San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

San Joaquin Valley Air Pollution Control District

2010 Annual Report

Indirect Source Review Program

Reporting Period:
March 1, 2009 to February 28, 2010

San Joaquin Valley Unified Air Pollution Control District

Governing Board
December 2010

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I. EXECUTIVE SUMMARY

This "*2010 Annual Report on the District's Indirect Source Review Program"* was prepared by the San Joaquin Valley Unified Air Pollution Control District. District Rule 9510, (Indirect Source Review), was adopted by the District's Governing Board to reduce the impacts of growth in emissions resulting from new land development in the San Joaquin Valley. Rule 9510 (ISR) is a commitment in the EPA approved PM10 Attainment Demonstration Plan. The objective of the rule is to reduce emissions of NOx and PM10 associated with construction and operational activities of development projects occurring within the San Joaquin Valley. When it was adopted, District staff anticipated that the rule would reduce development project impacts on air quality by approximately 11 tons per day (NOx+PM10) in 2010. This projection was made before the downturn in the global economy and construction in the US, California, and the San Joaquin Valley.

District Rule 9510 applies to new development projects that would equal or exceed specific size limits called "applicability thresholds". The applicability thresholds were established at levels intended to capture projects that emit at least two tons of nitrogen oxides (NOx) or two tons of particulate matter smaller than ten microns in aerodynamic diameter (PM10) per year. The rule contains provisions exempting stationary source projects that are subject to the District's stationary source permitting requirements.

Developers of projects subject to Rule 9510 must reduce emissions occurring during construction and operational phases, or pay off-site mitigation fees. One hundred percent of all offsite mitigation fees are used by the District's Emission Reduction Incentive Program (ERIP) to fund emission reduction projects, achieving emission reductions in behalf of the project. Additionally, developers pay an administrative fee equal to four percent (4%) of the required off-site fees. This fee is to cover the District's cost of administering the off-site emission reduction program.

For the 2009-2010 ISR annual reporting period, the District's ISR account held a beginning balance of $9,525,459. During this reporting period, the District received off-site mitigation fees totaling $678,003 resulting in a grand total of $10,203,462. The District funded off-site emission reduction projects totaling $406,833 leaving an unexpended balance of $9,796,629. Projects funded by the District achieved emission reductions totaling 179.37 tons NOx and 0.35 tons PM10, for a combined total of 179.72 tons and a cost effectiveness of $2,263.71 per ton. District expenditure of mitigation fees was limited during this reporting period, pending resolution of legal challenges to District Rule 9510. The District has prevailed in these legal challenges thus, the District is now able to utilize these funds to further emission reductions in the valley.

Compared with the 2008-2009 reporting period, the ISR program experienced a 30% decrease in Air Impact Assessment (AIA) applications (114 applications received this year versus 163 last year) and a 63% decrease in payment of off-site mitigation fees ($678,003 received this year compared to $1,864,241 last year). These trends are attributable to the unfavorable economic climate in the State of California and the associated decline in new housing starts and commercial development.

II. INTRODUCTION

The District's population increased by 22% between 1990 and 2000, and California's Department of Finance has projected that the San Joaquin Valley Air Basin (SJVAB) will experience an overall increase in population of 24% between 2000 and 2010, and an additional 26% increase between 2010 and 2020. Population growth results in increased area source emissions from activities such as consumer product use, fuel combustion, and landscape maintenance. Additionally, the total number of vehicle miles traveled (VMT) increases at an even faster rate than population growth. The projected growth in these so called "indirect source" emissions erodes the benefits of emission reductions achieved through the District's stationary source program and the state and federal mobile source controls.

The District has longstanding statutory authority to regulate indirect sources of air pollution. Pursuant to this authority, the District made a federally enforceable commitment to regulate indirect sources when it adopted its PM10 Attainment Plan in June 2003. Subsequently, the California State Legislature passed Senate Bill 709, Florez, in the fall of 2003, which Governor Gray Davis subsequently signed and codified into the Health and Safety Code in §40604. This additional legislation required the District to adopt, by regulation, a schedule of fees to be assessed on area wide or indirect sources of emissions that are regulated by the District.

District Rule 9510 (Indirect Source Review) was adopted by the District's Board on December 15, 2005, and became effective March 1, 2006. District Rule 9510 (ISR) was adopted by the District's Board to reduce the impacts of growth in emissions resulting from new land development in the San Joaquin Valley. The rule applies to new residential and non-residential development projects, including transportation and transit projects, which equal or exceed established applicability thresholds. The applicability thresholds are established at levels intended to capture projects that emit at least two tons of nitrogen oxides (NOx) or two tons of particulate matter smaller than ten microns in aerodynamic diameter (PM10) per year. Upon full implementation, it is anticipated that the rule will reduce development project impacts on air quality by 10.1 tons per day (NOx+PM10).

Developers of projects subject to ISR must reduce emissions occurring during construction and operational phases, or pay off-site mitigation fees. One hundred percent of all offsite mitigation fees are used by the District's Emission Reduction Incentive Program (ERIP) to fund emission reduction projects, achieving emission reductions in behalf of the project. Additionally, developers pay an administrative fee equal to four percent (4%) of the required off-site fees. This fee is to cover the District's cost of administering the off-site emission reduction program.

This report was prepared pursuant to provisions of Rule 9510 that require the District to prepare an annual report regarding expenditure of received funds and achieved emission reductions. Pursuant to Rule 9510, Section 10.4, the annual report should include the following:

- Total amount of Off-Site Fees received;
- Total monies spent;
- Total monies remaining;
- Any refunds distributed;
- A list of all projects funded;
- Total emissions reductions realized; and
- The overall cost-effectiveness factor for the projects funded.

III. IMPLEMENTATION

District Rule 9510 (Indirect Source Review)

Through implementation of the ISR rule District staff is seeing positive changes in development practices. Since adoption of the rule, developers have voluntarily begun to incorporate many air-friendly design changes into their projects. For instance, significant reductions in emissions have occurred through the use of cleaner construction equipment. In 2006, the first year of implementation, only 14.3% of approved projects reduced construction exhaust impacts through use of construction equipment that is cleaner than the state fleet average. During the 2010 reporting period, voluntary use of clean construction equipment increased to 85%.

Another noteworthy change is that developers of large distribution centers reduced operational impacts through voluntarily committing to use newer, heavy-heavy duty on-road fleet vehicles and maintaining a fleet replacement schedule that ensures older vehicles are replaced in a timely manner. In addition, many lesser but still cumulatively significant reductions in emissions have been garnered by a whole range of effective design principles, like installation of solar power, integrated mixed-use development design, bike lanes, high-efficiency housing design, and many others.

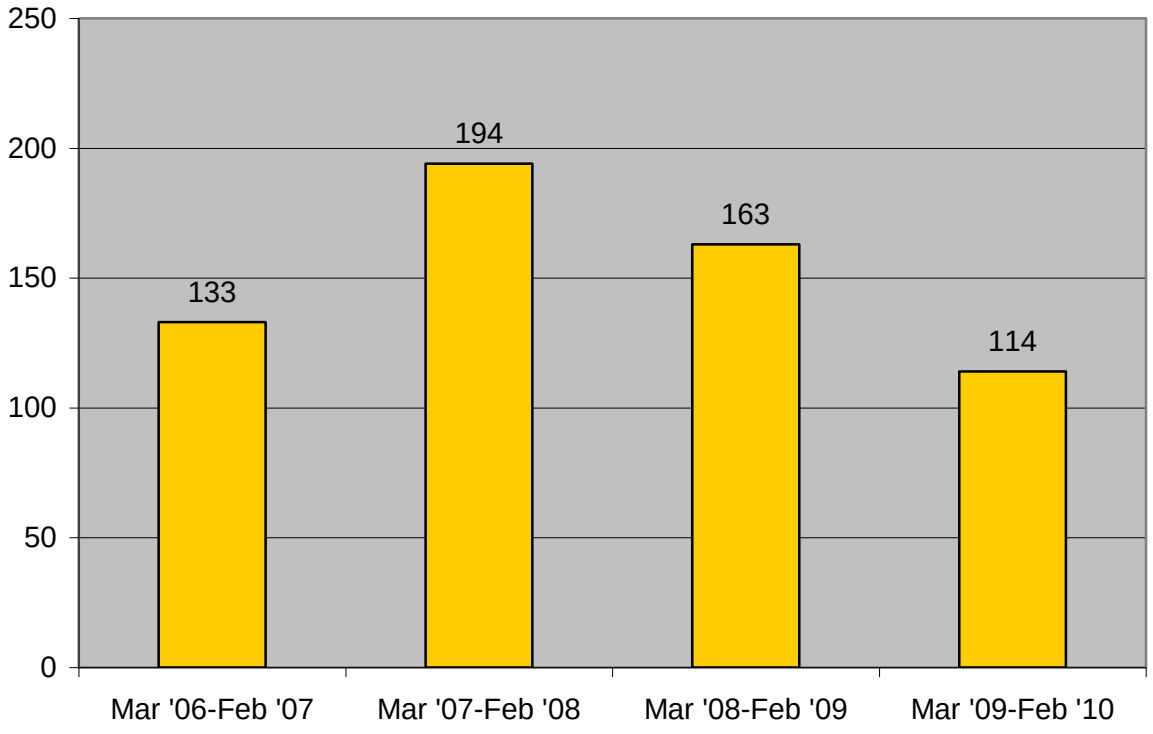
Voluntary Emission Reduction Agreements

A Voluntary Emission Reduction Agreement (VERA) is an air quality mitigation measure by which a developer voluntarily enters into a contractual agreement with the District to reduce a development project's impact on air quality beyond that achieved by compliance with District Rule 9510. By fully mitigating the project's impact on air quality, a developer can address one of the issues that have led to California Environmental Quality Act (CEQA) legal challenges to development projects within the San Joaquin Valley Air Basin.

Implementation of a VERA is complementary to ISR; project emissions are characterized, mitigation funds are paid to the District, the District administers the funds to secure the required emission reduction projects. For development projects subject to ISR, the developer must also comply with applicable rule provisions. To avoid double counting, emission reductions achieved through implementation of a VERA are credited towards satisfying ISR requirements. This report therefore includes revenues and emission reductions achieved through the VERA process.

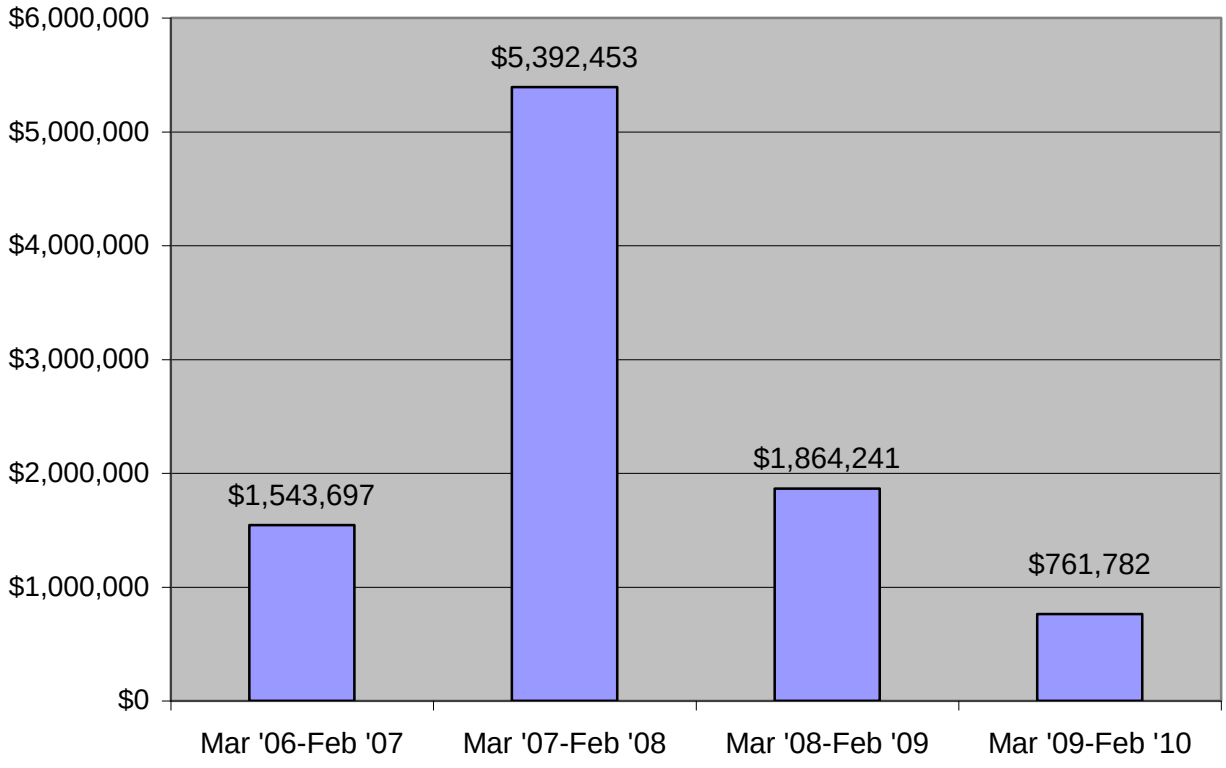
A summary of Air Impact Assessment (AIA) applications received since 2006, the first year of implementation, is presented in Figure 1. Compared with the 2008-2009 reporting period, the ISR program experienced a 30% decrease in Air Impact Assessment (AIA) applications (114 applications versus 163 applications).

Figure 1: Number of ISR Applications Received From 2006 to Feb 28, 2010



As presented in Figure 2 below, there was a concomitant decrease in revenues from off-site mitigation fees. During this reporting period, off-site mitigation fees decreased by 63% ($678,003 received this year compared to $1,864,241 last year). These trends are attributable to the unfavorable economic climate in the State of California and the associated decline in new housing starts and commercial development.

Figure 2: ISR Off-site Mitigation Fees Received From 2006 to Feb 28, 2010



IV. FISCAL SUMMARY

As presented in Table 1, the ISR off-site mitigation fee account held a beginning balance of $9,525,459. During this reporting period, the District received off-site mitigation fees totaling $678,003 resulting in a grand total of $10,203,462. The District funded off-site emission reduction projects totaling $406,833 leaving an unexpended balance of $9,796,629.

Table 1: ISR/VERA Fiscal Summary (March 1, 2009 - February 28, 2010)

	ISR	VERA	Total
Beginning Balance	$8,649,575	$875,884	$9,525,459
Off-Site Mitigation Fees Received/Refunded	$761,782	-$83,779[1]	$678,003
Available Balance	$9,411,357	$792,105	$10,203,462
Amount Spent	-$241,741	-$165,092	-$406,833
Ending Balance	$9,169,616	$627,013	$9,796,629

[1]Reimbursement of excess off-site mitigation fees

V. EMISSIONS REDUCTION SUMMARY

Achieved Emission Reductions

During this reporting period, the District used ISR and VERA fees to fund 49 emission reduction projects. The majority of funded projects consist of re-powering various type of diesel powered industrial portable equipment such as agricultural irrigation pumps and generators, with either cleaner diesel engines or by conversion to electric motors. However, the significant reductions were achieved through replacement of diesel powered agricultural tractors. Emission reduction projects achieved total reductions of 179.37 tons NOx and 0.35 tons PM10, for a combined total of 179.72 tons and a cost effectiveness of $2,263.71 per ton (Table 2). Additionally, funded projects reduced emissions of reactive organic gases (ROG) by 1.25 tons.

The achieved cost effectiveness is substantially lower than the previous reporting period ($8,249 per ton), and is attributable to funding agricultural tractor replacement projects. Agricultural tractors, which experience high hours of operation within the San Joaquin Valley, are thus demonstrated to be highly cost effective emission reduction projects. A complete list of all projects funded is presented in Appendix A.

Table 2: ISR/VERA Emission Reductions (March 1, 2009 - February 28, 2010)

Achieved Emission Reductions (Ton)				Amount Spent ($)	Cost Effectiveness ($/Ton)
Source	**NOx**	**PM10**	**Total**		
ISR	160.35	0	160.35	$241,741	$1,507.59
VERA	19.02	0.35	19.37	$165,092	$8,523
Grand Total	**179.37**	**0.35**	**179.72**	**$406,833**	**$2,263.71**

Projected Emission Reductions

Projected emission reductions are a combination of emission reductions to be achieved in the future through implementation of project design elements at full project build out and through funding off-site emission reductions projects, using off-site mitigation fees. For this reporting period, implementation of ISR resulted in combined projected on-site and off-site emission reductions totaling 800.6 tons of NOx and 740.1 tons of PM10 (Table 3).

Table 3: Emission Reductions From Approved ISR Projects (March 1, 2009 - February 28, 2010)

Projected Emission Reductions (Tons)			
Source	**NOx**	**PM10**	**Total**
On-site Emission Reductions	441.2	338.8	**780.0**
Off-site Emission Reductions	359.4	401.3	**760.7**
Total	**800.6**	**740.1**	**1540.7**

APPENDIX A

List of all emission reduction projects funded by the ISR program

EMISSION REDUCTIONS PROJECTS
ISR Annual Report / March 2009 – Feb 2010

Application ID	Units	Equipment Type	NOx (ton)	PM (ton)
3552	1	Irrigation Pump	1.88	0.01
6506	1	Irrigation Pump	2.57	0.05
6508	1	Irrigation Pump	1.63	0.03
6508	2	Irrigation Pump	1.26	0.03
6508	3	Irrigation Pump	1.71	0.03
6508	4	Irrigation Pump	2.18	0.04
6508	5	Irrigation Pump	2.16	0.04
6508	6	Irrigation Pump	1.85	0.04
6508	7	Irrigation Pump	1.93	0.04
6508	8	Irrigation Pump	1.85	0.04
7055	1	Agricultural Tractor	14.46	0
7112	1	Agricultural Tractor	21.74	0
7117	1	Agricultural Tractor	11.9	0
7167	1	Agricultural Tractor	4.5	0
7268	1	Agricultural Tractor	17.26	0
7317	1	Agricultural Tractor	6.17	0
7368	1	Agricultural Tractor	16.88	0
7938	1	Agricultural Tractor	16.86	0
7983	1	Agricultural Tractor	13.15	0
8129	1	Agricultural Loader	23.44	0
8212	1	Agricultural Tractor	13.99	0
		Total Reductions	**179.37**	**0.35**