SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Staff Report

Proposed Amended Rule 1309.1 – Priority Reserve; and Proposed Re-Adopted Rule 1315 – Federal New Source Review Tracking System

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Deputy Executive Officer
Planning, Rule Development and Area Sources
Elaine Chang, DrPH

Assistant Deputy Executive Officer
Planning, Rule Development and Area Sources
Laki Tisopulos, Ph.D., P.E.

Planning & Rules Manager
Planning, Rule Development and Area Sources
Larry M. Bowen, P.E.

Author:	Shams Hasan – Air Quality Specialist
Reviewed By:	Robert R. Pease, P.E. – Program Supervisor William Wong – Senior Deputy District Counsel Barbara Baird – Principal Deputy District Counsel Mohsen Nazemi, P.E. – Assistant Deputy Executive Officer
Contributors:	Mike Mills, P.E. - Senior Air Quality Engineering Manager Mitch Haimov, P.E. – AQ Analysis and Compliance Supervisor John Yee, P.E. – Senior Air Quality Engineer

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Chair: WILLIAM A. BURKE, Ed.D.
Speaker of the Assembly Appointee

Vice Chair: S. ROY WILSON, Ed.D.
Supervisor, Fourth District
Riverside County Representative

MEMBERS:

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Mayor, City of Riverside
Cities Representative, Riverside County

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Supervisor, Fourth District
San Bernardino County Representative

JAN PERRY
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Cities Representative, Los Angeles County, Western Region

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Mayor, City of Santa Ana
Cities Representative, Orange County

TONIA REYES URANGA
Councilmember, City of Long Beach
Cities Representative, Los Angeles County, Eastern Region

VACANT
Governor's Appointee

DENNIS YATES
Mayor, City of Chino
Cities Representative, San Bernardino County

EXECUTIVE OFFICER

BARRY R. WALLERSTEIN, D.Env.

TABLE OF CONTENTS

EXECUTIVE SUMMARY 1

BACKGROUND 2

PROPOSED AMENDMENTS TO RULE 1309.1 - PRIORITY RESERVE 3

OTHER PROPOSED COMMITMENTS 12

CEQA ANALYSIS 13

SOCIO-ECONOMIC ANALYSIS 13

RESOURCE IMPACTS 13

FINDINGS 14

CONCLUSIONS AND RECOMMENDATION 14

COMMENTS AND RESPONSE TO COMMENTS 15

FIGURE 1 25
Three – Year Average (2003 – 2005) PM2.5 Concentration Zones in SCAQMD

FIGURE 2 26
Environmental Justice Areas in the SCAQMD

FIGURE 3 27
City of Vernon Power Project - Annual Average PM10 Concentration

FIGURE 4 28
AES Highgrove Power Project - Annual Average PM10 Concentration

ATTACHMENT 1
GUIDANCE DOCUMENT FOR RULE 1309.1
PM2.5 CONCENTRATION ZONE DETERMINATIONS

ATTACHMENT 2
FINAL STAFF REPORT PROPOSED AMENDED RULE 1302 - DEFINITIONS AND PROPOSED AMENDED RULE 1309.1 – PRIORITY RESERVE, SEPTEMBER 8, 2006

ATTACHMENT 3
STAFF REPORT PROPOSED RULE 1315 - FEDERAL NEW SOURCE REVIEW TRACKING SYSTEM, SEPTEMBER 8, 2006

EXECUTIVE SUMMARY

Amendments have been developed to replace the September 8, 2006 amendments to Rule 1309.1. This proposal was developed in response to Board direction at that September rule amendment hearing for staff to address localized impacts. In addition, it is proposed to re-adopt Rule 1315. Upon amendment of Rule 1309.1 and adoption of Rule 1315 on September 8, 2006, the District was sued by members of the environmental community that alleged the rulemaking did not undergo the appropriate CEQA analysis. Although staff strongly disagrees with this allegation, nevertheless, a programmatic Environmental Assessment (EA) has been prepared for this replacement and re-adoption rulemaking to resolve the CEQA matter. In addition, the same environmental group petitioned California Air Resources Board (CARB) to find the Rule 1309.1 – Priority Reserve amendments and the Rule 1315 – Federal New Source Review Tracking System adoption to be unlawful relaxations of the District's New Source Review requirements. CARB recently denied the petition.

The September 8, 2006 amendments to Rule 1309.1 provided access for electrical generating facilities (EGFs) to Priority Reserve credits subject to certain limitations and criteria, including the payment of a mitigation fee. Concerns were raised by Board members at that hearing that additional criteria should be developed to address localized impacts. In response to the Board direction, staff drafted several proposals and conducted an extensive outreach program consisting of several public forums and meetings with interested stakeholders. The latest staff proposal for Rule 1309.1 reflects the Board directive as well as the input from the public outreach. Rule 1315 is an administrative rule requested by U.S. EPA to formalize AQMD's accounting methodology for tracking changes to its internal New Source Review (NSR) offset accounts which the AQMD uses for demonstrating programmatic equivalence between the AQMD's NSR program and federal NSR requirements.

Based on the input from the public and interested stakeholders, staff has crafted these proposed amendments to Rule 1309.1 that will provide access to the Priority Reserve for EGFs considering localized air quality and environmental justice concerns. Ambient PM 2.5 levels are used to characterize local air quality and divide the District into three zones. Zone 1 has ambient PM 2.5 levels less than 18 ug/m^3. Zone 2 has ambient PM 2.5 levels between 18 and 20 ug/m^3 and Zone 3 has ambient PM 2.5 levels greater than 20 ug/M^3. An Environmental Justice Area (EJA) has also been defined as areas where 10% or more of the population is below the poverty level (based on 2000 Federal census data) and either the cancer risk is greater than one in one thousand (as determined by AQMD Multiple Air Toxics Emission Study - MATES II study), or the PM_{10} exposure is greater than 46$\mu g/m^3$ as determined by AQMD monitoring. In an effort to discourage the siting of EGFs in the most polluted areas of the Basin, mitigation fees are proposed to be 50% higher for emission credits purchased from the Priority Reserve by EGFs in Zone 2 and

100% higher for emission credits purchased from the Priority Reserve by EGFs in Zone 3 or in EJA as compared to the fees charged in Zone 1. However, all of the proposed fees are within the range of prices charged in recent years for ERCs on the open market. Staff has committed that all of the monies from the purchase of credits less the administrative cost of implementing the program will be used for pollution reduction projects in and around communities where EGFs which access the Priority Reserve are located and impacted the most by the EGFs, with at least one third of the monies used for alternative and renewable energy projects.

In addition, for projects located in Zones 2 and 3 and the EJA, there are more stringent requirements. These requirements are for cancer risk and chronic and acute hazard indices. The proposed rule establishes PM10 hourly emissions limits and also 24-hour and annual maximum ground level impact limits based on air quality modeling as well as PM10 and NOx emission rate limitations. Limits have also been established for the annual hours of operation for simple cycle turbines based on the zone they are located.

This proposal has been modified since the version presented at the public workshop held on April 19, 2007. The 635 MW project size limitation for access to the Priority Reserve in Zone 3 or the EJA has been replaced with additional stringent emissions-based criteria that all projects in Zone 2 and Zone 3 or the EJA must meet in order to purchase credits from the Priority Reserve. In addition, more stringent criteria are proposed for projects greater than 500 MW in Zone 3 or the EJA.

The program EA prepared for this rulemaking includes elements to more fully examine the breadth of proposals that have been discussed for Rule 1309.1 including regional energy projects and bio-solids from wastewater treatment facilities. A subsequent rule amendment to Rule 1309.1 – Priority Reserve is contemplated for rulemaking after adoption of the replacement Rule 1309.1 and re-adoption of Rule 1315. This subsequent rule amendment will address the issues of bio-solids and Energy Projects of Regional Significance (EPRS).

BACKGROUND

At the September 8, 2006 Public Hearing, Rule 1309.1 – Priority Reserve was amended to allow EGFs temporary access to the Priority Reserve to obtain SO_x, CO and PM10 credits. These September amendments once again provided new EGFs access to the Priority Reserve where these proposed projects either do not have or can not secure the needed offsets on the open market. California has been experiencing a shortage of electricity for over a year with some rolling brownouts and curtailments occurring recently, and the demand for offsets in the open market exceeded the available supply. Access by EGFs was subject to certain criteria, including paying a non-refundable mitigation fee.

PM2.5 emissions are considered the emissions with greatest localized and regional health impacts from new power plants. Fine particles in the PM2.5 fraction have the ability, because of their size, to penetrate and deposit deep in the lungs. Elevated concentrations of PM2.5 are associated with adverse health impacts. Increased mortality, reduction in lung function, and increased hospitalizations are among some of the adverse health impacts associated with exposure to elevated concentrations of PM2.5. Most of the AQMD is currently in non-attainment with regards to the annual and 24-hour federal ambient air quality standards of 15 $\mu g/m^3$ and 35 $\mu g/m^3$, respectively. The AQMD has until 2015 to demonstrate attainment with the annual PM2.5 standard. The AQMD is also in non-attainment with the more stringent state ambient air quality PM2.5 standard. EGFs are large point sources of PM2.5 emissions and the additional limitations and requirements contained in the revised proposal are consistent with the AQMD efforts to achieve air quality goals.

Subsequent to the September 2006 Board adoption, staff conducted several meetings with interested stakeholders, including two public workshops, one public consultation and two public meetings in the affected communities. Based on the Board's direction and the input from the energy industry, impacted community, environmental activists, and regulatory and municipal agencies, staff has crafted the proposed amendments for the consideration of the Board for adoption in July 2007. These proposed amendments fully replace the September 8, 2006 amendments to Rule 1309.1.

Rule 1315 was developed at the request of and with the approval of the U.S. EPA to formalize the AQMD's accounting methodology in tracking debits and credits to its offset accounts as required by U.S. EPA to establish that sufficient offsets are provided for all major sources pursuant to the federal Clean Air Act. After months of discussions and over 6000 person-hours, all issues and questions of U.S. EPA regarding AQMD's NSR offset tracking were addressed. Rule 1315 was adopted on September 8, 2006 and forwarded to the California Air Resources Board (CARB) and ultimately to be forwarded to U.S. EPA for inclusion in the State Implementation Plan (SIP). Because the adoption of Rule 1315 was challenged on CEQA grounds, Rule 1315 is currently proposed for re-adoption. An Environmental Assessment for both Rule 1309.1 and Rule 1315 has been released for public comment.

PROPOSED AMENDMENTS TO RULE 1309.1 – PRIORITY RESERVE

The proposed amendments to Rule 1309.1 replace the amendments adopted by the AQMD Governing Board on September 8, 2006 and in addition, establish air quality, health and economic criteria for the purchase of ERCs from the Priority Reserve based on the project location of the EGF.

The staff proposal included in this Board package differs slightly than that released as part of the Set Hearing Package in June 2007, in that the NOx and PM10 emission rate limitations originally proposed for projects locating in Zone 2 and projects less than 500 MW locating in Zone 3 and the EJA are now proposed to be applicable to projects locating in Zone 1 as well. Staff believes that these requirements are achievable. Staff has also prepared and there is included in this Board package an alternative mitigation fee proposal listed as Option 2 that provides a uniform fee structure across the Basin in lieu of the tiered mitigation fee structure included in Option 1.

Staff crafted the proposed amendments that incorporate community, regulatory, and industry concerns. Existing ambient levels of PM2.5 are used to characterize the basin. Less polluted areas (Zone 1) have average annual PM2.5 concentrations of less than 18$\mu g/m^3$. Moderate areas (Zone 2) have average annual PM2.5 concentrations of between 18$\mu g/m^3$ and 20$\mu g/m^3$. More impacted areas (Zone 3) have annual average concentrations of more than 20$\mu g/m^3$. Zones are determined based on the procedures described in the District's Guidance Document for Rule 1309.1 $PM_{2.5}$ Concentration and Zoning Determination (Attachment 1). Zone 1 represents approximately eighty percent of the surface area of the South Coast Air Basin in the AQMD, Zone 2 approximately fifteen percent and Zone 3 approximately five percent. A map showing the zoning distribution is shown in Figure 1.

In addition, the proposal utilizes environmental justice criteria developed by AQMD, pursuant to California Health & Safety Code 43023.5 to determine those areas already disproportionately impacted by pollution, as requested by the communities impacted by the proposed EGFs. An Environmental Justice Area (EJA) is defined as areas where 10% or more of the population is below the poverty level (based on 2000 Federal census data) and either the cancer risk is greater than one in one thousand (as determined by AQMD MATES II study), or the PM10 exposure is greater than 46$\mu g/m^3$ as determined by AQMD monitoring. The EJA is shown in Figure 2.

To ensure that those areas already impacted by economic and environmental criteria are not subjected to disproportionate impacts from new EGFs, staff is proposing more stringent emission rates and total emissions limits for EGFs in these areas. These limits provide for a distributed approach to generation and a smaller footprint of impacts from these facilities.

Modern day EGFs are significantly cleaner than the power plants built years earlier, but they can still have localized impacts. In an effort to better evaluate the localized impacts, District staff conducted modeling analysis of annual average PM10 concentration on two of the proposed projects locating in an EJ area and Zone 3: City of Vernon Power Plant and AES Highgrove, respectively. The results of the modeling effort are depicted in Figures 3 and 4, respectively. The modeling analyses predict that the highest PM2.5 concentrations will be observed 1 mile to 1.5 miles downwind of the proposed project location. The impact is indicated in terms of annual average PM2.5 concentration

isopleths. The area within the inner isopleth of the City of Vernon project reflects the most impacted area with PM2.5 concentration expected to range from 0.3µg/m^3 to 0.44µg/m^3 or 1.5% to 2.5% of the background concentration. The concentration gradient decreases to 0.1µg/m^3 or to less than 1% of the background concentration by the second isopleth and dissipates rapidly thereafter. The area within the single isopleth relative to the AES Highgrove Project reflects PM2.5 concentrations that range from 0.1µg/m^3 to 0.39µg/m^3 or 0.5% to less than 2% of the background concentration. As in the case with the City of Vernon Project, beyond the isopleth, PM2.5 concentrations dissipate rapidly with distance from the source.

This proposal has been modified since the version presented at the public workshop held on April 19, 2007. The 635 MW project size limitation for access to the Priority Reserve in Zone 3 or the EJA has been replaced with more stringent emissions and risk-based criteria compared to currently applicable standards. All projects in Zone 2 and Zone 3 or the EJA must meet additional criteria to purchase credits from the Priority Reserve. In addition, more stringent criteria are proposed for projects greater than 500 MW in Zone 3 or the EJA.

It should be noted as well that where Priority Reserve access is authorized in the three zones~~Zone 2 or Zone 3~~ or EJA, additional criteria include requirements for cancer risk, chronic and acute hazard index and cancer burden that are more stringent than those required in other District rules. The cancer risk is one in a million or less, the chronic and acute hazard indices are 0.5 and the cancer burden is 0.1 compared to ten in a million if TBACT is used, 1.0 hazard indices and 0.5 cancer burden in Rule 1401. Although EGF projects are not expected to be significant sources of toxic emissions these additional requirements were added to address concerns expressed by the environmental community for more health protective standards for EGF projects seeking Priority Reserve credits if they chose to locate in the more polluted areas. For any given project, District staff will determine the exact Zone in which that project is located by use of UTM coordinates.

More stringent emission rate limits for PM10 and NOx are being proposed for EGFs located in ~~Zone 2, or Zone 3~~the three zones, or in the EJA. In addition, for an EGF greater than 500 MW locating in Zone 3 or the EJA, there is a maximum hourly PM10 emission limit for all the combined new or modified electrical generating units. For EGFs located in Zone 1 or Zone 2, or for EGFs with a maximum capacity of 500 MW or less locating in Zone 3 or the EJA the applicant would have to substantiate with modeling that the 24-hour impact of the total combined PM10 emissions from the new or modified electrical generating units measured at full load shall not exceed 0.060 lb-MW/hr and the total combined NOx emissions from the new or modified electrical generating units at full load shall not exceed 0.080 lb/MW-hr, corrected to conditions at 59^{0}F, 60% relative humidity and 14.7 psia. For EGFs located in Zone 2, regardless of generating capacity, or EGFs located in Zone 3 or in the EJA with a maximum generating capacity of 500 MW or less and seeking Priority Reserve credits, the applicant would have to substantiate with modeling that the 24-hour impact of the total combined PM10 emissions from the new or

modified electrical generating units shall not exceed 5.0µg/m^3. For these EGFs, the applicant would also have to substantiate with modeling that the annual impact of the total combined PM10 emissions from the new or modified electrical generating units would be limited to 0.75µg/m^3. Operation of simple cycle electrical generating units shall be limited to a maximum of 4000 hours per year. The PM10 and NOx emissions rate would be limited to 0.060 lb/MW-hr and 0.080 lb/MW-hr, respectively, corrected to conditions at 59^0F, 60% relative humidity, and 14.7 psia.

For EGFs located in Zone 3 or in the EJA with a maximum generating capacity of more than 500 MW and seeking Priority Reserve credits, the applicant will be required to verify by modeling that the 24-hour impact of the total combined PM10 emissions from the new or modified electrical generating units shall not exceed 2.5 µg/m^3; and that the annual impact of the total combined PM10 emissions from the new or modified electrical generating units would be limited to 0.50 µg/m^3; and that the hourly PM10 emissions from the new or modified electrical generating unit does not exceed 30 pounds. Operation of simple cycle units in Zone 3 or the EJA with over 500 MW generating capacity will be restricted to a maximum of 3000 hours per year. The PM10 and NOx emissions rate would be limited to 0.035 lb/MW-hr and 0.050 lb/MW-hr, respectively, corrected to conditions at 59^0F, 60% relative humidity, and 14.7 psia.

The efficiency standards for the 500 MW or less projects represents, according to the most current information available to the District staff, the lowest emission rate warranteed by a turbine manufacturer for simple cycle machines and the factor for the greater than 500 MW projects is the lowest emission rate warranteed by a manufacturer for combined cycle machines and represents the current state of the art for low emission turbine technology. These levels are more stringent than the current NSR BACT requirements.

For PM emissions, the 0.060 lbs/MW-hr standard proposed for projects in Zone 1 or Zone 2 or projects with a maximum capacity of 500 MW or less ~~in Zone 2 or~~ in Zone 3 or the EJA corresponds to the lowest calculated emission rate for recently proposed or constructed simple cycle units. The 0.035 lbs/MW-hr limit for projects with a maximum capacity greater than 500 MW located in Zone 3 or the EJA corresponds to the lowest calculated emission rate for recently proposed or constructed combined cycle units. The calculated rates are generally based on manufacturer's guarantees. The 30 lbs/hr limit is equivalent to the best controlled 500 MW simple cycle project. The proposed annual impacts of 0.50 and 0.75 ug/m^3 are included because they are below the Rule 1303 significance level of 1.0 ug/m^3, but are achievable using the cleanest or lowest emitting generating units.

For NOx emissions, 0.080 lbs/MW-hr limit for projects in Zone 1 or Zone 2, or projects with a maximum capacity of 500 MW or less ~~in Zone 2 or~~ in Zone 3 or the EJA corresponds to the lowest emission rate based on a permit condition for recently proposed or constructed simple cycle units. The 0.050 lbs/MW-hr limit for projects with a

maximum capacity greater than 500 MW located in Zone 3 or the EJA corresponds to the lowest emission rate based on a permit condition for recently proposed or constructed combined cycle units.

Table 1 highlights the requirements to access the Priority Reserve in Zones 2 and 3 and the EJA.

TABLE 1
CRITERIA FOR EGFs LOCATING IN ZONE 2, ZONE 3, OR EJA

	Zone 1	Zone 2; EJA or Zone 3 ≤ 500 MW	EJA or Zone 3 > 500 MW
TOXICS REQUIREMENTS			
Cancer Risk	< 10 in-a-million	< 1 in-a-million	< 0.5 in-a-million
Hazard Index	< 1	< 0.5	< 0.1
Cancer Burden	< 0.5	< 0.1	< 0.05
CRITERIA POLLUTANT REQUIREMENTS			
PM10 Emission Controls	NG Only & < 0.060 lb/MW-hr~~NSR BACT (Natural Gas Only)~~	NG Only & ≤ 0.060 lb/MW-hr	NG Only & ≤ 0.035 lb/MW-hr
NOx Emission Controls	< 0.080 lb/MW-hr~~NSR BACT~~	≤ 0.080 lb/MW-hr	≤ 0.050 lb/MW-hr
Total Combined Gas Turbine PM10 Hourly Emissions	NSR BACT	NSR BACT	≤ 30.0 lbs/hr
Gas Turbine PM10 24-hr Impact	NSR Limit of 2.5 ug/m3 per Gas Turbine	≤ 5.0 ug/m3 for Total Combined Gas Turbines	≤ 2.5 ug/m3 for Total Combined Gas Turbines
Gas Turbine PM10 Annual Impact	NSR Limit of 1.0 ug/m3 per Gas Turbine	≤ 0.75 ug/m3 for Total Combined Gas Turbines	≤ 0.5 ug/m3 for Total Combined Gas Turbines
Annual Hours of Operation Limit	None	≤ 4,000 hrs/yr, if Simple Cycle	≤ 3,000 hrs/yr, if Simple Cycle

The 24-hour and annual impact standards currently being proposed are more stringent than the District's current standards in Regulation XIII. This is to provide a higher margin of health protectiveness in the areas downwind from these projects. The operating hour limitations for the simple cycle units are to allow the use of simple cycle for peaking where they are most efficient but ensure they would not be used as base load units where they are less efficient than combined cycle units.

Rule 1309.1 provides access to the Priority Reserve for certain critical EGF projects that meet specific requirements and that cannot secure the needed offsets on the open market. Currently the rule specifies that funding of the Priority Reserve shall be quarterly "or other schedule deemed practicable by the Executive Officer (EO) or designee". Emphasis

is provided by new language that this includes suspension by the EO of transfers from the District's NSR account if the credits are not available, and transfers will resume when the EO determines sufficient credits are available for transfer from the District's NSR account.

An EGF is defined as a facility that generates electricity for its own use and is less than 10 MW, or is a facility less than 50 MW that generates not less than 30% of its electricity to pump water to maintain the integrity of the surface elevation of a municipality or significant portion thereof; or is a thermal power plant less than 50 MW that generates electricity during peak demand periods and operates less than 300 hours per year, or is a thermal power plant facility that generates 50 MW or greater of electricity for distribution in the state or municipality owned grid system (net generator); such facility having submitted a complete application for certification to the State Energy Resources Conservation and Development Commission (California Energy Commission or CEC) or District permit to construct application during calendar years 2000 through 2003, or 2005 through 2008 and which applications are directly related to the production of electricity. For projects submitting applications in 2005 through 2008, the power plant site and related facility must be going to be the subject of an environmental impact report, negative declaration, or other document prepared pursuant to a certified regulatory program; and in accordance with Public Resources Code Section 21080 (b)(6).

As a clarification, the rule states that for the purpose of qualifying as an EGF, the applicable version of this rule is the version in effect at the time the application is deemed complete. As the proposed rule is intended to replace the September 8, 2006 version, if adopted, the current proposed rule would be applicable and not the September 2006 version. For the purpose of determining accessibility of the EGF to the Priority Reserve credits and determining the applicable mitigation fees, the applicable version of this rule is the version in effect at the time the final Permit to Construct is being issued. Again, because the proposed rule will replace the September 2006 version, the current proposed rule would remain applicable.

An In-District EGF is defined as a EGF located within the jurisdiction of the AQMD and may be qualified to draw only SOx, PM10 and CO credits provided it complies with all applicable requirements of the rule, including the specific provisions applicable to the geographic zone and the EJA that the EGF is located in.

The proposed rule defines a Downwind Air Basin EGF as an EGF located in a downwind air basin outside the District. A Downwind Air Basin EGF may be qualified to draw VOC credits provided certain conditions are met. EGFs located in a downwind air basin outside the District will need to comply with California Health and Safety Code 40709.6 and pay a mitigation fee as specified in Proposed Amended Rule 1309.1(g). The VOC credits obtained shall be at an offset ratio and inter-pollutant trading rates, if applicable, determined by the downwind district. The cumulative amount of VOC credits issued to all downwind air basin EGFs shall not exceed 5000 pounds per day. To draw the VOC

credits, the downwind air basin EGF must submit a written request that must be received by the AQMD Executive Officer before January 1, 2009, and the CEC application must be submitted between calendar years 2005 through 2008.

All EGFs seeking offset credits from the Priority Reserve shall be required to comply with applicable conditions of the proposed rule, including to meet BARCT for pollutants for which credits are to be received from the Priority Reserve, pay a mitigation fee, conduct a due diligence effort to secure available ERCs in the open market, have the new source fully and legally operational at the rated capacity within 3 years following issuance of the Permit to Construct or CEC certification, and enter into a contract, if available, with the State of California to sell at least 50% of the portion of the power generated for which Priority Reserve credits are obtained.

Staff has prepared two mitigation fee proposals for Board's consideration. Under Option 1, the proposed rule includes a mitigation fee schedule based on the zone or area where the power plant is proposed to be located. EGFs located in Zone2, Zone 3, or the EJA will be subject to higher mitigation fee rates and more stringent criteria than Zone 1. The mitigation fees in Zone 2 are 50% greater than Zone 1 and the mitigation fees in Zone 3 or the EJA are 100% higher than Zone 1. However, all three zones pay a fee that is within the range of recent market prices. Staff has initially proposed such a fee structure to act as an incentive to locate EGFs in those areas with the least emissions impact. In addition, it is expected that most of the mitigation fees will be used for air quality improvement projects near the EGF, those in the more polluted areas will receive the benefit from the additional funding of these projects in their area. During the rulemaking process, arguments were made that the tiered mitigation fee structure leaves EGFs proposing to locate in the more polluted areas due to the available infrastructure and the public residing in those areas at an economic disadvantage, which was characterized as unfair since much of the pollution in those areas is due to emissions released and transported from upwind areas. In response, staff has developed an alternative proposal included here as Option 2 that establishes a uniform mitigation fee structure across the Basin. The uniform fee is based on weighted average of prices in the open market for 2006 and first quarter of 2007.

~~The proposed rule includes a mitigation fee schedule based on the zone or area where the power plant is proposed to be located. Emission credits purchased from the Priority Reserve by EGFs in Zone 2 cost 50% more than credits for facilities in Zone 1 and emission credits purchased from the Priority Reserve by EGFs in Zone 3 or in the EJA cost 100% more. However, all three zones pay a fee that is within the range of recent market prices. Staff has committed that the monies from the purchase of credits will be used for pollution reduction projects in and around communities where EGFs are located, with at least one third of the monies used for alternative and renewable energy projects. For the purpose of this rule, renewable energy is defined as energy from hydropower, wind and wave power, solar and geothermal energy, and use of fossil fuels, provided the emissions are no more than those from a fuel cell.~~

For new EGF projects (those that filed applications in years 2005 through 2008), a refund of fees paid less AQMD administrative costs is authorized if the project is cancelled for reasons beyond the reasonable control of the applicant and the cancellation is within twelve months of credit purchase. Projects that filed applications in 2001, 2002, or 2003 may receive partial refund of fees provided a permit to construct was issued and credits were purchased based on original estimated emissions rates and a subsequent revised Permit to Construct was issued prior to start of operation of the project to reflect lower emission rates after they are verified by source testing and which results were approved by the District. The applicant must submit a written request for a refund within 3 months after the source testing to qualify for the refund.

Table 2 below describes the location of the projects and the estimated mitigation fee from offset credits under both Options 1 and 2. The cumulative mitigation fee total under Option 1 and 2 could be as high as 333.7 to 419.1 million dollars respectively. Such estimate is based on the assumption that all current proposed projects will be approved and constructed. However, it is not likely that all projects will be constructed and the resulting mitigation fees collected are expected to be significantly less than the total potential fees collected. The mitigation fee estimate is also based on the scenario that EGFs will need to obtain PM and SOx credits and not need to purchase CO credits because AQMD has recently been designated by U.S. EPA to be in attainment for CO.

It is to be noted that in addition to the mitigation fees, each project that seeks access to the Priority Reserve in Zone 2, Zone 3, or the EJA is also subject to the more stringent requirements for certain criteria pollutants and cancer risk, chronic and acute hazard index and cancer burden. The table also includes four other projects – CPV Ocotillo, City of Riverside, El Segundo Repower, and Reliant Energy – that had not been identified as of the September Board hearing.

Table 2

Project Location and Mitigation Fees

Project	Zone	Capacity (MW)	Mitigation Fees (Millions)	
			Option 1	Option 2
AES Highgrove[2]	3	300	$~~47.9~~30.6	$28.1
BP Carson/Edison – Carson Hydrogen Power Project	1	500	$~~34.9~~30.5	$55.8
CPV Ocotillo	1	850	$38.5	$70.7
El Segundo Repower[2]	1	630	$17.8	$32.5
Reliant Energy	3	656	$~~67.7~~56.7	$52.1
Riverside Energy Resource – City of Riverside	3	96	$~~16.3~~10.4	$9.5
Sun Valley[2]	1	500	$~~38.9~~24.0	$44.2
Vernon Power Plant – City of Vernon[2]	2/EJA[1]	943	$~~106.4~~89.2	$81.9
Walnut Creek[2]	2	500	$~~58.4~~36.1	$44.2
Total		**4975**	**$~~426.9~~333.7**	**$419.1**

Footnote:

1- Under Option 1 the Priority Reserve mitigation fee for EJA is based on PM2.5 Zone 3 offset credit rate (double the Zone 1 mitigation fee rate).

2- Permit Application submitted to SCAQMD.

~~The above table is based on the scenario that EGFs will purchase CO credits as well. That may not be required because AQMD has been designated by U.S. EPA to be in attainment for CO. In that case, the total mitigation fees would amount to $333.7 million.~~

Finally, staff's proposal requires EGF applicants to investigate and document the lack of availability of alternative/renewable energy to their proposals. The intent of this provision is to require use of alternative/renewable energy where feasible. For purposes of this rule, alternative/renewable energy is defined as hydropower, wind and wave power, solar and geothermal energy and fossil fuel-based energy provided the emissions are no more than those from a fuel cell.

The proposed amendments apply to EGF projects for which a complete initial application for a permit to construct was filed in calendar years 2005, 2006, 2007 or 2008

Although the above summarizes the proposed amendments to Rule 1309.1, the proposal also encompasses the amendments to Rule 1309.1 adopted on September 8, 2006. As such, the Final Staff Report for the September 2006 adoption also supports the basis for this proposed amendment and is included as Attachment 2 of this report. The underline/strikeout version of Proposed Amended Rule 1309.1 reflects all proposed amendments since the May 3, 2002 amendment.

Since Rule 1315 is being re-adopted, the Staff Report for September 8, 2006 adoption of that rule is the supporting document for the re-adoption and is included as Attachment 3 of this report. The proposed rule is Rule 1315, as adopted on September 8, 2006, without change. For clarity, it is not shown in underline/strikeout format.

OTHER PROPOSED COMMITMENTS

In an effort to further mitigate any potential localized and regional air quality impacts of the proposed EGFs, staff will be making the following recommendations to the Governing Board as part of the adoption resolution:

- ~~Invest mitigation fees in and around the communities most impacted by the proposed project~~
- ~~Invest at a minimum one-third of the mitigation fees in renewable energy projects~~
- Set aside $4,000,000 to identify and pilot the most advanced PM2.5 add-on control technologies that would further reduce PM2.5 emissions from EGFs
- Set aside $1,000,000 from the mitigation fees collected to conduct a comprehensive energy resource planning analysis for the next ~~10~~ 20 years and identify avenues to maximize renewable energy production in the Basin
- Set aside $10,000,000 from Rule 1309.1 mitigation fees for research into health-effects of PM2.5 exposure.

Staff will be committing to prepare a plan by September 2007 for Governing Board's approval to disburse the balance of the mitigation fees collected that will also include investments in renewable energy projects.

CEQA ANALYSIS

Pursuant to the California Environmental Quality Act (CEQA) and AQMD Rule 110, the AQMD staff has reviewed the proposed project and determined the proposed amendments may have the potential to generate significant adverse environmental impacts. A Notice of Preparation/Initial Study (NOP/IS) was prepared and released for a 30-day public review and comment period from March 23, 2007 to April 24, 2007. Seven comment letters on the NOP/IS were received. Responses to the comments on the NOP/IS can be found in the Draft Program Environmental Assessment (PEA) which AQMD staff has released for a 45-day public review and comment period. The Draft PEA is available by accessing the AQMD's CEQA web pages at http://www.aqmd.gov/ceqa/aqmd.html or contacting the Public Information Center at (909) 396-2039.

SOCIOECONOMIC ANALYSIS

The AQMD staff has analyzed the socioeconomic impacts of the staff proposal and the findings are available to the public for review and comment.

AQMP AND LEGAL MANDATES

The California Health and Safety Code requires the AQMD to adopt an Air Quality Management Plan (AQMP) to meet state and federal ambient air quality standards in the South Coast Air Basin. In addition, the California Health and Safety Code requires that the AQMD adopt rules and regulations that carry out the objectives of the AQMP. While Proposed Amended Rule 1309.1 and Proposed Re-adopted Rule 1315 are not control measures included in the AQMP, their requirements are consistent with the AQMP objectives. Since this proposal is not an AQMP control measure and does not result in emission reductions, cost effectiveness is not applicable. This proposal does not impose a new emission limit or standard, make an existing emission limit or standard more stringent, or impose new or more stringent monitoring, reporting or recordkeeping requirements, and therefore, is not subject to the comparative analysis provisions of California Health & Safety Code Section 40727.2. The proposal merely specifies the conditions for access to Priority Reserve credits. Rule 1315 formalizes the procedures for showing that all federal major sources are offset by credits from AQMD's bank.

RESOURCE IMPACTS

The proposed amendments as they relate to permitting of the EGFs are not anticipated to have a significant additional impact on staff resources. While the administration of the mitigation fee investment program is anticipated to be resource intensive, such costs are expected to be defrayed by utilizing up to 10 percent of the mitigation fees collected.

FINDINGS

Before adopting, amending or repealing a rule, the AQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference, as defined in Health and Safety Code Section 40727. The draft findings are as follows:

Necessity – The AQMD Governing Board has determined that a need exists to replace Rule 1309.1 – Priority Reserve as amended on September 8, 2006 to authorize certain EGFs to access the Priority Reserve credits, while at the same time to limit or restrict electrical generating facilities from accessing credits from the Priority Reserve if they are located in heavily polluted areas and to re-adopt Rule 1315, as amended on September 8, 2006, to formalize the process for establishing federal major source offset equivalency.

Authority – The AQMD Governing Board obtains its authority to adopt, amend, or repeal rules and regulations from Sections 40000, 40001, 40440, 42300 (permit system), and 40702 of the California Health and Safety Code.

Clarity – The AQMD Governing Board has determined that Rule 1309.1 – Priority Reserve, as proposed to be amended, and Rule 1315 – Federal New Source Tracking System, as proposed to be re-adopted, are written or displayed so that its meaning can be easily understood by the persons directly affected.

Consistency – The AQMD Governing Board has determined that Rule 1309.1 – Priority Reserve, as proposed to be amended, and Rule 1315 – Federal New Source Tracking System, as proposed to be re-adopted, are in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations.

Non-Duplication – The AQMD Governing Board has determined that Rule 1309.1 – Priority Reserve, as proposed to be amended, and Rule 1315 – Federal New Source Tracking System, as proposed to be re-adopted, do not impose the same requirements as any existing state or federal regulation and is necessary and proper to execute the power and duties granted to, and imposed upon, the District.

Reference – The AQMD Governing Board, in amending the rule, references the following statutes which the AQMD hereby implements, interprets, or makes specific: Health and Safety Code Sections 42300, 40920.5, and CAA §§ 171, 172 and 182.

CONCLUSIONS AND RECOMMENDATION

Staff recommends amendment of Rule 1309.1 by adopting either Option 1 or Option 2 of Proposed Amended Rule 1309.1 to replace the amendments adopted on September 8, 2006, and re-adoption of Rule 1315 for the reasons stated in this staff report.

COMMENTS AND RESPONSE TO COMMENTS

The public outreach process for the post-September 8, 2006 rulemaking included one public workshop at AQMD Headquarters on April 19, 2007, one public consultation meeting on May 22, 2007, and several meetings with individuals and groups from the community, industry and other public agencies. In addition, a number of written comments were received prior to the close of comments for the workshops. Some of the comments were similar and have been summarized in the following comments and responses.

Comment: Establishing different health standards for EJ areas amounts to "redlining". This policy shift is a significant change for the District.

Response: *Staff crafted the proposed amendments that incorporate community, regulatory, and industry concerns. Proposed Rule 1309.1 was developed to address access to the Priority Reserve for all EGFs, both large and small, base load and peaker. Based on the Governing Board's direction, staff established criteria to address and mitigate localized impacts from EGFs, particularly in those areas in the AQMD that are heavily polluted or are located in EJ areas. The proposal utilizes environmental justice criteria developed by AQMD, pursuant to California Health & Safety Code 43023.5 to determine those areas already disproportionately impacted by pollution, as requested by the communities impacted by the proposed EGFs. Those projects in more polluted areas, such as Zone 2, are subject to more stringent toxic standards and emissions limitations than Zone 1, the least polluted area, and, under Option 1of the proposed rule, are required to pay a higher mitigation fees. Under Option 1, EGFs located in Zone 3 or in the EJ Area would be subject to significantly higher mitigation fees than in Zone 2. According to the proposed rule language in both options, EGFs located in Zone 3 or in the EJA ~~and~~ would be subject to even more stringent emissions limitations if they are greater than 500 MW. The mitigation fees will be used to fund air quality projects in the area impacted by the EGF project. However, in response to concerns by the industry representatives and municipal agencies, staff has developed an alternative proposal included here as Option 2 that establishes a uniform mitigation fee structure across the Basin.*

Comment: Earmarking 10% of the mitigation fees for administrative purposes is excessive.

Response: *District staff has committed to utilize the mitigation fees in the communities most impacted by the EGFs. This commitment requires strict fiscal discipline in disbursing and administering the funds and necessitates long-*

term commitment in overseeing the development and execution of project contracts, which would be very resource-intensive. Based on its experience in administering the Carl Moyer Funding and other similar programs, staff believes that utilizing up to 10% of the mitigation fees for administrative purposes is reasonable and appropriate. Staff will endeavor to minimize these expenses. Administrative policies relative to the disbursement of the mitigation fees will be developed through an open and transparent public process with input from all stakeholders. Any project that is paid for by these fees will be approved by the Board prior to funding.

Comment: The 635 MW limit runs counter to City of Vernon objectives and precludes large combined cycle power plants. The District should eliminate limitations based on MW and instead base it on lb/hr of emissions.

Response: Rule 1309.1 was crafted to address access to the Priority Reserve for all EGFs, both large and small, base load and peaker. In response to comments received during and after the Public Workshop on April 19, 2007, District staff has removed the 635 MW limit; however, due to community concerns regarding the impact of large EGFs, District staff has proposed more stringent requirements for power plants located in EJ area or Zone 3 that are larger than 500 MW. The new standards, while not limiting the power generating capacity of a given plant, do require that a plant operate at emission levels that are more stringent than current applicable standards.

Comment: There is no set definition of "renewable energy" in any of the District rules. Include the definition of "renewable energy" in Rule 1302.

Response: A definition of renewable energy has been included in Proposed Amended Rule 1309.1(c)(5).

Comment: The tiered fee structure would cause a competitive disadvantage.

Response: The tiered fee structure is intended to discourage future power plants to locate in areas where the public is exposed to the highest levels of particulate pollutants. However, taking into consideration the arguments made during the rulemaking process, staff has developed an alternative proposal included here as Option 2 that establishes a uniform mitigation fee structure across the Basin.

Comment: Is due diligence required by downwind air basin projects?

Response: Downwind air basin projects will be required to conduct due diligence before accessing the District Priority Reserve credits. District staff will also consult with downwind air basin air pollution control districts to

determine the offset credits required for that project to only allow access and credit approval for the amount of credit required to offset. The access will be limited to 5000 lbs/day.

Comment: Riverside Energy Project would be distributing the power generated to the state grid system via the localized distribution system. Rule language needs to be added to reflect this situation.

Response: Rule language has been added to PAR 1309.1(b)(4)(A) to reflect this. The EGF definition includes thermal power plant facilities that generate 50MW or greater of electricity for distribution in the state or municipality owned grid system (net generator).

Comment: For disbursement of mitigation fees, District staff should commit to work with people who are already working on renewable energy projects.

Response: In order to achieve fair and equitable disbursement of mitigation fees, District staff is committed to develop disbursement policies in an open and transparent process where all stakeholders are expected to provide input.

Comment: Over-regulation causes businesses to move out of state. The District should not impose stringent conditions on power plants.

Response: The District is charged with providing cleaner air and reducing emissions in the South Coast Air Basin. While new EGFs would help reduce the projected energy shortfall and are needed in the Basin, the localized and regional impacts from the EGF emissions cannot be ignored. PAR 1309.1 is crafted to strike a balance between the energy and economic needs of the region and the health impacts due to the emissions from the EGFs.

Comment: The 635 MW limitation proposed in PAR 1309.1 presented at the April 19th public workshop precludes large combined cycle power plants like the Vernon Power Project from being built. It would also encourage less efficient simple cycle smaller plants.

Response: After taking into consideration the comments received, District staff has removed the 635 MW limitation and added a set of stringent conditions for EGFs larger than 500 MW that are proposed to be located in Zone 3 or the EJA.

Comment: Rule language in paragraph (b)(4)(A) "such that for projects submitting applications in 2005 through 2008, the electric generation unit or power plant site and related facility will be the subject of an environmental impact report, negative declaration, or other document prepared pursuant to a certified regulatory program; and in accordance with Public Resources Code Section 21080 (b)(6)" should be deleted as the District staff has now

prepared an environmental Assessment for Rule 1309.1, and will no longer be relying on the CEQA.

Response: *Regardless of the exemption, the District believes that all EGF projects accessing the Priority Reserve should undergo appropriate CEQA environmental review. Therefore, it is appropriate to continue in the rule the reference to subsequent CEQA review.*

Comment: Municipalities should be given the option of locally administering one-third of the mitigation fees from their own EGF projects.

Response: *District staff has committed to utilize the mitigation fees in the communities most impacted by the EGFs. This commitment requires strict fiscal discipline in disbursing and administering the funds and necessitates long-term commitment in overseeing the development and execution of project contracts, which would be very resource-intensive and very likely subject to third-party auditing. Administrative policies relative to the disbursement of the mitigation fees will be developed through an open and transparent public process with input from all stakeholders. Any project that will be funded by these fees will be approved by the Board prior to funding.*

Comment: Please include startup and shutdown exemptions for the NOx and PM10 emissions rate limits (lbs/MW-hr).

Response: *Language has been added to the rule to reflect this concern.*

Comment: The proposed efficiency standards reflect specific technologies that may not be appropriate for municipal utility peaking units. The proposed standards should be deleted but if the District intends to retain efficiency standards, the standards must be structured to recognize and allow for the installation of a General Electric LM6000 turbine. This turbine model reflects attainable efficiencies for an operation requiring 50 MW turbines.

Response: *The proposed lbs/MW-hr emission rates are based on a combination of turbine efficiency and low emissions for the cleanest units. Staff believes the proposed emission rates should be based on the cleanest units and that these proposed emission rates are appropriate for all EGFs for the purposes of access to the Priority Reserve.*

Comment: PM10 emission rate is not an appropriate indicator of turbine efficiency. PM10 efficiency standards should be deleted because PM10 test results vary widely and are due to factors other than turbine efficiency.

Response: *In consideration of the health impacts of PM10, staff believes a PM10 emission rate is appropriate for the purposes of access to the Priority Reserve. This emission rate was based on lowest emissions for turbines and, therefore, staff believes that it is appropriate for EGFs wishing to access the Priority Reserve.*

Comment: Requiring inland municipal power producers to pay a higher mitigation fee than producers in the western region would pay poses a significant inequity.

Response: *A significant portion of the PM10 and PM2.5 emissions from EGFs are directly emitted and impact the area near the source. While the District recognizes the migratory nature of primary particulates and secondary-reaction formed pollutants from the western portion of the District to the eastern part, the tiered fee structure is intended to discourage future power plants to locate in areas where the public is exposed to the highest levels of particulate pollutants. More importantly, since all mitigation fees will be used for air pollution improvement programs near the area of the EGF source, the public in Zone2 or 3 will receive the benefit of additional funding for air quality improvement programs as a result of EGFs locating in those zones rather than Zone 1. Also, after taking into consideration the arguments made against the tiered mitigation fee structure, staff has developed an alternative proposal included here as Option 2 that establishes a uniform mitigation fee structure across the Basin.*

Comment: The District should create an "ownership plan" to allow municipal utilities to administer and expend its mitigation fees within the community that are the receptors of pollutants that are not from local sources.

Response: *Please see response above to a related and similar comment.*

Comment: Please clarify if the cancer risk limit, non-cancer risk limit, cancer burden, and PM10 and NOx emissions rates are intended to apply to all emitted equipment, permitted and exempt, at the facility?

Response: *The cumulative cancer and non-cancer risk limits and cancer burden impacts as required for proposed equipment in Zones 2, 3, and EJ Areas shall apply only to proposed electrical generating equipment requiring permits at the facility. It does not apply to existing permitted equipment, Rule 219 exempt equipment, nor new non-electric producing equipment. The PM10 and NOx emission rates in lb/MW-hr apply on an individual permit unit level for electric generating units. The modeled emission impacts apply to all new or modified electrical generating units at the facility taken together.*

Comment: At what conditions will compliance with the PM10 and NOx emission rates be evaluated? Output of the plants will vary depending on factors such as ambient temperature and relative humidity.

Response: *The emission rates as specified in the rule are intended to be under ISO conditions. Compliance with the PM10 and NOx emission rates shall be demonstrated through an approved source test taken at actual operating*

conditions. The actual operating conditions will then be converted to ISO conditions of 59 degrees Fahrenheit, 60% relative humidity, and 14.7 psia; and using gross MW output.

Comment: Are the PM10 and NOx emissions rates based on net output or gross output?

Response: The PM10 and NOx emissions rates are based on gross output.

Comment: Is the hourly limit on mass emissions of PM10 intended to apply to all equipment, permitted and exempt at the facility, or only to electrical generating units?

Response: For new EGFs with a generation capacity of greater than 500 MW and located in Zone 3 or in an EJ Area, the cumulative hourly limit based on mass emissions of PM10 shall apply only to proposed electrical generating equipment requiring permits at the facility. It shall not apply to existing permitted equipment, Rule 219 exempt equipment, or new non-electric producing equipment.

Comment: Are the limitations on 24-hour and annual modeled PM10 impacts based on emissions from all equipment, permitted and exempt at the facility, or only to electrical generating units?

Response: The cumulative PM10 24-hr and annual impacts as required under Zones 2, 3, and the EJ Areas shall apply only to proposed electrical generating equipment requiring permits at the facility, but they apply to all new or modified equipment. It does not apply to existing permitted equipment, Rule 219 exempt equipment, or new non-electric producing equipment.

Comment: What is the rounding convention that will be applied to the proposed standards? For example, if the standard is 0.050, will a level of 0.0503 be deemed compliant?

Response: ~~There is no rounding convention. For example, for Zone 3, the rule requires the rate of NOx emissions does not exceed 0.050 lbs/MW-hr. Any emission level above this, such as 0.0503, would not be in compliance.~~ Staff has reviewed the rounding convention used in other District rules, other air quality data and standards and the rounding convention used by other public agencies for similar standards. Staff proposes to use that same rounding convention for the purposes of the standards in paragraph (b)(5). The values to be rounded up or down using the digit just beyond the given number of decimal places of the standard according to the standard rounding conventions that values below 5 round down, while those that are equal to or greater than 5 round up. For example, for the standard of 0.050, the value of 0.0504999 or less rounds to 0.050 and would comply.

However, a value of 0.0505000 or greater rounds to 0.051 and would not comply with a 0.050 standard.

Comment: Rule 1309.1 allows the development of fossil fuel power plants in the South Coast Air Basin that would not otherwise be built.

Response: *In 2005, despite new EGF projects, California once again experienced some Stage 2 shortages (power reserves down to 5%) and the outlook for the foreseeable future is that demand for electrical power will continue to increase. The increase in demand is due to several factors including increased consumption and retirement of older EGFs. There are also limits on the amount of electrical power that can be imported into the southern California region from northern California and Arizona due to bottlenecks in transmission lines. New EGFs are needed in the local region. The proposed amendments once again provide new EGFs access to the Priority Reserve where these proposed projects either do not have or can not secure the needed offsets on the open market. The District is charged with providing cleaner air and reducing emissions in the South Coast Air Basin. Proposed Amended Rule (PAR) 1309.1 is crafted to strike a balance between the energy and economic needs of the region and the health impacts due to the emissions from the EGFs. Staff crafted the proposed amendments that incorporate community, regulatory, and industry concerns. Based on the Governing Board's direction, staff established criteria to address and mitigate localized impacts from EGFs, particularly in those areas in the AQMD that are heavily polluted or are located in EJ areas. The proposal utilizes environmental justice criteria developed by AQMD, pursuant to California Health & Safety Code 43023.5 to determine those areas already disproportionately impacted by pollution, as requested by the communities impacted by the proposed EGFs. Those projects in less impacted areas, such as Zone 2, are subject to more stringent toxic standards than Zone 1, the least polluted area, and under Option 1 are required to pay higher mitigation fees. Under the same option, EGFs located in Zone 3 or in the EJ Area would be subject to significantly higher mitigation fees than in Zone 2. In response to arguments made by industry representatives and municipal utilities, staff has developed an alternative proposal included here as Option 2 that establishes a uniform mitigation fee structure across the Basin. However, prospective EGFs will be subject to the same emission limitations included in Option 1. ~~All the mitigation~~ Mitigation fees ~~will~~ are likely to be used to fund air quality projects in the area impacted by the EGF project. In an effort to further mitigate any potential localized and regional air quality impacts of the proposed EGFs, staff is making the following recommendations to the Governing Board as part of the adoption resolution:*

- ~~*Invest mitigation fees in and around the communities most impacted by the proposed project*~~
- ~~*Invest at a minimum one-third of the mitigation fees in renewable energy projects*~~
- *Set aside $4,000,000 to identify and pilot the most advanced PM2.5 add-on control technologies that would further reduce PM2.5 emissions from EGFs*
- *Set aside $1,000,000 from the mitigation fees collected to conduct a comprehensive energy resource planning analysis for the next ~~10~~ 20 years and identify avenues to maximize renewable energy production in the Basin~~.~~*
- *Set aside $10,000,000 for research into health-effects of PM2.5 exposure.*

Staff will be committing to prepare a plan by September 2007 for Governing Board's approval to disburse the balance of the mitigation fees collected that will also include investments in renewal energy projects.

Finally, the air quality objective of the proposed amendments to Rule 1309.1 is to ensure emission credits are available to offset the emissions from energy related projects as required by Regulation XIII, thus reducing the potential for operation of higher-polluting diesel backup generators during a power emergency.

Comment: Alternatives to fossil fuel power plants are available and must be considered.

Response: *Language has been included that requires an In-District EGF, as a condition of accessing the Priority Reserve, to demonstrate low or no-emission renewable or alternative energy sources are not a viable option in lieu of a natural gas-fired EGF at the proposed site. District staff recognizes that there are renewable/alternative energy sources available, but the cost to install and operate and the ancillary issues associated with alternative/renewable sources results in them not currently being acceptable as a direct substitute for all fossil fuel power plants. Some of these specific issues were pointed out during the public input process from a staff briefing by Southern California Edison on their experiences implementing the California Renewables Portfolio Standard (RPS) required by state law. PAR 1309.1 has been crafted to strike a balance between the energy and economic needs of the region and the health impacts due to the emissions from the EGFs. In an effort to further promote the feasibility of alternative/renewable energy instead of fossil fuel, District staff, as stated above is recommending to the Governing Board to ~~invest at a minimum~~*

~~*one-third of the mitigation fees in renewable energy projects,*~~ *set aside $4,000,000 to identify and pilot the most advanced PM2.5 add-on control technologies that would further reduce PM2.5 emissions from EGFs, and also set aside $1,000,000 from the mitigation fees collected to conduct a comprehensive energy resource planning analysis for the next ~~10~~ 20 years and identify avenues to maximize renewable energy production in the Basin.*

Comment: PAR 1309.1 should be modified to allow EGFs located downwind of the District to obtain NOx offsets from the Priority Reserve in addition to any other offsets that may be available to such projects from the Priority Reserve.

Response: *The rule was constructed to provide credits for pollutants other than NOx. Projects located in the South Coast Air Basin are required to participate in the RECLAIM program for NOx. Projects outside the South Coast Air Basin, but inside the District, have the opportunity to opt in the RECLAIM program for NOx. Staff's proposal is to place all utility projects requiring NOx offsets within the context of the RECLAIM program.*

Comment: District staff is proposing a rule change that would drastically increase the amount of particulate matter and other air pollution in the South Coast Air Basin.

Response: *Installation of additional generating capacity (with current BACT) will greatly reduce the use of much higher emitting emergency diesel generators due to black outs brought on by insufficient generating capacity. Black outs also have the potential for adverse health effects for the most vulnerable members of the population.*

Comment: With Rules 1315 and 1309.1, the District will almost triple the number of active emission reduction credits in the basin for CO, PM10, and SOx.

Response: *Rule 1315 does not generate new credits. It was developed at the request of and with the approval of the U.S. EPA to formalize the AQMD's accounting methodology in tracking debits and credits to its offset accounts as required by U.S. EPA to establish that sufficient offsets are provided for all major sources pursuant to the federal Clean Air Act. Proposed Re-adopted Rule 1315 does not change what is creditable, only the practice of what is actually tracked and quantified. PRR 1315 reduces the District's 2002 CO, PM10, and NOx balances (the most recent data available for comparison) by 67.5%, 81.4%, and 42.9%, respectively. In addition, making valid offsets*

available to additional sources does not equate to tripling the number of active ERCs in the basin. Active ERCs are privately held emission reduction credits, and have nothing to do with valid offsets realized by EPA approved source of credits. With respect to Rule 1309.1, EPA has published in the Federal Register their final decision to approve the District's request to re-designate the South Coast Air Basin from non-attainment to attainment for CO, effective June 11, 2007. Therefore, CO offsets are effectively no longer required. Based on the emissions data of the proposed EGFs, attainment status would reduce the need for approximately 6000 lbs/day of CO credits.

Comment: According to the data available, Rule 1315 generates credits from payback of offset debt.

Response: *Credits from Payback of Offset Debts existed under the previous accounting system. At the request and by the approval of U.S. EPA, the accounting method for offsets credits was formalized in the form of Rule 1315. After months of discussions and over 6000 person-hours, all issues and questions of U.S. EPA regarding AQMD's NSR offset tracking were addressed in the current version of Rule 1315 that was adopted on September 8, 2006 and forwarded to the California Air Resources Board (CARB) to be ultimately forwarded to U.S. EPA for inclusion in the State Implementation Plan (SIP).*

Comment: Credits have improperly been taken for surplus reductions created from offsets provided by minor sources and from the 20 % additional SOx, CO, and PM10 offsets provided by federal major sources at a ratio of 1.2 to 1.0 compared to 1.0 to 1.0 ratio.

Response: *These excess credits provided by facilities are not federally required. Therefore, it is appropriate to use them to demonstrate programmatic equivalence.*

Comment: Credits cannot be verified as being real, permanent, enforceable, or quantifiable therefore not meeting the definition of a creditable offset.

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Response: *All credits currently in our balance can be and are verified as real, permanent, enforceable, and quantifiable.*

FIGURE 1
Three – Year Average (2003 – 2005) PM2.5 Concentration Zones in SCAQMD

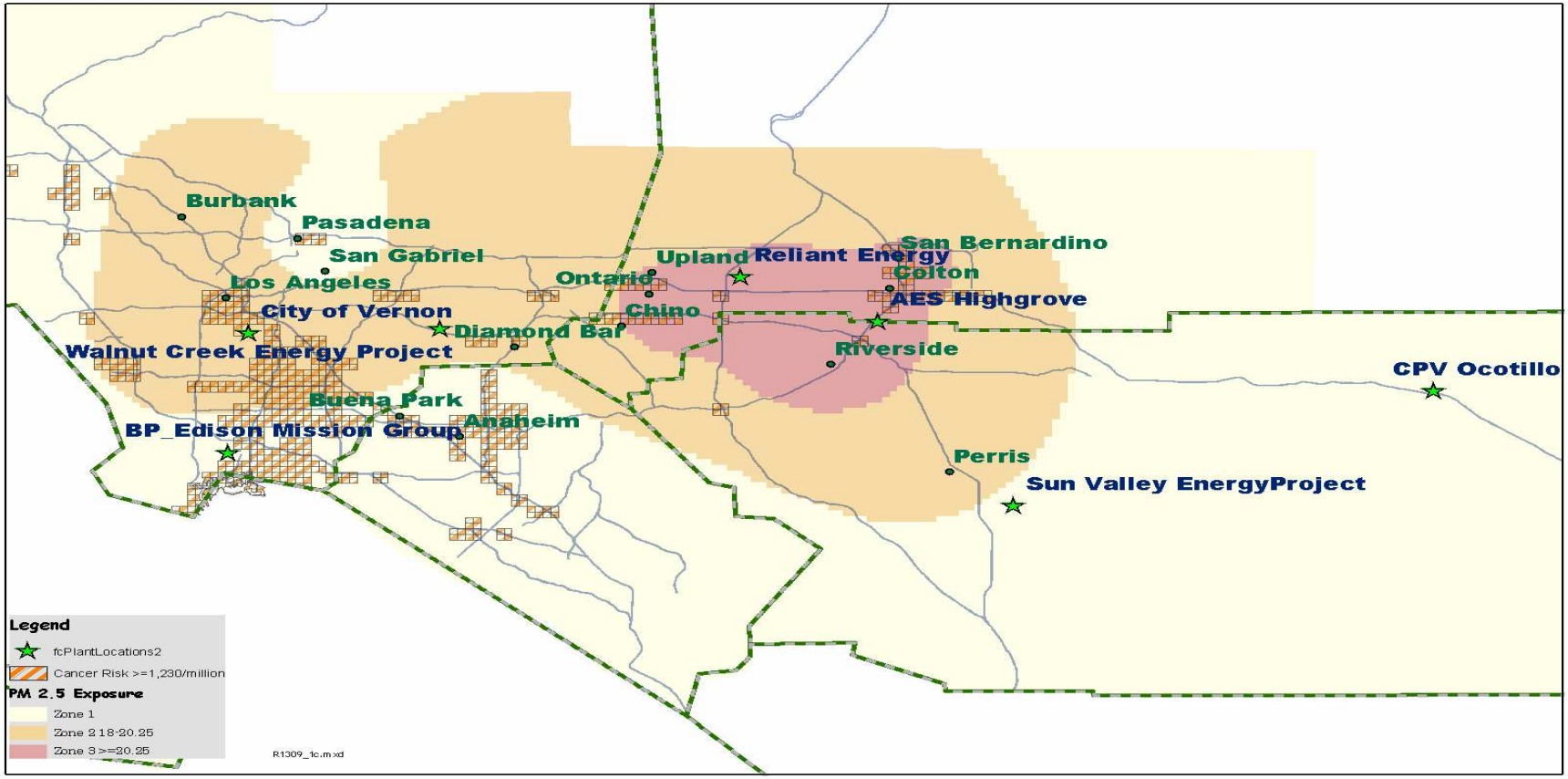


FIGURE 2
Environmental Justice Areas in the SCAQMD

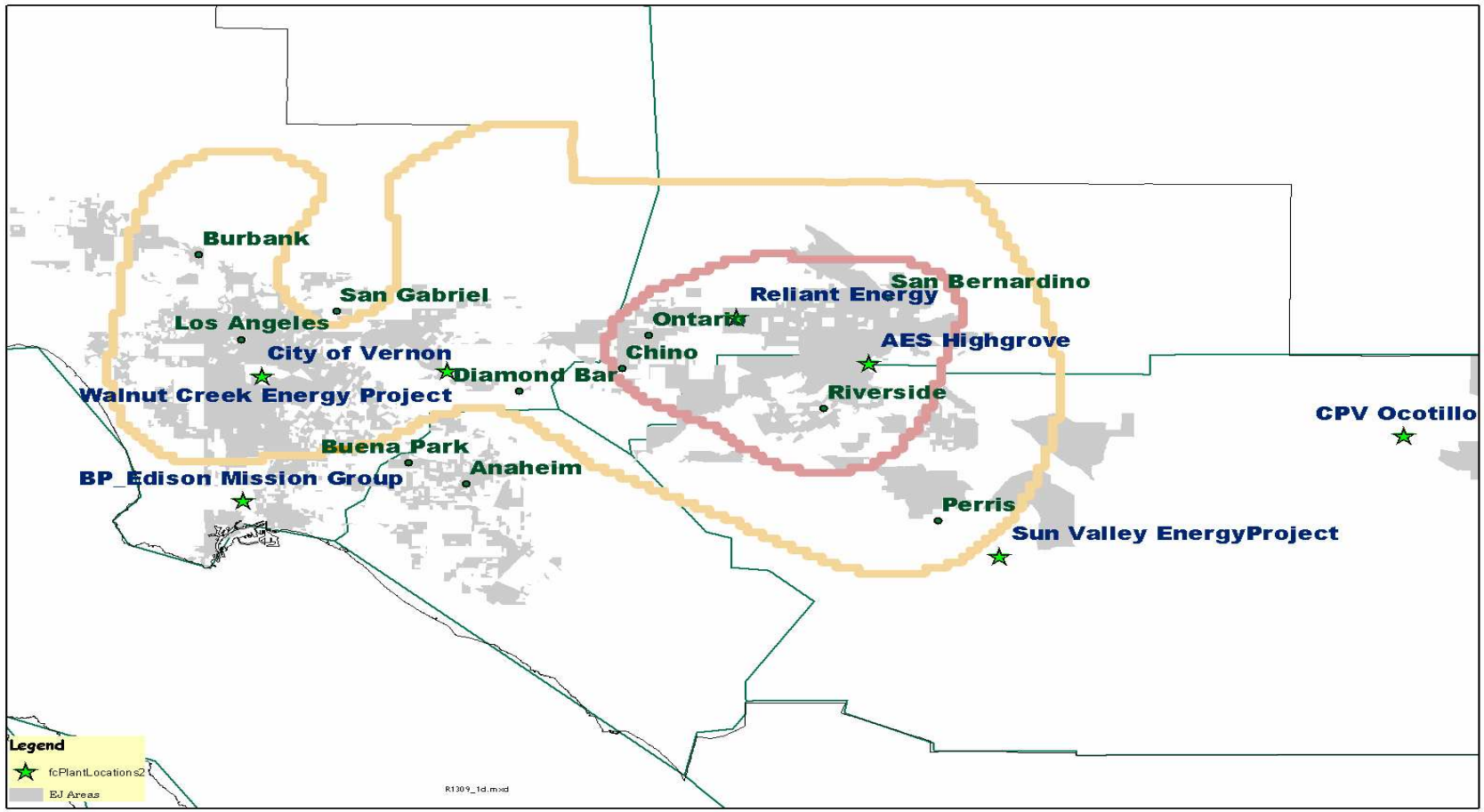


FIGURE 3
City of Vernon Power Project – Annual Average PM10 Concentration

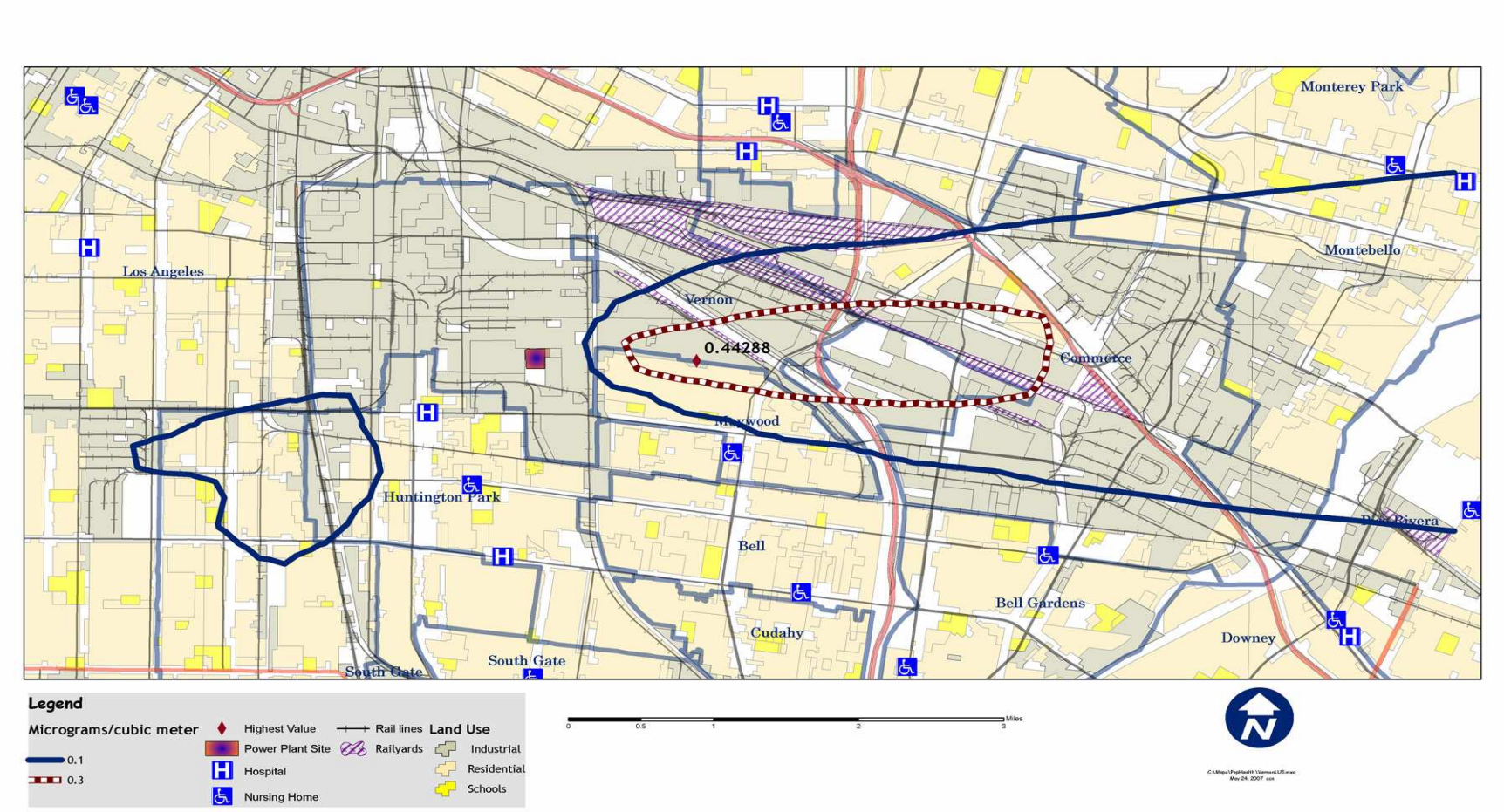
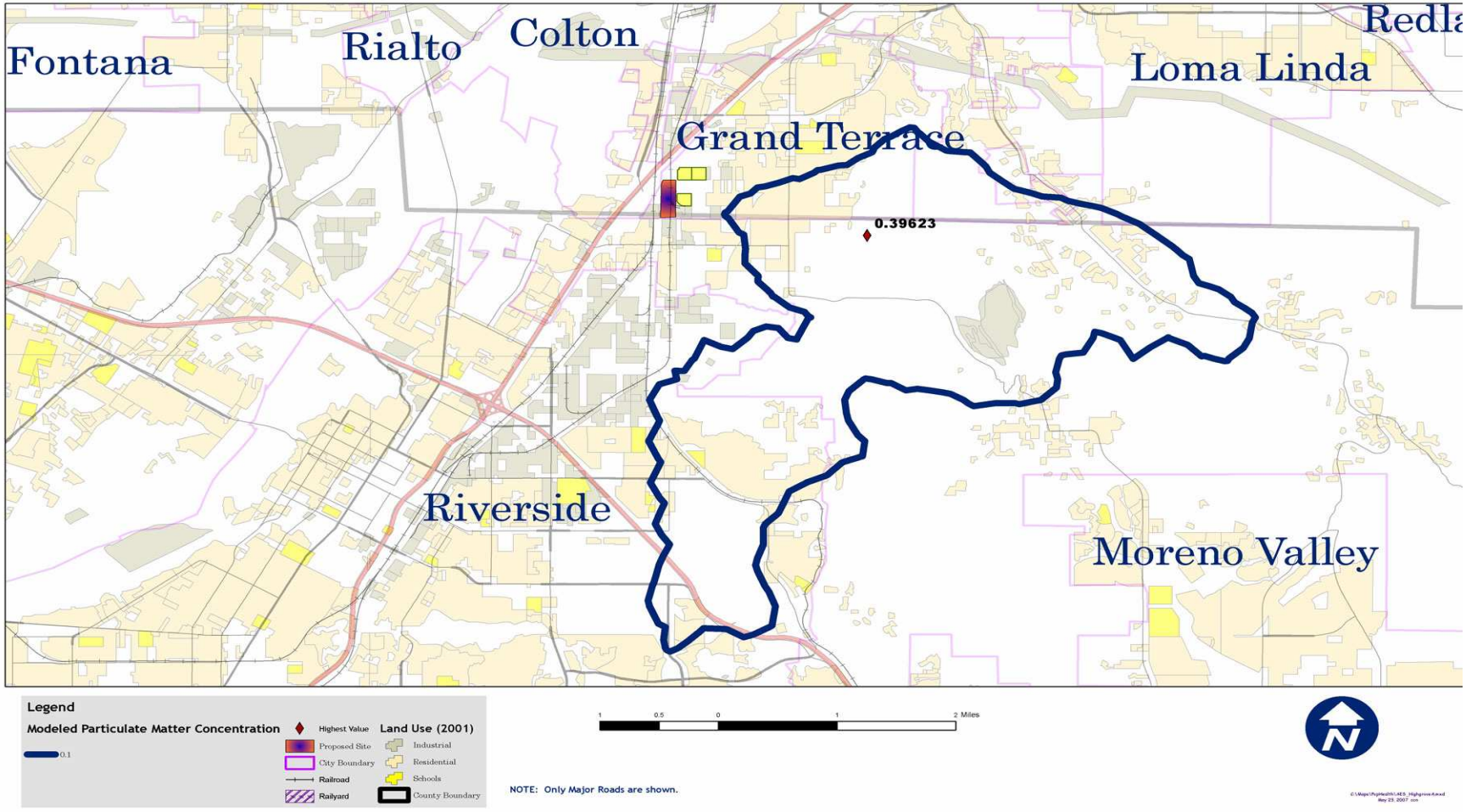


FIGURE 4
AES Highgrove Power Project - Annual Average PM10 Concentration



ATTACHMENT 1

GUIDANCE DOCUMENT FOR RULE 1309.1
PM2.5 CONCENTRATION ZONE DETERMINATIONS

GUIDANCE DOCUMENT FOR RULE 1309.1

PM2.5 Concentration Zone Determinations

Introduction:

South Coast Air Quality Management District (AQMD) staff proposed and the AQMD Governing Board adopted amendments on September 8, 2006 to provide a limited time window for Electrical Generating Facilities (EGFs) to utilize credits from the Priority Reserve, provided they demonstrate that the required offsets are not reasonably available in the open market and meet other eligibility criteria and requirements. In adopting the amendments to Rule 1309.1, the Board directed staff to develop additional requirements for EGF projects proposing to locate in the more polluted areas within the District. In response to the Board directive, staff has developed additional criteria for those EGF projects seeking to purchase credits from the Priority Reserve and proposing to locate in more polluted areas.

For the purpose of Rule 1309.1, AQMD is subdivided into three geographic areas (zones) based on PM2.5 exposure levels. Specifically, Zone 1, 2, and 3 are defined as the areas with an average ambient PM2.5 concentration for years 2003 through 2005 of less than 18 $\mu g/m^3$, between 18 and 20 $\mu g/m^3$; and more than 20 $\mu g/m^3$, respectively. Particulates and oxides of Nitrogen (NOx) are the two most important pollutants released by EGFs. Most of the particulates released from EGFs are expected to be in the fine particulate (PM2.5) fraction with regional and localized impacts. NOx emissions released from EGFs disperse regionally contributing to the formation of ozone downwind. Exposure to higher concentrations of PM2.5 is associated with adverse health impacts that are a lot more serious compared to the health impacts from NOx and other pollutants released by the power plants. Furthermore, the vast majority of the South Coast Basin is in non-attainment with the federal and state PM2.5 standards and the attainment date for the federal annual average standard is just a few years away (2014-2015). For the reasons described above, the PM2.5 exposure level is used as the key criterion to subdivide the District into three geographic zones and establish additional criteria and incentives to locate EGFs in less polluted areas in an effort to minimize public exposure and associated health impacts. The section below details the procedure followed in establishing these concentration zones.

Process:

1. Data:
   The data for this analysis is derived from data collected at AQMD monitoring stations for the years 2003-2005 and from selected stations of the California Air Resources Board (CARB) located outside the AQMD's boundary. Four other locations, San Nicholas Island, off San Clemente Island, Mojave Desert and upper San Bernardino County were added. Values for those locations were determined by AQMD modeling staff.
   In addition, several datasets were used in the analysis. They included an AQMD boundary shapefile and a polygon one kilometer grid file. Metadata for all data and map shape files is attached.
2. A point data file, consisting of the station data was created for the data.

3. Using the Geostatistical Analyst extension for ArcGIS, a surface layer was interpolated. This process uses the Inverse Distance Weighting modeling method (see modeling method properties). The model determined the grid size for the output and the resultant layer was classified smart quantiles with 10 classes. The surface layer was saved as a Geostatistical Analyst layer file.
4. Using the Prediction Tool of Geostatistical Analyst a value was predicted for each polygon in the grid file.
5. The grid file was then clipped to the AQMD boundary file and symbolized using three classes.

Dataset Metadata files:

- fcMasterStationList_Data
  a personal Geodatabase Feature Class. fcMasterStationList_Metadata.htm
- Xin1kUTM27.shp
  a shapefile; Xin1kUTM27_Metadata.htm
- PM25ik.shp
  a shapefile combining the polygon grid and predicted PM 2.5 values from the surface layer. pm251k_metadata.htm

Method Properties for Creation of Analysis Surface

Selected Method: Inverse Distance Weighting

Method Parameter(s):

Power: 2

Searching Neighborhood:

Neighbors to Include: 29 (include at least 29)

Searching Ellipse:

Angle: 0

Major Semiaxis: 1.0128

Minor Semiaxis: 1.0128

Sector Mode: 0

ATTACHMENT 2
FINAL STAFF REPORT
PROPOSED AMENDED RULE 1302 – DEFINITIONS, AND
PROPOSED AMENDED RULE 1309.1 – PRIORITY RESERVE
SEPTEMBER 8, 2006

NOTE

THE ATTACHED STAFF REPORT IS PART OF THE BOARD PACKAGE SUBMITTED WITH THE SEPTEMBER 8, 2006 PROPOSED AMENDMENTS TO RULE 1309.1 WHICH IS BEING REPLACED BY THE JULY 13, 2007 VERSION. HOWEVER, THE ATTACHED STAFF REPORT INCLUDES RELEVANT INFORMATION CONCERNING THOSE PORTIONS OF THE SEPTEMBER 8TH AMENDMENTS THAT ARE BEING READOPTED AND IS THUS INCLUDED IN THE INFORMATION SUPPORTING THE JULY 13, 2007 AMENDMENTS.