	0.05%
Real Estate	0.01%	0.01%	0.02%	0.00%
Professional and Technical	0.05%	0.06%	0.07%	0.10%
Management of Companies	0.46%	0.44%	1.46%	0.00%
Administrative/Support/waste	0.26%	0.36%	0.23%	0.19%
Education	0.13%	0.16%	0.00%	
Health	0.13%	0.22%	0.08%	0.49%
Arts and recreation	0.10%	0.10%	0.26%	0.37%
Food and accommodations	0.13%	0.14%	0.04%	0.00%
Other services	0.05%	0.05%	0.03%	0.10%
TOTAL	0.10%	0.22%	0.36%	0.31%

Source: ADE, Inc.

TABLE 11
SOCIOECONOMIC IMPACT ANALYSIS OF DRAFT RULE 9410: INDUSTRY STAKEHOLDER
ANNUAL COST SCENARIO (MANUFACTURING ONLY)

NAICS Industry Code	Cost as Percent of Net Profits	Costs as a Percent of Net Profits for Establishments Employing 100- 249	Costs as a Percent of Net Profits for Establishments Employing Between 250- 499	Costs as a Percent of Net Profits for Establishments Employing More than 500
Agriculture	0.12%	0.22%	0.19%	0.11%
Mining	0.02%	0.03%	0.04%	0.01%
Construction	0.06%	0.06%	0.05%	0.06%
Manufacturing	0.26%	0.58%	0.25%	0.07%
Wholesale	0.02%	0.02%	0.01%	0.00%
Retail	0.10%	0.13%	0.08%	0.00%
Transportation/warehousing	0.08%	0.10%	0.03%	0.18%
Information	0.06%	0.06%	0.11%	0.04%
Finance and Insurance	0.01%	0.01%	0.02%	0.05%
Real Estate	0.01%	0.01%	0.02%	0.00%
Professional and Technical	0.05%	0.06%	0.07%	0.10%
Management of Companies	0.46%	0.44%	1.46%	0.00%
Administrative/Support/waste	0.26%	0.36%	0.23%	0.19%
Education	0.13%	0.16%	0.00%	
Health	0.13%	0.22%	0.08%	0.49%
Arts and recreation	0.10%	0.10%	0.26%	0.37%
Food and accommodations	0.13%	0.14%	0.04%	0.00%
Other services	0.05%	0.05%	0.03%	0.10%
TOTAL	0.20%	0.38%	0.16%	0.06%

Source: ADE, Inc.

SOCIO-ECONOMIC ANALYSIS: PUBLIC SECTOR INDUSTRIES AFFECTED BY PROPOSED DRAFT RULE 9410

Draft Rule 9410 will affect agencies in the public sector, not just establishments in the private sector. This section of the report analyzes socioeconomic impacts on the public sector.

To begin with, it is important to indicate that the public sector is not motivated by profit, for the most part. The public sector delivers services generally known as “public goods.” In economics, a public good is a good that is “non-rivalrous” and “non-excludable,” meaning, respectively, that consumption of the good by one individual does not reduce availability of the good for consumption by others; and that no one can be effectively excluded from using the good. In other words, every one equally and fairly accesses public educational service, police protection, local parks, and public infrastructure such as sidewalks and roads, to name a few public goods. Thus, decisions with respect what costs this sector absorbs (i.e. what public goods/services to render) in large part are budgetary policy decisions not necessarily predicated on whether a service/good is “profitable” as understood in the private sector. In this

light, costs stemming from Draft Rule 9410 should be compared against public sector expenditures.

The table below presents data on the state of public sector in the San Joaquin Valley region. At the local level, the bulk of public sector establishments are local public elementary and secondary schools. There are 1,780 schools in the region employing almost 110,000 workers. For federal agencies, expenditures are based on federal budget issued by the White House/US Congress in 2008, as well as US Statistical Abstract. Expenditure estimates for the State of California are from the California Legislative Analysts Office. Expenditure estimates for local governments (except schools, hospitals, and utilities) are based ratio of \$127,272 per worker. Data for hospitals are based on Economic Census 2002, whereas estimates for utilities are based on Public Sector Economic Census 2002. School figures come from the socioeconomic impact analysis for the school bus rule, adjusted for inflation.

TABLE 12
Profile of Public Sector: San Joaquin Valley Region, 2008

		Establishments	Employment	Average Employment	Aggregate Expenditures (est.)
Federal	Agencies/Departments	171	9,258	54	\$3,937,895,180
	Military/National Security	19	9,674	509	\$8,629,450,085
	Hospitals	3	1,027	342	\$146,981,460
	Postal Service	196	6,022	31	\$599,598,542
State	Agencies/Departments	642	23,155	36	\$3,538,375,846
	Correctional Institutions	11	15,992	1,454	\$2,435,289,935
	Hospitals	55	1,886	34	\$270,054,572
	Elementary and Secondary Schools	2	73	37	\$9,077,852
	Colleges and Universities	355	4,418	12	\$350,505,617
	Other Agencies/Departments	3	328	109	\$50,045,971
Local	Agencies/Departments	243	26,301	108	\$3,587,450,766
	Hospitals	14	11,926	852	\$1,707,323,274
	Utilities	148	3,305	22	\$931,005,585
	Elementary and Secondary Schools	1,780	109,719	62	\$13,582,010,590
	Junior Colleges	24	10,370	432	\$82,959,075
	Other local agencies	208	1,886	9	\$240,004,545

Source: ADE, Inc., based on US Bureau of Labor Statistics, US Economic Census, and US Public Sector Census

The EDD LMID does not release public sector data by county and region that show how many public sector agencies employ more than 100 workers. The EDD LMID does release this information for the state as a whole, although it combines local, state and federal entities in its data set. As the table below shows, 11 percent of all public sector entities in California employ more than 100 workers.

Table 13
Distribution of Public Sector Establishments: State of California, 2008

Industry	Total	Number of Businesses by Size Category								
		0-4	5-9	10-19	20-49	50-99	100-249	250-499	500-999	1000+
Federal, State and Local Government	31,896	7,255	4,364	4,677	6,891	5,182	2,322	584	334	287
	100%	23%	14%	15%	22%	16%	7%	2%	1%	1%

Source: ADE, Inc., based on EDD LMID Size of Business Data (<http://www.labormarketinfo.edd.ca.gov/?pageid=138>)

Based on Table 13 above, we estimate the number of public sector entities employing more than 100 workers. For purposes of a conservative analysis, we assume that all federal military/national security establishments, federal hospitals, and local hospitals employ more than 100 workers. As it is, their respective average amounts to 509 workers per establishment (military/national security), 342 workers per establishment (federal hospitals), and 850 workers per local hospitals. Also, elementary schools in the region do not employ more than 100 workers, for example. Thus, the remaining entities were scaled in accordance with the 11 percent factor in the table above. Table 14 below shows that public sector entities are not significantly impacted by Draft Rule 9410, as cost to expenditure ratios are well below one percent. Thus, Draft Rule 9410 does not significantly impact the public sector.

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TABLE 14
Socioeconomic Impact Analysis of Draft Rule 9410: Public Sector: District Cost Scenario

		Public Sector Establishments Employing More than 100 Workers	Aggregate Expenditures (est.)	Cost*	Cost to Expenditure
Federal	Agencies/Departments	19	\$433,168,470	\$60,004	0.01%
	Military/National Security	19	\$8,629,450,085	\$60,610	0.00%
	Hospitals	3	\$146,981,460	\$9,570	0.01%
	Postal Service	22	\$65,955,840	\$68,776	0.10%
State	Agencies/Departments	71	\$389,221,343	\$225,278	0.06%
	Correctional Institutions	11	\$2,435,289,935	\$35,090	0.00%
	Hospitals	6	\$29,706,003	\$19,300	0.06%
	Colleges and Universities	39	\$38,555,618	\$124,570	0.32%
Local	Agencies/Departments	27	\$398,605,641	\$86,130	0.02%
	Hospitals	14	\$1,707,323,274	\$44,660	0.00%
	Utilities	3	\$18,871,735	\$9,570	0.05%
	Middle/High Schools	105	\$801,186,018	\$334,950	0.04%
	Junior Colleges	3	\$10,369,884	\$9,570	0.09%
	Other local agencies	22	\$25,385,096	\$70,180	0.28%

Source: ADE, Inc., based on US Bureau of Labor Statistics, US Economic Census, and US Public Sector Census (*note: annual costs are based on average annual cost (i.e. \$3,190 annual cost per establishment) estimate of the San Joaquin Valley Unified Air Pollution Control District)

APPENDIX A: LONG-TERM NET PROFIT RATIOS BY INDUSTRY: DUN AND BRADSTREET

TABLE A-1
LONG TERM NET PROFIT

AVERAGE	RECESSION	EXPANSION	SIC	INDUSTRY
3.4%	3.2%	3.8%		ALL INDUSTRIES
3.4%	3.5%	4.1%	01	Agricultural production—crops
2.9%	3.4%	2.9%	02	Agricultural production—livestock and animal specialties
3.5%	3.5%	3.8%	07	Agricultural services
5.1%	5.0%	5.1%	08	Forestry
3.9%	4.9%	3.5%	09	Fishing, hunting, and trapping
3.0%	1.2%	4.1%	10	Metal mining
3.9%	3.8%	4.0%	12	Coal mining
6.0%	4.7%	7.0%	13	Oil and gas extraction
5.8%	15.5%	6.3%	14	Nonmetallic minerals, except fuels
2.4%	2.3%	2.6%	15	General contractors and operative builders
3.3%	3.0%	3.5%	16	Heavy construction, except building
3.2%	2.9%	3.5%	17	Special trade contractors
2.4%	2.3%	2.4%	20	Food and kindred products
5.2%	5.1%	5.2%	21	Tobacco products
2.2%	2.4%	2.4%	22	Textile mill products
2.5%	2.5%	2.7%	23	Apparel and other textile products
3.1%	3.1%	3.3%	24	Lumber and wood products
3.1%	3.0%	3.4%	25	Furniture and fixtures
3.1%	2.7%	3.4%	26	Paper and allied products
3.6%	3.4%	4.0%	27	Printing and publishing
3.7%	3.4%	4.1%	28	Chemicals and allied products
2.7%	2.2%	3.0%	29	Petroleum and coal products
3.4%	3.3%	3.8%	30	Rubber and misc. plastics products
2.8%	2.9%	3.0%	31	Leather and leather products
3.5%	3.3%	3.7%	32	Stone, clay, and glass products
3.4%	2.6%	3.9%	33	Primary metal industries
3.6%	3.2%	3.9%	34	Fabricated metal products
3.7%	3.1%	4.3%	35	Industrial machinery and equipment
3.8%	3.2%	4.3%	36	Electronic & other electric equipment
3.4%	2.9%	3.7%	37	Transportation equipment
3.9%	3.3%	4.6%	38	Instruments and related products
3.3%	3.4%	3.7%	39	Miscellaneous manufacturing industries
10.7%	8.2%	11.3%	40	Railroad transportation
2.6%	2.6%	2.9%	41	Local and interurban passenger transit
2.3%	2.1%	2.5%	42	Trucking and warehousing
4.0%	3.5%	4.4%	44	Water transportation
3.1%	2.7%	3.3%	45	Transportation by air
26.3%	22.6%	26.3%	46	Pipelines, except natural gas
2.0%	1.8%	2.3%	47	Transportation services
7.6%	6.2%	11.1%	48	Communication
6.5%	5.8%	7.2%	49	Electric, gas, and sanitary services
2.0%	1.9%	2.2%	50	Wholesale trade—durable goods
1.5%	1.4%	1.6%	51	Wholesale trade—nondurable goods
2.0%	2.1%	2.2%	52	Building materials & garden supplies
2.1%	2.2%	2.1%	53	General merchandise stores
1.3%	1.2%	1.5%	54	Food stores
1.3%	1.3%	1.5%	55	Automotive dealers & service stations
3.4%	3.3%	3.8%	56	Apparel and accessory stores
2.6%	2.7%	2.9%	57	Furniture and homefurnishings stores
3.2%	3.2%	3.3%	58	Eating and drinking places
2.5%	2.6%	2.9%	59	Miscellaneous retail
			60	Depository institutions
6.0%	6.2%	7.5%	61	Nondepository institutions
3.3%	4.1%	3.7%	62	Security and commodity brokers
			63	Insurance carriers
			64	Insurance agents, brokers, & service
7.0%	6.0%	8.2%	65	Real estate
6.0%	4.1%	7.9%	67	Holding and other investment offices
5.9%	5.0%	7.1%	70	Hotels and other lodging places
3.9%	4.0%	4.5%	72	Personal services
3.9%	3.6%	4.7%	73	Business services
3.0%	3.0%	3.4%	75	Auto repair, services, and parking

**TABLE A-1
LONG TERM NET PROFIT**

AVERAGE	RECESSION	EXPANSION		
3.4%	3.2%	3.9%	76	Miscellaneous repair services
3.6%	3.7%	4.3%	78	Motion pictures
3.3%	3.3%	3.6%	79	Amusement & recreation services
3.3%	2.8%	3.9%	80	Health services
8.5%	7.2%	10.0%	81	Legal services
3.8%	3.3%	4.2%	82	Educational services
3.0%	2.4%	3.4%	83	Social services
8.2%	5.2%	10.0%	84	Museums, botanical, zoological gardens
3.8%	2.9%	4.2%	86	Membership organizations
3.7%	3.6%	4.1%	87	Engineering & management services
			88	Private households
4.5%	4.5%	4.6%	89	Services, nec

Source: ADE, Inc.; based on Dun & Bradstreet

APPENDIX B: AGRICULTURAL NET PROFIT RATIOS: DUN AND BRADSTREET

TABLE B-1
AG NET PROFIT RATIOS

Description	SIC Code	Level	10-year avg.	10-yr mdn.	Recession	Growth
Wheat	0111	UQ	14.2	14.1	14.7	13.7
		MD	6.6	7.0	5.9	7.1
		LQ	2.1	3.0	1.1	2.8
		UQ	10.5	9.8	9.7	11.1
Corn	0115	MD	5.1	3.7	3.9	6.0
		LQ	1.1	1.2	1.0	1.2
		UQ	10.7	12.8	10.7	10.7
		MD	4.0	5.3	3.5	4.8
Cash grains, nec	0119	LQ	-2.2	0.9	-3.7	-0.2
		UQ	16.1	16.1	18.4	14.3
Cotton	0131	MD	8.1	6.5	9.6	6.9
		LQ	2.7	1.7	2.5	2.9
		UQ	13.5	13.5	13.5	
		MD	10.3	10.3	10.3	
Sugarbeats	0133	LQ	3.9	3.9	3.9	
		UQ	10.0	8.7	10.0	10.0
Irish potatoes	0134	MD	4.1	3.5	4.0	4.1
		LQ	-0.2	-0.2	-0.8	0.2
		UQ	16.8	15.5	13.4	19.6
		MD	6.9	6.6	6.7	7.0
Field crops, excp. cash grains nec	0139	LQ	1.6	1.2	1.6	1.7
		UQ	9.2	8.0	10.1	8.5
Vegetables and melons	0161	MD	3.7	2.9	4.3	3.2
		LQ	0.2	-0.2	0.5	-0.1
		UQ	14.6	14.9	13.3	15.6
		MD	7.9	7.7	7.2	8.5
Berry crops	0171	LQ	3.5	3.2	1.5	5.0
		UQ	14.1	9.7	17.9	11.1
Grapes	0172	MD	5.5	4.7	6.6	4.6
		LQ	2.3	1.9	2.8	1.9
		UQ	14.1	12.7	10.3	16.9
		MD	5.8	6.4	3.4	7.7
Tree nuts	0173	LQ	0.0	1.0	-4.7	3.5
		UQ	11.2	11.7	8.9	13.0
Citrus fruits	0174	MD	4.6	4.7	3.3	5.7
		LQ	-1.1	-1.9	-3.0	0.5
		UQ	8.7	7.2	10.7	7.1
		MD	3.4	2.4	4.7	2.4
Deciduous tree fruits	0175	LQ	-0.5	-0.4	0.2	-1.1
		UQ	9.8	9.0	10.3	9.4
Floriculture and nursery products	0181	MD	3.5	3.3	3.8	3.2
		LQ	0.7	0.7	0.8	0.6
		UQ	14.9	15.0	12.9	16.6
		MD	5.9	5.0	5.0	6.5
General farms, primarily crops	0191	LQ	1.2	1.3	1.0	1.3
		UQ	6.0	6.3	4.8	7.0
Beef cattle feedlots	0211	MD	2.7	2.9	2.4	2.9
		LQ	1.0	0.8	0.6	1.2
		UQ	18.4	18.7	18.6	18.2
		MD	5.6	5.9	6.3	5.0
Beef cattle, except feedlots	0212	LQ	-2.3	-0.8	-0.1	-4.1
		UQ	9.3	9.9	9.2	9.3
Hogs	0213	MD	2.9	3.6	3.0	2.8
		LQ	-2.5	-3.6	-3.8	-1.4
		UQ	11.1	9.5	12.2	10.2
		MD	3.7	3.0	4.3	3.2
Dairy farms	0241	LQ	0.4	0.1	0.5	0.3

**TABLE B-1
AG NET PROFIT RATIOS**

Description	SIC Code	Level	10-year avg.	10-yr mdn.	Recession	Growth
		UQ	7.1	6.6	7.0	7.2
Chicken eggs	0252	MD	2.8	2.7	3.0	2.8
		LQ	0.2	0.5	0.6	-0.1
		UQ	10.0	9.3	11.2	8.8
Turkey and turkey eggs	0253	MD	5.6	6.1	4.9	6.3
		LQ	2.6	2.5	1.6	3.7
		UQ	7.1	5.7	7.1	
Poultry hatcheries	0254	MD	2.9	3.3	2.9	
		LQ	0.3	0.8	0.3	
		UQ	12.0	11.7	11.4	12.6
Animal specialties, nec	0279	MD	5.2	4.9	5.1	5.2
		LQ	1.4	1.8	1.2	1.6
		UQ	12.0	9.2	19.8	4.3
General farms, primarily livestock/animal specialties	0291	MD	6.4	5.7	9.8	3.1
		LQ	2.7	2.2	3.2	2.2
		UQ	10.5	11.5	9.3	11.4
Soil preparation services	0711	MD	4.3	4.1	3.2	5.2
		LQ	1.1	1.0	0.2	1.8
		UQ	9.4	8.3	11.0	8.2
Crop planting, cultivating and protecting	0721	MD	3.7	3.1	4.0	3.4
		LQ	1.0	0.7	1.2	0.8
		UQ	8.6	8.5	8.2	8.8
Crop harvesting, primarily by machine	0722	MD	2.7	2.6	3.5	2.2
		LQ	0.7	0.5	0.4	0.9
		UQ	7.9	7.2	8.3	7.6
Crop prep services for market, except cotton ginning	0723	MD	3.1	3.1	3.1	3.2
		LQ	4.6	0.7	0.5	7.9
		UQ	16.8	16.1	17.6	16.3
Cotton ginning	0724	MD	6.3	5.9	6.6	6.1
		LQ	1.4	1.3	1.8	1.1
		UQ	11.6	11.1	10.0	12.9
Wines, brandy, and brandy spirits	2084	MD	5.9	4.6	4.7	6.6
		LQ	0.1	0.7	0.1	0.1
		UQ	11.9	12.6	11.7	12.1
Distilled and blended liquors	2085	MD	7.4	8.1	8.0	7.0
		LQ	3.6	2.9	2.4	4.5
			10-year avg.	10-yr mdn.	Recession	Growth
		UQ	12.5	11.9	12.3	12.7
Crop		MD	5.7	5.3	5.5	5.5
		LQ	1.0	1.1	0.3	1.4
		UQ	10.3	9.6	11.2	9.7
Livestock		MD	4.2	4.2	4.6	3.9
		LQ	0.4	0.5	0.5	0.4
		UQ	11.7	11.1	11.9	11.6
Crop and Livestock		MD	5.1	4.9	5.2	4.9
		LQ	0.8	0.9	0.4	1.1
		UQ	10.7	10.3	10.9	10.5
Farm services		MD	4.0	3.8	4.1	4.0
		LQ	1.8	0.8	0.8	2.5

Source: ADE, Inc., based on Dun and Bradstreet

APPENDIX C: RESPONSE TO CALIFORNIA LEAGUE OF FOOD PROCESSORS AND MANUFACTURERS' COUNCIL OF THE CENTRAL VALLEY

MEMORANDUM

To: Nichole Corless, George Heinen, and Scott Nestor
From: Tony Daysog, ADE
Copy: Doug Svensson, ADE
Date: November 19, 2009
Re: Response to Inquiries from the CLFP and MCCV

Applied Development Economics prepared this memo in response to the questions posed by the California League of Food Processors, which asked, “Of the number of establishments employing at least 100 workers, how many employ 100 ‘qualified’ workers? In a separate memo, the California League of Food Processors and the Manufacturers’ Council of the Central Valley presented annual cost figures higher than what was estimated by the San Joaquin Valley Unified Air District. In this memo, we respond to these two issues. First we discuss the source of data on businesses and establishments by number of workers. Then, we discuss how we treated the data for purposes of the socioeconomic impact analysis. We conclude with a socioeconomic impact analysis based on cost figures presented by the California League of Food Processors and the Manufacturers Council of the Central Valley.

Establishments By Number of Workers: Data Source: County Business Pattern

In analyzing economic trends in the eight-county San Joaquin Valley region, Applied Development Economics relied heavily on the US Census Bureau’s annual County Business Patterns. In this publication, the US Census Bureau organizes data by county, industry code, and size of establishment in terms of number of workers. The most current data available from County Business Patterns is for the year 2007.

The US Census Bureau obtains data placed in the County Business Patterns in the following manner. Each year, the US Census surveys businesses across the country through the “Report of Organization Survey.” The US Census distributes findings from this survey across a number of federal agencies maintaining economic databases. Among the various databases the US Census places findings from the “Report of Organization Survey,” the Census places survey findings in what is called the

“Business Register.” Other agencies such as the US Internal Revenue Service place data into the Business Register. Thus, via the Business Register, the US Census Bureau and other agencies generate accurate and consistent data on businesses throughout the nation. Data for the annual publication called the County Business Patterns come from Business Register.

The US Census Bureau organizes County Business Patterns data according to varying levels of industrial codes. For example, manufacturing in general is represented by the two-digit NAICS codes range of “31-33.” A particular group of manufacturers, such as food processors, are grouped under the three-digit NAICS of “311”, which is a sub-set of two-digit “31” NAICS code. Particular food processors such as “breakfast cereal manufacturers” are represented by a more detailed NAICS code consisting of six digits, or “311230” in the case of “breakfast cereal manufacturers.” NAICS code “311230” is a sub-set of “311”. For purposes of the socioeconomic impact analysis, the consultant analyzes trends at the detailed six-digit level, and, as appropriate, reports findings at either the six-, two- or three-digit NAICS code levels.

In addition to organizing data by specific industry codes, the US Census Bureau also organizes County Business Patterns data by size of establishment, which is defined by a range of workers. Thus, the US Census Bureau identifies the number of establishments with “1 to 4” workers, “5 to 9” workers, “10 to 19” workers, “20 to 49” workers, “50 to 99” workers, “100 to 249 workers”, “250 to 499” workers, “500 to 999” workers, “1000 to 2499” workers, “2500 to 4999” workers and “over 5000” workers.

How We Treat Cases Where Businesses Employ More than 100 Workers But Not More than 100 “Qualified” Workers

As currently stated, proposed Draft Rule 9410 affects establishments employing at least 100 “eligible” workers. Thus, an establishment employing 120 workers might not necessarily be subject to the proposed rule, if in this hypothetical case 30 of the 120 workers work night shifts, with the balance of the workforce working during hours and conditions covered under the proposed rule. In this example, the establishment employs 90 “eligible” workers out of a total workforce of 120, meaning that this hypothetical establishment would not be subject to the proposed draft rule. Because County Business Pattern data do not indicate how many of the establishments employing between “100 and 249” workers are “eligible” workers per proposed Draft Rule 9410, for purposes of a conservative socioeconomic impact analysis, we assume that all establishment employing between “100 and 249” workers will be subject to the rule. In other words, proposed Draft Rule 9410 may affect fewer establishments than the number in our analysis, but for purposes of a conservative socioeconomic impact analysis, we opted to assume that socioeconomic impacts stemming from the rule would fall on a greater (rather than lesser) number of businesses within the “100 to 249” size range.

Socioeconomic Impact Analysis of Industry Stakeholder Cost Estimates

In a November 4, 2009 memo called “Joint Comments from MCCV & CLFP: Employer-Based Trip Reduction Rule 9410,” The California League of Food Processors and the Manufacturers Council of the Central Valley presented their respective annual cost estimate for Tiers 1 and 2, or \$6,824 and \$10,490 respectively. We included these costs next to the District’s initial cost estimates. These costs are presented below, which also includes revised cost figures for the Migrant Seasonal Worker Protection Act. We estimated an average of \$9,972 using the stakeholders’ Tier 1 and Tier 2 annual cost estimates.

Annual Cost Stemming from Draft Rule 9410: Industry Stakeholder and District Scenarios

Type of Worksite	District: Average annual cost/worksite until 2014	Stakeholder: Average annual cost/worksite until 2014
Total	\$3,190	\$9,972
Tier 1	\$2,310	\$6,824
Migrant and Seasonal Worker Protection Act Tier T1	\$2,460	\$7,267
Tier 2	\$3,249	\$10,490
Migrant and Seasonal Worker Protection Act Tier T2	\$4,741	\$15,307

Source: ADE, based on San Joaquin Valley Unified Air Pollution Control District and MCCV/CLFP

In an e-mail transmission to the consultant, the California League of Food Processors asked, “Why are the annual total costs so much lower for larger employers? On a per-employee basis they might be somewhat lower, but wouldn’t the total annual costs incurred by an employer with 1,000 employees be greater than one with 100 workers?” When conducting socioeconomic analyses, one of the first things we attempt to discover through our preliminary analysis and the initial workshops we help facilitate is whether costs associated with a rule scale in conjunction with specific factors, or whether costs more or less are fixed regardless of the size of business. We concluded that costs stemming from the rule do not ratchet upward in accordance with the number of workers, in part because much of the success of the project relies on various communication approaches the cost of which more or less is the same whether there are 100 or 1,000 employees. While the “services and facilities” element of the proposed Draft Rule 9410 involves hard-costs (see “on-site vending machine” and “on-site break room and kitchenette”), more than likely, companies with more than 100 workers are already providing these hard costs even before rule adoption, such that for businesses interested in pursuing these elements of the project, true impacts stemming from the

rule is an incremental fraction above the initial outlay, with no significant difference in impacts based upon size of establishment. For these reason, we conclude that the District’s \$3,190 of industry stakeholders’ \$9,972 average (for manufacturers only) are the appropriate unit of analysis to be applied against businesses employing more than 100 workers.

The table below shows the aggregate cost impacts based on the \$9,972 average absorbed by affected industries and businesses with more than 100 workers. Below this table is another one which shows that impacts are less than significant across the board.

Aggregate Costs Per Industry Stakeholder Cost Estimates: Cost Applies Only to Manufacturers

NAICS Industry Code	Total Establishments > 100 workers	Establishments Employing 100-249	Establishments Employing Between 250-499	Establishment Employing More than 500
Manufacturing	\$2,353,411	\$1,565,616	\$498,604	\$289,190

Source: ADE, Inc., based on US Bureau of Labor Statistics (QCEW) and US Census County Business Patterns

Comparison of Aggregate Net Profits to Aggregate Costs Per Stakeholder Cost Estimates

NAICS Industry Code	Total Net Profits > 100 workers	Net Profits of Establishments Employing 100-249	Net Profits of Establishments Employing Between 250-499	Net Profits of Establishments Employing More than 500
Manufacturing	0.26%	0.58%	0.25%	0.07%

Source: ADE, Inc., based on Dun and Bradstreet

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