Final Environmental Impact Report for the Proposed Amendments to Bay Area Air Quality Management District NSR and Title V Permitting Regulations

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FINAL ENVIRONMENT IMPACT REPORT

PROPOSED AMEDMENT TO BAY AREA AIR QUALITY MANAGEMENT DISTRICT NSR AND TITLE V PERMITTING REGULATIONS

PREFACE

This document constitutes the Final Environmental Impact Report (EIR) for the Proposed Amendments to the Bay Area Air Quality Management District NSR and Title V Permitting Regulations. A Draft EIR was circulated for a 45-day public review and comment period on from September 7, 2012 to October 22, 2012. No comments were received during the public comment period on the Draft EIR. The Bay Area Air Quality Management District has therefore finalized the EIR for this project as set forth in this document based on the Draft EIR. Minor changes have been incorporated to reflect that the document is now a Final EIR.

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1.0 INTRODUCTION

The Bay Area Air Quality Management District (BAAQMD or District) was established in 1955 by the California Legislature to control air pollution in the counties around San Francisco Bay and to attain federal air quality standards by the dates specified in federal law. The BAAQMD is also required to meet state standards by the earliest date achievable. There have been significant improvements in air quality in the Bay Area over the last several decades.

The District is considering proposed amendments to update its New Source Review (NSR) and Title V permitting regulations to address a number of recent regulatory developments, including new requirements by U.S. Environmental Protection Agency (EPA) for permitting of particulate matter less than 2.5 micrometers in diameter ($PM_{2.5}$), new EPA requirements for permitting Greenhouse Gases (GHGs), and other requirements for EPA approval of the District's permitting programs. The proposed amendments also include other miscellaneous revisions to strengthen and enhance the regulations.

The BAAQMD regulations that would be affected are in District Regulation 2, Rules 1, 2, 4 and 6. The text of the proposed amendments to these permitting regulations is set forth in drafts of the proposed amendments in Appendix B.

The major rule amendments being proposed include the following:

- Expanding NSR and $PM_{2.5}$ permitting requirements to encompass $PM_{2.5}$ emissions;
- Ensuring that the District's NSR and Title V permitting requirements adequately encompass GHG emissions;
- Adopting and/or amending regulatory provisions for a District "Prevention of Significant Deterioration" program (an important sub-element of NSR permitting) for EPA approval;
- Revising the District's existing NSR applicability test in the definition of "modified source" to address a change in EPA policy regarding this definition;
- Expanding the requirements for NSR permit applicants to demonstrate that they will not cause or contribute to an exceedance of a National Ambient Air Quality Standard;
- Expanding public noticing requirements and public participation opportunities for NSR permitting;
- Reorganizing and clarifying the NSR and Title V permitting regulations so that they are easier to understand and implement; and

- Making certain other miscellaneous revisions to strengthen the regulations and address deficiencies that have been identified since the last time these programs were updated.

1.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT

The California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq., requires that the potential environmental impacts of proposed projects be evaluated to determine whether they will have any significant adverse environmental impacts. Where a project will result in such significant adverse environmental impacts, CEQA requires that feasible mitigation measures be identified and implemented to reduce such impacts to a level that is not significant and that alternatives be considered to avoid or substantially lessen any significant impacts.

To fulfill the purpose and intent of CEQA, the BAAQMD has prepared this Environmental Impact Report (EIR) to address the potential environmental impacts associated with the proposed amendments to the NSR and Title V permitting regulations. Prior to making a decision on the adoption of the proposed rule amendments, the BAAQMD Governing Board must review and certify the EIR as providing adequate information on the potential adverse environmental impacts of implementing the proposed amendments.

1.2 NOTICE OF PREPARATION AND INITIAL STUDY

A Notice of Preparation and Initial Study (NOP/IS) for the proposed amendments to NSR and Title V permitting regulations (included as Appendix A of this EIR) were distributed to responsible agencies and interested parties for a 30-day review on June 12, 2012. A copy of the NOP/IS was received by the State Clearinghouse on June 13, 2011. A notice of the availability of this document was distributed to other agencies and organizations and was placed on the BAAQMD's web site, and was also published in newspapers throughout the area of the BAAQMD's jurisdiction. The comment period was open until July 16, 2012. No comment letters were received on the NOP/IS.

The NOP/IS identified the following environmental resources as being potentially significant, requiring further analysis in the EIR: air quality and greenhouse gas emissions. The following environmental resources were considered to be less than significant in the NOP/IS: aesthetics, agricultural and forest resources, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, and utilities service systems (see Appendix A).

1.3 TYPE OF EIR

In accordance with § 15121(a) of the State CEQA Guidelines (California Administrative Code, Title 14, Division 6, Chapter 3), the purpose of an EIR is to serve as an

informational document that: "will inform public agency decision-makers and the public generally of the significant environmental effect of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project."

The EIR is an informational document for use by decision-makers, public agencies and the general public. The proposed project requires discretionary approval and, therefore, it is subject to the requirements of CEQA.

1.4 INTENDED USES OF THIS DOCUMENT

In general, a CEQA document is an informational document that informs a public agency's decision-makers, and the public generally, of the potential for significant adverse environmental effects of a project. Where a project will result in significant adverse environmental impacts, the CEQA document also identifies possible ways to avoid or minimize the significant effects, and describes reasonable alternatives to the project (CEQA Guidelines §15121). A public agency's decision-makers must consider the information in a CEQA document prior to making a decision on the project. Accordingly, this EIR is intended to: (a) provide the BAAQMD Governing Board and the public with information on the environmental effects of the proposed amendments; and, (b) be used as a tool by the BAAQMD Governing Board to facilitate decision making on the proposed amendments.

Additionally, CEQA Guidelines §15124(d)(1) require a public agency to identify the following specific types of intended uses of a CEQA document:

1. A list of the agencies that are expected to use the EIR in their decision-making;

2. A list of permits and other approvals required to implement the project; and

3. A list of related environmental review and consultation requirements required by federal, state, or local laws, regulations, or policies.

The District is the only agency that will be making permitting decisions using the NSR and Title V rules that are the subject of the proposed amendments. Other governmental agencies may have decisions that tangentially implicate these programs (for example, decisions on how a governmental agency will construct or use some piece of equipment that emits air pollution subject to the programs' permitting requirements). But there are no other agencies that will be making any discretionary decision subject to CEQA that will rely on this EIR to evaluate the potential environmental impacts of such a decision.

The proposed rule amendments require approval by the District's Board of Directors, and do not require any other approvals as a legal matter. The District's NSR and Title V programs will be reviewed by the California Air Resources Board (ARB) and by EPA to ensure that they adequately contain all required elements that must be in these programs under state and federal law, and these agencies have the power to demand that the District

adopt additional requirements to the extent that the District's programs are deficient in some way. Review by these agencies is therefore very important for the District's programs and the District will be circulating this EIR to those agencies for review and comment. Technically, however, those agencies do not need to grant the District's Board of Directors any permit or authorization to adopt regulations, however. Similarly, there are no other formal environmental review and consultation requirements that must be satisfied before the Board of Directors can adopt the proposed amendments, although ARB and EPA will obviously be reviewing the proposed amendments after they are adopted as explained above.

1.5 AREAS OF CONTROVERSY

In accordance to CEQA Guidelines §15123(b)(2), the areas of controversy known to the lead agency including issues raised by agencies and the public shall be identified in the EIR. "Controversy" is defined as a difference in opinion or a dispute. After public notification and review of the NOP/IS, the BAAQMD received no comment letters on the NOP/IS. Several commenters submitted comments on draft rule language that was circulated during the rule development process, however, some of which made comments related to CEQA. These comments were summarized in the NOP/IS. The primary comments concerned: (i) the potential for adverse impacts associated with implementing a $PM_{2.5}$ offsets requirement with a provision allowing the use of "banked" emission reduction credits to comply with it; and (ii) the potential for adverse impacts associated with adopting District PSD permitting requirements without using the less-stringent applicability test adopted by EPA known as "NSR Reform". The EIR has considered all such issues, as explained in detail in Chapter 3 and Chapter 4. After public notification and review of the Draft EIR, the BAAQMD received no comment letters on the Draft EIR. The District has not received any comments indicating that any of the conclusions reached in this EIR are the subject of controversy.

1.6 PROJECT OBJECTIVES

The objective of these rule amendments is for the District (i) to incorporate current federal NSR and Title V permitting requirements into its permitting programs in Regulation 2 so that EPA can approve the programs and allow the District to implement them under the Clean Air Act; (ii) to ensure that the District's permitting programs comply with all applicable requirements of state law; (iii) to ensure that the District's NSR and Title V permitting programs are implemented as efficiently and effectively as possible; and (iv) to ensure that the District's NSR and Title V permitting regulations are drafted and presented in a manner that is clear and easy to understand and implement. In updating the District's permitting program in keeping with these objectives, the proposed amendments will help further the Air District's overall goals of attaining and maintaining ambient air quality standards in the San Francisco Bay Area, ensuring clean air, and protecting the public health and welfare.

1.7 DOCUMENT FORMAT

State CEQA Guidelines outline the information required in an EIR, but allow the format of the document to vary [CEQA Guidelines §15120(a)]. The information in the EIR complies with CEQA Guidelines §15122 through §15131 and consists of the following:

Chapter 1: Introduction
Chapter 2: Project Description
Chapter 3: Environmental Setting, Impacts, Mitigation Measures, and Cumulative Impacts
Chapter 4: Alternatives
Chapter 5: References
Appendix A: Notice of Preparation/Initial Study
Appendix B: Proposed Rule Amendments

1.8 EXECUTIVE SUMMARY OF FINAL EIR

1.8.1 EXECUTIVE SUMMARY – CHAPTER 2: PROJECT DESCRIPTION

1.8.1.1 Introduction

The District is considering the proposed amendments to update its NSR and Title V permitting regulations to address particulate matter less than 2.5 micrometers in diameter ($PM_{2.5}$), new EPA requirements for permitting Greenhouse Gases (GHGs), additional requirements for EPA approval of the District's permitting programs, and other miscellaneous changes to strengthen and enhance the regulations. The BAAQMD regulations that would be affected are in District Regulation 2, Rules 1, 2, 4 and 6.

1.8.1.2 Background and Project Description

The District is proposing a number of revisions to Regulation 2, the details of which are summarized in this subsection.

1.8.1.2.1 "New Source Review" and Title V Permitting

The proposed amendments update the District's regulations that implement two important Clean Air Act permitting programs, NSR and Title V.

New Source Review

NSR is a pre-construction permitting review requirement that ensures that when a new source of air pollution is built, or when an existing source of air pollution is modified, the project will implement and comply with all current regulatory standards governing air emissions. NSR applies to "major" facilities – facilities with emissions over 100 or 250 tons per year (depending on the source category) – and it requires new and modified sources at such facilities to obtain an NSR permit where the new source or modification will result in a "significant" increase in emissions of air pollutants. This "significant"

increase threshold varies by pollutant, but it is generally between 10 tons per year and 100 tons per year.

For *non-attainment pollutants* (pollutants for which the region is not in attainment of the National Ambient Air Quality Standards (NAAQS)), the NSR requirements are more stringent. This element of NSR permitting is called "Non-Attainment NSR", and the principal requirements are the following:

- Best Available Control Technology: Non-Attainment NSR requires that new and modified sources use Best Available Control Technology or BACT to control emissions. BACT is the most effective type of control technology that is technically feasible for the source to implement.

- Emission Offsets: Non-Attainment NSR also requires that new and modified sources obtain emission reductions from existing sources to counter any new emission increases.

- Compliance Certification: Non-Attainment NSR requires that the permit applicant for a new or modified source must certify that all of the facilities that it owns in California are in compliance with applicable air quality regulatory requirements.

- Alternatives Analysis: Non-Attainment NSR requires that the applicant must demonstrate that the benefits of the proposed new or modified source outweigh any environmental or social costs.

- Public Notice and Comment Opportunity: Non-Attainment NSR requires public notification before any permit is issues or modified.

For *attainment pollutants* (pollutants for which the region is in attainment of the NAAQS), the NSR permitting requirements are somewhat less stringent. This element of NSR permitting for attainment pollutants is called "Prevention of Significant Deterioration", or "PSD". The principal elements of PSD permitting are the following:

- PSD Best Available Control Technology: PSD also requires BACT, although in a slightly less stringent manner than Non-Attainment NSR.

- Air Quality Impact Analysis (and related analyses): PSD does not require "offsets" for new emissions increases. Instead, PSD requires an analysis of the impacts that the emission increases will have to ensure that they will not cause or contribute to an exceedance of the NAAQS. PSD also requires an analysis of whether such increases will adversely affect visibility, soils or vegetation in the region; and any air-quality related values in areas of special environmental value such as National Parks (called "Class I Areas").

- Public Notice and Comment Opportunity: The public must be notified before any permit is issued for a new or modified source and must have an opportunity to provide input on the permitting decision.

These two sub-elements, "Non-Attainment NSR" for non-attainment pollutants and "PSD" for attainment (and unclassified) pollutants, are the primary provisions of the NSR program. California law imposes certain additional requirements for the District's NSR program, which include additional provisions for implementing the District's NSR program, including requirements for BACT and offsets at lower thresholds.

Title V

Title V permits are operating permits. Instead of applying at the pre-construction stage like NSR permits, the Title V permit requirement – also known as "Major Facility Review" – applies once a source is constructed and begins operating. Title V operating permit requirements also apply to "major" facilities, those with emissions of 100 tons per year or more.

Title V permits compile all substantive requirements in one single document covering the facility's operation, thus providing facility operators, District inspectors, interested members of the public, and others with a single location to readily access all of the applicable air quality requirements to which the facility is subject.

District Permit Programs Implementing Federal Clean Air Act Requirements

Both the NSR and Title V permitting programs have their genesis in the federal Clean Air Act. In the Clean Air Act, Congress established a requirement that every region of the country must have NSR and Title V permitting programs in place that satisfy the Act's minimum standards. The basic concept is that Congress established certain minimum requirements that need to be in place in every region throughout the county, and then looked to states (often through local or regional agencies such as the Air District) to adopt their own state-law programs that meet or exceed these federal minimum requirements. Where a state is unwilling or unable to do so, then the federal government, through EPA, steps in and implements its own federal program to ensure that the federal minimum requirements are met in all cases (and imposes sanctions on the non-complying state).

1.8.1.3 The District's Current New Source Review and Title V Programs

The District has adopted permitting programs to implement these federal NSR and Title V programs, with certain additional and more stringent provisions as required by California law and/or District regulations. With respect to NSR, the District has adopted Non-Attainment NSR permitting requirements in Regulation 2, Rule 2 (New Source Review) and related provisions.

The EPA has never approved the District's PSD program. Instead, EPA's federal PSD program governs PSD permitting for sources in the Bay Area. PSD permits issued under this program are federal permits issued through EPA's authority under the Clean Air Act, not District permits issued through the District's authority under the California Health & Safety Code.

With respect to Title V permitting, EPA has approved the District's Title V program. Title V permitting in the Bay Area is a District permitting program implemented through District Regulation 2, Rule 6.

1.8.1.4 Recent Regulatory Developments

There have been a number of recent regulatory developments regarding NSR and Title V permitting since the Air District last updated its programs. District staff has developed the proposed revisions to address these recent developments.

Bay Area Designated "Non-Attainment" of 24-Hour $PM_{2.5}$ NAAQS: EPA revised its National Ambient Air Quality Standards for particulate matter to include standards specific to both PM_{10} and $PM_{2.5}$. EPA has subsequently begun implementing its NAAQS for $PM_{2.5}$. Effective December 14, 2009, EPA designated the San Francisco Bay Area as non-attainment of the short-term (24-hour-average) $PM_{2.5}$ NAAQS. This means that EPA has made an administrative determination that the amount of $PM_{2.5}$ in the ambient air in the Bay Area exceeds EPA's federal health-based standard for $PM_{2.5}$, averaged over 24 hours. This "non-attainment" designation means that $PM_{2.5}$ emission sources in the Bay Area are now subject to Non-Attainment NSR requirements (i.e., BACT, offsets, a compliance certification and alternatives analysis, and public notice and comment) for that pollutant. To implement these requirements for the longer term under the District's NSR program, the District must update its NSR permitting regulations to add these requirements for sources that emit $PM_{2.5}$.

Federal Regulation of GHGs: EPA has also begun regulating GHG emissions from light duty cars and trucks. Although these requirements apply to mobile sources, they are the first time that EPA has imposed substantive emissions limitations on GHG emissions under the Clean Air Act. As a result of these regulations, GHGs are now "subject to regulation" under the NSR and Title V programs. Those programs require NSR and Title V permitting for major stationary sources for all pollutants that are "subject to regulation", which now includes GHGs. The District's permitting programs must now include GHGs to reflect this requirement.

Lack of PSD Program in the Bay Area: Since the District has never had an EPA-approved PSD program, EPA has been administering the PSD program itself under its federal regulations, with the District issuing PSD permits on EPA's behalf (for most sources) under a federal delegation agreement. A number of situations have arisen where slight differences between the District's permitting requirements and the federal PSD requirements have led to problems with PSD permitting that resulted in procedurally defective PSD permits. To avoid such problems, the District needs to have District PSD

permitting requirements approved by EPA so they can be effective under the Clean Air Act for PSD permitting in the Bay Area.

EPA-Identified Deficiencies in Current District NSR Provisions: EPA Region IX staff identified several deficiencies in the District's current regulations that need to be addressed. There are certain areas in which the District's NSR program does not fully satisfy EPA's current requirements for such programs, which need to be addressed in order for EPA to be able to continue to approve the District's program. If the District does not incorporate these federal requirements into its NSR program, then EPA will not be able to approve the District's program and will need to implement the requirements itself under its federal regulatory authority.

Additional Deficiencies and Clarifications: The Air District has identified areas in which the District's NSR and Title V programs should be amended in order to achieve the District's clean air goals. Further, the current NSR regulations are in some places difficult to understand and implement. District staff has realized that Regulation 2, Rule 2 (and certain other provisions) are in need of an overhaul to reorganize and clarify them.

1.8.1.5 Proposed Amendments to Regulation 2

The proposed amendments will affect the District's permitting rules in Regulation 2, and in particular the NSR regulations in Regulation 2, Rule 2 and the Title V regulations in Regulation 2, Rule 6. The proposed revisions to each of these Rules in Regulation 2 are set forth in draft revised regulations included as Appendix B of this EIR. A more detailed discussion of each specific change involved in the proposed amendments is provided in the Staff Report being issued in connection with this Final EIR.

Adding New NSR Permitting Requirements for $PM_{2.5}$: The proposed amendments will add Non-Attainment NSR permitting requirements for $PM_{2.5}$ to Regulation 2, Rule 2, including: (i) a BACT requirement for $PM_{2.5}$; (ii) $PM_{2.5}$ offsets requirements; (iii) a compliance certification requirement; (iv) an alternatives analysis requirement; and (v) a public notice and comment requirement. The proposed amendments also include revisions to the District's emissions offsets banking regulation to ensure that the banking provisions will address $PM_{2.5}$.

The proposed amendments also specify that $PM_{2.5}$ and PM_{10} must be addressed taking into account both the filterable and condensable portion of the particulate matter emissions. They add a new definition for $PM_{2.5}$, and revise the existing definition of PM_{10}, to specify that the condensable portion must be included.

Adding NSR and Title V permitting requirements for GHGs: For Title V, adding GHGs is primarily a matter of adding GHGs to the list of regulated air pollutants. For NSR, GHGs are regulated under the PSD element of the NSR program because they are not "non-attainment" pollutants. GHG emission sources in the Bay Area are currently regulated under the federal PSD program; the proposed amendments will shift PSD regulation for federal purposes to an EPA-approved District program.

Adopting a PSD Permitting Program for Approval by EPA: The proposed amendments add provisions to create a PSD permitting program that can be approved by EPA under the Clean Air Act. The primary PSD provisions include (i) a new term "PSD Project"; (ii) a PSD BACT requirement; (iii) a PSD air quality impact analysis requirement; (iv) a PSD additional impacts analysis requirement; (v) a Class I Area impact analysis; and (vi) a public notice and comment requirement. These provisions will apply to major emitters of all PSD pollutants, which include GHGs as noted above. The proposed amendments will shift federal PSD permitting under the Clean Air Act to the District's program under Regulation 2, Rule 2.

Revising the Applicability Test for NSR Permitting for "Modifications" to Existing Sources: The proposed amendments also revise the applicability test for NSR permitting requirements as they apply to "modifications" to existing sources. Whether NSR requirements apply when a change is made at an existing source depends on whether the change constitutes a "modification" under that definition.

The District's current provision bases the definition of "modification" on whether the change being implemented at the existing source will result in an increase in the source's potential to emit air pollution. EPA Region IX staff have taken the position that the NSR "modification" test must be based on the source's actual historical emissions, not on its maximum potential emissions (at least for major modifications to major facilities – what EPA calls "major NSR"). The proposed amendments include adding an additional element to the current "modification" test to incorporate EPA's test for any situation where that test may be more stringent than the District's test. This element will create a "backstop" to ensure that the District's regulations are no less stringent than EPA's on this issue. The District's current test will still apply to require NSR permitting for any change at an existing source that will result in an increase in the source's potential to emit. In every instance, the more stringent test will apply.

Expanding the NAAQS Compliance Demonstration Requirement: The proposed amendments also add an expanded requirement for all new sources and modifications that will result in a significant increase in emissions to demonstrate that they will not cause or contribute to an exceedance of any NAAQS. The expanded NAAQS compliance demonstration requirement applies to all facilities regardless of their size, and for all pollutants, including non-attainment pollutants. The requirement will apply to all new sources and modifications to existing sources that will result in a "significant" increase in emissions.

Public Notice and Comment for Smaller Sources: The public notice and comment requirements would be expanded to provide public notice and comment for all facilities, regardless of size, where a new source or modification to an existing source will result in a "significant" increase in emissions.

Miscellaneous Minor Revisions: The proposed amendments also include several more minor changes. Some of these changes were requested by EPA Region IX staff to

address deficiencies where the District's existing NSR program does not fully satisfy EPA requirements for NSR, as discussed above. Other changes are being made based on Staff's determination that they are needed to make the District's permitting program work more effectively.

Non-Substantive Reorganization and Revision of Regulatory Language: The proposed amendments include a major reorganization of Regulation 2, Rule 2. This reorganization is not intended to make substantive changes but will make the regulation clearer and easier to understand and implement.

1.8.2 EXECUTIVE SUMMARY – CHAPTER 3: ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

1.8.2.1 Introduction

The chapter describes the environmental resource areas that are addressed in these analyses; including the environmental setting; the thresholds of significance for determining whether the project could have a significant adverse impact on any of these resources areas; the potential adverse impacts of the proposed project, including a cumulative impact in conjunction with other similar projects; and mitigation measures to mitigate any significant potential impacts that are identified in the analysis.

The analyses included in this chapter focus on those aspects of the environmental resource areas that were identified in the NOP/IS as having a potential to be significantly impacted, and do not focus on those environmental resource areas where it was determined that the proposed amendments will not cause any significant adverse impact. The NOP/IS identified air quality and greenhouse gas emissions as the two resource areas in which there was a potential for a significant adverse impact that needed to be evaluated in the EIR.

1.8.2.2 Air Quality

The NOP/IS identified air quality as an area with a potential for the proposed amendments to have a significant adverse impact that needs to be evaluated in the EIR. The potential for significant adverse air quality impacts associated with the proposed amendments are evaluated in this Section of this EIR.

1.8.2.2.1 Environmental Setting

Criteria Pollutants

Health-based air quality standards have been established by California and the federal government for the following criteria air pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), PM_{10}, $PM_{2.5}$, sulfur dioxide (SO_2) and lead. The California standards are more stringent than the federal standards. California has also established standards for sulfate, visibility, hydrogen sulfide, and vinyl chloride.

The BAAQMD monitored levels of various criteria pollutants at 23 monitoring stations in 2010. All monitoring stations were below the state standard and federal ambient air quality standards for CO, NO_2, and SO_2. The federal 8-hour ozone standard was exceeded on 9 days in the District in 2010, while the state 8-hour standard was exceeded on 11 days. The State 1-hour ozone standard was exceeded on 8 days in 2010 in the District. The ozone standards are most frequently exceeded in the Eastern District (Bethel Island (7 days) and Livermore (6 days)), and the Santa Clara Valley (San Martin (8 days), and Gilroy (7 days).

Air quality conditions in the San Francisco Bay Area have improved since the District was created in 1955. Ambient concentrations of air pollutants and the number of days on which the region exceeds air quality standards have fallen consistently. The District is in attainment of the State and federal ambient air quality standards for CO, NOx, and SO_2. The District is not considered to be in attainment with the ozone standards and State PM_{10} and $PM_{2.5}$ standards. All monitoring stations were in compliance with the federal PM_{10} standards. The California PM_{10} standards were exceeded on two days in 2010, at the San Rafael and Bethel Island monitoring stations. The Air District exceeded the federal $PM_{2.5}$ standard on 6 days, most frequently in San Rafael in 2010.

Non-Criteria Pollutants (Toxic Air Contaminants)

TACs are a defined set of airborne pollutants that may pose a present or potential hazard to human health. TACs can be emitted directly and can also be formed in the atmosphere through reactions among different pollutants. The health effects associated with TACs are quite diverse and generally are assessed locally, rather than regionally. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis or genetic damage; or short-term acute affects such as eye watering, respiratory irritation, running nose, throat pain, and headaches.

The Air District's air toxics program was established as a separate and complementary program to the health-based ambient air quality standards that have been established for criteria pollutants. For TACs, the air toxics program is aimed at ensuring that no one breathing the air in the Bay Area (known as "sensitive receptors") is exposed to unsafe levels of toxic risk.

1.8.2.2.2 Thresholds of Significance

The following thresholds of significance are being used to evaluate whether the proposed amendments will have a significant impact on air quality. The proposed amendments will have a significant air quality impact if any of the following situations will apply:

1. The proposed amendments will have a significant air quality impact if they will result in an increase in emissions from an individual emissions source that (i) exceeds the NSR offsets threshold levels or NSR significance threshold levels for criteria pollutants (whichever is lower); (ii) will result in any exposure with a non-

carcinogenic toxic hazard index of greater than 1; or (iii) will result in any exposure to a carcinogenic health risk of greater than 10 in one million (10^{-5}).

2. The proposed amendments will have a significant air quality impact if they will be inconsistent with the District's 2010 Clean Air Plan, federal or state New Source Review program requirements, or any other plan or program with specific requirements adopted to address significant air quality concerns in the San Francisco Bay Area.

Air quality impact concerns are primarily cumulative impact concerns. If the proposed amendments will not exceed these thresholds, then they will not result in a "cumulatively considerable" contribution to any significant cumulative air quality impacts. CEQA Guidelines Section 15130(a) provides that where the additional contribution from a project's emissions to a cumulatively significant impact will not be "cumulatively considerable", then the impact is not considered significant for purposes of CEQA and it does not have to be discussed in any further detail in the EIR. The EIR must briefly describe the basis for concluding that the project's contribution is not "cumulatively considerable", however.

1.8.2.2.3 Environmental Impacts

The principal elements of the proposed amendments are summarized below. The proposed amendments are being adopted to help implement the NSR and Title V permitting programs in the San Francisco Bay Area. The proposed amendments will allow the District to continue to obtain EPA's approval to implement the federal aspects of these programs for sources in the Bay Area, as well as strengthen the District's regulations and enhance their effectiveness.

Adding Non-Attainment NSR Requirements for $PM_{2.5}$: Non-Attainment NSR imposes two substantive requirements, BACT and offsets, as well as certain administrative and procedural requirements. The proposed amendments will incorporate these requirements into Regulation 2, Rule 2, which will help implement the Non-Attainment NSR program for $PM_{2.5}$ in the Bay Area.

The first requirement of Non-Attainment NSR for $PM_{2.5}$ is that $PM_{2.5}$ emissions sources must use BACT to control their $PM_{2.5}$ emissions. The current regulatory baseline conditions (i) require BACT for $PM_{2.5}$ at facilities with emissions of 100 tpy or more under Appendix S; and (ii) require BACT for PM_{10} at sources with emissions of 10 lb/day or more under current District Regulation. The proposed amendments will require BACT for $PM_{2.5}$ for sources with emissions of 10 lb/day or more.

This amendment will have benefits in helping implement the NSR program through District regulations. It is not expected to result in any significant adverse impacts to air quality because it will not allow any increases in $PM_{2.5}$ emissions, and it is not expected to result in any significant physical changes at any facility that could result in an increase in any other air pollutant emissions.

Adding $PM_{2.5}$ to the Offsets Requirements in Section 2-2-303: The second main requirement of Non-Attainment NSR for $PM_{2.5}$ is the offsets requirement. This element of Non-Attainment NSR requires emissions reductions from existing sources to offset any emissions increases from new or modified sources. The current regulatory baseline conditions (i) require offsets for $PM_{2.5}$ emissions at new major facilities (i.e., facilities with emissions of 100 tpy or more) and at major modifications to existing major facilities (i.e., modifications at such facilities that will increase $PM_{2.5}$ emissions by 10 tpy or more); and (ii) require offsets for all PM_{10} emissions increases at facilities with the potential to emit over 100 tpy of PM_{10}.

This amendment will have benefits in helping implement the NSR program through District regulations. It will not result in any increase in air emissions or any adverse impacts to air quality because it will not be any less stringent than the existing offsets requirements under currently applicable regulations. The proposed amendments will therefore be no less stringent than what is currently required, and will achieve all of the same emission reduction benefits as the federal requirements under Appendix S.

Concerns were raised during the rule development process that allowing emissions banking for compliance with the $PM_{2.5}$ offsets requirements could result in localized adverse environmental impacts by allowing additional projects to go forward with air emissions that would impact air quality in the vicinity of the project. Imposing the offsets requirement for $PM_{2.5}$ with a provision for emissions banking will not result in any new increases of air pollutants at all, either locally in the region of a proposed project or anywhere else in the Bay Area. This is a new requirement that will act to reduce emissions, not a relaxation that will allow any increase in emissions from what is currently allowed under the regulatory baseline conditions. Moreover, there are a number of other regulatory requirements imposed by District regulations and other legal requirements that will ensure that there are no such significant localized increases from any project in any location, whether the project utilizes emissions banking for its $PM_{2.5}$ offsets obligations or not. These include modeling requirements designed to ensure that no new or modified stationary source will cause or contribute to an exceedance of the NAAQS; air toxics requirements designed to prevent significant toxics impacts; and project-specific CEQA review to identify the potential for any significant air quality impacts and implement mitigation measures to address them.

For all of these reasons, there will not be any adverse impacts to air quality from moving from the current EPA offset requirements for $PM_{2.5}$ under 40 C.F.R. Part 51, Appendix S to the District offset requirements under Section 2-2-303 under the proposed amendments.

Administrative and Procedural Provisions Applicable to $PM_{2.5}$: Beyond BACT and offsets, the Non-Attainment NSR requirements also require (i) that permit applicants certify that all facilities that they own or control in California are in compliance with all applicable air quality requirements; (ii) that permit applicants demonstrate that the benefits of the proposed project outweigh any environmental and social costs that would

result from its location, construction, or modification; and (iii) that the public be notified and provided with an opportunity to comment before any final Non-Attainment NSR permit is issued. The proposed amendments will apply these requirements for major new sources of $PM_{2.5}$ emissions and major modifications to existing sources. These amendments will not result in any physical change in the environment. For one, they are already required under the existing Non-Attainment NSR regulatory requirements for $PM_{2.5}$ under Appendix S. They are also required for PM_{10} emissions sources under current District regulation, and any source with $PM_{2.5}$ emissions high enough to trigger them under the proposed amendments will also trigger them because of its PM_{10} emissions under existing requirements. Accordingly, there will be no change to the current regulatory setting regarding these requirements as a result of the proposed amendments. Moreover, even if these requirements were wholly new requirements, they are administrative and procedural in nature, and will not affect the physical environment in any way with respect to any proposed projects that may be permitted under them. For all of these reasons, the proposed amendments will not have any adverse impacts on air quality with regard to these changes.

Specifying that Condensable PM Emissions Must be Included in All NSR Regulatory Determinations: EPA's NSR implementation regulations for particulate matter now specify that for all NSR permitting purposes, PM_{10} and $PM_{2.5}$ emissions must be measured taking into account both the filterable and condensable portions of particulate matter emissions. With respect to Non-Attainment NSR requirements for $PM_{2.5}$, the current regulatory requirements are those in Appendix S, which specify that both filterable and condensable emissions must be included. With respect to PSD requirements for PM_{10}, the current regulatory requirements are those in EPA's federal PSD regulations, which also specify that both filterable and condensable emissions must be included.

The proposed amendments will not result in any significant air quality impacts as a result of specifying this requirement in Regulation 2, Rule 2. Although the proposed amendments will move the implementation of this requirement into Regulation 2, Rule 2, doing so will not involve a change from existing regulatory situation. They will simply specify exactly how emissions must be measured under this definition to clear up an existing ambiguity and require the most current, accurate scientific testing methodologies. Moreover, although there may be some sources whose PM_{10} emissions were treated as exempt from certain particulate matter permitting requirements based on filterable emissions that will find themselves subject to such requirements in the future when the condensable PM_{10} emissions are included, the effect of doing so will be beneficial to air quality because of the potential for particulate matter emission reductions. There are no adverse air quality impacts associated with implementing these requirements. For all of these reasons, the proposed amendments will not have any adverse impacts on air quality with regard to these changes.

Adopting/Amending PSD Requirements to Obtain SIP-Approved PSD Program: The proposed amendments will adopt a District PSD program that EPA will be able to approve as part of California's SIP. The current regulatory baseline conditions for PSD

permitting are (i) the federal PSD program in 40 C.F.R. section 52.21 applicable to emissions sources in the Bay Area under federal law; and (ii) the existing PSD provisions in Regulation 2, Rule 2, that have not been approved for federal purposes but are still legally effective and binding under state law. The proposed amendments will adopt and/or revise District PSD provisions to (i) establish a PSD applicability test using the term "PSD Project"; and (ii) set forth the required elements for PSD permitting that will apply to such "PSD Projects". These revisions will ensure that the District's PSD provisions will meet all applicable federal NSR requirements so that EPA can approve them into the SIP.

The proposed amendments will not result in any significant adverse impacts on air quality because, for the most part, they will not make any substantive changes to the PSD requirements that are currently applicable for emissions sources in the Bay Area. The proposed amendments will incorporate by reference the substantive requirements for PSD permitting that currently apply under 40 C.F.R. Section 52.21. Furthermore, no increases in air emissions or significant adverse impacts on air quality are expected from the District's adoption of the proposed PSD program without using the NSR Reform applicability tests.

Ensuring that Regulation 2 Adequately Addresses GHGs: The proposed amendments will adopt provisions to ensure that the District's NSR and Title V permitting regulations adequately address GHGs. GHGs are already subject to NSR and Title V permitting requirements under current regulations, based on EPA's adoption of GHG emission standards for light duty cars and trucks. The proposed amendments will ensure that the District's permitting programs adequately implement these requirements. Adding provisions to the District's regulations to ensure that they adequately encompass GHG emissions will not result in any change to these requirements as they apply to GHG emissions sources in the Bay Area and will not result in any impacts to air quality.

Revising NSR Applicability Test in "Modified Source" Definition: The proposed amendments will revise the District's applicability provisions for NSR permitting to ensure that they will not be any less stringent in any situation that the federal NSR program. This revision will be made by amending the definition of "modified source". The current regulatory baseline conditions for when modifications are subject to NSR permitting are (i) the federal NSR program requirements, which require applicability to be based on emissions increases over the facility's actual historical emissions; and (ii) the District's current "modified source" definition, which bases applicability on emissions increases over a source's maximum potential emissions. The proposed amendments will add a "federal backstop" applicability provision to address any specific situation where the federal test could apply in a more stringent manner than the District's current test. This revision will not have any significant impacts on air quality.

Expanding NAAQS Compliance Demonstration: The proposed amendments will expand the requirement to demonstrate that new and modified sources will not cause or contribute to an exceedance of any NAAQS. PSD permitting currently requires such a demonstration for projects at major PSD facilities (i.e., facilities with emissions over the

100 tpy/250 tpy PSD "major" threshold) that will result in significant net increases in emissions of PSD pollutants. The proposed amendments will expand this requirement to include any project with a significant emissions increase at any facility, regardless of size; and to include all pollutants, not just PSD pollutants. This expanded NAAQS compliance demonstration analysis will not have any impacts on the environment, because it is an administrative requirement only and will not affect how any project is built or operated.

Expanding Public Notice-and-Comment Requirements: The proposed amendments will also revise the current notice-and-comment requirements for NSR permitting to cover all permits for new and modified sources that will result in a significant increase in emissions. This is an administrative requirement only, and while it will improve the permitting process it will not have any effect on the physical environment.

Miscellaneous Minor Revisions: In addition to the major revisions discussed above, the proposed amendments also include a number of relatively minor changes to improve the way the District's permitting programs work and to ensure that they comply with all EPA requirements. None of these more minor revisions will change the way that any control requirements apply to any sources, affect the programs' applicability so as to bring more sources into these programs or to exclude any additional sources from regulation, or otherwise change the way these permitting programs work in any significant way. No significant adverse impacts on air quality are expected from these minor revisions.

Non-Substantive Clarifications and Amendments to Regulatory Language: The District is also proposing a major reorganization and overhaul of the regulatory language for its NSR and Title V permitting programs. Although this will involve major changes to the language and structure of the regulations, the District is not intending to make any significant substantive changes to the way these programs work. Because there will be no substantive change to the regulations and what they require (other than the specific changes discussed above), no air quality impacts are expected from these non-substantive clarifications and amendments.

1.8.2.2.4 Mitigation Measures

No significant adverse air quality impacts are expected due to implementation of the proposed amendments to the District's rules and regulations. Therefore, there is no need for the District to evaluate or implement mitigation measures in connection with the proposed amendments in order to avoid any significant impacts or reduce them to a less than significant level. Mitigation measures are required only where there are significant adverse impacts to be mitigated. (See CEQA Guidelines § 15126.4(a)(3).)

1.8.2.2.5 Cumulative Air Quality Impacts

Most types of air pollution are primarily cumulative concerns. That is, most air quality problems are not caused by a single source of emissions, they are caused by the cumulative effect of many individual sources around the region combining together to

create a cumulative problem. The discussion of air quality impacts in Section 3.2.3. is therefore both a project-specific air quality impact analysis and a cumulative impacts analysis. The analysis demonstrating that the proposed amendments will not have a significant impact on air quality supports both the conclusion that the amendments by themselves will not have a significant impact, and also the conclusion that the proposed amendments will not make a cumulatively considerable contribution to the cumulative air quality challenges that the Bay Area faces. (See Guidelines § 15064(h)(1).)

Furthermore, the updates to the District's NSR regulations also comply with and implement provisions the District's 2010 Clean Air Plan, the most recent air quality plan approved in the District. Stationary Source Measure SSM-16 in the Clean Air Plan committed the District to updating its NSR regulations to incorporate $PM_{2.5}$ requirements in light of the Bay Area's non-attainment designation. The Clean Air Plan was adopted specifically to address cumulative air quality concerns in the Bay Area. Implementing these requirements will help ensure that $PM_{2.5}$ emissions from regulated sources will not make a cumulatively considerable contribution to ambient particulate matter concentrations.

For all of these reasons, the proposed amendments will not result in any cumulatively considerable contribution to any significant cumulative impacts. To the contrary, they are part of a comprehensive regulatory effort by the District and other regulatory agencies to achieve net reductions in air pollution emissions, to reduce significant cumulative air quality concerns, and to ensure safe and healthy air quality for the San Francisco Bay Area.

1.8.2.3 Greenhouse Gas Emissions

1.8.2.3.1 Introduction

The NOP/IS identified greenhouse gas emissions as an area with a potential significant adverse impacts that needed to be evaluated in the EIR.

The six major GHGs identified by the Kyoto Protocol are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs). As reported by the California Energy Commission (CEC), California contributes 1.4 percent of the global and 6.2 percent of the national GHG emissions. More than 80 percent of GHG emissions in California are from fossil fuel combustion.

1.8.2.3.3 Thresholds of Significance

Greenhouse gas emissions are primarily a cumulative concern. The CEQA analysis considers whether the project's additional contribution is "cumulatively considerable". If the project's contribution is "cumulatively considerable", then the project's impact is treated as significant. If the project's contribution is not "cumulatively considerable",

then the project's impact is not treated as significant and it does not need to be addressed further in the EIR.

CEQA Guidelines lists three factors for lead agencies to consider in assessing whether a project will result in significant GHG impacts. The first factor is the extent to which the project will result in an increase or decrease in GHG emissions, compared to the existing baseline conditions. The second factor is whether, if the project will result in an increase in GHG emissions, the increase will exceed a threshold of significance that is applicable to the situation being evaluated. The third factor is extent to which the project complies with the requirements of a statewide, regional, or local plan that has been adopted by a government agency to reduce GHG emissions. One such regulatory program that has been adopted to reduce GHG emissions is AB 32, and this EIR looks to consistency with AB 32 as a measure of whether the proposed amendments will result in significant GHG emissions. As explained in Chapter 3, the proposed amendments will result in significant environmental impacts if they will result in an increase in GHG emissions and if they are inconsistent with implementation of AB 32.

1.8.2.3.4 Environmental Impacts

Due to the complex physical, chemical, and atmospheric mechanisms involved in global climate change, it is difficult using current tools and methodologies to identify any impact on global climate change from one project's incremental increase in GHG emissions. Therefore, GHG and the related climate change impacts are evaluated as cumulative impacts.

1.8.2.3.5 Cumulative GHG Impacts

The EIR evaluates the following potential GHG impacts resulting from the proposed amendments.

GHG Emissions Reduction Benefits From Proposed Amendments: The proposed amendments will allow the District to implement federal NSR and Title V regulatory initiatives that EPA has put into effect through its federal programs. The proposed amendments will not achieve substantial additional GHG emission reductions, as these requirements are already in effect under federal programs. However, the proposed amendments will help implement them effectively in the Bay Area. The proposed amendments will therefore have an overall benefit in the context of GHG emissions impacts by enhancing the implementation and enforcement of federal permitting programs.

PSD Requirement Impacts on GHG Emissions: The proposed amendments will adopt District PSD provisions to transfer responsibility for PSD permitting from the federal program to the District. The only substantive requirement that applies for GHG emissions sources under PSD permitting is the requirement to use the "Best Available Control Technology," or BACT. Adding this PSD BACT requirement in Regulation 2, will not result in any significant GHG emissions impacts because it will not make any

change to the existing regulatory baseline conditions. There are currently no other emission control requirements that apply for GHGs, and so subjecting these emissions to a BACT requirement and imposing permit limits would not result in any GHG emission increases.

With respect to regulating GHGs, the proposed amendments will incorporate one principal aspect of NSR Reform, the more flexible baseline period. This provision allows a facility to base its emissions increases on the highest historical emissions over a 10-year period when determining whether a project will have a "significant" increase that requires PSD permitting. Allowing a facility to use its highest baseline emissions in the past 10 years allows it to avoid a situation where it has recently been operating at artificially depressed levels, for example because of reduced demand during a recession. If a facility is going to implement an improvement project that will reduce emissions (or increase emissions by a less-than-significant amount), it will be required to demonstrate that the project will not in fact result in a significant emissions increase through an enforceable limit on emissions. This is the principal difference between how the proposed amendments will implement the PSD requirements for GHGs and how EPA's PSD regulations in 40 C.F.R. Section 52.21 apply for facilities in the Bay Area. No increase in GHG emissions is expected from the proposed PSD provisions applicable to GHG emissions.

Title V Program Impacts on GHG Emissions: The proposed amendments will make the District's Title V program explicitly cover GHG emissions sources by adding GHGs to the definition of "Regulated Air Pollutant". This revision will ensure that the District's Title V program adequately addresses GHG permitting requirements in order to implement EPA's federal program requirements. It is not expected to have any impact on GHG emissions.

Impacts from Other GHG Regulatory Initiatives: The proposed amendments are not expected to result in any significant adverse GHG impacts, as discussed above. In addition, the proposed amendments along with the Air District's other related regulatory initiatives in the 2010 CAP are expected to promote a significant net decrease in GHG emissions. The overall GHG emissions associated with the 2010 CAP, including the TCMs developed as part of MTC's Regional Transportation Plan, Transportation 2035, is expected to be about 15,150 tons per year, providing a large reduction in GHG emissions. Overall, the proposed amendments, 2010 CAP and related TCMs will reduce GHG emissions on a regional level, so that significant cumulative beneficial impacts are expected.

1.8.2.4 Growth Inducing Impacts

CEQA defines growth-inducing impacts as those impacts of a proposed project that "could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects, which would remove obstacles to population growth" (CEQA Guidelines §15126.2(d)).

The proposed amendments would not directly foster economic or population growth or the construction of new housing in the Bay Area. The proposed amendments are not expected to involve any significant construction activities or new development. Therefore, they would not stimulate significant population growth, remove obstacles to population growth, or necessitate the construction of new community facilities that would lead to additional growth. Further, the proposed amendments would not result in growth inducement, such as the development of new infrastructure that would cause the growth of new populations, communities, or currently undeveloped or open space areas. The proposed rule amendment will largely implement existing federal air permitting requirements, and would not result in precedent-setting actions that might cause significant environmental impacts.

1.8.2.5 Significant Environmental Effects Which Cannot be Avoided and Significant Irreversible Environmental Changes

CEQA Guidelines require that an EIR describe significant environmental impacts that cannot be avoided, including those effects that can be mitigated but not reduced to a less than significant level. The proposed amendments are not expected to result in any significant or unavoidable impacts.

1.8.2.6 Environmental Effects not Found to be Significant

Air Quality and GHG impacts were evaluated in this EIR and were found to have no potentially significant adverse impacts. The following topics of analysis were found to have no potentially significant adverse effects in the Initial Study: Aesthetics, Agriculture and Forestry Resources, Biological Resources, Cultural Resources, Geology/Soils, Hazards and Hazardous Materials, Hydrology/Water Quality, Land Use/Planning, Mineral Resources, Noise, Population/Housing, Public Services, Recreation, Transportation/Traffic, and Utilities and Service Systems. No potentially significant adverse impacts were identified for the implementation of the proposed amendments.

1.8.3 EXECUTIVE SUMMARY – CHAPTER 4: ALTERNATIVES

Chapter 4 provides a discussion of policy alternatives that the District considered in developing the proposed alternatives. CEQA technically does not require an alternatives analysis where there are no significant impacts to be avoided or substantially lessened through adoption of a feasible alternative. Chapter 4 nevertheless discusses the alternatives that were considered in order to provide the public with as much information as possible about this project, and also to address any concerns that alternatives should be considered under CEQA even where there are no significant impacts to be avoided.

The analysis considers a "No Project Alternative", which is required in EIRs in most situations under CEQA Guidelines § 15126.6(e). Under the "No Project Alternative," none of the proposed rule amendments would occur and the NSR and Title V programs would continue to operate under the existing regulatory provisions. Alternative 1 (the

"No Project Alternative") would not reduce any potentially significant impacts, as no significant impacts have been identified for the proposed amendments. Alternative 1 could also potentially result in some additional emission increases, although it is difficult to quantify the extent of any such increases at this time. Further, Alternative 1 would not achieve any of the project objectives.

Alternative 2 would implement the $PM_{2.5}$ offsets requirements for NSR permitting, but without providing for the use of banked emission reduction credits as a means of complying with the requirement. Compliance would have to be achieved by providing contemporaneous on-site emission reduction credits, not through the use of banked credits. Alternative 2 would not reduce any potentially significant impacts, as no significant impacts have been identified for the proposed amendments. Alternative 2 is also not a feasible alternative, as it would not achieve an important objective of the proposed amendments. It would not allow for the flexibility in implementing the offsets requirements for $PM_{2.5}$ that is necessary for effectively implementing these requirements in the Bay Area.

Alternative 3 would adopt/amend PSD provisions to obtain EPA approval of a District PSD program, but using the NSR Reform applicability methodologies described in Chapter 3. Alternative 3(a) would adopt/amend PSD provisions using the NSR Reform methodologies for all PSD Pollutants. Specifically, Alternative 3(a) would allow facilities to determine whether a modification will result in a "significant" increase in emissions and trigger PSD permitting requirements using: (1) their highest 24-month emissions average in the past 10 years as their baseline emissions; and (2) their projected future emissions, rather than their maximum permitted emissions, as their future emissions. Relaxing the applicability procedures for pollutants that are currently regulated under PSD provision would violate state laws, which prohibit any relaxation of air district's NSR programs in effect as of 2002.

Alternative 3(b) would adopt the NSR Reform methodologies for PSD permitting requirements for GHGs only. The alternative would allow facilities to use their unenforceable projections of future emissions to determine whether the emissions increase from a modification will be significant and trigger PSD permitting requirements, instead of enforceable permit limits. Alternative 3(b) would not be prohibited by SB 288, but its feasibility is questionable given that it would undermine the enforceability of the PSD requirements for GHG emissions.

Alternative 3 would not reduce any potentially significant impacts, as no significant impacts have been identified for the proposed amendments. Moreover, Alternative 3 could potentially result in increased impacts if it allows facilities to be built without implementing PSD requirements based on projections that they will not result in significant emissions increases, but then later do actually cause significant emissions that are not subject to any enforceable permit limits. Alternative 3 would allow for such unmitigated significant emissions increases, compared to the proposed amendments which would not.

Accordingly, none of the three alternatives discussed herein would have the potential to reduce or eliminate any significant impacts; and none of them would feasibly achieve all of the objectives of this project. These are the reasons why none of these alternatives were adopted by the District in developing the proposed amendments. The same reasons would also support a conclusion under CEQA that none of them is a preferred alternative, to the extent that an alternatives analysis were required for this project. The proposed project is the preferred alternative to update the District's NSR and Title V permitting regulations.

1.8.4 EXECUTIVE SUMMARY – CHAPTER 5: REFERENCES

Information on references cited (including organizations and persons consulted) are presented in Chapter 5.

CHAPTER 2

PROJECT DESCRIPTION

Introduction
Project Location
Project Objectives
Background and Project Description

2.0 PROJECT DESCRIPTION

This chapter of the EIR provides a description and summary of the proposed amendments (the project).

2.1 INTRODUCTION

This project consists of proposed amendments to the New Source Review (NSR) and Title V permitting regulations of the Bay Area Air Quality Management District (BAAQMD or District). The BAAQMD regulations that would be affected are in District Regulation 2, Rules 1, 2, 4 and 6. The text of the proposed amendments to these permitting regulations is set forth in drafts of the proposed amendments in Appendix B.

The District is considering the proposed amendments to update its NSR and Title V permitting regulations to address a number of recent regulatory developments, including new requirements by U.S. Environmental Protection Agency (EPA) for permitting of particulate matter less than 2.5 micrometers in diameter ($PM_{2.5}$), new EPA requirements for permitting Greenhouse Gases (GHGs), and other requirements for EPA approval of the District's permitting programs. The objective of these rule amendments is for the District to update its permitting regulations (i) to reflect current regulatory requirements that apply as a result of these recent developments, (ii) to strengthen the regulations so that the permitting programs can function as effectively as possible, and (iii) to ensure that the regulations will satisfy all EPA requirements and will be able to be approved by EPA under the Clean Air Act. Updating these permitting programs will help further the Air District's overall goals of ensuring clean air and protecting the public health and welfare in the San Francisco Bay Area.

The major rule amendments being proposed include the following:

- Expanding NSR and $PM_{2.5}$ permitting requirements to encompass $PM_{2.5}$ emissions;
- Ensuring that the District's NSR and Title V permitting requirements adequately encompass GHG emissions;
- Adopting and/or amending regulatory provisions for a District "Prevention of Significant Deterioration" program (an important sub-element of NSR permitting) for EPA approval;
- Revising the District's existing NSR applicability test in the definition of "modified source" to address a change in EPA policy regarding this definition;
- Expanding the requirements for NSR permit applicants to demonstrate that they will not cause or contribute to an exceedance of a National Ambient Air Quality Standard;

- Expanding public noticing requirements and public participation opportunities for NSR permitting;
- Reorganizing and clarifying the NSR and Title V permitting regulations so that they are easier to understand and implement; and
- Making certain other miscellaneous revisions to strengthen the regulations and address deficiencies that have been identified since the last time these programs were updated.

These proposed amendments are described in more detail below, as well as in the Staff Report that BAAQMD staff are publishing in connection with the proposed amendments.

2.2 PROJECT LOCATION

The proposed amendments to the District's NSR and Title V permitting regulations will apply throughout the agency's jurisdiction. The BAAQMD has jurisdiction over stationary sources of air pollution in the San Francisco Bay Area air basin, which encompasses an area of approximately 5,600 square miles. The Air District's jurisdiction includes all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties, and portions of southwestern Solano and southern Sonoma counties. The air basin is characterized by a large, shallow topographical basin surrounded by coastal mountain ranges tapering into sheltered inland valleys. The combined climatic and topographic factors result in increased potential for the accumulation of air pollutants in the inland valleys and reduced potential for buildup of air pollutants along the coast. The air basin is bounded by the Pacific Ocean to the west and includes complex terrain consisting of coastal mountain ranges, inland valleys and bays (see Figure 2-1).

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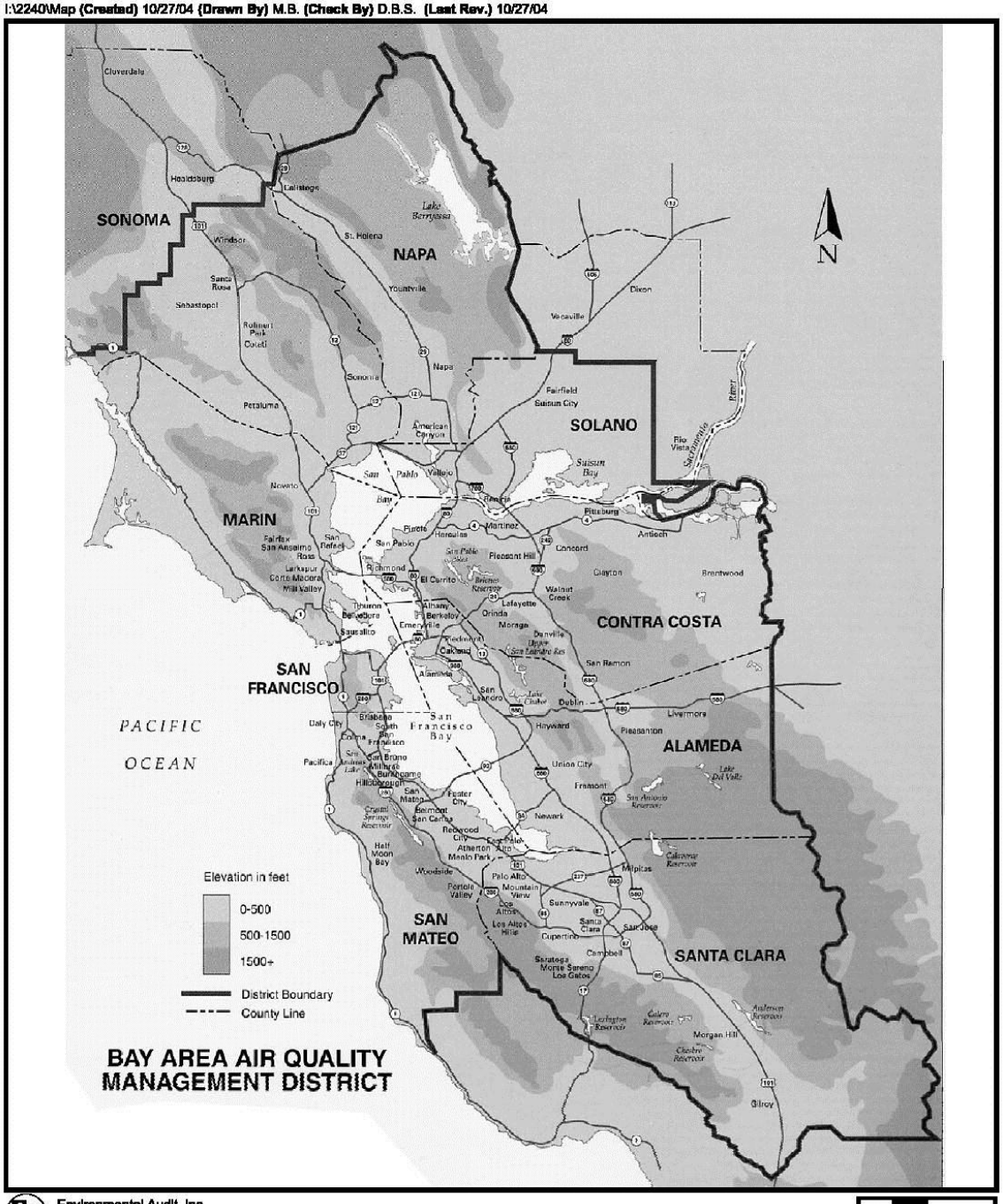

Environmental Audit, Inc.

NOT TO SCALE

LOCATION OF BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Figure 2-1

2.3 PROJECT OBJECTIVES

The objective of these rule amendments is for the District to update its NSR and Title V permitting programs to address a number of recent regulatory developments, and to ensure that they fully satisfy all applicable state and federal legal requirements and can be implemented in the most effective and efficient manner to help the District achieve its clean air goals.

More specifically, the objectives of these proposed amendments include the following:

1. Incorporate Federal NSR and Title V Permitting Requirements. NSR and Title V are programs adopted under the federal Clean Air Act. The Clean Air Act sets forth a number of requirements for these programs, and then looks to the states to adopt permitting programs to implement them. An important objective of the proposed amendments is to ensure that the District's NSR and Title V programs properly implement all applicable federal program requirements. There are a number of such requirements that need to be addressed, including:

    - *New $PM_{2.5}$ requirements:* EPA has adopted particulate matter regulations aimed specifically at PM2.5, and the District needs to update its NSR requirements to include PM2.5 provisions.
    - *New GHG requirements:* EPA has begun regulating GHGs under the CAA, and the District needs to ensure that its NSR and Title V programs adequately encompass GHG emissions.
    - *PSD requirements:* The District has never had a PSD program that satisfies all of the federal NSR requirements, and these deficiencies need to be addressed in order to obtain EPA approval for District implementation of the PSD element of NSR permitting.
    - *Other requirements of NSR identified by EPA:* EPA has also identified certain other requirements of the federal NSR program that the District's regulations need to address in order to fully implement the Clean Air Act's requirements.

    The District has developed the proposed amendments to ensure that the District's NSR and Title V programs adequately implement all of these requirements so that EPA can approve the District's program as effective for federal Clean Air Act purposes. Obtaining EPA approval will allow the District to implement these programs for federal purposes for stationary sources within the Bay Area. Moreover, failure to obtain EPA approval for the District's implementation will subject the Bay Area to sanctions under the Clean Air Act such as loss of federal highway money (except with respect to the PSD elements of NSR).

2. Ensure Compliance with State Law Requirements. There are a number of additional requirements that apply to the District's permitting programs under state law that the District must comply with. A second objective of the proposed amendments is to ensure that the federal requirements are implemented through

the District's NSR and Title V permitting programs consistent with all such requirements under state law. These state law requirements include a prohibition on relaxing any NSR regulations that were in effect as of 2002, among others.

3. Ensure that the NSR and Title V Permitting Programs Are Implemented as Efficiently and Effectively as Possible. A third objective of the proposed amendments is to ensure that the District's NSR and Title V programs implement these federal and state requirements in the most effective and efficient manner possible. The District aims to implement these requirements as effectively as possible, meaning that the requirements should obtain the maximum amount of emissions reductions that can be achieved for a given level of cost and regulatory burden. The District also aims to implement these requirements as efficiently as possible, meaning that the requirements should retain flexibility in how affected sources must comply with regulatory requirements as long as the required level of emissions reductions are achieved. These considerations drive the District's policy goals and also how the District seeks to achieve those goals through its specific regulations.

4. Ensure that the NSR and Title V Permitting Regulations Are Drafted and Presented in a Manner That is Clear and Easy to Understand and Implement. A fourth objective of the proposed amendments is to ensure that the District's NSR and Title V programs are drafted and presented in a manner that is easy for interested parties to understand. Air quality regulatory programs are highly technical and complex and it is important that these complicated programs are implemented in the most simple and straightforward manner possible under the circumstances. Doing so makes these permitting programs more effective for District staff, staff from other regulatory agencies, regulated entities and their consultants, interested community members and members of the public, and all others who come into contact with the regulations.

2.4 BACKGROUND AND PROJECT DESCRIPTION

The District is proposing a number of revisions to Regulation 2, the details of which are summarized in this subsection. The specific revisions to the text of Regulation 2 are included in Appendix B of this EIR. A further detailed description and discussion of the proposed amendments is also provided in the Staff Report that staff of the BAAQMD are publishing concurrently with this EIR.

2.4.1 "NEW SOURCE REVIEW" AND TITLE V PERMITTING

The proposed amendments update the District's regulations that implement two important Clean Air Act permitting programs, NSR and Title V. The following is a background discussion to provide the context in which the proposed amendments will apply.

2.4.1.1 New Source Review

NSR is a pre-construction permitting review requirement that ensures that when a new source of air pollution is built, or when an existing source of air pollution is modified, the project will implement and comply with all current regulatory standards governing air emissions. It focuses on projects at the design stage, before construction on the source begins, where it is easiest and most appropriate to incorporate the most effective pollution control technology (i.e., as opposed to having to retrofit a source after it is built). Based upon this pre-construction review, the District issues an "Authority to Construct" for the source that authorizes construction and imposes permit conditions to ensure that the source satisfies all applicable air quality-related regulatory requirements. The District's NSR permitting program is contained in Regulation 2, Rule 2. In addition, Regulation 2, Rule 4 contains ancillary provisions regarding emissions banking, which help implement the "offsets" requirements of the NSR program (see further description below); and Regulation 2, Rule 1 contains general requirements that apply to all District permitting, including NSR permitting.

One of the principal purposes of NSR permitting is to help ensure that the Bay Area's air quality complies with EPA's National Ambient Air Quality Standards (NAAQS). The NAAQS are health-based standards for the concentration of air pollutants that can be present in the ambient air. EPA establishes these standards for a group of important air pollutants called "criteria" pollutants, and then designates each region of the country as "attainment" or "non-attainment" of the NAAQS for each pollutant based on measurements of air quality in the region. Where a region is designated as "non-attainment" for a pollutant, the region needs to take regulatory action to reduce the amount of that pollutant being emitted region-wide so as to come back into attainment. Where a region is designated as "attainment", it is not out of compliance and so there is not as urgent a need for regulatory action. It is important to be vigilant so that air quality does not deteriorate to such an extent that it violates the NAAQS, however, so the region still has important responsibilities with respect to pollutants for which it is "attainment" of the NAAQS.[1]

The NSR permitting program is designed to help implement these efforts to get ambient air quality into compliance, and to stay in compliance, with the NAAQS. As noted above, it requires new sources and modifications to existing sources to obtain a pre-construction NSR permit and implement certain emissions-control requirements. NSR applies to "major" facilities – facilities with emissions over 100 or 250 tons per year (depending on the source category) – and it requires new and modified sources at such facilities to obtain an NSR permit where the new source or modification will result in a "significant" increase in emissions of air pollutants. This "significant" increase threshold varies by pollutant, but it is generally between 10 tons per year and 100 tons per year.

[1] For certain pollutants, a region may be designated as "unclassified" because there is insufficient data to make an attainment determination or EPA may not have established a NAAQS for that particular pollutant. Such areas are treated the same as "attainment" areas for purposes of NSR permitting. The remainder of this discussion will use the term "attainment" to refer to both attainment and unclassified pollutants.

For *non-attainment pollutants*, the NSR requirements are more stringent, in recognition of the fact that more needs to be done for non-attainment pollutants to get the region into attainment of the NAAQS. This element of NSR permitting is called "Non-Attainment NSR", and the principal requirements are the following:

- Best Available Control Technology: Non-Attainment NSR requires that new and modified sources use the "Best Available Control Technology", or "BACT", to control emissions. In general, BACT is the most effective type of control technology or most stringent emissions limitation that has been required at other similar sources, or that is technically and economically feasible for the source to implement. BACT is defined in current District Regulation 2-2-206. (The definition will be moved to Regulation 2-2-202 in the proposed amendments.)
- Emission Offsets: Non-Attainment NSR also requires that new and modified sources obtain emission reductions from existing sources to counter any new emissions increases from the new or modified source. These emission reductions from existing sources "offset" the new emissions so that there is no net increase in emissions overall from sources subject to the offset requirements. The Non-Attainment NSR program also has provisions for "banking" emissions reductions so that when an existing source is shut down, the associated emission reductions can be saved for later use in connection with future projects. This "banking" of emission reductions provides an incentive for existing facilities to shut down sources voluntarily when they are no longer needed, rather than keep them in operation until a new source is built that needs the reductions to offset its emissions. The District's offset requirements are in current District Regulations 2-2-302 and 2-2-303, and the banking provisions that help implement the offset requirements are in current District Regulation 2, Rule 4. (The numbering of these provisions will remain the same under the proposed amendments.)
- Compliance Certification: Non-Attainment NSR also requires that the permit applicant for a new or modified source must certify that all of the facilities that it owns in California are in compliance with all applicable air quality regulatory requirements. This requirement is in current District Regulation 2-2-307. (It will be in Regulation 2-2-309 in the proposed amendments.)
- Alternatives Analysis: Non-Attainment NSR also requires that the applicant must demonstrate that the benefits of the proposed new or modified source outweigh any environmental and social costs that would result from its location, construction or modification. This requirement is in current District Regulation 2-2-401.1. (It will be in Regulation 2-2-401.3 in the proposed amendments.)
- Public Notice and Comment Opportunity: Finally, Non-Attainment NSR requires that the public must be notified before any permit is issued for a new or modified source and must be given an opportunity to comment on and provide input into the permitting decision. This public notice and comment requirement is in current District Regulation 2-2-405. (It will be in Regulation 2-2-404 in the proposed amendments.)

For *attainment pollutants*, the NSR permitting requirements are somewhat less stringent, given that for attainment pollutants the region is, by definition, not out of compliance with the NAAQS and so the situation is not as urgent. It is still important to take steps to control emissions of such pollutants in order that the air quality does not deteriorate to such an extent that an exceedance of the NAAQS occurs, however, and so NSR permitting applies certain important regulatory requirements for these pollutants as well. In keeping with this goal of preventing air quality deterioration, this element of NSR permitting for attainment pollutants is called "Prevention of Significant Deterioration", or "PSD". The principal elements of PSD permitting are the following:[2]

- PSD Best Available Control Technology: PSD also requires BACT, although in a slightly less stringent manner than Non-Attainment NSR. The principal difference is that for PSD, cost, energy and ancillary environmental impacts are taken into consideration. If such considerations suggest that a certain type of control technology or emissions limitation is not appropriate at a source, it would not be required as PSD BACT (unlike with Non-Attainment NSR, where BACT requires the control technology or emissions limitation to be used if it has been required at other similar facilities, regardless of any such considerations).[3]
- Air Quality Impact Analysis (and related analyses): PSD does not require "offsets" for new emissions increases, as for PSD pollutants the region is, by definition, not in violation of the NAAQS and so it can allow a certain amount of additional emissions without exceeding the health-based air quality standards. To ensure that any such increases do not jeopardize compliance with the NAAQS, however, PSD requires an analysis of the impacts that the emission increases will have to ensure that they will not cause or contribute to a NAAQS exceedance. In addition, the analysis must show that the increases will not consume an air quality "increment", which is an increase in air pollutant concentrations that would constitute impermissible "significant deterioration" in air quality. PSD also requires an analysis of whether such increases will adversely affect visibility, soils or vegetation in the region; and any air-quality related values in areas of special environmental value such as National Parks (called "Class I Areas").
- Public Notice and Comment Opportunity: As with Non-Attainment NSR, PSD also requires that the public must be notified before any permit is issued for a new or modified source and must have an opportunity to provide input on the permitting decision.

[2] Note that unlike Non-Attainment NSR, the relevant PSD provisions applicable to new and modified sources in the Bay Area are not in District regulations, because the District does not have an approved PSD program. See discussion below in Section 2.4.2 for more details.

[3] Under the terminology of the federal Clean Air Act, the PSD control requirement is called "Best Available Control Technology" and the more-stringent Non-Attainment NSR control requirement is called "Lowest Achievable Emissions Rate", or "LAER". California calls the more-stringent requirement "BACT", however. To distinguish these concepts, the more-stringent requirement (federal "LAER") is sometimes called "California BACT" and the less-stringent requirement "PSD BACT". This document uses the term "BACT" to refer to the more-stringent requirement, unless specifically noted otherwise.

These two sub-elements, "Non-Attainment NSR" for non-attainment pollutants and "PSD" for attainment (and unclassified) pollutants, are the primary provisions of the NSR program. As noted above, they apply under the Clean Air Act at any facility that will emit 100 tons per year or more of any pollutant regulated under the Act, or 250 tons in certain limited cases; and to any new or modified source at such facilities that will cause a "significant" increase in emissions. There are also a few more minor requirements that apply to facilities below this 100/250 ton per year "major" facility threshold, which EPA calls "minor NSR" requirements. But for the most part, the Clean Air Act's NSR program is implemented through these Non-Attainment NSR and PSD provisions.

Finally, in addition to these federal NSR requirements, California law imposes certain additional requirements for the District's NSR program. These include additional provisions for implementing the District's NSR program, including requirements for BACT and offsets at lower thresholds, as set forth in Health & Safety Code sections 40910 through 40930; and a prohibition against relaxing any NSR rules that were in effect as of December of 2002, as set forth in Health & Safety Code sections 42500 through 42507.

2.4.1.2 Title V

Title V permits are operating permits. Instead of applying at the pre-construction stage like NSR permits, the Title V permit requirement – also known as "Major Facility Review" – applies once a source is constructed and begins operating. Title V operating permit requirements also apply to "major" facilities, those with emissions of 100 tons per year or more.

Title V permitting does not impose any new substantive requirements on sources. The substantive requirements to limit emissions are imposed through the pre-construction NSR permitting process, through the emissions standards and limitations in the District's regulations, and through other applicable legal requirements. Instead, Title V permits compile all of these substantive requirements in one single document to improve enforceability, implementation, and transparency. The Title V permit thus becomes an important regulatory document covering the facility's operation, providing facility operators, District inspectors, interested members of the public, and others with a single location to readily access all of the applicable air quality requirements to which the facility is subject. In this way, Title V permits aid in enhancing the enforceability of air quality requirements, in ensuring compliance with such requirements by the facility, and in providing transparency for the public in how air quality regulations are being implemented. The District's Title V Major Facility Review permitting program is contained in Regulation 2, Rule 6 (with certain elements of the District's general permitting requirements in Regulation 2, Rule 1 also helping to implement the Title V program).

2.4.1.3 District Permit Programs Implementing Federal Clean Air Act Requirements

Both the NSR and Title V permitting programs have their genesis in the federal Clean Air Act. In the Clean Air Act, Congress established a requirement that every region of the country must have NSR and Title V permitting programs in place that satisfy the Act's minimum standards. But Congress envisioned that the states would take the lead in implementing these requirements and would adopt their own permitting programs under state law to do so. Congress intended that the states would use their own regulatory powers under state law to establish state-law permitting programs that meet the minimum requirements set forth in the Clean Air Act. EPA would then review these state-law permitting programs to ensure that they were sufficiently stringent, and then would approve them as satisfying the Act's minimum requirements. Once EPA has approved a state's program, the state then implements the Act's requirements through that program, and permits issued by the state agency under that program satisfy the federal legal requirements in the Clean Air Act.

This is the situation for both NSR and Title V permitting. Congress created these programs in the Clean Air Act and then looked to the states (often through local or regional agencies such as the Air District) to adopt their own permitting programs to implement this federal mandate. Congress gave the states leeway to be more stringent if they want to, and California has also adopted its own additional requirements over and above the federal minimum requirements, in particular with respect to New Source Review. But the basic concept is that Congress established certain minimum requirements that need to be in place in every region throughout the county, and then looked to states to adopt their own state-law programs that meet or exceed these federal minimum requirements. Where a state is unwilling or unable to do so, then the federal government, through EPA, steps in and implements its own federal program to ensure that the federal minimum requirements are met in all cases.

2.4.2 THE DISTRICT'S CURRENT NEW SOURCE REVIEW AND TITLE V PROGRAMS

The District has adopted permitting programs to implement these federal NSR and Title V programs, with certain additional and more stringent provisions as required by California law and/or District regulations.

With respect to NSR, the District has adopted Non-Attainment NSR permitting requirements in Regulation 2, Rule 2 (New Source Review) and related provisions. EPA approved the District's Regulation 2, Rule 2 for Non-Attainment NSR purposes on January 26, 1999. (See 64 Fed. Reg. 2850.) The District's Non-Attainment NSR requirements actually go beyond the federal minimum requirements in a number of respects. For example, Regulation 2-2 requires BACT for sources with emissions of only 10 pounds per day, whereas the federal requirement does not require offsets until a facility's emissions reach 100 tons per year, a much higher threshold. Similarly, Regulation 2-2 requires offsets for ozone precursors (nitrogen oxides (NOx) and volatile

organic compounds (VOC)) at facilities with emissions of 10 tons per year, which is also lower than the federal threshold. Many of these more stringent elements are the result of state-law requirements in the California Health & Safety Code that require the District's program to exceed the federal minimum requirements.

For historical reasons, however, EPA has never approved the District's PSD program. For the PSD element of NSR permitting, the District has never had an EPA-approved program. Instead, EPA's federal PSD program set forth in the Code of Federal Regulations (C.F.R.) governs PSD permitting for sources in the Bay Area. (See 40 C.F.R. § 52.21.) PSD permits issued under this program are federal permits issued through EPA's authority under the Clean Air Act, not District permits issued through the District's authority under the California Health & Safety Code. PSD permits are governed by federal law and regulations and are appealable through the Environmental Appeals Board (EPA's federal administrative tribunal) and ultimately to the federal courts. For administrative convenience, EPA has delegated the processing of certain types of federal PSD permits to the District, and the District evaluates and issues such permits on EPA's behalf, but they remain federal PSD permits issued under EPA's authority. As EPA's Environmental Appeals Board has noted, in such cases the District does so exercising EPA's federal regulatory authority "standing in the shoes" of EPA.

With respect to Title V permitting, EPA has approved the District's Title V program. Title V permitting in the Bay Area is a District permitting program implemented through District Regulation 2, Rule 6. EPA approved the Title V permitting provisions in Regulation 2, Rule 6 on June 23, 1995. (See 60 Fed. Reg. 32,606.)

This is the current state of the District's NSR and Title V permitting regulations. The proposed amendments would make changes to these regulation programs as they currently exist. The full text of the District's current regulations can be found in on the District's web page (www.baaqmd.gov/Divisions/Planning-and-Research/Rules-and-Regulations.aspx). For PSD permitting, the PSD regulations that currently govern permitting in the Bay Area can be found at 40 C.F.R. Section 52.21.

2.4.3 RECENT REGULATORY DEVELOPMENTS

There have been a number of recent regulatory developments regarding NSR and Title V permitting since the Air District last updated its programs. District staff have developed the proposed revisions to address these recent developments, which are described below.

2.4.3.1 Bay Area Designated "Non-Attainment" of 24-Hour $PM_{2.5}$ NAAQS

Particulate matter (PM) pollution is commonly referred to based on the size of the particles that constitute the particulate matter being addressed. For many years, the most common regulatory designation of PM was PM_{10}, or particulate matter with a diameter of 10 microns or less. More recently, $PM_{2.5}$, or particulate matter with a diameter of 2.5 microns or less, has become the subject of heightened regulatory scrutiny. As part of this increased focus on $PM_{2.5}$, EPA revised its National Ambient Air Quality Standards for

particulate matter to include standards specific to both PM_{10} and $PM_{2.5}$. EPA has subsequently begun implementing its NAAQS for $PM_{2.5}$, which has included a review of the status of the air quality in every region of the country to determine whether or not it complies with the $PM_{2.5}$ standards.

Based on such a review, EPA has recently designated the San Francisco Bay Area as non-attainment of the short-term (24-hour-average) $PM_{2.5}$ NAAQS. This means that EPA has made an administrative determination that the amount of $PM_{2.5}$ in the ambient air in the Bay Area exceeds EPA's federal health-based standard for $PM_{2.5}$, averaged over 24 hours. EPA reviewed data on the concentration of $PM_{2.5}$ in the air measured at locations around the Bay Area over a period of years, and based on this data designated the Bay Area as Non-Attainment of this NAAQS effective December 14, 2009. More recent data have shown that $PM_{2.5}$ concentrations have now come down to below the NAAQS, and the Air District has prepared a "Clean Data Finding" to submit to EPA addressing this situation. For the time being, however, the Bay Area remains administratively designated as "non-attainment" of the $PM_{2.5}$ NAAQS.

This "non-attainment" designation means that $PM_{2.5}$ emission sources in the Bay Area are now subject to Non-Attainment NSR requirements (i.e., BACT, offsets, a compliance certification and alternatives analysis, and public notice and comment) for that pollutant. The requirements took effect immediately upon the effective date of the designation in December of 2009 under EPA's interim Non-Attainment NSR regulations in 40 C.F.R. Part 51, Appendix S (Appendix S). To implement these requirements for the longer term under the District's NSR program, the District must update its NSR permitting regulations to add these requirements for sources that emit $PM_{2.5}$. The District's current NSR permitting regulations already include Non-Attainment NSR requirements for PM_{10}, and the District is now required to add requirements specifically for the $PM_{2.5}$ portion of particulate matter emissions to implement them through the District's program. If the District does not do so, then EPA will need to regulate these emissions sources under a federal implementation program.

In addition, as part of EPA's $PM_{2.5}$ NSR implementation regulations, EPA has clarified how PM emissions must be measured. There are two components to particulate matter emissions: (i) solid particles that are emitted directly from the exhaust stack; and (ii) gaseous components that are not in solid form when they are emitted but rapidly condense to form solid particles as they cool down in the ambient air. The first component is known as "filterable" particulate matter, and the second component is known as "condensable" particulate matter. Historically, NSR regulations have not explicitly defined how particulate matter is to be measured, and in many cases NSR has been applied taking only the filterable component into account (although in some cases condensable particulate matter has been included as well). In part, this was because testing methodologies were not as advanced for the condensable component as they were for the filterable component. More recently, however, improvements in testing methodologies have led EPA to revise its particulate matter definitions to specify explicitly that both the filterable and condensable components must be included for all purposes for NSR permitting. EPA's revised NSR implementation regulations establish

specifically that all implementation of NSR requirements for particulate matter – both for $PM_{2.5}$ and for PM_{10} – must be based on both the filterable and condensable components. (See EPA's $PM_{2.5}$ Implementation Rule, 73 Fed. Reg. 28,321 (May 16, 2008), for further details.) These provisions are currently in effect for the Non-Attainment NSR permitting provisions referred to above that are applicable to $PM_{2.5}$ sources in the Bay Area under Appendix S; and they are in effect generally for EPA's NSR approval requirements for state programs under 40 C.F.R. Sections 51.165 and 51.166. The District now must update its permitting programs in Regulation 2, Rule 2 to reflect this regulatory development.

2.4.3.2 Federal Regulation of GHGs

EPA has also begun regulating GHG emissions from light duty cars and trucks. Although these requirements apply to mobile sources, they are the first time that EPA has imposed substantive emissions limitations on GHG emissions under the Clean Air Act. As a result of these regulations, GHGs are now "subject to regulation" as that phrase is used under the NSR and Title V programs. Those programs require NSR and Title V permitting for major stationary sources for all pollutants that are "subject to regulation", which now includes GHGs. The District's permitting programs must now include GHGs to reflect this requirement. (See EPA's so-called "Tailoring Rule", 75 Fed. Reg. 31,515 (June 3, 2010), for further details.)

For GHG emissions sources in the Bay Area, these requirements are already in effect under the NSR program. GHGs are regulated under the PSD element of NSR, and the federal PSD permitting program applies for GHG emissions from these sources. But the PSD provisions in the District's NSR rules do not yet address GHGs, and so the District needs to revise Regulation 2, Rule 2 to extent its own PSD permitting provisions to cover GHGs. For Title V, the District's Title V regulations already implicitly cover GHG sources as described below, but they need to be revised to state explicitly how GHGs will be regulated under that program.

2.4.3.3 Lack of EPA-Approved PSD Program in the Bay Area

As noted above, the District has never had an EPA-approved PSD program. Instead, EPA has been administering the PSD program itself under its federal regulations, with the District issuing PSD permits on EPA's behalf under a federal delegation agreement. When this arrangement was first set up, it appeared to be a workable one because EPA's PSD permitting procedures are very similar to the District's Non-Attainment NSR permitting procedures, and it was presumed that if the District simply followed its own permitting procedures, that would satisfy both District requirements and federal PSD requirements. However, a number of situations have arisen where slight differences between the District's permitting requirements and the federal PSD requirements have led to problems with PSD permitting that resulted in procedurally defective PSD permits. It is now clear that having separate permitting regulations for Non-Attainment NSR (under District regulations) and for PSD (under EPA's federal regulations) is untenable. It is now clear that to avoid such problems, the District needs to adopt its own District

PSD permitting requirements and have EPA approve them for PSD permitting in the Bay Area. (Note that the District does have existing PSD provisions in Regulation 2, Rule 2, and these permitting requirements are currently on the books and legally effective under state law. They have never been approved by EPA as effective for federal Clean Air Act purposes, however, which has given rise to the problems with inconsistencies between District and federal permitting requirements.)

2.4.3.4 EPA-Identified Deficiencies in Current District NSR Provisions

During the development of the proposed amendments, Air District staff met with representatives from EPA Region IX regarding the District's existing permitting programs and the District's plans for updating them. In addition to the regulatory developments outlined above, EPA Region IX staff also identified several deficiencies in the District's current regulations that need to be addressed. EPA Region IX staff also documented a number of these deficiencies in a comment letter submitted in connection with a draft of the proposed amendments that the District circulated for public review and comment. (See comment letter from G. Rios, EPA Region IX, to C. Lee, BAAQMD, July 26, 2012.) As EPA Region IX staff have pointed out, there are certain areas in which the District's NSR program does not fully satisfy EPA's current requirements for such programs, which need to be addressed in order for EPA to be able to continue to approve the District's program. If the District does not incorporate these federal requirements into its NSR program, then EPA will not be able to approve the District's program and will need to implement the requirements itself under its federal regulatory authority.

2.4.3.5 Additional Deficiencies Identified by District Staff

In addition, Air District staff also identified certain areas in which the District's NSR and Title V programs should be amended in order to work more effectively in helping the District to achieve its clean air goals. The District's current programs are already very comprehensive and robust, but there are always opportunities to improve any regulatory program. Air District staff have noted several such areas through their experience in implementing these programs in recent years. The current update process presents an ideal opportunity to address these issues, which are relatively minor compared to the other updates being addressed, but are nonetheless important from a permitting efficiency and effectiveness standpoint.

2.4.3.6 Need to Streamline and Clarify Current Regulations

Finally, the District's NSR regulations are in some places difficult to understand and implement. The regulations have developed over the years as new requirements have been added or updated, and sometimes that has happened without any consideration of how the regulations work as a coherent whole. District staff have therefore realized that Regulation 2, Rule 2 (and certain other provisions) are in need of an overhaul to reorganize and clarify them. In addition, certain regulatory language is confusing and it can be difficult to understand how the regulation is intended to be applied in practice.

This situation can cause confusion among the regulatory community and others about exactly what is required by the regulations, and it can lead to inconsistent implementation by District staff. To address these issues, the proposed amendments reorganize Regulation 2, Rule 2 and related provisions and revise much of the regulatory language used to present it in a manner that is clearer and easier to understand.

2.4.4 PROPOSED AMENDMENTS TO REGULATION 2

District Staff have developed the proposed amendments to address the recent regulatory developments outlined above. The proposed amendments will update the District's NSR and Title V permitting programs accordingly.

The proposed amendments will affect the District's permitting rules in Regulation 2, and in particular the NSR regulations in Regulation 2, Rule 2 and the Title V regulations in Regulation 2, Rule 6. The proposed revisions to each of these Rules in Regulation 2 are set forth in draft revised regulations included as Appendix B of this EIR. The proposed amendments reflect a process of discussion with and input from a large number of stakeholders and other governmental agencies, including CARB and EPA, that has taken place over many months.

The proposed amendments are summarized below. A more detailed discussion of each specific change involved in the proposed amendments is also provided in the in the Staff Report being issued for the proposed amendments.

2.4.4.1 Adding New NSR Permitting Requirements for $PM_{2.5}$

The proposed amendments will add Non-Attainment NSR permitting requirements for $PM_{2.5}$ to Regulation 2, Rule 2, including: (i) a BACT requirement for $PM_{2.5}$, in Section 2-2-301; (ii) $PM_{2.5}$ offsets requirements, in Section 2-2-303; (iii) a compliance certification requirement, in Section 2-2-309; (iv) an alternatives analysis requirement, in Section 2-2-401.3; and (v) a public notice and comment requirement, in Section 2-2-404 (and related provisions). These requirements currently apply to $PM_{2.5}$ emissions sources in the Bay Area under 40 C.F.R. Part 51, Appendix S. The proposed amendments will incorporate them in the District's Regulation 2, Rule 2. The proposed amendments also include revisions to the District's emissions offsets banking regulation (Regulation 2, Rule 4) to ensure that the banking provisions will address $PM_{2.5}$ as well.

The proposed amendments also specify that $PM_{2.5}$ and PM_{10} must be addressed taking into account both the filterable and condensable portion of the particulate matter emissions. They add a new definition for $PM_{2.5}$, and revise the existing definition of PM_{10}, to specify that the condensable portion must be included. (See Sections 2-1-229 and 2-1-241.) They also include provisions to specify how to treat historical permit limits and regulatory determinations that may have been made taking into account only the filterable portion. (See sections 2-1-604 and 2-1-605.) This definition of particulate matter including both filterable and condensable emissions currently applies under the

federal NSR permitting program. These revisions will clarify how it applies under District regulations as well.

2.4.4.2 Adding NSR and Title V permitting requirements for GHGs

The proposed amendments will include GHG permitting requirements for the NSR and Title V programs.

For Title V, adding GHGs is primarily a matter of adding GHGs to the list of regulated air pollutants in Section 2-6-222; GHGs will be added in new subsection 2-6-222.6. The proposed amendments also include a number of other ancillary additions to ensure that other related implementation provisions address GHGs as well.

For NSR, GHGs are regulated under the PSD element of the NSR program because they are not "non-attainment" pollutants. (There is no NAAQS for GHGs, and so by definition the Bay Area cannot be non-attainment for GHGs.) GHG regulation will be implemented as part of the PSD program that is included in the proposed amendments described below. GHG emission sources in the Bay Area are currently regulated under the federal PSD program; the proposed amendments will shift PSD regulation for federal purposes to an EPA-approved District program.

2.4.4.3 Adopting a PSD Permitting Program for Approval by EPA

The proposed amendments add provisions to create a PSD permitting program that can be approved by EPA under the Clean Air Act. The primary PSD provisions include (i) a new term "PSD Project" in Section 2-2-224 to define the types of new sources and modifications to which the PSD provisions apply, along with some related definitions to help implement this term; (ii) a PSD BACT requirement in Section 2-2-304, which requires PSD BACT for all new and modified sources above the PSD applicability thresholds; (iii) a PSD air quality impact analysis requirement in Section 2-2-305, which requires a demonstration that the PSD Project will not cause or contribute to a violation of any NAAQS or any PSD increment; (iv) a PSD additional impacts analysis requirement in Section 2-2-306, which requires an analysis of potential impacts to visibility, soils and vegetation from the project and from any associated growth; (v) a Class I Area impact analysis in Section 2-2-307, which requires projects that may impact any Class I Area to conduct an analysis of potential impacts to air-quality-related values within such areas (and which also encompasses non-attainment pollutants as required by 40 C.F.R. section 51.307(b)); and (vi) a public notice and comment requirement, in Section 2-2-404 (and related provisions). These provisions will apply to major emitters of all PSD pollutants, which includes GHGs as noted above. The proposed amendments will shift federal PSD permitting under the Clean Air Act from EPA's program under 40 C.F.R. Section 52.21 to the District's program under Regulation 2, Rule 2.

2.4.4.4 Revising the Applicability Test for NSR Permitting for "Modifications" to Existing Sources

The proposed amendments also revise the applicability test for NSR permitting requirements as they apply to modifications to existing sources. The NSR requirements apply to new sources and to "modified" sources as defined in District Regulation 2-1-234, and so the definition in Section 2-1-234 has central importance for NSR permitting. Whether NSR requirements apply when a change is made at an existing source depends on whether the change constitutes a "modification" under that definition.

The District's current provision bases the definition of "modification" on whether the change being implemented at the existing source will result in an increase in the source's potential to emit air pollution. EPA has approved this approach to defining whether existing sources need to go through NSR permitting in the District's current EPA-approved version of Regulation 2, Rule 2, and in similar NSR program provisions adopted by other California air districts. EPA Region IX staff have informed the District that EPA will no longer approve this definition, however. EPA Region IX staff have taken the position that the NSR "modification" test must be based on the source's actual historical emissions, not on its maximum potential emissions (at least for major modifications to major facilities – what EPA calls "major NSR"). (See EPA Region IX July 26, 2012, comment letter.)

To address this change in EPA policy, the proposed amendments include adding an additional element to the current "modification" test to incorporate EPA's test in any situation where that test may be more stringent. The District believes that overall its current test is substantially more stringent than EPA's approach, but to address the potential that there could be situations where EPA's test would require NSR permitting where the District's test would not, the proposed amendments will incorporate the federal test as a "backstop" to ensure that the District's regulations are no less stringent. The District's current test will still apply to require NSR permitting for any change at an existing source that will result in an increase in the source's potential to emit. This element of the "modification" test will be in Section 2-1-234.1. In addition, the "federal backstop" test will also apply and will require NSR permitting for any change at an existing source that will result in a significant net increase over the source's actual historical emissions as required under EPA's test. This "federal backstop" element of the "modification" test will be in Section 2-1-234.2.

It is unlikely that this revision will require any additional sources to undergo NSR permitting review, as the District's current applicability test is already very stringent. Should there be any situation where a change at an existing source would be a "major modification" under EPA's test that would not already be covered by the District's current test, however, this new "federal backstop" test would come into play and would require the change to undergo NSR permitting review as a "modification" under Section 2-1-234. In every instance, the more stringent test will apply – either the District's current test, which will be applicable under Section 2-1-234.1; or the federal test, which will be applicable under Section 2-1-234.2.

2.4.4.5 Expanding the NAAQS Compliance Demonstration Requirement

The proposed amendments also add an expanded requirement for all new sources and modifications that will result in a significant increase in emissions to demonstrate that they will not cause or contribute to an exceedance of any NAAQS. This NAAQS compliance demonstration is similar to the air quality impact analysis required for PSD permitting, but it applies more broadly. The PSD requirement applies only to facilities over the PSD "major" facility threshold (emissions greater than 100 or 250 tons per year, depending on the source category); and it applies only to PSD pollutants. The expanded NAAQS compliance demonstration requirement applies to all facilities regardless of their size, and for all pollutants, including non-attainment pollutants. The requirement will apply to all new sources and modifications to existing sources that will result in a "significant" increase in emissions (using the established NSR "significance" thresholds, which are set forth in Section 2-2-227). The proposed amendments add this requirement for a number of reasons, including (i) a request by EPA Region IX staff to include provisions specifically aimed at ensuring that non-"major" sources will not interfere with attainment or maintenance of the NAAQS, as required by 40 C.F.R. Sections 51.160(a) and (b); (ii) comments received from the public noting that smaller sources could have the potential to cause NAAQS exceedances, even when they are below the NSR "major" facility thresholds; and (iii) a general policy concern that all appropriate precautions should be taken to ensure that the NAAQS are protected, given the important environmental and public health protections that those standards embody. This new requirement is in Section 2-2-308 in the proposed amendments.

2.4.4.6 Public Notice and Comment for Smaller Sources

The public notice and comment requirements described above have traditionally applied to "major" facilities. The proposed amendments would expand this requirement to provide public notice and comment for all facilities, regardless of size, where a new source or modification to an existing source will result in a "significant" increase in emissions as defined in Section 2-2-227. (This is the same applicability threshold as for the NAAQS compliance demonstration required described above.) This revised requirement is contained in Section 2-2-404 in the proposed amendments.

2.4.4.7 Miscellaneous Minor Revisions

The proposed amendments also include several more minor changes. Some of these changes were requested by EPA Region IX staff to address deficiencies where the District's existing NSR program does not fully satisfy EPA requirements for NSR, as discussed above. Other changes are being made based on Staff's determination that they are needed to make the District's permitting program work more effectively. Please see Appendix B for the proposed rule amendments for all such changes, as well as the discussion in the accompanying Staff Report.

2.4.4.8 Non-Substantive Reorganization and Revision of Regulatory Language

The proposed amendments also include a major reorganization of Regulation 2, Rule 2. This reorganization is not intended to make substantive changes to the way NSR permitting works. (The various areas in which substantive changes are being proposed are described elsewhere.) It is simply intended to make the regulation clearer and easier to understand and implement. In addition, the regulatory language that implements the NSR permitting requirements is being revised and clarified in a number of places, for similar reasons. The proposed amendments also make a few such changes in the other Rules in Regulation 2 that are being updated as part of this project.

2.4.4.9 Additional Details Regarding Proposed Amendments Provided In Draft Regulatory Language and Staff Report

The foregoing discussion is a summary of the changes that would be made under the proposed amendments. To understand these proposed amendments in more detail, please refer to the specific regulatory language of the proposed amendments that is contained in Appendix B. Further detailed discussion of the District's reasons for the proposed amendments and how they will work in practice is also provided in the Staff Report that Air District Staff are publishing concurrently with this EIR.

CHAPTER 3

ENVIRONMENTAL SETTING, IMPACTS, MITIGATION MEASURES, AND CUMULATIVE IMPACTS

3.0 INTRODUCTION AND SUMMARY OF CONCLUSIONS

This chapter provides the EIR's analyses of the project's impacts on existing environmental resources. The chapter describes the environmental resource areas that are addressed in these analyses; describes the existing setting or "baseline" for evaluating the project for each of these resource areas; discusses the thresholds of significance for determining whether the project could have a significant adverse impact on any of these resources areas; evaluates the potential for the project to have such a significant adverse impact, including a cumulative impact in conjunction with other similar projects; and addresses mitigation measures to mitigate any such significant potential impacts.

The analyses included in this chapter focus on those aspects of the environmental resource areas that were identified in the NOP/IS as having a potential to be significantly impacted by the proposed amendments so as to warrant a detailed review in the EIR. (See Appendix A). The analyses do not focus on those environmental resource areas where it was determined that the proposed amendments will not cause any significant adverse impact. The NOP/IS identified air quality and greenhouse gas emissions as the two resource areas in which there was a potential for a significant adverse impact that needed to be evaluated in the EIR.

The conclusions reached by the EIR's analysis are stated in Section 3.2.6. (Air Quality Impacts Conclusions) and Section 3.3.7 (GHG Impacts Conclusions). In summary, the EIR's analysis has found that the proposed amendments to District Regulation 2 will have overall beneficial environmental impacts on air quality and on greenhouse gas emissions. The proposed amendments will strengthen the Air District's permitting programs and thereby enhance the District's ability to implement its regulatory program and to achieve the Bay Area's clean air goals. The EIR has evaluated the potential for the proposed amendments to have adverse secondary impacts in connection with this strengthening of District regulations, and has concluded based on all available evidence that there will be no such significant adverse impacts. The support for these conclusions and the evidence on which they are based are discussed in detail in this Chapter.

3.1 FORMAT OF ANALYSIS

Each environmental resource section is organized into the following subsections: (1) Environmental Setting; (2) Thresholds of Significance; (3) Environmental Impacts; (4) Mitigation Measures; and (5) Cumulative Impacts. A description of each subsection follows.

3.1.1 ENVIRONMENTAL SETTING

CEQA Guidelines section 15125 requires that an EIR include a description of the physical environmental conditions in the vicinity of the proposed project as they exist at the time the NOP/IS is published, or if no NOP/IS is published, at the time the environmental analysis is commenced, from both a local and regional perspective. This

section describes the existing environment in the Bay Area as it exists at the time the NOP/IS was prepared (July, 2012).

3.1.2 THRESHOLDS OF SIGNIFICANCE

This section identifies the criteria used to determine when physical changes to the environment created as a result of the proposed project approval would be considered significant. The levels of significance for each environmental resource were established by identifying significance criteria for each environmental resource area. The significance determination under each impact analysis is made by comparing the proposed project impacts with the conditions in the existing setting, and then comparing the difference to the significance criteria.

3.1.3 ENVIRONMENTAL IMPACTS

The potential impacts associated with each discipline are either quantitatively analyzed where possible or qualitatively analyzed where data are insufficient to quantify impacts. The impacts are compared to the significance criteria to determine the level of significance.

The impact sections of this chapter focus on those areas that were identified as having a potential for an impact that could be considered potentially significant and thus warranted a detailed review in the EIR per the requirements of CEQA. An impact is considered significant if it leads to a "substantial, or potentially substantial, adverse change in the environment." Impacts from the project fall within one of the following categories:

Beneficial: Impacts will have a positive effect on the resource.

No Impact: There would be no impact to the identified resource as a result of the project.

Less than Significant: Some impacts may result from the project; however, they are judged to be less than significant. Impacts are frequently considered less than significant when the changes are minor relative to the size of the available resource base or would not change an existing resource. A "less than significant impact" applies where the environmental impact does not exceed the significance threshold.

Potentially Significant but Mitigation Measures Can Reduce Impacts to Less Than Significant: Significant adverse impacts may occur; however, with proper mitigation, the impacts can be reduced to less than significant.

Potentially Significant or Significant Impacts: Adverse impacts may occur that would be significant even after mitigation measures have been applied to minimize their severity. A "potentially significant or significant impacts" applies where the environmental impact exceeds the significance threshold, or information was lacking to make a finding of insignificance.

3.1.4 MITIGATION MEASURES

One important purpose of an EIR is to evaluate mitigation measures to minimize or avoid significant environmental impacts that could result from a project. Where a project will have a significant or potentially significant environmental impact, this section of the EIR describes feasible mitigation measures that could minimize such impacts. Such mitigation measures can include avoiding the impact altogether by not taking a certain action or parts of an action; minimizing impacts by limiting the degree or magnitude of the action and its implementation; rectifying the impact by repairing, rehabilitating or restoring the impacted environment; reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and compensating for the impact by replacing or providing substitute resources or environments. (See CEQA Guidelines § 15370.) Mitigation measures are only required to address significant impacts from a project and to reduce them to below a level of significance. Where a project will not have a significant environmental impact, there are by definition no significant impacts to mitigate and no mitigation measures are required. (See CEQA Guidelines § 15126.4(a)(3).)

3.1.5 CUMULATIVE IMPACTS

CEQA Guidelines section 15130(a) requires an EIR to discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable. Cumulative impacts are impacts that are created as the result of the combination of the project being evaluated (the proposed amendments here) and other projects causing related impacts.

3.2 AIR QUALITY

The NOP/IS (see Appendix A) identified air quality as an area with a potential for the proposed amendments to have a significant adverse impact that needs to be evaluated in the EIR. The potential for significant adverse air quality impacts associated with the proposed amendments are evaluated in this Section of this EIR. As stated in the conclusions in Section 3.2.6., the proposed amendments will have a beneficial impact on air quality. There will not be any significant adverse impacts on air quality as a result of the proposed amendments.

3.2.1 ENVIRONMENTAL SETTING

3.2.1.1 Criteria Pollutants

Ambient Air Quality Standards for Criteria Pollutants

It is the responsibility of the BAAQMD to ensure that state and federal ambient air quality standards are achieved and maintained in its geographical jurisdiction. Health-based air quality standards have been established by California and the federal government for the following criteria air pollutants: ozone, carbon monoxide (CO),

nitrogen dioxide (NO_2), PM_{10}, $PM_{2.5}$, sulfur dioxide (SO_2) and lead. These standards were established to protect sensitive receptors with a margin of safety from adverse health impacts due to exposure to air pollution. The California standards are more stringent than the federal standards. California has also established standards for sulfate, visibility, hydrogen sulfide, and vinyl chloride.

The state and national ambient air quality standards for each of these pollutants and their effects on health are summarized in Table 3-1. The BAAQMD monitored levels of various criteria pollutants at 23 monitoring stations in 2010. The 2010 air quality data from the BAAQMD's monitoring stations are presented in Table 3-2.

The 2010 air quality data from the BAAQMD monitoring stations are presented in Table 3-2. All monitoring stations were below the state standard and federal ambient air quality standards for CO, NO_2, and SO_2. The federal 8-hour ozone standard was exceeded on 9 days in the District in 2010, while the state 8-hour standard was exceeded on 11 days. The State 1-hour ozone standard was exceeded on 8 days in 2010 in the District. The ozone standards are most frequently exceeded in the Eastern District (Bethel Island (7 days) and Livermore (6 days)), and the Santa Clara Valley (San Martin (8 days), and Gilroy (7 days)) (see Table 3-2).

Air quality conditions in the San Francisco Bay Area have improved since the District was created in 1955. Ambient concentrations of air pollutants and the number of days on which the region exceeds air quality standards have fallen dramatically (see Table 3-3). The District is in attainment of the State and federal ambient air quality standards for CO, NOx, and SO_2. The District is not considered to be in attainment with the ozone standards and State PM_{10} and $PM_{2.5}$ standards.

TABLE 3-1
Federal and State Ambient Air Quality Standards

POLLUTANT	STATE STANDARD	FEDERAL STANDARD	PRINCIPAL EFFECTS
Ozone	0.09 ppm, 1-hr. avg. 0.070 ppm, 8-hr. avg.	0.075 ppm, 8-hr avg.	(a) Short-term exposures: (1) Pulmonary function decrements and localized lung edema in humans and animals (2) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (b) Long-term exposures: Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (c) Vegetation damage; (d) Property damage
Carbon Monoxide	9.0 ppm, 8-hr avg. 20 ppm, 1-hr avg.	9 ppm, 8-hr avg. 35 ppm, 1-hr avg.	(a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; (d) Possible increased risk to fetuses
Nitrogen Dioxide	0.03 ppm, annual avg. 0.18 ppm, 1-hr avg.	0.053 ppm, ann. avg. 0.10 ppm, 1-hr avg.	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; (c) Contribution to atmospheric discoloration
Sulfur Dioxide	0.04 ppm, 24-hr avg. 0.25 ppm, 1-hr. avg.	0.14 ppm, 24-hr. avg. 0.075 ppm, 1-hr avg.	(a) Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma
Suspended Particulate Matter (PM_{10})	20 µg/m^3, annual arithmetic mean 50 µg/m^3, 24-hr average	150 µg/m^3, 24-hr avg.	(a) Excess deaths from short-term exposures and exacerbation of symptoms in sensitive patients with respiratory disease; (b) Excess seasonal declines in pulmonary function, especially in children
Suspended Particulate Matter ($PM_{2.5}$)	12 µg/m^3, annual arithmetic mean	15 µg/m^3, annual arithmetic mean 35 µg/m^3, 24-hour avg.	Decreased lung function from exposures and exacerbation of symptoms in sensitive patients with respiratory disease; elderly; children.
Sulfates	25 µg/m^3, 24-hr avg.		(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; (f) Property damage
Lead	1.5 µg/m^3, 30-day avg.	1.5 µg/m^3, calendar quarter avg. 0.15 µg/m^3, 3-mo. avg.	(a) Increased body burden; (b) Impairment of blood formation and nerve conduction
Visibility-Reducing Particles	Causing extinction coefficient >0.23 inverse kilometers (visual range to less than 10 miles) at relative humidity <70%, 10am - 6pm avg.		Nephelometry and AISI Tape Sampler; instrumental measurement on days when relative humidity is less than 70 percent

Notes: (1) Federal standard listed is the federal primary NAAQS
(2) Concentrations are listed in parts per million (ppm) and in micrograms per cubic meter (µg/m^3)
(3) Standards are based on the averaging time listed (e.g., 1-hour average, 3-month average, etc.)

TABLE 3-2
Bay Area Air Pollution Summary - 2010

MONITORING STATIONS	OZONE						CARBON MONOXIDE			NITROGEN DIOXIDE			SULFUR DIOXIDE			PM_{10}				$PM_{2.5}$				
	Max 1-hr	Cal 1-hr Days	Max 8-hr	Nat 8-Hr Days	Cal Days	3-Yr Avg	Max 1-hr	Max 8-hr	Nat/ Cal Days	Max 1-Hr	Ann Avg	Nat/ Cal Days	Max 1-hr	Max 24-hr	Nat/ Cal Days	Ann Avg	Max 24-hr	Nat Days	Cal Days	Max 24-hr	Nat Days	3-Yr Avg	Ann Avg	3-Yr Avg
North Counties	(ppb)						(ppm)			(ppb)			(ppb)			(μm^3)				(μm^3)				
Napa	106	1	89	2	2	66	2.3	1.4	0	56.0	9	0	--	--	--	17.4	37	0	0	--	--	--	--	--
San Rafael*	83	0	69	0	0	54	1.7	1.1	0	57.0	12	0	--	--	--	16.7	51	0	1	46.5	4	*	10.7	*
Santa Rosa	84	0	68	0	0	54	2.5	1.1	0	42.0	8	0	--	--	--	--	--	--	--	26.6	0	26	7.2	8.1
Vallejo	91	0	80	1	2	63	2.9	1.9	0	55.0	9	0	11.0	2.4	0	--	--	--	--	29.5	0	31	7.7	9.1
Coast/Central Bay																								
Berkeley*	75	0	49	0	0	44	2.5	1.5	0	53.4	13	0	9.0	2.4	0	21.0	43	0	0	--	--	--	--	--
Oakland	97	1	58	0	0	53	3.0	1.6	0	64.1	13	0	11.0	3.7	--	--	--	--	--	25.2	0	23	7.8	8.9
Oakland West	--	--	--	--	--	--	2.7	1.7	0	68.6	16	0	--	--	--	--	--	--	--					
Richmond	--	--	--	--	--	--	--	--	--	--	--	--	26.0	6.5	0	--	--	--	--	--	--	--	--	--
San Francisco	79	0	51	0	0	47	1.8	1.4	0	92.9	13	0	--	--	--	19.9	40	0	0	45.3	3	26	10.5	10.0
San Pablo*	97	1	81	1	1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	--	--	--	--	--
Eastern District																								
Bethel Island	106	3	86	4	7	76	1.4	0.8	0	32.3	6	0	19.0	3.3	0	18.7	70	0	1	--	--	--	--	--
Concord	103	2	87	1	4	74	1.2	1.0	0	42.0	8	0	9.0	2.4	0	13.7	41	0	0	36.4	1	30	7.6	9.0
Crockett	--	--	--	--	--	--	--	--	--	--	--	--	16.3	4.1	0	--	--	--	--	--	--	--	--	--
Fairfield	103	1	81	2	3	69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Livermore	150	3	97	3	6	80	--	--	0	58.4	11	0	--	--	--	--	--	--	--	34.7	0	30	7.6	9.0
Martinez	--	--	--	--	--	--	--	--	--	--	--	--	37.0	5.5	0	--	--	--	--	--	--	--	--	--
South Central Bay																								
Fremont*	120	1	81	1	1	62	*	*	*	*	*	*	--	--	--	--	--	--	--	*	*	*	*	*
Hayward*	*	*	*	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redwood City	113	2	77	1	1	57	3.3	1.7	0	52.7	12	0	--	--	--	--	--	--	--	36.5	1	25	8.3	8.7
Santa Clara Valley																								
Gilroy	94	0	81	5	7	74	--	--	--	--	--	--	--	--	--	--	--	--	--	29.9	0	23	8.2	8.6
Los Gatos	109	2	87	2	3	73	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
San Jose Central	126	5	86	3	3	66	2.8	2.2	0	64.0	14	0	4.9	1.8	0	19.5	47	0	0	41.5	3	30	8.8	10.1
San Martin	109	2	87	5	8	75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Days over Standard		**8**		**9**	**11**				**0**			**0**			**0**			**0**	**2**		**6**			

* The Fremont site was closed on October 31, 2010; statistics are not available for all but the summer 2010 ozone season. The Berkeley site was closed on December 31, 2010 at the conclusion of a 3-year monitoring study. The San Pablo site was temporarily closed from March 2009 to May 2010 due to damage from a building fire. 2010 statistics are not available except for the summer peak ozone season. 3-year ozone statistics are not available. The Hayward site was temporarily closed in 2010 due to a major construction project adjacent to the site. Annual and 3-year average ozone statistics are not available. $PM_{2.5}$ monitoring began in San Rafael in October 2009. Three-year average $PM_{2.5}$ statistics are not available. A new site was opened in Cupertino on September 1, 2010 for a one-year monitoring study. Due to the brief period of monitoring in 2010, Cupertino data are not shown in this table.

(ppb) = parts per billion (ppm) = parts per million, ($\mu g/m^3$) = micrograms per cubic meter.

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TABLE 3-3

Bay Area Air Quality Summary
Days over Standards

YEAR	OZONE			CARBON MONOXIDE				NOx	SULFUR DIOXIDE		PM_{10}		$PM_{2.5}$
	1-Hr	8-Hr	8-Hr*	1-Hr		8-Hr		1-Hr	24-Hr		24-Hr*		24-Hr**
	Cal	Cal	Nat	Nat	Cal	Nat	Cal	Cal	Nat	Cal	Nat	Cal	Nat
2001	15	--	7	0	0	0	0	0	0	0	0	10	5
2002	16	--	7	0	0	0	0	0	0	0	0	6	7
2003	19	--	7	0	0	0	0	0	0	0	0	6	0
2004	7	--	0	0	0	0	0	0	0	0	0	7	1
2005	9	9	1	0	0	0	0	0	0	0	0	6	0
2006	18	22	12	0	0	0	0	0	0	0	0	15	10
2007	4	9	1	0	0	0	0	0	0	0	0	4	14
2008	9	20	12	0	0	0	0	0	0	0	0	5	12
2009	11	13	8	0	0	0	0	0	0	0	0	1	11
2010	8	11	9	0	0	0	0	0	0	0	0	2	6

* Ozone exceedance days beginning in 2008 reflect new U.S.EPA standard of 0.075 ppm.
** $PM_{2.5}$ exceedance days beginning in 2006 reflect new U.S.EPA standard of 35 $\mu g/m^3$.

All monitoring stations were in compliance with the federal PM_{10} standards. The California PM_{10} standards were exceeded on two days in 2010, at the San Rafael and Bethel Island monitoring stations. The Air District exceeded the federal $PM_{2.5}$ standard on 6 days, most frequently in San Rafael in 2010 (see Table 3-2).

Health Effects from Criteria Pollutants

Ozone

Ozone (O_3), a colorless gas with a sharp odor, is a highly reactive form of oxygen. High ozone concentrations exist naturally in the stratosphere. Some mixing of stratospheric ozone downward through the troposphere to the earth's surface does occur; however, the extent of such ozone transport is limited. At the earth's surface in sites remote from urban areas, ozone concentrations are normally very low (0.03-0.05 ppm).

While ozone is beneficial in the stratosphere because it filters out skin cancer-causing ultraviolet radiation, it is a highly reactive oxidant. It is this reactivity that accounts for its damaging effects on materials, plants, and human health at the earth's surface.

The BAAQMD began ozone monitoring in a few places in 1959. A large ozone monitoring network was established in 1965. The monitoring data in Table 3-3 illustrates the number of days per year that the Bay Area exceeded the State and federal ozone standards through much of the first decade of the 21st century. Ozone concentrations in the Bay Area still exceed the federal and State 8-hour ozone standards on occasion and the Bay Area is therefore designated as non-attainment for the State 8-hour ozone standard.

The propensity of ozone for reacting with organic materials causes it to be damaging to living cells, and ambient ozone concentrations in the Bay Area are occasionally sufficient to cause health effects. Ozone enters the human body primarily through the respiratory tract and causes respiratory irritation and discomfort, makes breathing more difficult during exercise, and reduces the respiratory system's ability to remove inhaled particles and fight infection. People with respiratory diseases, children, the elderly, and people who exercise heavily are more susceptible to the effects of ozone.

Plants are sensitive to ozone at concentrations well below the health-based standards, and ozone is responsible for significant crop damage. Ozone is also responsible for damage to forests and other ecosystems.

Ozone is not normally emitted directly from anthropogenic sources in any significant amounts. Rather, it is formed by a photochemical reaction between oxides of nitrogen (NOx) and volatile organic compounds (VOCs) in the presence of heat and sunlight. As such, it is referred to as a "secondary" pollutant, formed by a reaction between the precursors NOx and VOC.

Particulate Matter (PM)

Of serious concern to public health are the particles small enough to be inhaled into the deepest parts of the lung. Respirable particles can accumulate in the respiratory system and aggravate health problems such as asthma, bronchitis and other lung diseases. Children, the elderly, exercising adults, and those suffering from asthma are especially vulnerable to adverse health effects of PM. Scientific research and regulatory efforts have long focused on particulates with a diameter of less than 10 microns (PM_{10}) as the measure of particulate matter that is of concern. More recently, further research has identified particulates with a diameter of less than 2.5 microns ($PM_{2.5}$) as warranting special attention, as these fine particulates are especially problematic from a public health and environmental perspective.

A consistent correlation between elevated ambient fine particulate matter (PM_{10} and $PM_{2.5}$) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. Studies have reported an association between long-term exposure to air pollution dominated by fine particles ($PM_{2.5}$) and increased mortality, reduction in life-span, and an increased mortality from lung cancer.

PM particles are both directly emitted and formed as a secondary pollution from the reaction of precursor emissions, and they come from diverse emission sources. Major sources of directly emitted (primary) PM include re-suspended road dust or soil entrained into the atmosphere by wind or activities such as construction and agriculture. Emissions from these sources tend to be toward the larger end of the PM particle size range. Other major sources include combustion emissions. These emissions tend more toward the

smaller end of the PM particle size range. In addition to these direct PM emissions, PM also forms in the atmosphere (as secondary PM) from precursor emissions. PM precursors can include SO_2, NOx, ammonia, and VOCs.

PM can be emitted either as solid particles or as gaseous components that condense rapidly at ambient temperatures to form solid particulate matter. PM emissions in the solid phase are called "filterable" PM emissions, because they can be measured by passing the emissions through a filter and measuring the amount of PM that is trapped in the filter. PM emissions in the gaseous phase are called "condensable" PM emissions, because they pass through the filter and do not form solid particles until they condense at ambient temperatures.

Carbon Monoxide (CO)

CO is a colorless, odorless, relatively inert gas. It is a trace constituent in the unpolluted troposphere, and is produced by both natural processes and human activities. In remote areas far from human habitation, carbon monoxide occurs in the atmosphere at an average background concentration of 0.04 ppm, primarily as a result of natural processes such as forest fires and the oxidation of methane. Global atmospheric mixing of CO from urban and industrial sources creates higher background concentrations (up to 0.20 ppm) near urban areas. The major source of CO in urban areas is incomplete combustion of carbon-containing fuels, mainly gasoline. In 1997, 97 percent of the CO emitted into the District's atmosphere was from mobile sources. Consequently, CO concentrations are generally highest in the vicinity of major concentrations of vehicular traffic.

CO is a primary pollutant, meaning that it is directly emitted into the air, not formed in the atmosphere by chemical reaction of precursors, as is the case with ozone and other secondary pollutants. Ambient concentrations of CO in the District exhibit large spatial and temporal variations, due to variations in the rate at which CO is emitted, and in the meteorological conditions that govern transport and dilution. Unlike ozone, CO tends to reach high concentrations in the fall and winter months. The highest concentrations frequently occur on weekdays at times consistent with rush hour traffic and late night during the coolest, most stable atmospheric portion of the day.

When CO is inhaled in sufficient concentration, it can displace oxygen and bind with the hemoglobin in the blood, reducing the capacity of the blood to carry oxygen. Individuals most at risk from the effects of CO include heart patients, fetuses (unborn babies), smokers, and people who exercise heavily. Normal healthy individuals are affected at higher concentrations, which may cause impairment of manual dexterity, vision, learning ability, and performance of work. The results of studies concerning the combined effects of CO and other pollutants in animals have shown a synergistic effect after exposure to CO and ozone.

Nitrogen Dioxide (NO_2) and other Oxides of Nitrogen (NOx)

NO_2 is a reddish-brown gas with a bleach-like odor. Nitric oxide (NO) is a colorless gas, formed from the nitrogen (N_2) and oxygen (O_2) in air under conditions of high temperature and pressure which are generally present during combustion of fuels; NO reacts rapidly with the oxygen in air to form NO_2. NO_2 is responsible for the brownish tinge of polluted air. The two gases, NO and NO_2, are referred to collectively as nitrogen oxides or NO_X.

NO_2 is a respiratory irritant and reduces resistance to respiratory infection. Children and people with respiratory disease are most susceptible to its effects.

In addition to being a pollutant in its own right, NOx is also a precursor to the formation of other pollutants. In the presence of sunlight, NO_2 reacts to form nitric oxide and an oxygen atom. The oxygen atom can react further to form ozone, via a complex series of chemical reactions involving hydrocarbons. Nitrogen dioxide may also react to form nitric acid (HNO_3) which reacts further to form nitrates, which are a component of PM.

Sulfur Dioxide (SO_2)

SO_2 is a colorless gas with a sharp odor. At sufficiently high concentrations, SO_2 affects breathing and the lungs' defenses, and can aggravate respiratory and cardiovascular diseases. Asthmatics and people with chronic lung disease or cardiovascular disease are most sensitive to its effects. SO_2 also causes plant damage, damage to materials, and acidification of lakes and streams.

SO_2 is also a precursor to the secondary formation of other pollutants. It reacts in the air to form sulfuric acid (H_2SO_4), which contributes to acid precipitation, and sulfates, which are a component of PM.

Most of the SO_2 emitted into the atmosphere is produced by the burning of sulfur-containing fuels.

Volatile Organic Compounds (VOCs)

Regulatory agencies have not established any health-based standards (i.e., state or national ambient air quality standards) for VOCs, and they are not classified as criteria pollutants. VOCs are regulated, however, because VOC emissions contribute to the formation of ozone. They are also transformed into organic aerosols in the atmosphere, and can contribute to higher PM and lower visibility levels.

In addition, although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations of VOCs because of interference with oxygen uptake. In general, high ambient VOC concentrations in the atmosphere are suspected to cause coughing, sneezing, headaches, weakness, laryngitis, and bronchitis, even at low concentrations. In addition, some hydrocarbon components classified as

VOC emissions are thought or known to be hazardous. Benzene, for example, one hydrocarbon component of VOC emissions, is known to be a human carcinogen.

VOC emissions result primarily from incomplete fuel combustion and the evaporation of paints, solvents and fuels. Mobile sources are the largest contributors to VOC emissions. Stationary sources include processes that use solvents (such as manufacturing, degreasing, and coating operations) and petroleum refining and marketing. Area-wide VOC sources include consumer products, pesticides, aerosol and architectural coatings, asphalt paving and roofing, and other evaporative emissions.

3.2.1.2 Non-Criteria Pollutants (Toxic Air Contaminants)

In addition to criteria pollutants, the BAAQMD also works to reduce public exposure to airborne toxic compounds, or "toxic air contaminants" (TACs). TACs are a defined set of airborne pollutants that may pose a present or potential hazard to human health. TACs can be emitted directly and can also be formed in the atmosphere through reactions among different pollutants. The health effects associated with TACs are quite diverse and generally are assessed locally, rather than regionally. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis or genetic damage; or short-term acute affects such as eye watering, respiratory irritation, running nose, throat pain, and headaches. TACs are categorized into carcinogens and non-carcinogenic toxics based on the nature of the pollutant. Carcinogens act to increase cancer risks at any level of exposure; exposure to these TACs is regulated based on whether the increase in risk will be significant or not. Non-carcinogenic substances differ in that there is generally a level of exposure below which no negative health impacts will be observed. Non-carcinogenic TACs are regulated to keep exposure below these no-impact levels.

The Air District implements a comprehensive air toxics regulatory program designed to evaluate and reduce adverse health effects resulting from exposure to TACs. The air toxics program was established as a separate and complementary program to the health-based ambient air quality standards that have been established for criteria pollutants. For criteria pollutants, the District's regulatory program is aimed at keeping ambient air quality below the applicable standards throughout the Bay Area. For TACs, the air toxics program is aimed at ensuring that no one breathing the air in the Bay Area (known as "sensitive receptors") is exposed to unsafe levels of toxic risk. The major elements of the District's air toxics program are outlined below.

- Preconstruction review of new and modified sources for potential health impacts, and the requirement for new/modified sources with TAC emissions that exceed a specified threshold to use Toxics Best Available Control Technology (TBACT).
- The Air Toxics Hot Spots Program, designed to identify industrial and commercial facilities that may result in locally elevated ambient concentrations of TACs, to report significant emissions to the affected public, and to reduce unacceptable health risks.

- Control measures designed to reduce emissions from source categories of TACs, including rules originating from the state Toxic Air Contaminant Act and the federal Clean Air Act.
- The TAC emissions inventory, a database that contains information concerning routine and predictable emissions of TACs from permitted stationary sources.
- Ambient monitoring of TAC concentrations at a number of sites throughout the Bay Area.

Air Toxics Emission Inventory

The BAAQMD maintains a database that contains information concerning emissions of TACs from permitted stationary sources in the Bay Area. This inventory, and a similar inventory for mobile and area sources compiled by CARB, is used to plan strategies to reduce public exposure to TACs. The detailed emissions inventory is reported in the BAAQMD, Toxic Air Contaminant Control Program, 2008 Annual Report (BAAQMD, 2011). The 2008 emissions inventory continues to show decreasing emissions of many TACs in the Bay Area. The most dramatic emission reductions in recent years have been for certain chlorinated compounds that are used as solvents including 1,1,1-trichloroethane, perchloroethylene, and trichloroethylene.

Ambient Monitoring Network

Table 3-4 contains a summary of average ambient concentrations of TACs measured at monitoring stations in the Bay Area by the District in 2008.

TABLE 3-4

Summary of BAAQMD Ambient Air Toxics Monitoring Data[(1)]

Pollutant	Units	Average MDL [(1)]	% less than MDL	Max Sample Value	Min Sample Value	Average Sample Value [(2) (3)]
1,3-Butadiene	ppb	5.00E-02	87%	2.60E-01	0.00E+00	3.51E-02
Acetaldehyde	ppb	1.00E-01	1%	2.66E+00	1.00E-01	6.47E-01
Acetone	ppb	3.00E-01	0%	4.30E+01	4.00E-01	2.53E+00
Acetonitrile	ppb	3.00E-01	29%	1.25E+00	0.00E+00	3.88E-01
Antimony	ng/m^3	3.00E+00	98%	3.10E+00	1.50E+00	1.53E+00
Arsenic	ng/m^3	1.50E+00	98%	9.30E+00	7.50E-01	8.70E-01
Benzene	ppb	5.00E-02	1%	1.11E+00	0.00E+00	2.04E-01
Bromomethane	ppb	3.00E-02	92%	7.00E-02	1.50E-02	1.79E-02
Cadmium	ng/m^3	1.50E+00	96%	2.80E+00	7.50E-01	8.14E-01
Carbon Tetrachloride	ppb	1.00E-02	0%	1.50E-01	1.00E-02	9.81E-02
Chlorine	$\mu g/m^3$	7.18E-03	12%	1.87E+00	0.00E+00	2.54E-01
Chloroform	ppb	2.00E-02	66%	5.90E-01	0.00E+00	1.71E-02
Chromium	ng/m^3	3.00E+00	54%	8.50E+01	1.50E+00	4.76E+00

Pollutant	Units	Average MDL [1]	% less than MDL	Max Sample Value	Min Sample Value	Average Sample Value [2] [3]
Cis-1,3-Dichloropropylene	ppb	1.00E-01	100%	5.00E-02	5.00E-02	5.00E-02
Cobalt	ng/m^3	1.50E+00	98%	4.10E+00	7.50E-01	7.90E-01
Copper	ng/m^3	1.50E+00	0%	4.00E+01	3.00E+00	1.38E+01
Dichloromethane	ppb	1.00E-01	48%	8.67E+00	0.00E+00	1.65E-01
Ethyl Alcohol	ppb	6.60E-01	4%	9.00E+01	0.00E+00	2.48E+01
Ethylbenzene	ppb	2.00E-01	48%	1.01E+00	0.00E+00	9.66E-02
Ethylene Dibromide	ppb	1.00E-02	100%	0.00E+00	0.00E+00	5.00E-03
Ethylene Dichloride	ppb	1.00E-01	100%	0.00E+00	0.00E+00	5.00E-02
Formaldehyde	ppb	1.00E-01	0%	4.60E+00	2.72E-01	1.07E+00
Lead	ng/m^3	1.50E+00	4%	2.50E+01	7.50E-01	5.94E+00
M/P Xylene	ppb	2.00E-01	11%	3.31E+00	0.00E+00	3.55E-01
Magnesium	$\mu g/m^3$	1.33E-02	47%	2.02E-01	0.00E+00	3.30E-02
Manganese	ng/m^3	1.50E+00	8%	1.70E+02	7.50E-01	1.71E+01
Mercury	$\mu g/m^3$	6.08E-03	98%	1.04E-02	0.00E+00	3.12E-03
Methyl Chloroform	ppb	2.00E-02	89%	1.16E+00	0.00E+00	2.60E-02
Methyl Ethyl Ketone	ppb	1.00E-01	31%	1.71E+00	0.00E+00	1.81E-01
Naphthalene	ng/m^3	6.35E-01	0%	2.09E+02	1.74E+01	6.97E+01
Nickel	ng/m^3	9.00E+00	67%	1.00E+02	4.50E+00	1.05E+01
O-Xylene	ppb	1.00E-01	29%	1.14E+00	0.00E+00	1.27E-01
PAHs[4]	ng/m^3					1.79E-01
Selenium	ng/m^3	1.50E+00	84%	5.40E+01	7.50E-01	1.74E+00
Styrene	ppb	1.00E-01	98%	8.40E-01	5.00E-02	6.01E-02
Tetrachloroethylene	ppb	1.00E-02	29%	2.00E+00	0.00E+00	2.26E-02
Toluene	ppb	2.00E-01	2%	3.38E+00	4.00E-02	6.54E-01
Trans-1,3-Dichloropropylene	ppb	1.00E-01	100%	5.00E-02	5.00E-02	5.00E-02
Trichloroethylene	ppb	2.00E-02	87%	7.70E-01	0.00E+00	1.40E-02
Trichlorofluoromethane	ppb	1.00E-02	0%	7.40E-01	1.60E-01	2.58E-01
Vanadium	ng/m^3	1.50E+00	34%	6.10E+01	7.50E-01	3.79E+00
Vinyl Chloride	ppb	1.00E-01	100%	0.00E+00	0.00E+00	5.00E-02
Zinc	ng/m^3	3.00E+00	0%	5.90E+01	8.00E+00	2.45E+01

(1) Source: BAAQMD 2008 Toxic Air Contaminant Monitoring Data. Data are a summary of data from all monitoring stations within the District.

(2) Some samples (especially metals) have individual MDLs for each sample. An average of these MDLs was used to determine 1/2 MDL for the Average Sample Value.

(3) If an individual sample value was less than the MDL (Method Detection Limit), then 1/2 MDL was used to determine the Average Sample Value.

(4) These substances are PAH-derivatives that have OEHHA-developed Potency Equivalency Factors (PEFs). PAHs should be evaluated as benzo(a)pyrene equivalents. This evaluation process consists of multiplying individual PAH-specific emission levels with their corresponding PEFs listed below. The sum of these products is the benzo(a)pyrene-equivalent level.

Ongoing Regulatory Efforts

The Air District and other regulatory agencies are implementing a number of efforts that will help reduce TAC emissions in the Bay Area going forward. These include the District's 2010 Clean Air Plan; CARB regulations to reduce diesel emissions from off-road emissions sources (such as cargo handling equipment, locomotives and transport refrigeration units), on-road emission sources (truck and buses), marine and related equipment (harbor craft, recreational marine engines, ocean-going vessels, and shore power), stationary diesel engines and portable diesel equipment; and transportation control measures in the Metropolitan Transportation Commissions Transportation 2035 Plan.

3.2.1.3 Current Emissions Sources

The two general categories of sources of air pollution emissions in the Bay Area are stationary sources and mobile sources.

Stationary Sources

Stationary sources can be further divided between point and area sources.

Point Sources: Point sources are those that are identified on an individual facility or source basis, such as refineries and manufacturing plants. BAAQMD maintains a computer data bank with detailed information on operations and emissions characteristics for nearly 8,000 facilities, with roughly 20,000 different sources, throughout the Bay Area.

Area Sources: Area sources are stationary sources that are individually very small, but that collectively make a large contribution to the inventory. Many area sources do not require permits from the BAAQMD, such as residential heating, and the wide range of consumer products such as paints, solvents, and cleaners. Some facilities considered to be area sources do require permits from the BAAQMD, such as gas stations and dry cleaners.

Mobile Sources

Mobile sources include on-road motor vehicles such as automobiles, trucks, and buses, as well as non-road sources such as construction equipment, boats, trains, and aircraft. Estimates of on-road motor vehicle emissions are based on consideration of the fleet mix (vehicle type, model year, and accumulated mileage), miles traveled, ambient temperatures, vehicle speeds, and vehicle emission factors, as developed from comprehensive CARB testing programs.

3.2.1.4 Existing Regulatory Setting

The Air District regulations that are the subject of the proposed amendments are part of a comprehensive system of overlapping federal, state and local regulatory provisions that govern air quality. The changes that will be implemented through the proposed amendments must be evaluated in relation to these existing regulatory provisions. The existing state of the regulations forms the baseline against which the proposed amendments will make changes, and the extent of any environmental impacts that may result from the proposed amendments is measured against the current conditions as they exist under the current regulatory system. (See *Black Property Owners Ass'n v. City of Berkeley* (1994) 22 Cal. App. 4th 974, 985 (holding that existing housing policies in a general plan that are not being amended are part of the existing regulatory background conditions; "the question is the potential impact on the existing environment of *changes* in the plan which are embodied in the amendment." (emphasis in original, citations omitted)).) This section summarizes the existing state of air quality regulation to establish the baseline against which the changes resulting from the proposed amendments are evaluated.

NSR and Title V Permitting Generally

The NSR and Title V permitting programs are regulatory programs that were established by Congress in the Clean Air Act. (See CAA Title I, Pts. C & D; and Title V.) Congress adopted these permitting programs within a framework that has come to be known as "Cooperative Federalism", in which Congress establishes the principal requirements for the programs under federal law, and then the states adopt their own permitting programs under state law to implement these requirements at individual emissions sources within each state. Congress, and EPA implementing the Act under the authority granted to it by Congress, therefore establish the basic regulatory requirements, and then look to the states to implement them. The states can be more stringent if they so decide (and the Air District has done so in a number of areas), but at a minimum they must incorporate the regulatory requirements that Congress and EPA have established under the CAA.

The states are required to adopt these requirements and submit them to EPA for review and approval. If EPA approves them as fully implementing all of the applicable federal requirements, then they become the effective regulations for purposes of complying with the Clean Air Act's NSR and Title V requirements. If for some reason EPA finds that the state has not adopted regulations that fully implement these federal requirements, then EPA steps in and regulates emissions sources in the state directly under federal law (and imposes monetary and other sanctions on the state). (See CAA § 110(c)(1), 74 U.S.C. § 7410(c)(1).)

The Clean Air Act and EPA's implementing regulations therefore establish the basic regulatory requirements for NSR and Title V permitting that will apply to individual emissions sources within the Bay Area. The process of adoption and implementation of

the District's NSR and Title V regulations incorporates them into District regulations so that they will be implemented by the District rather than by EPA directly.

The bulk of the changes to District regulations in the proposed amendments address such federal requirements. There are a number of such requirements that EPA has added to the NSR and Title V programs in recent years. The District now needs to update its permitting programs to add these requirements to its own regulations that implement the federal NSR and Title V programs. Incorporating these requirements into District regulations will shift the implementation of these requirements from the federal government to the state level, and will allow EPA to continue to approve the District's regulations as effective for implementing NSR and Title V consistent with the Clean Air Act's "Cooperative Federalism" approach to air quality regulation.

The existing regulatory setting therefore consists of all of the federal NSR and Title V requirements that EPA has adopted, as well the District's existing regulations, which implement the bulk of the existing NSR and Title V requirements but are not quite up to date. In addition, California law provides its own regulatory requirements for certain aspects of NSR permitting, which also form part of the existing regulatory setting where applicable. The specific requirements applicable to each area addressed by the proposed amendments are outlined below.

Particulate Matter Regulation

Particulate matter emission sources in the Bay Area are currently subject to NSR requirements under state and federal law and under the District's NSR regulations, and have been for many years.

Since the 1980s, the primary focus of the NSR program for particulate matter has been on the PM_{10} fraction of particulate emissions. EPA established PM_{10} NAAQS in 1987, and began implementing them under its NSR permitting program shortly thereafter. (See 52 Fed. Reg. 24,854 (July 1, 1987).) As a result of these measures, particulate matter emissions sources in the Bay Area have long been subject to NSR requirements based on their PM_{10} emissions, both under the federal Clean Air Act requirements generally and more specifically under the District's NSR regulations in Regulation 2, Rule 2. The NSR requirements applicable in the Bay Area include the Non-Attainment NSR requirements described above in Chapter 2, Section 2.4.1.1., including BACT (in District Regulation 2-2-301), offsets (in District Regulation 2-2-303), and associated administrative procedural requirements. (Note that the Bay Area is currently in attainment of the NAAQS for PM_{10}, but the District still applies the full Non-Attainment NSR requirements, for a number of reasons. PSD requirements also apply, since PM_{10} is an attainment pollutant.)

More recently, particulate matter emissions sources have become subject to NSR requirements specifically for the $PM_{2.5}$ fraction of their particulate emissions. These $PM_{2.5}$ requirements came into effect for sources in the Bay Area in 2009. They are the result of further scientific study indicating that there are specific health effects associated with this smaller fraction of PM emissions that need to be addressed. Based on this

further information, EPA adopted NAAQS for $PM_{2.5}$ in 1997 (see 62 Fed. Reg. 38,652) and subsequently began efforts to implement them. These efforts included reviewing air quality around the country to determine whether it complies with the NAAQS. For the San Francisco Bay Area, this review resulted in a designation of the region as Non-Attainment for the 24-hour $PM_{2.5}$ NAAQS, which took effect on December 14, 2009. (See 74 Fed. Reg. 58,688, 58709-11 (Nov. 13, 2009).) The result of this Non-Attainment designation is that particulate matter emission sources in the Bay Area are now subject to Non-Attainment NSR requirements for their $PM_{2.5}$ emissions. The applicable Non-Attainment NSR regulations that apply at this time are in what is known as EPA's "Emission Offset Interpretive Ruling", which is codified in 40 C.F.R. Part 51, Appendix S (referred to herein as "Appendix S"). As with the current PM_{10} requirements described above, these Non-Attainment NSR requirements for $PM_{2.5}$ include BACT, offsets, and other administrative and procedural requirements. (See Appendix S, Section IV.A. ("Conditions for Approval").)

The Clean Air Act's system of "Cooperative Federalism" envisions that the District will take over implementation of these $PM_{2.5}$ requirements in the same way that it has done for other Non-Attainment NSR pollutants. Taking over implementation of this program for $PM_{2.5}$ is one of the principal purposes of the proposed amendments. EPA's NSR requirements give the District three years from the date of the non-attainment designation to develop $PM_{2.5}$ requirements in its NSR program and submit them to EPA for approval. Once EPA reviews them and approves them as consistent with the federal NSR program, the District's regulations will become the effective NSR provisions for sources in the Bay Area under the California State Implementation Plan (SIP). The Appendix S requirements apply to emissions sources in the Bay Area in the interim period while the District is developing its own regulations. If for some reason the District cannot or does not adopt its own regulations, then EPA will be forced to step in and implement the Non-Attainment NSR program under its own federal regulatory authority under what is called a "Federal Implementation Plan". (In such an event, EPA would also impose sanctions on the state and impose more stringent non-attainment NSR requirements that are required if the state does so itself.) The Non-Attainment NSR requirements for $PM_{2.5}$ that are currently in place under Appendix S will therefore continue to apply going forward, either under District regulations assuming that the District adopts the proposed amendments and EPA approves it into the SIP; or as continued federal regulation if for some reason the District does not adopt such regulations or EPA finds that it cannot approve them.

This is the current regulatory setting for particulate matter in which the proposed amendments have been developed. Particulate matter emissions in the Bay Area are currently subject to NSR permitting requirements, both in terms of the PM_{10}, fraction and in terms the $PM_{2.5}$ fraction. For PM_{10}, NSR applies under both the federal NSR program and under the District's NSR regulations; these regulations will not be affected in any significant way. For $PM_{2.5}$, the proposed amendments will shift the primary implementation of the NSR requirements from EPA's regulations into the District regulations under the Clean Air Act's system of Cooperative Federalism. This shift will

have many positive benefits for air quality regulation in the Bay Area, as noted above. The potential for the proposed amendments to result in any adverse impacts on air quality are addressed in this Section in the impacts discussion below.

With respect to how particulate matter emissions are measured, NSR regulation has historically been silent on whether particulate matter should be measured to include just filterable PM emissions or both filterable and condensable emissions. The federal NSR program did not address this issue, and the District's NSR program was also silent on whether condensable emissions should be included. As a result, historically NSR requirements for PM in the Bay Area have sometimes been implemented counting just filterable emissions and sometimes counting both the filterable and condensable portions. EPA responded to this ambiguity in 2008 by establishing that all particulate matter NSR requirements must address both filterable and condensable emissions effective January 1, 2011. (See 73 Fed. Reg. 28,321 (May 16, 2008) (codified in 40 C.F.R. §§ 51.165(a)(1)(xxxvii)(D) & 51.166(b)(49)(vi); 40 C.F.R. Part 51, Appendix S, § II.A.31.(iv); and 50 C.F.R. § 52.21(b)(50(vi)).) Thus, since January 1, 2011, the NSR program has specifically required that permit requirements for PM (for both $PM_{2.5}$ and PM_{10}) must address both the filterable and condensable portion. The District's current NSR regulations have not yet implemented this clarification, and clarifying this issue is another important reason for the proposed amendments. The District's NSR program must be updated to make this element of NSR permitting clear in order for EPA to be able to continue to approve the District's program. If the District does not do so, EPA will be required to step in and implement this rule for PM emissions sources in the Bay Area under federal regulations. This is the existing regulatory setting with respect to the issue of measuring PM emissions.

PSD Permitting

Stationary sources of air pollution in the Bay Area are currently subject to PSD permitting requirements under two overlapping sets of regulatory requirements. First, sources are subject to the District's PSD requirements in Regulation 2, Rule 2. For historical reasons these PSD requirements have never been approved by EPA as effective for federal purposes, but they are still legally binding District requirements applicable under state law. In addition, because the District's PSD requirements have never been approved by EPA, sources in the Bay Area must follow EPA's PSD requirements in 40 C.F.R. Section 52.21 in order to comply with the federal PSD requirements in the Clean Air Act. Facilities in the Bay Area must also comply with these requirements and get a federal permit issued under EPA's authority to satisfy the Clean Air Act's PSD requirements. (Note that for many situations EPA has delegated the authority for the processing and issuance of federal PSD permits to the Air District, however, as a matter of administrative efficiency.) The proposed amendments will move from this two-part system of overlapping state and federal requirements to a single set of PSD requirements, approved by EPA in the California SIP, that will govern PSD permitting in the Bay Area for all purposes. The potential for this shift to a District SIP-approved PSD program to result in any adverse impacts on air quality are addressed in this Section in the impacts discussion below.

NSR And Title V Permitting for Greenhouse Gas Emissions

Greenhouse gases have become the subject of regulatory concern only relatively recently. With respect to NSR and Title V permitting, they are now subject to permitting requirements under these programs as a result of EPA's regulation of GHG emissions from light duty cars and trucks, which made GHGs a pollutant "subject to regulation" under the Clean Air Act. NSR and Title V apply to all air pollutants that are "subject to regulation," which now includes GHGs. The federal requirements for GHGs under these programs are therefore part of the background of existing regulations against which the proposed amendments will be implemented.

With respect to NSR, GHGs are regulated as part of the PSD program. There are no NAAQS for GHGs, and so a region cannot be "non-attainment" for GHGs and Non-Attainment NSR by definition cannot apply. The regulatory background for GHGs in the NSR context is therefore the same as for PSD permitting requirements generally as discussed above. The one important exception is that the District PSD provisions in current Regulation 2, Rule 2 do not address GHGs. Those provisions were adopted before GHGs started being regulated, and therefore do not include that pollutant. The existing regulatory background does include the federal PSD requirements applicable to GHGs in 40 C.F.R. Section 52.21, however. GHG emission sources in the Bay Area are currently subject to EPA's PSD permitting requirements under Section 52.21, and those requirements are part of the regulatory background against which the proposed amendments will be implemented.

With respect to Title V, the District is currently regulating facilities that emit GHGs as subject to Title V permitting under the provisions for "designated facilities". A designated facility is defined in current District Regulation 2-6-204 as a facility in a source category that has been designated as subject to Title V by EPA, which now includes facilities that emit GHGs as explained above. "Designated facilities" are subject to Title V permitting requirements under current District Regulation 2-6-304. The regulatory background of the District's current Title V program therefore includes GHG emissions sources as designated facilities.

Other Federal Regulatory Requirements for NSR and Title V Permitting

Finally, there are certain other current regulatory requirements that are part of the federal NSR program that will be addressed under the proposed amendments that are not fully reflected in the District's current NSR regulations. These include several elements identified by EPA in which the District's current, EPA-approved regulations do not in fact incorporate all of EPA's current regulatory requirements. EPA Region IX staff identified such existing regulatory requirements that need to be implemented through Regulation 2 in a comment letter submitted during the preparation of the proposed amendments. (See comment letter from G. Rios, EPA Region IX, to C. Lee, BAAQMD, July 26, 2012.) The proposed amendments will also incorporate these requirements into District regulations so that the District can implement them and EPA will not have to take

over and implement them federally. These federal NSR requirements are also part of the existing regulatory baseline conditions, as established by EPA's NSR program requirements in the Code of Federal Regulations.

3.2.2 THRESHOLDS OF SIGNIFICANCE

The severity of air pollution impacts is normally measured against health-based standards that have been established by regulatory agencies. For criteria pollutants, these include the California and National ambient air quality standards. If concentrations of an air pollutant in the ambient air exceed these standards, then the air quality is considered to be significantly impacted with respect to that pollutant. For toxic air contaminants (other than carcinogens), these include permissible exposure levels below which there are no observable health effects. These levels are expressed according to a "Hazard Index", with a Hazard Index of less than 1 being a safe level of exposure. Sensitive receptors will not suffer any adverse health effects from exposures to such pollutants as long as the exposure level is kept below a Hazard Index of 1. With respect to carcinogenic air toxics, there is no threshold exposure level below which observable health effects fall to zero. Carcinogens are therefore usually addressed by ensuring that no individual source will result in more than a less-than-significant incremental increase in total carcinogenic exposure.

Air pollution impacts are primarily cumulative concerns, as it is unlikely that any individual project will emit enough air pollution to cause ambient air quality to exceed these standards all by itself. In most cases, there is not a single source of emissions that causes air pollution concentrations to exceed these standards. Rather, high air pollution levels exceeding applicable standards are usually the cumulative effect of many individual sources around the region combining together in the ambient air.

In analyzing air quality impacts, therefore, the analysis normally involves the two-step inquiry applicable to cumulative impacts under CEQA. The first question is whether there is a significant cumulative impact in the form of pollution concentrations that exceed an established standard. This step looks at whether the emissions from the project, along with all the emissions from other past, present and reasonably foreseeable future projects impacting the same air quality resource, will cause air pollution levels to exceed the established standards. (See CEQA Guidelines § 15355.) The second question, if there is a significant cumulative problem in the form of air pollution that exceeds an established standard, is whether the emissions from the project being evaluated will result in a "cumulatively considerable" contribution to that cumulative air quality problem. (See Guidelines §§ 15064(h)(1); 15130(a).) If the project's contribution to the significant cumulative problem is less than "cumulatively considerable", then the project is not considered significant with respect to that impact. (See Guidelines § 15130(a).) (Of course, if the project's emissions will result in an exceedance of an applicable standard all by themselves then the project's impacts are individually significant, but this is not usually the case with most air pollution problems.)

The Bay Area faces significant air quality challenges in a number of respects, as described in Section 3.2. These air quality challenges arise from the multiple, varied sources of air pollution emissions around the region (and in other regions, to the extent that pollutants are transported from one air basin to another), and are thus indisputably cumulative impacts. They include situations where the ambient air currently exceeds an established standard, and also situations where the air quality may currently be within established standards but could exceed such standards based on reasonably foreseeable future projects (e.g., projects resulting from foreseeable economic and population growth). In evaluating impacts in these areas, the question for the CEQA environmental analysis thus becomes whether the project being evaluated result in a "cumulatively considerable" contribution to these cumulative air quality concerns. This is the determinative threshold level at which significance is evaluated in most air quality contexts.

One measure of whether a project's incremental contribution to a significant cumulative air pollution is "cumulatively considerable" is whether it will comply with the requirements in a previously approved plan or mitigation program that provides specific requirements to address that problem, including (but not limited to) an air quality attainment or maintenance plan. (CEQA Guidelines § 15064(h)(3).) Thus, where a regulatory agency has adopted a plan with specific requirements to address cumulative air pollution problems – such as criteria air pollution levels that exceed the NAAQS or high levels of toxic air contaminants – then the requirements of that plan can establish the levels at which a project's incremental contribution to the problem becomes "cumulatively considerable". Similarly, where a project will be required to implement its "fair share" of established measures designed to alleviate the cumulative impact, then the project's contribution to the problem is not "cumulatively considerable". (CEQA Guidelines § 15130(a)(3).) Thus, where a regulatory agency has adopted an approach to addressing a cumulative air quality problem that calls on various categories of emissions sources to take certain steps to reduce their respective contributions to the problem, a project that is doing its "fair share" to implement this approach will not make a "cumulatively considerable" contribution to the problem. These principles direct the CEQA significance analysis to look to established regulatory standards for air pollution to determine what constitutes a "cumulatively considerable" air quality impact.

For criteria pollutants, this analysis normally looks to the established ambient air quality standards for criteria pollutants and the regulatory programs and standards that have been adopted to attain and maintain those standards. The Bay Area has been designated as "non-attainment" of several of those standards based on recent emissions monitoring data (although the data show that air quality is improving and that recorded exceedances of such standards are going down). In addition, for other standards where the Bay Area is currently designated as "attainment", there is still a concern exists that without regulatory scrutiny foreseeable future growth could cause deterioration of air quality resulting in an exceedance of the standards.

For these criteria pollutants, whether a project's emissions are "cumulatively considerable" is normally judged by whether they will exceed applicable thresholds that have been established under the District's "New Source Review" program, which is a permitting program designed to implement the District's efforts to attain and maintain the state and federal ambient air quality standards. The District's NSR program is set forth in Regulation 2, Rule 2, as discussed further in Chapter 2. For "non-attainment" pollutants, NSR requires sources above established threshold levels to offset any new emissions increases with emissions reductions obtained from shutting down existing sources, in order to ensure a "no net increase" in overall regional emissions from such sources. Because the region is "non-attainment" for these pollutants, it is important not to add any net new emissions from such sources so as not to undermine the region's efforts to bring pollution concentrations back into attainment of the standards. For "attainment" pollutants, NSR does not require offsets because there is still some room for regional emissions growth in these pollutants (*i.e.*, a net increase) without exceeding the applicable air quality standards. But NSR still regulates such emissions to carefully manage any growth and ensure that such growth does not lead to a violation of the ambient air quality standards. NSR therefore requires permitting for sources that will exceed established "significance" thresholds for these pollutants. These NSR permitting requirements can be used to establish a measure of significance for emissions increases associated with individual emissions sources. If a project's emissions are below the applicable NSR offsets threshold trigger levels, and below the NSR "significance" thresholds, then they are not considered "cumulatively considerable" under CEQA.

For non-carcinogenic toxic air contaminants, significance is based on whether any toxic exposures will result in a Hazard Index of 1 or more. As noted above, this is the level at which someone exposed to such emissions could potentially suffer adverse health effects. If a source's emissions, either individually or in conjunction with emissions from other sources, will cause any sensitive receptor to be exposed to a Hazard Index of greater than 1, then there is a significant cumulative problem. Background levels of non-carcinogenic air toxics are relatively low in the Bay Area, as noted in Table 3-4, and so for this type of air pollution significant impacts are normally influenced by the individual source's emissions much more than by contributions from other projects. Accordingly, if the source is causing or contributing to an exposure at a Hazard Index of 1 or above, it is unlikely that the source's emissions could be considered less than "cumulatively considerable". If the source is causing or contributing to exposure at a Hazard Index of 1, either all by itself or in conjunction with other sources, then it will most likely be treated as significant in terms of its non-carcinogenic air toxic impacts.

For carcinogenic air toxics, there is a significant cumulative concern in the Bay Area based on background concentrations in the ambient air. Carcinogenic risk from air toxics varies around the region, but even in the cleanest areas the risk is several hundred additional cancers per million population, based on an assumed 70-year exposure. (To put this number in context, the overall carcinogenic risk from all sources is several hundred thousand per million population, orders of magnitude higher. The component of this overall risk that comes from air toxics exposures is clearly significant, however, and reducing this risk is one of the Air District's primary goals.) Regulatory agencies

typically treat individual sources of carcinogenic risk as *de minimis* if their additional contribution to the overall risk is in the range of 1 in 100,000 (10^{-5}) to 1 in 1 million (10^{-6}). The Air District has established these thresholds in its Toxics New Source Review program in District Regulation 2, Rule 5, which requires sources to use Toxics "Best Available Control Technology" to control toxics emissions if the risk will exceed 10^{-6}, and prohibits the source altogether if the risk will exceed 10^{-5}. For purposes of the CEQA environmental analysis, if a project's emissions are below these *de minimis* regulatory thresholds, then they are normally considered less than "cumulatively considerable".

The Air District (and others) have adopted Threshold of Significance to establish policies for when air quality impacts will be treated as significant under CEQA. The most recent policy adopted by the District is entitled "BAAQMD CEQA GUIDELINES, Assessing the Air Quality Impacts from Projects and Plans", which was adopted in December of 1999. (BAAQMD, 1999) The 1999 CEQA Guidelines follow the same general analysis outlined above, with Thresholds of Significance for criteria pollutants based on the applicable NSR significance levels and Thresholds of Significance for air toxics based on the District's Toxic Risk Management Policy, the forerunner of the current Toxics New Source Review program in Regulation 2, Rule 5. (Note that the District's Board of Directors adopted an update to its 1999 Thresholds of Significance in June of 2010. The Alameda County Superior Court subsequently issued an order directing the District to set aside those Thresholds of Significance because the District did not conduct a CEQA environmental analysis in connection with their adoption. The Air District has appealed the Alameda County Superior Court's decision, and the appeal is currently pending, but the Superior Court's order remains in place at this time. Accordingly, this EIR does not rely on, consider, incorporate, endorse, or recommend the June 2010 Thresholds of Significance.)

The 1999 CEQA Guidelines also addresses Thresholds of Significance for planning documents such as general plans, redevelopment plans, specific area plans, annexations of lands and services, and similar planning activities. The 1999 Thresholds establish that if a local plan is consistent with the District's most recent Clean Air Plan than its impacts will not be considered significant under CEQA. This approach is consistent with the CEQA principles expressed in Guidelines sections 15064(h) and 15130(a) regarding consistency with established regulatory programs to address cumulatively significant environmental impacts. Although the proposed amendments are not general plans, specific plans, redevelopment plans, or similar local land use planning documents, District rule development activities such as the updates to the District's NSR and Title V programs are analogous in some respects to these local planning efforts.

Based on all of these considerations, the following thresholds of significance are being used to evaluate whether the proposed amendments will have a significant impact on air quality. The proposed amendments will have a significant air quality impact if any of the following situations will apply:

1. The proposed amendments will have a significant air quality impact if they will result in an increase in emissions from an individual emissions source that (i) exceeds the NSR offsets threshold levels or NSR significance threshold levels for criteria pollutants (whichever is lower); (ii) will result in any exposure with a non-carcinogenic toxic hazard index of greater than 1; or (iii) will result in any exposure to a carcinogenic health risk of greater than 10 in one million (10^{-5}).
2. The proposed amendments will have a significant air quality impact if they will be inconsistent with the District's 2010 Clean Air Plan, federal or state New Source Review program requirements, or any other plan or program with specific requirements adopted to address significant air quality concerns in the San Francisco Bay Area.

As discussed above, air quality impact concerns are primarily cumulative impact concerns. If the proposed amendments will not exceed these thresholds, then they will not result in a "cumulatively considerable" contribution to any significant cumulative air quality impacts. CEQA Guidelines Section 15130(a) provides that where the additional contribution from a project's emissions to a cumulatively significant impact will not be "cumulatively considerable", then the impact is not considered significant for purposes of CEQA and it does not have to be discussed in any further detail in the EIR. The EIR must briefly describe the basis for concluding that the project's contribution is not "cumulatively considerable", however. The following sections describe the basis for this conclusion with respect to air quality impacts.

3.2.3 ENVIRONMENTAL IMPACTS

The principal elements of the proposed amendments are summarized below. The potential for these changes to the existing regulatory setting to result in significant adverse impacts on air quality is addressed in this subsection.

- Adding Non-Attainment NSR permitting requirements for $PM_{2.5}$ to District Regulation 2, Rule 2.
- Adding permitting provisions to Regulation 2 to specifically encompassing GHG emissions.
- Adopting a PSD permitting program for EPA review and SIP approval.
- Revising the NSR applicability test in the District's definition of "modified source" in Section 2-1-234.
- Expanding the NAAQS Compliance Demonstration requirement that currently applies for PSD projects to include all projects at all facilities that will result in a significant increase in emissions of any criteria pollutant.
- Expanding the public notice-and-comment requirements to include all new and modified sources that will result in a significant emissions increase.
- Other miscellaneous more minor revisions to the District's current Regulation 2 provisions.

- Non-substantive reorganizations and revisions to improve clarity and readability.

The potential GHG impacts are evaluated in Chapter 3.3.

3.2.3.1 Overview of Air Quality Benefits from Updating the District's NSR and Title V Permitting Programs in Regulation 2

The proposed amendments are being adopted to help implement the NSR and Title V permitting programs in the San Francisco Bay Area. These are important clean air permitting programs that play a fundamental role in the District's mission of regulating air pollution emissions from stationary sources and in ensuring clean air and public health throughout the region. The proposed amendments will allow the District to continue to obtain EPA's approval to implement the federal aspects of these programs for sources in the Bay Area, as well as strengthen the District's regulations and enhance their effectiveness. It is difficult to identify specific emission reductions at specific sources that will result from the proposed amendments, because many of the revisions simply incorporate aspects of the federal regulatory program that are already applicable as part of EPA's regulations, many of them apply to future new sources and modifications that it is not possible to identify with specificity at this time, and many of them involve procedural enhancements such as incorporating applicable regulatory requirements into permitting documents to improve transparency and enforceability, among other reasons. But these are nevertheless important improvements to the District's permitting programs, which will help the District to implement its regulatory program and to achieve its clean air goals for the Bay Area. These are beneficial impacts that would result from the proposed amendments.

3.2.3.2 Adding Non-Attainment NSR Requirements for $PM_{2.5}$

As summarized above in Section 2.4.1.1, Non-Attainment NSR imposes two substantive requirements, BACT and offsets, as well as certain administrative and procedural requirements. The proposed amendments will incorporate these requirements into Regulation 2, Rule 2, which will help implement the Non-Attainment NSR program for $PM_{2.5}$ in the Bay Area. These amendments are an integral part of the District's efforts to respond to EPA's non-attainment designation for $PM_{2.5}$ and to attain and maintain the PM2.5 NAAQS. Adding these requirements in Regulation 2, Rule 2 for $PM_{2.5}$ will have multiple beneficial impacts on air quality as noted above. The analysis below addresses whether adding these requirements to District regulations could have the potential for any ancillary adverse impacts. This section also discusses the provision in EPA's $PM_{2.5}$ implementation regulations specifying that both the filterable and condensable portions of particulate matter emissions be included in regulatory determinations.

<u>Adding $PM_{2.5}$ to the BACT Requirement in Section 2-2-301</u>

The first requirement of Non-Attainment NSR for $PM_{2.5}$ is that $PM_{2.5}$ emissions sources must use the Best Available Control Technology (BACT) to control their $PM_{2.5}$

emissions. (Note that for purposes of this discussion of Non-Attainment NSR requirements, the term BACT is used as defined under the California Health and Safety Code, which is equivalent in stringency to the level of missions control called "Lowest Achievable Emissions Rate" under the federal Clean Air Act.) The current regulatory baseline conditions (i) require BACT for $PM_{2.5}$ at facilities with emissions of 100 tpy or more under Appendix S (see Condition 1 in Section IV.A.); and (ii) require BACT for PM_{10} at sources with emissions of 10 lb/day or more under current District Regulation 2-2-301. The proposed amendments will require BACT for $PM_{2.5}$ for sources with emissions of 10 lb/day or more by adding $PM_{2.5}$ as a pollutant for which BACT is required under District Regulation 2-2-301.

This amendment will have benefits in helping implement the NSR program through District regulations, as noted above. BACT is one of the principal substantive emission control requirements of the NSR program, and the application of BACT helps attain and maintain the ambient air quality standards. This revision is not expected to result in any significant adverse impacts to air quality because it will not allow any increases in $PM_{2.5}$ emissions, and it will not otherwise result in any significant physical changes at any facility that could result in an increase in any other air pollutant emissions.

The $PM_{2.5}$ BACT requirement in Section 2-2-301 in the proposed amendments will not result in any increase in $PM_{2.5}$ emissions because the requirement will not be any less stringent in any way than the current BACT requirements applicable for $PM_{2.5}$ under Appendix S. In fact, the District BACT requirement in Section 2-2-301 may actually have the potential for slight additional $PM_{2.5}$ emission reductions, as it will apply at a very low threshold of 10 lb/day, compared with the federal $PM_{2.5}$ BACT requirement under Appendix S that is not triggered until a facility's emissions reach 100 tpy. It is not expected that any such additional reductions will be significant, because the District already has a very stringent BACT requirement for PM_{10} at 10 lb/day, and it is likely that whatever control technology a source implements to satisfy this current District BACT requirement for PM_{10} will also be effective to control $PM_{2.5}$ emissions and satisfy BACT. But to the extent that the addition of the $PM_{2.5}$ BACT requirement in District regulations at the 10 lb/day threshold has any impact on $PM_{2.5}$ emission rates, it will be a beneficial impact, not an adverse impact.

The $PM_{2.5}$ BACT requirement in Section 2-2-301 is similarly not expected to result in any significant increase in any secondary pollutants associated with any control devices, techniques or strategies that may be implemented to comply with the requirement. Current regulatory provisions in Appendix S already require BACT for $PM_{2.5}$, and moving this BACT requirement from the federal NSR program regulations into the District's NSR program will not require any substantive change in control devices used to comply with it. As noted above, the District $PM_{2.5}$ BACT requirement will apply at a lower threshold of 10 lb/day instead of the federal threshold of 100 tons/yr, but the District's existing PM_{10} BACT requirement already requires BACT controls for particulate matter emissions down to that level. It is likely that whatever control technology a source implements to satisfy this current District BACT requirement for PM_{10} will also be effective to control $PM_{2.5}$ emissions and satisfy BACT. (Note that

$PM_{2.5}$ is a smaller subset of PM_{10}, and so any source that emits 10 lb/day of PM2.5 will emit at least 10 lb/day of PM_{10} and be subject to BACT under the existing regulations.) Accordingly, implementing the District BACT requirement for $PM_{2.5}$ emissions at 10 lb/day is not likely to require any source to implement any new or different control technology that could result in an increase in secondary air pollutant emissions compared to the regulations that are currently in place.

In addition, the District has evaluated the possibility that there could potentially be a situation where some additional or different kind of control technology may be effective at controlling $PM_{2.5}$ beyond what is already required to address PM_{10}. (See BAAQMD 2012.) This evaluation found that the possibility that BACT for $PM_{2.5}$ could apply any differently than BACT for PM_{10} is highly remote. The types of typical add-on control technologies that are most effective for controlling PM_{10} – baghouses and electrostatic precipitators (ESPs) – are also highly effective at controlling $PM_{2.5}$. (See BAAQMD 2012, Table 2.) To the extent that any add-on control device would be required as BACT for $PM_{2.5}$, it will most likely be the same control device that is already required for PM_{10}.

Moreover, in many cases, the most likely approach for BACT for $PM_{2.5}$ will involve process controls, such as source reduction, combustion of low-sulfur natural gas (which is effective because the sulfur burns to form fine particulate matter), and the use of good combustion practices. These types of control are effective at minimizing PM_{10} emissions as well (from combustion sources at least), and so technically these type of control measures would already be required as PM_{10} BACT. But even if such a control approach was required solely because of the addition of the $PM_{2.5}$ BACT requirement in the proposed amendments, it would not cause any physical change at any source because these types of controls do not involve the installation of any add-on control equipment.

For these reasons, it is highly unlikely that adding the District BACT requirement for $PM_{2.5}$ in Section 2-2-301 at 10 pounds per day will result in any new control devices or equipment being required at any source. If a source is not subject to any BACT requirement to install an add-on control technology because of its PM_{10} emissions, adding the new $PM_{2.5}$ BACT requirement will not require the source to install any new control technology either (because it will be below the BACT threshold for both PM_{10} and $PM_{2.5}$). If a source is already subject to a BACT requirement to install an add-on control technology, such as a baghouse or an ESP, it is unlikely that the BACT control equipment will be any <u>different</u> as a result of the $PM_{2.5}$ requirement. That is, if BACT for PM_{10} requires a certain control device, it is likely that the same control device will also satisfy the BACT requirement for $PM_{2.5}$. Furthermore, even if there is some slight difference that would have to be made (e.g., the number of bags to be included or the size of the pores in the bags of a baghouse, the configuration of the ESP, etc.), it is unlikely that any such change would be significant in terms of the impact that the control technology would have on the environment. That is, if a facility needs to build a baghouse or ESP to control PM_{10}, the impacts from doing so are not likely to be changed in any significant way if the facility has to design a baghouse or ESP to address $PM_{2.5}$ as well. It is not likely that the size or configuration or operation of such a control device

would be changed in any way that would make any significant difference in its potential for environmental impacts.

Furthermore, it is also worth noting that even if some new add-on control technology were required, that would not be expected to have any adverse environmental impacts or result in an increase in air emissions. Unlike some types of add-on control technologies that are used to control other pollutants, typical add-on control technologies for PM, such as bag-houses or ESPs do not involve secondary emissions of other pollutants. (Nor do process controls such as low-sulfur fuel and good combustion practices, for that matter.) Any such add-on control equipment would be expected to result in a decrease in air emissions, not an increase in emissions. These devices may have some minor energy penalty associated with their operation, such as back-pressure on the production process on which a baghouse is installed or electrical power needed to run an ESP, but these are relatively minor compared to the scope of the underlying production process and are not associated with any significant increase in emissions.

Finally, CEQA will also apply to individual projects at the time of permitting, and the potential for any control equipment or other design aspects of a project to have secondary adverse air quality impacts will be evaluated at that time. Should projects be proposed that could potentially generate significant impacts or are unusual in nature, a separate project-specific CEQA analysis will be applied to evaluate and mitigate or avoid any such impacts.

For all of these reasons, no increase in air emissions is expected and no significant adverse air quality impacts would be expected from adopting the proposed BACT requirement for $PM_{2.5}$ in Section 2-2-301.

Adding $PM_{2.5}$ to the Offsets Requirements in Section 2-2-303

The second main requirement of Non-Attainment NSR for $PM_{2.5}$ is the offsets requirement. This element of Non-Attainment NSR requires emissions reductions from existing sources to offset any emissions increases from new or modified sources. The current regulatory baseline conditions (i) require offsets for $PM_{2.5}$ emissions at new major facilities (i.e., facilities with emissions of 100 tpy or more) and at major modifications to existing major facilities (i.e., modifications at such facilities that will increase $PM_{2.5}$ emissions by 10 tpy or more) under Appendix S, Section IV.A., Condition 2; and (ii) require offsets for all PM_{10} emissions increases at facilities with the potential to emit over 100 tpy of PM_{10} under District Regulation 2-2-303 (once the total PM_{10} cumulative increase reaches 1 tpy). The proposed amendments will add $PM_{2.5}$ offsets requirement to District Regulation 2-2-303, so that $PM_{2.5}$ offsets will be required for all increases at facilities with a potential to emit over 100 tpy of $PM_{2.5}$ (once the total cumulative increase reaches 1 tpy).

This amendment will also have benefits in helping implement the NSR program through District regulations. It will not result in any increase in air emissions or any adverse impacts to air quality because it will not be any less stringent than the existing offsets

requirements under currently applicable regulations. The $PM_{2.5}$ offsets requirements in Section 2-2-303 will apply to facilities at the same 100 tpy threshold under the current federal regulations in effect for $PM_{2.5}$ offsets in the Bay Area under Appendix S. The proposed amendments will therefore be no less stringent than what is currently required, and will achieve all of the same emission reduction benefits as the federal requirements under Appendix S.

The proposed amendments may even have the potential achieve addition emission reduction benefits, because they will require offsets for the entire amount of a facility's cumulative increase (once the total cumulative increase reaches 1 tpy). The current offset requirements in Appendix S are not triggered unless a facility undergoes a "major modification", which is a project with a net emissions increase of 10 tpy or more. The current federal requirement therefore allows a facility to have multiple smaller increases over time without having to provide any new offsets. The proposed amendments would require all such increases to be offset, even if they are less than 10 tpy. This could potentially result in an additional beneficial impact on air quality in the Bay Area. The extent of any such benefit attributable to the proposed amendments would be tempered, of course, by the fact that offsets are already required for PM_{10} for all such increases under the District's existing Regulation 2-2-303. Where a source is required to provide PM_{10} offsets, it will likely be able to use the same offsets to satisfy the new $PM_{2.5}$ offset requirements as well. (See discussion in Staff Report, Section IV.B.1.c.ii., for further details.) Where such offsets are required anyway because of the District's existing PM_{10} offsets requirements, any such benefit could not be credited to the proposed amendments since it would have occurred without them. But to the extent that the District's $PM_{2.5}$ offsets requirement in Section 2-2-303 will have any impact compared to the federal CAA requirements, any impact from such additional stringency will be a beneficial impact, not an adverse impact.

In addition, a commenter raised a concern during the rule development process that adopting an offsets requirement for $PM_{2.5}$ could have localized adverse environmental impacts by allowing additional projects to go forward with air emissions that would impact air quality in the vicinity of the project. The commenter stated that such projects would result in increased localized air pollution in the vicinity of the project that may not necessarily be compensated for by the offsets that are provided, because the offsets may be banked credits based on emissions reductions that were achieve through the shutdown of an emissions source at a different location from the new project being built. (See comment letter from A. Bloch & G. Karras, Communities for a Better Environment, to C. Lee, BAAQMD, March 1, 2012.) The District evaluated this issue in connection with the analysis of whether adding the offsets requirement would result in any significant adverse impacts.

Imposing the requirement for $PM_{2.5}$ in Section 2-2-303 will not result in any new increases of air pollutants at all, either locally in the region of a proposed project or anywhere else in the Bay Area. The proposed offsets requirement is a new addition in Section 2-2-303, not a relaxation of any existing requirement, and so it cannot by

definition have the effect of allowing any additional air pollution compared to existing regulatory conditions. (See *Black Property Owners Ass'n v. City of Berkeley* (1994) 22 Cal. App. 4th 974, 985 ("[T]he question is the potential impact on the existing environment of *changes* in the plan which are embodied in the amendment." (emphasis in original, citations omitted)).) To the extent that adding this requirement in Section 2-2-303 will have any impact on air emissions, the impact will be beneficial as described above, not adverse. Moreover, there are a number of other regulatory requirements imposed by District regulations and other legal requirements that will ensure that there are no such significant localized increases from any project in any location, whether subject to offsets requirements or not. These include modeling requirements designed to ensure that no new or modified stationary source will cause or contribute to an exceedance of the NAAQS; air toxics requirements designed to prevent significant toxics impacts; and project-specific CEQA review to identify the potential for any significant air quality impacts and implement mitigation measures to address them. District staff addressed these requirements in considering how to implement the offsets requirement, and they are discussed in more detail in that regard in Section IV.B.1.c.iv. of the Staff Report for the proposed amendments. (See also the discussion of this issue in the alternatives discussion in Chapter 4). These additional regulatory requirements will help ensure that there are no significant adverse localized impacts from any source at any location in the Bay Area.

For all of these reasons, there will not be any adverse impacts to air quality from moving from the current EPA offset requirements for $PM_{2.5}$ under Appendix S to the District offset requirements under Section 2-2-303 under the proposed amendments.

Administrative and Procedural Provisions Applicable to $PM_{2.5}$

Beyond BACT and offsets, the Non-Attainment NSR requirements also require (i) that permit applicants certify that all facilities that they own or control in California are in compliance with all applicable air quality requirements; (ii) that permit applicants demonstrate that the benefits of the proposed project outweigh any environmental and social costs that would result from its location, construction, or modification; and (iii) that the public be notified and provided with an opportunity to comment before any final Non-Attainment NSR permit is issued. The proposed amendments will apply these requirements for major new sources of $PM_{2.5}$ emissions and major modifications to existing sources. These amendments will not result in any physical change in the environment. For one, they are already required under the existing Non-Attainment NSR regulatory requirements for $PM_{2.5}$ under Appendix S. They are also required for PM_{10} emissions sources under current District regulation, and any source with $PM_{2.5}$ emissions high enough to trigger them under the proposed amendments will also trigger them because of its PM_{10} emissions under existing requirements. Accordingly, there will be no change to the current regulatory setting regarding these requirements as a result of the proposed amendments. Moreover, even if these requirements were wholly new requirements, they are administrative and procedural in nature, and will not affect the physical environment in any way with respect to any proposed projects that may be

permitted under them. For all of these reasons, the proposed amendments will not have any adverse impacts on air quality with regard to these changes.

Specifying That Condensable PM Emissions Must Be Included in All NSR Regulatory Determinations

As discussed in Section 3.2.1.5, EPA's NSR implementation regulations for particulate matter now specify that for all NSR permitting purposes, PM_{10} and $PM_{2.5}$ emissions must be measured taking into account both the filterable and condensable portions of particulate matter emissions. The current regulatory baseline conditions are as follows. With respect to Non-Attainment NSR requirements for $PM_{2.5}$, the current regulatory requirements are those in Appendix S, which specify that both filterable and condensable emissions must be included. (See Appendix S, Section II.A.(31)(iv).) With respect to PSD requirements for PM_{10}, the current regulatory requirements are those in EPA's federal PSD regulations, which also specify that both filterable and condensable emissions must be included. (See 40 C.F.R. section 52.21(b)(50)(vi).) And with respect to additional requirements for PM_{10} that apply under the District's regulations, the current regulatory requirements are those in District Regulation 2, which is silent on whether to include both filterable and condensable emissions and has been applied in the past to include filterable emissions only in some cases and both filterable and condensable emissions in other cases. The proposed amendments will incorporate all of these requirements into District Regulation 2, Rule 2, and will specify that both filterable and condensable particulate emissions must be included in all cases (for both PM_{10} and $PM_{2.5}$).

The proposed amendments will not result in any significant air quality impacts as a result of specifying this requirement in Regulation 2, Rule 2. Although the proposed amendments will move the implementation of this requirement into Regulation 2, Rule 2, doing so will not involve a change from existing regulatory situation. The federal NSR requirements – Non-Attainment NSR for $PM_{2.5}$ and PSD for PM_{10} – already clearly specify that both filterable and condensable emissions must be included, and this situation will not change by incorporating the requirement into Regulation 2, Rule 2. And for the additional requirements for PM_{10} in Regulation 2, Rule 2, that apply over and above the federal minimum requirements, the proposed amendments will not make any substantive change to the existing definition of PM_{10} (i.e., particulate matter with an aerodynamic diameter of 10 microns or less). They will simply specify exactly how emissions must be measured under this definition to clear up an existing ambiguity and require the most current, accurate scientific testing methodologies. Requiring that the most current test methods must be used to implement a regulatory requirement is not a change to the regulatory requirement; it is a reflection of the fact that as technology advances over time, existing regulatory requirements will be applied with greater precision and accuracy as better test methods become available to do so.

The effect of applying the particulate matter provisions using current testing methodologies will be that some PM_{10} emissions sources could see a change in how

certain PM_{10} permitting requirements are applied to them in the future, compared to how the District has addressed them in the past. That is, in some cases there may be sources whose PM_{10} emissions were treated as exempt from certain particulate matter permitting requirements based on filterable emissions, but will be subject to them in the future when the condensable PM_{10} emissions are required to be included. This change in treatment will not be the result of a change in the definition of particulate matter, it will arise from the application of current, more advanced testing methodologies that can evaluate both the filterable and condensable portion of the emissions. But even if it could be characterized as a change in the substantive definition of particulate matter, it would not result in any significant adverse impacts to air quality. The effect of having certain additional sources subject to PM_{10} permitting requirements, such as BACT or offsets, would be beneficial to air quality because of the potential for particulate matter emission reductions. There are no adverse air quality impacts associated with implementing these requirements, as addressed in the preceding discussions. Thus to the extent that this clarification will have any impact on air emissions compared to the current regulatory situation, the impact will be beneficial, not adverse.

These same conclusions also apply for NSR's administrative and procedural requirements, such as the compliance certification and alternatives analysis requirements. To the extent that the requirement to include condensable emissions in all cases can be characterized as a change from existing conditions, it would not result in any adverse air quality impacts because these requirements do not implicate a facility's design, operations or emissions in any way. The same is also true for Title V permitting, as Title V is an administrative exercise of incorporating all of a facility's various air quality requirements from disparate regulatory provisions into a single permitting document to improve transparency and enforceability. It does not impose any substantive requirements that would impact the facility's emissions. Thus even if a facility were to find itself subject to Title V requirements because of its condensable PM emissions, that would have no physical effect on the facility or the facility's emissions and no impact on air quality.

And once again, it is important to note that CEQA will also apply to individual projects at the time of permitting, and the potential for any control equipment or other design aspects of a project to have secondary adverse air quality impacts will be evaluated at that time. Should projects be subject to applicable permitting requirements because of the inclusion of their condensable particulate emissions, a separate project-specific CEQA analysis will be conducted at the time of permitting to ensure that any significant adverse impacts are identified and mitigated or avoided.

For all of these reasons, the proposed amendments will not have any adverse impacts on air quality with regard to these changes.

3.2.3.3 Adopting /Amending PSD Requirements to Obtain SIP-Approved PSD Program

The proposed amendments will adopt a District PSD program that EPA will be able to approve as part of California's SIP. The current regulatory baseline conditions for PSD permitting are (i) the federal PSD program in 40 C.F.R. section 52.21 applicable to emissions sources in the Bay Area under federal law; and (ii) the existing PSD provisions in Regulation 2, Rule 2, that have not been approved for federal purposes but are still legally effective and binding under state law. The proposed amendments will adopt and/or revise District PSD provisions that will (i) establish a PSD applicability test using the term "PSD Project" defined in Section 2-2-224; and (ii) set forth the required elements for PSD permitting that will apply to such "PSD Projects" under Sections 2-2-304 through 2-2-308, 2-2-404, and related provisions. These revisions will ensure that the District's PSD provisions will meet all applicable federal NSR requirements so that EPA can approve them into the SIP.

The proposed amendments will not result in any significant adverse impacts on air quality because, for the most part, they will not make any substantive changes to the PSD requirements that are currently applicable for emissions sources in the Bay Area. The proposed amendments will incorporate by reference the substantive requirements for PSD permitting that currently apply under 40 C.F.R. Section 52.21 (i.e., the PSD BACT requirement, the PSD air quality impacts analysis requirement, the additional impacts requirements, and the Class I area visibility protection requirements). With respect to applicability of these requirements, the proposed amendments will use the same applicability test that currently applies for the PSD provisions under Regulation 2, Rule 2. This test requires PSD permitting for new facilities with emissions over the PSD "major" facility threshold of 100 or 250 tpy (depending on source category) and for modifications at such facilities that will result in "significant" net emissions increases over historical emissions levels. The proposed amendments will codify this applicability test in Section 2-2-224, which sets forth a definition of "PSD Project", for which the PSD permitting requirements will apply.

Notably, this applicability test will not incorporate the relaxed applicability standards that EPA adopted in 2002 known as "NSR Reform". EPA adopted NSR Reform to relax the applicability standards for its NSR program (including both Non-Attainment NSR and PSD) so that more projects could go forward without being subject to any NSR regulatory requirements. (EPA's NSR Reform rulemaking can be found at 67 Fed. Reg. 80,186 (Dec. 31, 2002); the relevant provisions are also described in more detail in Section IV.B.3.g.ii. of the Staff Report being published in connection with the Proposed Amendments.) EPA's current rules do not require permitting for these projects. California disagreed that relaxing NSR in this way was good for air quality, however. The California legislature therefore adopted the Protect California Air Act of 2003 ("SB 288"), which prohibits California air districts from relaxing any of their NSR rules, including PSD provisions. The District's PSD provisions therefore continue to use the pre-NSR applicability test. The proposed amendments will maintain this existing District

applicability test for the PSD provisions in Regulation 2, Rule 2. (The one exception is the applicability test for greenhouse gases, which is discussed in Section 3.2.3.4. below.)

During the rule developments process, industry commenters asserted that there could be adverse air quality impacts from applying the PSD requirements without using the less-stringent applicability test from EPA's NSR Reform initiative. They argued that the more stringent pre-NSR Reform test creates additional regulatory burdens that discourage them from undertaking modifications at their facilities. They argued that such permitting burdens discourage them from modernizing and upgrading equipment, which can have air quality benefits because newer equipment is often more efficient and generates less pollution per unit of output. They therefore argued that the District's more stringent permitting requirements will actually degrade air quality, and that the District should weaken its PSD applicability standards in order to improve air quality. With respect to the CEQA analysis, industry was concerned that if the proposed amendments do not incorporate EPA's NSR Reform applicability tests, they could be seen as having a significant adverse impact on air quality for these reasons. (See, e.g., comment letter from G. Bjerke, Western States Petroleum Ass'n, to C. Lee, BAAQMD, March 2, 2012, at p. 3.)

Maintaining the current pre-NSR Reform applicability test in the District's PSD provisions would not result in any significant adverse impacts on air quality, however. The primary reason is that the PSD provisions in the District's current Regulation 2, Rule 2 use the pre-NSR Reform test, so the proposed amendments will not result in any change whatsoever compared to the current regulatory setting in this regard. (See *Black Property Owners Ass'n v. City of Berkeley* (1994) 22 Cal. App. 4th 974, 985.) (Again, the treatment of GHGs is an exception, as discussed below.)

Moreover, even if implementing the pre-NSR Reform applicability test were entirely new, using the more stringent current test would not result in significant adverse impacts. Although industry commenters may speculate that the more stringent applicability test will discourage them from implementing beneficial modernization projects, the District has not found any evidence to support this conclusion. To the contrary, the evidence suggests that using the pre-NSR Reform test will not be a significant impediment to any such projects in the Bay Area, for two reasons.

First, the District has a number of other provisions in the District's NSR permitting regulations that will require permitting for facilities in the Bay Area regardless of which applicability test is used for PSD. These requirements will require facility modernization and upgrade projects to go through the NSR permitting process even if the less stringent test were to be used for PSD purposes. Using the NSR Reform applicability test would therefore not exempt these projects from permitting burdens the industry commenters are concerned about. This situation has been documented by EPA in its evaluation of the same issue with respect to the PSD regulations of the Sacramento Metropolitan Air Quality Management District, which use the same pre-NSR Reform applicability test for its PSD provisions as the District's regulations do. EPA found that California air districts have such strong permitting requirements in other aspects of their NSR permitting

programs that equipment modernization and upgrade projects will be subject to permitting requirements (and any associated burdens) regardless of whether PSD is implemented using the NSR Reform test or the pre-NSR Reform test. As EPA concluded, "the federal NSR Reform provisions do not provide any of EPA's intended additional flexibility to proposed projects" that could help such projects go forward without being subject to permitting requirements. (EPA, 2011b, at p. 17. Note that EPA's analysis here based on considerations applicable to California air districts generally, and not limited to the specific regulations of the Sacramento air district.) Maintaining the pre-NSR Reform applicability tests will therefore not create any additional permitting burdens that could substantially discourage facilities from implementing beneficial equipment upgrade projects.

Second, there are many reasons why facilities in the Bay Area will be encouraged and/or legally required to implement such modifications and upgrades, and these factors will continue to apply regardless of whether there may be any additional permitting burdens that may or may not apply for such projects. Some of these are market incentives, such as the cost savings that a facility would realize in upgrading to more efficient equipment, or the additional production flexibility it could obtain by modernizing its plant. It is speculative to suggest that facilities would forego such benefits on a wide scale because of concerns about PSD permitting. Others are regulatory requirements, and in these cases the facility will be required to implement the improvement regardless of any such burdens. For example, the California Clean Air Act contains stringent requirements for sources to implement the "Best Available Retrofit Technology", which requires existing facilities to go back and retrofit their equipment to apply the latest pollution control technology, without waiting for the facility to undertake a voluntary modernization project. (See Health & Safety Code Div. 26, Pt. 3, Ch. 10 (§§ 40910-40930).) Similarly, ARB is implementing a "cap-and-trade" program under the Global Warming Solutions Act of 2006 (AB 32) that will require facilities to upgrade the efficiency of their equipment. These efficiency improvements under AB 32 are primarily aimed at addressing GHG emissions, but improving efficiency will reduce emissions of all air pollutants for a given level of output. These regulatory provisions will mandate that facilities upgrade and modernize their equipment to implement lower-polluting equipment and related emissions control technologies. Such facilities will not be able to forego compliance with these requirements based on concerns about the level of permitting burden involved under the NSR program. Simply put, the decision about whether to install more efficient, lower-polluting equipment does not depend solely on how the District's PSD permitting requirements apply. There is no evidence that retaining the District's pre-NSR Reform applicability test for its PSD requirements will significantly affect such decisions.

Finally, one area warrants additional discussion with respect to these NSR Reform issues. As noted above, SB 288 prohibits air districts from relaxing any regulatory requirements that were in effect as of 2002, and the District had PSD provisions in its NSR rule at that time. Those provisions did not address GHGs, however, because GHGs were not subject to regulation at that time. Accordingly, the District is not legally prohibited from

adopting the NSR Reform applicability standards. The District therefore gave careful consideration regarding whether to adopt such standards specifically for GHGs, and decided to adopt certain elements and not adopt other elements. Specifically, the proposed amendments will allow sources to use the more flexible emissions baseline to evaluate their GHG emissions for purposes of triggering PSD review for GHGs, but will require them to base emissions increases on enforceable permit limits and not on unenforceable emissions projections. (For the third element of NSR Reform, Plantwide Applicability Limits, or "PALs", EPA's regulations for PALs have been in flux recently and the District found that this update process was not the appropriate time to consider them; District staff will continue to consider the issue and whether it may be beneficial to adopt PAL provisions in the future.) These issues are discussed in more detail in the Staff Report, in Section IV.B.3.g.ii. The conclusion that there will be no significant impacts from adopting these PSD provisions with respect to GHGs remains the same as with PSD permitting for other pollutants discussed above. The impacts in this area are addressed in Section 4 of this Chapter, regarding greenhouse gas impacts.

For all of these reasons, no increase in air emissions or significant adverse impacts on air quality is expected from the District's adoption of the proposed PSD program without using the NSR Reform applicability tests.

3.2.3.4 Ensuring that Regulation 2 Adequately Addresses GHGs

The proposed amendments will adopt provisions to ensure that the District's NSR and Title V permitting regulations adequately address GHGs. GHGs are already subject to NSR and Title V permitting requirements under current regulations, based on EPA's adoption of GHG emission standards for light duty cars and trucks. (See further discussion in Section 3.2.1.5.) The proposed amendments will ensure that the District's permitting programs adequately implement these requirements. Adding provisions to the District's regulations to ensure that they adequately encompass GHG emissions will not result in any change to these requirements as they apply to GHG emissions sources in the Bay Area and will not result in any impacts to air quality.

For NSR, GHGs are regulated under the PSD element of that permitting program because there are no NAAQS for GHGs. GHGs will be addressed in the context of PSD permitting through the adoption of a District PSD program for review and approval by EPA. Adoption of a District PSD permitting program will not have any adverse environmental impacts as discussed above in Section 3.2.3.3.

For Title V, the federal requirements have incorporated GHG emissions since EPA's light duty vehicle emissions standards for GHGs went into effect on January 2, 2012; and the District is currently treating facilities that emit GHGs as subject to Title V permitting as "designated facilities" as discussed in Section 3.2.1.5. Clarifying that GHGs are "Regulated Air Pollutants" for Title V purposes in the definition in Section 2-6-222 will not change any regulatory requirements compared to how they apply now. As such, there is no potential for any physical or operational changes at any facility as a result of the proposed amendments. Moreover, Title V does not impose any substantive requirements

anyway. Thus, even if adding GHGs were a wholly new requirement compared to baseline, it would not cause any physical or operational changes at any facility that could have any impact on the environment.

3.2.3.5 Revising NSR Applicability Test in "Modified Source" Definition

The proposed amendments will revise the District's applicability threshold for NSR permitting to ensure that it will not be any less stringent in any situation than the federal NSR program. This revision will be made by amending the definition of "modified source" in Section 2-1-234. All of the NSR permitting requirements in Regulation 2, Rule 2 apply to new sources and "modified sources", so this definition determines the applicability of NSR for modifications to existing sources. The current regulatory baseline conditions for when modifications are subject to NSR permitting are (i) the federal NSR program requirements, which require applicability to be based on emissions increases over the facility's actual historical emissions; and (ii) the District's current "modified source" definition in Section 2-1-234, which bases applicability on emissions increases over a source's maximum potential emissions. The District believes that its definition in Section 2-1-234 is more stringent than the federal minimum requirements, and EPA has historically approved it as satisfying the federal NSR program, but EPA is now raising an objection that in certain circumstances it could apply in a less stringent manner. To address this concern, the proposed amendments will add a "federal backstop" applicability provision to Section 2-1-234 to address any specific situation where the federal test could apply in a more stringent manner than the District's current test. (See discussion in Section IV.A.1. of the Staff Report for additional details.)

This revision will not have any significant impacts on air quality. It will not involve any relaxation from current NSR applicability standards under existing regulatory standards. It will simply establish that both the federal test and the District's current test are both reflected in Section 2-1-234. There is no situation in which a project that would be a "modification" under either of these two tests would be able to avoid being a "modification" and subject to NSR requirements under the proposed amendments. At the same time, it is not likely in practice to apply any more stringently, either. As noted above, the District's existing test is already very comprehensive and is more stringent than the federal test in most (if not all) circumstances. It is unlikely that there will be many situations in which a project will trigger the federal applicability test where it does not already trigger the District's existing stringent applicability test. And even if there are any such situations where the "federal backstop" test would apply, that test is already part of the current regulatory baseline established by EPA's NSR requirements (as EPA is now applying them). If the District were to fail to adopt the "federal backstop" test, then EPA would step in and apply that test under its own regulatory authority. In this regard, the proposed amendments may be changing the District's regulatory definition but they are not making any change to the larger universe of NSR regulatory requirements applicable to emissions sources in the Bay Area.

3.2.3.6 Expanding NAAQS Compliance Demonstration

The proposed amendments will expand the requirement to demonstrate that new and modified sources will not cause or contribute to an exceedance of any NAAQS. PSD permitting currently requires such a demonstration for projects at major PSD facilities (i.e., facilities with emissions over the 100 tpy/250 tpy PSD "major" threshold) that will result in significant net increases in emissions of PSD pollutants. The proposed amendments will expand this requirement to include any project with a significant emissions increase at any facility, regardless of size; and to include all pollutants, not just PSD pollutants. This expanded NAAQS compliance demonstration analysis will not have any impacts on the environment, because it is an administrative requirement only and will not affect how any project is built or operated. To the extent that there are any projects that could be built under current regulations that would be prohibited (or would have to be modified) because they would result in a NAAQS exceedance, this requirement could have a beneficial impact on air quality by avoiding such exceedances. But any such impacts would be beneficial impacts, not adverse impacts.

3.2.3.7 Expanding Public Notice-and-Comment Requirements

The proposed amendments will also revise the current notice-and-comment requirements for NSR permitting to cover all permits for new and modified sources that will result in a significant increase in emissions. Some have argued that this is part of the existing regulatory setting under EPA's "Minor NSR" regulations under 40 C.F.R. section 51.161(b), but regardless of whether this requirement is part of the existing regulatory baseline or a new requirement being added beyond what is currently required, it will not result in any adverse impacts on air quality. This is an administrative requirement only, and while it will improve the permitting process it will not have any effect on the physical environment.

3.2.3.8 Miscellaneous Minor Revisions

In addition to the major revisions discussed above, the proposed amendments also include a number of relatively minor changes to improve the way the District's permitting programs work and to ensure that they comply with all EPA requirements. None of these more minor revisions will change the way that any control requirements apply to any sources, affect the programs' applicability so as to bring more sources into these programs or to exclude any additional sources from regulation, or otherwise change the way these permitting programs work in any significant way. No significant adverse impacts on air quality are expected from these minor revisions.

This review of additional, more minor revisions also included an evaluation of certain issues raised by interested members of the public in comments during the rule development process (in addition to the specific areas already addressed above). These issues were included because they were raised by members of the public as issues that should be addressed in the EIR. Based on this review, no significant impacts were found. These issues included the following.

Revisions to Definition of "Offsets": A concern was expressed during the rule development process that the District is revising its definition of what constitutes an "offset". The proposed amendments do not make any substantive revisions to the definition of "offsets". The proposed amendments revise the language used in this definition as part of the overall effort to revise Regulation 2, Rule 2 to make it clearer and easier to understand. But these revisions do not change the meaning of this term in any substantive way. All substantive emission control requirements that use this term will apply in the same way as under the current regulations (with the specific substantive changes that are being evaluated in other parts of this document), and there will be no environmental impact from the revisions to the language used in this definition.

Potential for Weakening of Current Rules: A concern was expressed during the rule development process that the proposed amendments would result in a "weakening" of the District's existing rules. No specific regulatory provisions were cited in connection with this concern, and no explanation was given as to how anything in the proposed amendments could result in a weakening of the current rules. A thorough review of the proposed amendments by District staff did not identify any such provisions that would be weakened in any way (and any such weakening would be prohibited in any event under SB 288). Accordingly, no significant adverse impacts are expected because of any "weakening" of the District's current rules.

Potential for Adoption of Additional Exemptions: A concern was expressed during the rule development process that the proposed amendments would adopt additional exemptions that could result in significant adverse environmental impacts. In fact, the proposed amendments do not adopt any new exemptions. The proposed amendments revise some of the language in certain exemptions to specify exactly how they should be applied, and they eliminate the current limited exemption for space heaters, but they do not add any new exemptions.

3.2.3.9 Non-Substantive Clarifications and Amendments to Regulatory Language

The District is also proposing a major reorganization and overhaul of the regulatory language for its NSR and Title V permitting programs. Although this will involve major changes to the language and structure of the regulations, the District is not intending to make any significant substantive changes to the way these programs work. That is, the District is clarifying the language to make the regulations easier to understand and easier to use, but not to make any changes to the substance of the regulatory requirements. Because there will be no substantive change to the regulations and what they require (other than the specific changes discussed above), no air quality impacts are expected from these non-substantive clarifications and amendments.

3.2.4 MITIGATION MEASURES

As discussed in Section 3.2.3, no significant adverse air quality impacts are expected due to implementation of the proposed amendments to the District's rules and regulations. Therefore, there is no need for the District to implement mitigation measures in connection with the proposed amendments in order to avoid any significant impacts or reduce them to a less than significant level. Mitigation measures are required only where there are significant adverse impacts to be mitigated. (See CEQA Guidelines § 15126.4(a)(3).)

3.2.5 CUMULATIVE AIR QUALITY IMPACTS

As discussed in Section 3.2.2., most types of air pollution are primarily cumulative concerns. That is, most air quality problems are not caused by a single source of emissions, they are caused by the cumulative effect of many individual sources around the region combining together to create a cumulative problem. The discussion of air quality impacts in Section 3.2.3. is therefore both a project-specific air quality impact analysis and a cumulative impacts analysis. The analysis demonstrating that the proposed amendments will not have a significant impact on air quality supports both the conclusion that the amendments by themselves will not have a significant impact, and also the conclusion that the proposed amendments will not make a cumulatively considerable contribution to the cumulative air quality challenges that the Bay Area faces. (See Guidelines § 15064(h)(1).)

In addition, a project's contribution to cumulative air quality concerns is not cumulatively considerable where the project will be consistent with a regulatory plan or program to address the cumulative air quality problem. (See Guidelines Section § 15064(h)(3).) Here, the proposed amendments are consistent with – and indeed, are necessary to implement – EPA's NSR and Title V program requirements (as well as related requirements of state law). These important permitting programs are comprehensive regulatory programs designed expressly to address cumulative air quality concerns. With respect to criteria pollutants specifically, the primary purpose of the NSR program is to attain and maintain the NAAQS to ensure that criteria pollutant concentrations are kept at safe and healthful levels. And with respect to regulated air pollutants generally, both the PSD element of NSR permitting and the Title V program address all such pollutants and help ensure that they are regulated effectively. Implementing the requirements of these permitting programs in the Bay Area will help ensure that emissions from regulated sources will not interfere with achieving the region's clean air goals, and thus that their incremental contribution to overall air emissions will not be cumulatively considerable.

Furthermore, the updates to the District's NSR regulations also comply with and implement provisions the District's 2010 Clean Air Plan, the most recent air quality plan approved in the District. Stationary Source Measure SSM-16 in the Clean Air Plan committed the District to updating its NSR regulations to incorporate $PM_{2.5}$ requirements in light of the Bay Area's non-attainment designation. The Clean Air Plan was adopted specifically to address cumulative air quality concerns in the Bay Area. Implementing

these requirements will help ensure that $PM_{2.5}$ emissions from regulated sources will not make a cumulatively considerable contribution to ambient particulate matter concentrations.

Finally, the proposed amendments should also be considered in the context of all of the other regulatory initiatives that are currently being undertaken by the District and other agencies to address cumulative air quality concerns. Many of these efforts are summarized in the 2010 Clean Air Plan, and they are expected to have a cumulative beneficial impact on air quality by lowering criteria pollutant emissions (see Table 3-6). These efforts also include the Transportation 2035 Plan (Metropolitan Transportation Commission (MTC), 2009), which will reduce vehicle miles travels compared to baseline (no-project) conditions, as well as increasingly stringent emission controls CARB has adopted for new vehicle engines and fuels over the past few decades; improvements in emission control devices, the Enhanced Smog Check Program, and fleet turnover wherein older polluting cars are retired and replaced with newer and less polluting vehicles (BAAQMD, 2010). These developments are expected to result in reductions of ROG emissions by 72 percent, NOx emissions by 80 percent, and CO emissions by 78 percent, providing a direct air quality benefit.

TABLE 3-6

Emission Reductions of Proposed Control Measures in the 2010 Clean Air Plan (2020 Estimates)

Control Measure	Description	Estimated Emission Reductions (tons/day) [1]				
		VOC	NOx	PM_{10}	SO_2	GHG[2]
Stationary and Area Source Measures						
SSM 1	Metal-Melting Facilities	--	--	--	--	--
SSM 2	Digital Printing	--	--	--	--	--
SSM 3	Livestock Waste	0.300	--	--	--	65
SSM 4[3]	Natural Gas Processing and Distribution	0.300	--	--	--	120
SSM 5	Vacuum Trucks	6.000	--	--	--	--
SSM 6	General Particulate Matter Weight Rate Limitation	--	--	2.583	--	--
SSM 7	Open Burning	0.040	0.010	--	--	--
SSM 8[3]	Coke Calcining	--	--	--	2.6	--
SSM 9[3]	Cement Kilns	--	4.380	--	--	--
SSM 10[3]	Refinery Boilers and Heaters	--	2.900	--	--	--
SSM 11[4]	Residential Fan Type Furnaces	--	4.200	--	--	--
SSM 12[4]	Space Heating	--	1.200	--	--	--
SSM 13[3]	Dryers, Ovens, Kilns	--	0.20	--	--	--
SSM 14	Glass Furnaces	--	0.38	--	--	--
SSM 15	Greenhouse Gases in Permitting – Energy Efficiency	--	--	--	--	--
SSM 16	Revise Regulation 2, Rule 2: New Source	--	--	--	--	--

Control Measure	Description	Estimated Emission Reductions (tons/day) [1]				
		VOC	NOx	PM_{10}	SO_2	GHG[2]
	Review					
SSM 17	Revise Regulation 2, Rule 5: New Source Review for Air Toxics	--	--	--	--	--
SSM 18	Revise Air Toxics "Hot Spots" Program	--	--	--	--	--
Transportation Control Measures						
TCM A-1	Improve Local and Areawide Bus Service	0.028	0.032	0.005	--	23
TCM A-2[3]	Improve Local and Regional Rail Service	0.139	0.152	0.043	--	516
TCM B-1	Implement Freeway Performance Initiative	0.922	3.315	0.178	--	2,451
TCM B-2	Improve Transit Efficiency and Use	0.004	0.005	0.001	--	6.130
TCM B-3	Bay Area Express Lane Network	0.860	1.362	0.660	--	1,892
TCM B-4[3]	Goods Movement Improvements and Emission Reduction Strategies	0.585	4.818	0.276	--	4,045
TCM C-1	Support Voluntary Employer-Based Trip Reduction Program	0.076	0.094	0.033	--	97
TCM C-2	Implement Safe Routes to Schools and Safe Routes to Transit	0.008	0.008	0.001	--	8.182
TCM C-3	Promote Rideshare Services and Incentives	0.084	0.105	0.013	--	153
TCM C-4	Conduct Public Outreach and Education	0.020	0.020	0.003	--	40.42
TCM C-5	Promote Smart Driving/Speed Moderation	0.074	0.168	0.010	--	180
TCM D-1	Improve Bicycle Access and Facilities	0.004	0.004	<0.001	--	4.44
TCM D-2	Improve Pedestrian Access and Facilities	0.003	0.002	<0.001	--	1.76
TCM D-3	Support Local Land Use Strategies	0.242	0.311	0.580	--	873.63
TCM E-1	Value Pricing Strategies	--	0.011	0.003	<0.001	9.87
TCM E-2	Parking Pricing and Management Strategies	0.180	0.188	0.025	--	294
TCM E-3	Implement Transportation Pricing Reform	0.115	0.120	0.016	--	188
Mobile Source Control Measures						
MSM A-1	Promote Clean, Fuel Efficient Light & Medium-Duty Vehicles	0.050	0.030	0.009	--	<0.001
MSM A-2	Zero Emission Vehicles and Plug-in Hybrids	0.010	0.010	0.009	--	<0.001
MSM A-3	Green Fleets (Light, Medium & Heavy-Duty Vehicles)	0.020	0.020	0.030	--	<0.001
MSM A-4	Replacement or Repair of High-Emitting Vehicles	4.370	2.060	0.030	--	44.14
MSM B-1	HDV Fleet Modernization	0.100	5.000	0.110	--	0.64
MSM B-2	Low NOx Retrofits for In-Use Engines	--	0.990		--	
MSM B-3	Efficient Drive Trains	0.010	0.290	0.009	--	0.23
MSM C-1	Construction and Farming Equipment	0.040	0.720	0.020	--	
MSM C-2	Lawn & Garden Equipment	0.040	0.009	0.010	--	<0.001
MSM C-3	Recreational Vessels	0.060	0.009	--	--	0.42
Land Use and Local Impact Control Measures						
LUM 1	Goods Movement	0.012	1.719	0.015	--	2,561
LUM 2	Indirect Source Review Rule	0.302	0.244	0.467	0.003	340
LUM 3[3]	Enhanced CEQA Program	0.440	0.350	0.670	--	447
LUM 4	Land Use Guidelines	0.077	0.081	0.011	--	139
LUM 5	Reduce Risk in Impacted Communities	--	--	--	--	--
LUM 6	Enhanced Air Quality Monitoring	--	--	--	--	--

Control Measure	Description	Estimated Emission Reductions (tons/day) [1]				
		VOC	NOx	PM_{10}	SO_2	GHG[2]
Energy and Climate Control Measures						
ECM 1[3]	Energy Efficiency	0.05	0.052	0.032	0.44	543
ECM 2[3]	Renewable Energy	<0.001	<0.001	<0.001	<0.001	0.56
ECM 3	Urban Heat Island Mitigation	0.002	0.025	0.015	0.021	30
ECM 4	Tree-Planting	0.005	0.072	0.044	0.062	76
TOTAL EMISSION REDUCTIONS:		15.57	33.13	6.20	3.13	15,150

Source: 2010 CAP EIR (BAAQMD, 2010)

Notes:

1. Emission reductions are for 2012, except as noted.
2. Greenhouse gas (GHG) emissions are reported as CO_2 equivalent emissions in short tons (2,000 lbs) per day.
3. Emission reduction estimate is for 2020.
4. Estimated reductions for this measure represent reductions that will be achieved upon full implementation of the measure. Full implementation is not anticipated until post-2020.

With respect to toxic air contaminants specifically, these efforts will also reduce particulate matter from diesel-fuel engines, which is the largest contributor to air toxic risk in the Bay Area. Recent CARB regulations to reduce diesel particulate matter emissions include measures to reduce emissions from off-road emissions sources (cargo handling equipment, locomotives and transport refrigeration units), on-road emission sources (truck and buses), marine and related equipment (harbor craft, recreational marine engines, ocean-going vessels, and shore power), stationary diesel engines, and portable diesel equipment, and regulations to minimize diesel particulate emissions from diesel fuel combustion. The TCMs included in the Transportation 2035 Plan and as part of the 2010 CAP to reduce mobile source emissions and vehicle miles traveled will also help address toxic risk from diesel particulate emissions. The Transportation 2035 Plan is expected to result in a 77 percent decrease in diesel particulate matter, a 78 percent decrease in 1,3-butadiene, and a 76 percent decrease in benzene by 2035 compared to existing conditions, and additional TAC emission reductions are expected from the 2010 CAP (BAAQMD, 2010).

For all of these reasons, the proposed amendments will not result in any cumulatively considerable contribution to any significant cumulative impacts. To the contrary, they are part of a comprehensive regulatory effort by the District and other regulatory agencies to achieve net reductions in air pollution emissions, to reduce significant cumulative air quality concerns, and to ensure safe and healthy air quality for the San Francisco Bay Area.

3.2.6 AIR QUALITY IMPACTS CONCLUSIONS

As discussed in detail in the foregoing sections, the EIR's analysis has found that the proposed amendments to District Regulation 2 will have overall beneficial environmental impacts on air quality. The proposed amendments will strengthen the Air District's permitting programs and thereby enhance the District's ability to implement its

regulatory program and to achieve the Bay Area's clean air goals. The EIR has evaluated the potential for the proposed amendments to have adverse secondary impacts in connection with this strengthening of District regulations, and has concluded based on all available evidence that there will be no such significant adverse impacts. The support for this conclusion and the evidence on which it is based were addressed in Section 3.2 of this EIR.

3.3 GREENHOUSE GAS EMISSIONS

The NOP/IS (see Appendix A) identified greenhouse gas emissions as an area with a potential for the proposed amendments to have a significant adverse impact that needs to be evaluated in the EIR. The potential for significant adverse greenhouse gas impacts associated with the proposed amendments is evaluated in this Section of this EIR. As stated in the conclusions in Section 3.2.7., the proposed amendments will have a beneficial effect in helping the Air District effectively regulate greenhouse gas emissions from stationary sources in the Bay Area. There will not be any significant adverse impacts on air quality as a result of the proposed amendments.

3.3.1 GHG ENVIRONMENTAL SETTING

Global climate change refers to changes in average climatic conditions on the earth as a whole, including temperature, wind patterns, precipitation, and storms. Global warming, a related concept, is the observed increase in the average temperature of the earth's surface and atmosphere. One identified cause of global warming is an increase of GHGs in the atmosphere. The six major GHGs identified by the Kyoto Protocol are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs). The GHGs absorb longwave radiant energy reflected by the earth, which warms the atmosphere. GHGs also radiate longwave radiation both upward to space and back down toward the surface of the earth. The downward part of this longwave radiation absorbed by the atmosphere is known as the "greenhouse effect." Some studies indicate that the potential effects of global climate change may include rising surface temperatures, loss in snow pack, sea level rise, more extreme heat days per year, and more drought years.

Events and activities, such as the industrial revolution and the increased combustion of fossil fuels (e.g., gasoline, diesel, coal, etc.), have heavily contributed to the increase in atmospheric levels of GHG. As reported by the California Energy Commission (CEC), California contributes 1.4 percent of the global and 6.2 percent of the national GHG emissions. An emissions inventory is a detailed estimate of the amount of air pollutants discharged into the atmosphere of a given area by various emission sources during a specific time period. The GHG inventory for California is presented in Table 3-7 (CARB, 2007 and CARB, 2009). More than 80 percent of GHG emissions in California are from fossil fuel combustion.

The emission inventory in Table 3-8 focuses on GHG emissions due to human activities only, and compiles estimated emissions from industrial, commercial, transportation, domestic, forestry, and agriculture activities in the San Francisco Bay Area region of California. The GHG emission inventory in Table 3-8 reports direct emissions generated from sources within the Bay Area.

TABLE 3-7

California GHG Emissions and Sinks Summary
(Million Metric Tons CO_2-Equivalent)

Categories Included in the Inventory	1990 (1)	2006 (2)
ENERGY	**386.41**	**419.32**
Fuel Combustion Activities	**381.16**	**414.03**
Energy Industries	157.33	160.82
Manufacturing Industries & Construction	24.24	19.03
Transport	150.02	184.78
Other Sectors	48.19	49.41
Non-Specified	1.38	2.16
Fugitive Emissions from Fuels	**5.25**	**5.28**
Oil and Natural Gas	2.94	3.25
Other Emissions from Energy Production	2.31	2.03
INDUSTRIAL PROCESSES & PRODUCT USE	**18.34**	**30.22**
Mineral Industry	4.85	5.92
Chemical Industry	2.34	0.37
Non-Energy Products from Fuels & Solvent Use	2.29	1.85
Electronics Industry	0.59	0.77
Product Uses as Substitutes for Ozone Depleting Substances	0.04	13.38
Other Product Manufacture & Use Other	3.18	1.67
Other	5.05	6.25
AGRICULTURE, FORESTRY, & OTHER LAND USE	**19.11**	**25.10**
Livestock	11.67	15.68
Land	0.19	0.19
Aggregate Sources & Non-CO_2 Emissions Sources on Land	7.26	9.24
WASTE	**9.42**	**9.23**
Solid Waste Disposal	6.26	6.31
Wastewater Treatment & Discharge	3.17	2.92
EMISSION SUMMARY		
Gross California Emissions	**433.29**	**483.87**
Sinks and Sequestrations	**-6.69**	**-4.07**
Net California Emissions	**426.60**	**479.80**

Source: (1) CARB, 2007.
(2) CARB, 2009.

TABLE 3-8

Bay Area Greenhouse Gas Emission Inventory Projections

(Million Metric Tons CO_2-Equivalent)

SOURCE CATEGORY	Year	2005	2009	2012	2015	2020
INDUSTRIAL/COMMERCIAL						
Oil Refineries						
Refining Processes		3.4	3.5	3.6	3.7	3.9
Refinery Make Gas Combustion		4.7	4.9	5.0	5.2	5.4
Natural Gas and Other Gases Combustion		4.8	5.0	5.1	5.3	5.5
Liquid Fuel Combustion		0.1	0.1	0.1	0.1	0.1
Solid Fuel Combustion		1.0	1.0	1.1	1.1	1.1
Waste Management						
Landfill Combustion Sources		0.0	0.0	0.0	0.0	0.0
Landfill Fugitive Sources		1.2	1.2	1.2	1.2	1.2
Composting/POTWs		0.4	0.4	0.4	0.4	0.4
Other Industrial/ Commercial						
Cement Plants		0.9	0.9	0.9	0.9	1.0
Commercial Cooking		0.1	0.1	0.1	0.1	0.2
ODS Substitutes/Nat. Gas Distrib./Other		3.6	5.2	6.3	7.5	9.4
Reciprocating Engines		0.6	0.6	0.6	0.7	0.7
Turbines		0.4	0.4	0.4	0.4	0.4
Natural Gas- Major Combustion Sources		1.6	2.5	2.6	2.7	2.8
Natural Gas- Minor Combustion Sources		8.8	9.2	9.5	9.9	10.4
Coke Coal		1.0	1.0	1.1	1.1	1.2
Other Fuels Combustion		0.3	0.4	0.4	0.4	0.4
Subtotal		32.8	36.3	38.4	40.6	44.2
RESIDENTIAL FUEL USAGE						
Natural Gas		6.4	6.6	6.8	6.9	7.2
LPgas/Liquid Fuel		0.2	0.2	0.2	0.2	0.2
Solid Fuel		0.1	0.2	0.2	0.2	0.2
Subtotal		6.7	6.9	7.1	7.2	7.5
ELECTRICITY/ CO-GENERATION						
Co-Generation		5.5	5.5	5.7	6.0	6.4
Electricity Generation		2.8	3.1	3.2	3.3	3.5
Electricity Imports		6.8	7.3	7.6	7.9	8.3
Subtotal		15.1	15.8	16.5	17.2	18.3
OFF-ROAD EQUIPMENT						
Lawn and Garden Equipment		0.1	0.1	0.1	0.1	0.1
Construction Equipment		1.7	1.9	1.9	2.0	2.2
Industrial Equipment		0.7	0.8	0.8	0.9	1.0
Light Commercial Equipment		0.2	0.2	0.3	0.3	0.3
Subtotal		2.8	3.0	3.2	3.3	3.6
TRANSPORTATION						
Off-Road						
Locomotives		0.1	0.1	0.1	0.1	0.1
Ships		0.7	0.8	0.8	0.9	1.0
Boats		0.6	0.6	0.5	0.5	0.6

TABLE 3-8 (continued)

Bay Area Greenhouse Gas Emission Inventory Projections
(Million Metric Tons CO_2-Equivalent)

SOURCE CATEGORY Year	2005	2009	2012	2015	2020
Commercial Aircraft	1.8	2.0	2.1	2.3	2.6
General Aviation	0.2	0.2	0.2	0.3	0.3
Military Aircraft	0.5	0.5	0.5	0.5	0.5
On-Road					
Passenger Cars/Trucks up to 10,000 lbs	26.6	27.1	27.9	29.0	30.9
Medium/Heavy Duty Trucks > 10,000 lbs	3.3	3.3	3.4	3.5	3.7
Urban, School and Other Buses	0.8	0.8	0.8	0.8	0.9
Motor-Homes and Motorcycles	0.2	0.2	0.2	0.2	0.2
Subtotal	34.8	35.6	36.7	38.1	40.7
AGRICULTURE/FARMING					
Agricultural Equipment	0.2	0.2	0.2	0.2	0.2
Animal Waste	0.6	0.6	0.6	0.6	0.6
Soil Management	0.3	0.3	0.3	0.3	0.3
Biomass Burning	0.0	0.0	0.0	0.0	0.0
Subtotal	1.1	1.1	1.1	1.1	1.1
GRAND TOTAL EMISSIONS	**93.4**	**98.7**	**103.0**	**107.5**	**115.4**

Source: BAAQMD, 2009

3.3.2 EXISTING GHG REGULATORY SETTING

In response to growing scientific and political concern regarding global climate change, California has recently adopted a number of legislative and regulatory measures to address greenhouse gas emissions within the state. These include California's Global Warming Solutions Act of 2006 (AB32), which requires the state to reduce its total greenhouse gas emissions to 1990 levels by 2020. The California Air Resources Board (ARB) was given primary responsibility for implementing AB 32. With respect to stationary sources, ARB is in the process of implementing a "cap-and-trade" regulation for greenhouse gas emissions. The regulation sets a statewide limit on the emissions from sources responsible for 80 percent of California's greenhouse gas emissions. The regulation will cover 360 businesses representing 600 facilities and is divided into two broad phases: an initial phase beginning in 2012 that will include all major industrial sources along with utilities; and a second phase that starts in 2015 and brings in distributors of transportation fuels, natural gas and other fuels.

Companies are not given a specific limit on their greenhouse gas emissions but must supply a sufficient number of allowances (each covering the equivalent of one ton of carbon dioxide) to cover their annual emissions. Each year, the total number of allowances issued in the state drops, requiring companies to find the most cost-effective and efficient approaches to reducing their emissions. By the end of the program in 2020 there will be a 15 percent reduction in greenhouse gas emissions compared to today,

reaching the same level of emissions as the state experienced in 1990, as required under AB 32.

The federal government has also taken steps to address greenhouse gas emissions. EPA has adopted GHG emission limits for new light-duty cars and trucks, which took effect beginning with the 2012 model year. This regulation of GHG emissions from mobile sources rendered GHGs a pollutant "subject to regulation" under the Clean Air Act, which in turn triggered NSR and Title V permitting requirements. Both NSR and Title V apply to all pollutants that are "subject to regulation", which now includes GHGs. The regulatory requirements under the NSR and Title V permitting programs are discussed in Chapter 2, Section 2.4. The impact of the inclusion of GHGs as a pollutant that is "subject to regulation" is addressed in Section 2.4.3.2. A primary purpose of the proposed amendments is to incorporate these NSR and Title V requirements for GHGs into the District's permitting programs in Regulation 2.

In addition to the regulation of GHGs under the NSR and Title V programs, the federal government has undertaken a number of other regulatory initiatives as well. These include a GHG reporting program that requires facilities with emissions of 25,000 metric tons per year or more to report their emissions to EPA, and proposed New Source Performance Standards that establish a CO_2 emission limit of 1,000 lb CO_2 per MW-hr for new power plants.

3.3.3 THRESHOLDS OF SIGNIFICANCE

As is the situation with general air quality impacts discussed above in Section 3.2., greenhouse gas emissions are primarily a cumulative concern. Indeed, GHG impacts are a paradigm example of a cumulative impact. GHG emissions from a single project are highly unlikely to result in any detectable change in the global climate all by themselves. Currently available analytic tools are normally unable to detect any impact from a single project's GHG emissions. Rather, it is the increased accumulation in GHG concentrations from many millions of individual sources around the globe that causes adverse global climate change impacts. The resultant consequences of that climate change are adverse environmental effects such as flooding of coastal areas, increased fire hazards, etc. In virtually every project subject to CEQA review, a project's GHG emissions will be relatively small compared to global or even statewide GHG emissions, and, as such, will almost certainly have no detectable impact on global climate change.

Nevertheless, global climate change is indisputably a significant environmental impact, and any project that will result in an increase in GHG emissions will contribute incrementally to that significant cumulative problem. The CEQA analysis therefore considers whether the project's additional contribution is "cumulatively considerable". If the project's contribution is "cumulatively considerable", then the project's impact is treated as significant. If the project's contribution is not "cumulatively considerable", then the project's impact is not treated as significant and it does not need to be addressed further in the EIR. (See CEQA Guidelines §§ 15064(h), 15130(a).) (These principles are also discussed in further detail in Section 3.2.3.)

In addition, the CEQA Guidelines have recently added provisions specifically addressing how the significance of a project's GHG emissions should be assessed. (See CEQA Guidelines § 15064.4.) This new Guidelines section provides that the lead agency should describe the increase in GHG emissions that would result from the project, either quantitatively or qualitatively. It then enumerates three factors that (among others) may be taken into account in considering the significance of the impacts from the project's GHG emissions. The first listed factor is the extent to which the project will result in an increase or decrease in GHG emissions, compared to the existing baseline conditions. The second listed factor is whether, if the project will result in an increase in GHG emissions, the increase will exceed a threshold of significance that is applicable to the situation being evaluated. The third listed factor is extent to which the project complies with the requirements of a statewide, regional, or local plan that has been adopted by a government agency to reduce GHG emissions. One such regulatory program that has been adopted to reduce GHG emissions that has been relied on by a number of lead agencies, and has been endorsed by the California Court of Appeal as appropriate to consider in this context under CEQA, is the Global Warming Solutions Act of 2006 (AB 32). (See *Citizens for Responsible Equitable Environmental Development v. City of Chula Vista* (2011) 197 Cal. App. 4th 327, 336.) These principles are already inherent in CEQA's general requirements for addressing impacts in the cumulative context, but Guidelines Section 15064.4 outlines specifically how they apply in the GHG context.

The potential for GHG impacts from the proposed amendments will be evaluated according to these considerations. The proposed amendments will result in significant environmental impacts if they will result in a regional net increase in GHG emissions, and if they are inconsistent with implementation of AB 32.

3.3.4 ENVIRONMENTAL IMPACTS

As noted above, due to the complex physical, chemical, and atmospheric mechanisms involved in global climate change, it is difficult using current tools and methodologies to identify any impact on global climate change from one project's incremental increase in GHG emissions. Global climate change is the paradigm example of a cumulative environmental problem. Please see the cumulative impact analysis discussion in Section 3.3.5 for the analysis of whether the proposed amendments could result in any significant adverse environmental impacts.

3.3.5 CUMULATIVE GHG IMPACTS

The following discussion evaluates the potential for the proposed amendments to result in a cumulatively considerable contribution to global climate change, per the analysis described in Section 3.3.3.

3.3.5.1 GHG Emission Reduction Benefits from Proposed Amendments

The proposed amendments will allow the District to implement the federal NSR and Title V regulatory initiatives that EPA has put into effect through its federal programs. The federal NSR and Title V programs now address GHGs, in the wake of EPA's Light Duty Vehicle Rule, Tailoring Rule, and related actions. (See Section 2.4.3.2. for further discussion.) These federal requirements implement important regulatory measures to address GHG emissions, including requiring BACT for GHG emissions and providing for a permitting review for sources subject to those programs. Although the proposed amendments will not achieve substantial additional GHG emissions reductions, as these requirements are already in effect under the federal programs, the proposed amendments will help implement them effectively in the Bay Area by establishing the requirements in the District's permitting programs. The proposed amendments will have an overall benefit in the context of GHG emissions impacts by enhancing the implementation and enforcement of these permitting programs. The proposed impacts will therefore have a beneficial impact on greenhouse gas emissions impacts.

With respect to potential impacts from each individual element of the proposed amendments, this analysis generally incorporates by reference the analysis in the air quality impacts discussion above in Section 3.2.3. The same reasons discussed there why the proposed amendments will not result in any increase in air emissions generally also support the conclusion that the proposed amendments will not result in any increases in GHGs specifically. In addition, the elements of the proposed amendments that apply specifically to GHGs are discussed in the following paragraphs.

3.3.5.2 PSD Requirement Impacts on GHG Emissions

The proposed amendments will establish GHG permitting requirements as part of the PSD provisions the District is adopting to obtain EPA approval for implementing the federal PSD program. (See Section 3.2.1.5. for further discussion of PSD permitting generally.) GHG emissions are currently regulated under EPA's PSD program in 40 C.F.R. Section 52.21. The proposed amendments will adopt District PSD provisions to transfer responsibility for PSD permitting from the federal program under Section 52.21 to the District's NSR program under Regulation 2, Rule 2.

The only substantive requirement that applies for GHG emissions sources under PSD permitting is the requirement to use the "Best Available Control Technology," or BACT. This requirement is currently applicable to GHG emission sources in the Bay Area under 40 C.F.R. Section 52.21(j). The proposed amendments will make this same PSD BACT requirement applicable for GHG emission sources under District Regulation 2, Rule 2, Section 304. Section 2-2-304 will apply this BACT requirement in exactly the same way as it applies under Section 52.21(j).

Adding this PSD BACT requirement in Regulation 2, Rule, will not result in any significant GHG emissions impacts because it will not make any change to the existing regulatory baseline conditions. Sources that are currently subject to PSD BACT under

Section 52.21(j) will be subject to PSD BACT in exactly the same way under Section 2-2-304. Moreover, even if the District were to be applying the program more broadly so that additional GHG sources were to become subject to this BACT requirement, doing so would not result in increased GHG emissions. There are currently no other emission control requirements that apply for GHGs at the individual source level, and so subjecting these emissions to a BACT requirement and imposing permit limits would result in a reduction in emissions, not any increase in emissions. In addition, there would not be any ancillary or secondary impacts from requiring new or additional add-on control equipment, because there currently are no feasible, effective add-on control technologies to address GHGs. EPA has issued guidance addressing what constitutes BACT for GHGs, and although it identifies certain technologies such as carbon capture and storage that look promising for future development, EPA does not currently expect any such add-on control technologies to be required as BACT given technical feasibility, cost, and related issues. (See EPA 2011a, Sections III.C. and III.E.) Instead, BACT for GHGs will be implemented as energy-efficiency measures requiring the most efficient equipment available for a given application (taking into account cost-effectiveness, ancillary environmental impacts, and related considerations). This approach to controlling GHG emissions will reduce the amount of fuel or other energy input necessary for a given level of output and thereby reduce GHGs associated with the activity. Reducing GHG emissions in this way will not result in any increase in any other air pollutants, and in fact will most likely reduce such emissions because burning less fuel (or using less electricity) leads to reduced emissions of all pollutants, not just GHGs.

In addition, the District has evaluated the issue regarding EPA's "NSR Reform" initiative specifically in the context of GHG emissions. As discussed above in Section 3.2.3.3., NSR Reform was a relaxation of the applicability standards for the federal NSR program that EPA adopted in 2002. Industry commenters asserted during the rule development process that the District should use this less stringent applicability test because it would actually result in reduced emissions from their facilities. They argued that the more stringent pre-NSR Reform test creates additional regulatory burdens (in the form of permitting requirements) that discourage them from modernizing and upgrading of equipment, which can have air quality benefits because newer equipment is often more efficient and generates less pollution per unit of output. They asserted that using the more stringent pre-NSR Reform applicability test in applying PSD permitting requirements for GHGs could therefore result in significant GHG emission impacts. With respect to GHGs in particular, they argued that adopting PSD permitting requirements using the pre-NSR Reform test would increase emissions compared to current regulations, because currently GHGs are regulated only under EPA's federal PSD program and EPA's federal program uses the less stringent NSR Reform applicability methodology.

The District evaluated this issue and did not find any evidence to suggest that there would be any such adverse impacts from the proposed amendments' treatment of GHGs under the PSD permitting provisions. With respect to regulating GHGs, the proposed amendments will incorporate one principal aspect of NSR Reform, the more flexible

baseline period. This provision allows a facility to base its emissions increases on the highest historical emissions over a 10-year period when determining whether a project will have a "significant" increase that requires PSD permitting. Allowing a facility to use its highest baseline emissions in the past 10 years allows it to avoid a situation where it has recently been operating at artificially depressed levels, for example because of reduced demand during a recession. The proposed amendments do not incorporate the other main aspect of NSR Reform, which is measuring increases based on unenforceable projections of how much emissions will increase, instead of based on enforceable permit limits. Using unenforceable projections is not appropriate for determining whether a facility will have a "significant" increase that requires permitting, because it allows for actual "significant" increases in the future without compliance with PSD requirements. If a facility is going to implement an improvement project that will reduce emissions (or increase emissions by a less-than-significant amount), it needs to demonstrate that the project will not in fact result in a significant emissions increase through an enforceable limit on emissions. This is the principal difference between how the proposed amendments will implement the PSD requirements for GHGs and how EPA's PSD regulations in 40 C.F.R. Section 52.21 apply currently for facilities in the Bay Area. (NSR Reform has a third element, known as "Plantwide Applicability Limits", or PALs. The District is not considering adopting PALs at this time for a number of reasons, including the fact that EPA's rules for PALs for GHGs have been in flux and were not finalized in time for the District to consider them in depth during development of the proposed amendments. District staff will continue to evaluate the PAL issue and will address PALs in a future rulemaking as appropriate.) The proposed amendments' approach to NSR Reform for GHGs is discussed in more detail in Section IV.B.3.g.ii. of the Staff Report.

The analysis of this issue did not find any evidence to support the commenters' speculation that implementing PSD permitting requirements based on enforceable permit limits, rather than on the facility's unenforceable projections of what its future emissions might be, could result in significant GHG emissions impacts. To the extent that these commenters are concerned about permitting burdens discouraging their projects from going forward, the stringency of existing permitting requirements means that the proposed amendments will make little difference in whether projects trigger NSR permitting, regardless of whether PSD is implemented using the NSR Reform or pre-NSR Reform test. This is the conclusion that EPA reached when it evaluated this issue and determined that "the federal NSR Reform provisions do not provide any of EPA's intended additional flexibility to proposed projects" given the stringency of all the other permitting requirements that apply in California. (EPA, 2011b, at p. 17; see also additional discussion in Section 3.2.3.3. above.) Although EPA intended the relaxed applicability provisions of NSR Reform to provide additional flexibility for regulated entities to avoid permitting requirements, these provisions are not likely to make a determinative difference in the permitting burdens facing facility improvement projects in the Bay Area because of the stringency of California's existing regulatory programs.

Moreover, basing PSD applicability on enforceable limits rather than unenforceable projections is not likely to play a determinative role in a facility's decision-making

process at the time the decision is made on whether or not to implement a project. If a facility is contemplating a project that truly will reduce emissions (or at least not result in a significant increase), then it will be able to avoid PSD permitting requirements by committing that there will not be any significant increase through enforceable permit conditions. Conversely, if the facility contemplates the possibility that the project could potentially result in a significant increase such that it does not feel comfortable agreeing to such a limit, then it will have to comply with the PSD requirements. But this is exactly the same situation (at least at the project decision-making stage) as would apply if PSD permitting was based on unenforceable emissions projections – a project that is projected to result in less-than-significant emissions increases avoids PSD while a project that is projected to potentially exceed the significance levels is subject to PSD. The only difference applies after the fact, when the project is built and operating. Going forward, there will be an enforceable limit to keep emissions below the significance level under the District's approach, but there will be no enforceable limits to prevent significant increases under the full NSR Reform approach. Concerns about enforceability once the project has been built are very important from the perspective of the overall effectiveness of the PSD program, and they were one of the main reasons why the District did not adopt this element of NSR Reform. But they will not make a determinative difference in the facility's decision-making calculus at the time it has to choose whether or not to implement a particular project.

In addition, even if a facility in such a situation does not feel comfortable with an enforceable permit limit to keep emissions below the "significant" increase level, the only additional PSD requirement for GHGs is to use the Best Available Control Technology (BACT) to control GHG emissions. As noted above, under EPA guidance PSD BACT is currently being implemented by requiring the facility to use the most efficient equipment that is currently available for the specific type of operation at the facility, based on cost-effectiveness and related considerations. Having to use the most efficient equipment for a particular application that can be justified based on its cost is unlikely to materially dissuade a facility from undertaking a beneficial facility improvement project. Indeed, it is difficult to speculate that a facility would <u>not</u> want to implement the most energy-efficient equipment that it can justify on cost-effectiveness grounds, given the cost savings involved from reduced fuel usage or electricity consumption. The fact that a facility will be <u>required</u> to use such equipment to comply with BACT is not likely to make a determinative difference in whether the facility decides to implement the project or not.

Furthermore, there are many incentives that will encourage and/or require regulated facilities in the Bay Area to implement beneficial improvement projects. These are discussed in Section 3.2.3.3. above in the context of air quality generally, and they are equally true in the specific context of GHGs. There are strong incentives for facilities in the Bay Area to upgrade their equipment – voluntarily for business purposes and/or in order to comply with regulatory requirements – and there is no evidence to suggest that basing the District's PSD requirements on enforceable emissions limits rather than on unenforceable projections will materially change this situation.

And finally, the benefits from having an enforceable PSD requirement to ensure that significant GHG emissions increases do not escape permitting review because actual emissions turn out to exceed the facility's projections need to be kept in mind as well. Although some commenters may speculate about the potential for permitting burdens to discourage beneficial GHG reduction projects, any such speculative negative consequences must be evaluated against the very real benefits in terms of enforceability and effectiveness that result from basing permitting decisions on actual permit limits instead of on unenforceable projections. These considerations further support the conclusion that overall, the proposed amendments will have a beneficial net impact on GHG emissions from sources in the Bay Area, and will not have any significant adverse impacts.

For all of these reasons, no increase in GHG emissions or significant adverse impacts on climate change is expected from the proposed PSD provisions applicable to GHG emissions.

3.3.5.3 Title V Program Impacts on GHG Emissions

The proposed amendments will make the District's Title V program explicitly cover GHG emissions sources by adding GHGs to the definition of "Regulated Air Pollutant" in Section 2-2-222, as well as making related updates to aid in the implementation of Title V requirements for this pollutant. These revisions will ensure that the District's Title V program adequately addresses GHG permitting requirements in order to implement EPA's federal program requirements.

Adding GHGs to the category of "Regulated Air Pollutants" regulated under the District's Title V program will not have any potential to result in an increase in GHG emissions, for two reasons. First, GHGs are subject to Title V permitting anyway under baseline conditions, and so including GHG emissions more explicitly under the District's Title V program will not change any regulatory requirements compared to how they apply now. The District is currently subjecting GHG emissions sources to Title V permitting as "designated facilities" (see discussion in Section 3.2.1.5. for further details), and so making Title V regulation of GHGs explicit by specifying that GHGs are regulated air pollutants will not have any substantive effect on permitting requirements for these source Moreover, even if the District were to refuse to regulate GHGs under Title V, EPA's program would still address this pollutant and EPA would be required to step in and regulate GHG emission sources under 40 C.F.R. Part 71. As such, regulated entities will not see any substantive changes in their applicable Title V requirements – or what they must do at their facilities to comply with such requirements – as a result of making GHGs a "regulated air pollutant" under Title V.

Second, Title V does not impose any substantive requirements on GHG emission sources anyway. So even if adding GHGs were a wholly new requirement compared to existing baseline regulatory conditions, it would not cause any physical or operational changes at any facility that could have any impact on the environment.

3.3.5.4 Impact from Other GHG Regulatory Initiatives

The proposed amendments are not expected to result in any significant adverse GHG impacts, as discussed above. In addition, the proposed amendments along with the Air District's other related regulatory initiatives in the 2010 CAP are expected to promote a significant net decrease in GHG emissions. The 2010 CAP control measure strategy promotes fuel efficiency and pollution prevention, which also reduces greenhouse gas emissions. Measures that reduce fuel use and/or increase use of alternative fuels will also be beneficial. In general, strategies that conserve energy and promote clean technologies usually also reduce greenhouse gas emissions. As shown in Table 3-7, the fuel combustion and the generation of electricity are responsible for a large portion of greenhouse gases produced in California.

The 2010 CAP proposed a total of 55 control measures in five categories, including:

- 18 control measures to reduce emissions from stationary and area sources
- 10 mobile source control measures
- 17 transportation control measures
- 6 land use and local impact control measures
- 4 energy and climate control measures.

The control measures that are expected to result in GHG emissions reductions are included in Table 3-6. The overall GHG emissions associated with the 2010 CAP, including the TCMs developed as part of MTC's Regional Transportation Plan, Transportation 2035, is expected to be about 15,150 tons per year (see Table 3-6), providing a large reduction in GHG emissions. Overall, the proposed amendments, 2010 CAP and related TCMs will reduce GHG emissions on a regional level, so that significant cumulative beneficial impacts are expected.

3.3.6 MITIGATION MEASURES

No significant adverse GHG quality impacts are expected due to implementation of the proposed amendments to the District's rules and regulations. Therefore, there is no need for the District to implement mitigation measures in connection with the proposed amendments in order to avoid any significant impacts or reduce them to a less than significant level. Mitigation measures are required only where there are significant adverse impacts to be mitigated. (See CEQA Guidelines § 15126.4(a)(3).)

3.3.7 GHG IMPACTS CONCLUSIONS

As discussed in detail in the foregoing sections, the EIR's analysis has found that the proposed amendments to District Regulation 2 will not result in a significant adverse impact on GHG emissions. The proposed amendments will strengthen the Air District's permitting programs and thereby enhance the District's ability to implement its regulatory program and to achieve the Bay Area's clean air goals. The EIR has evaluated

the potential for the proposed amendments to have adverse GHG impacts in connection with this strengthening of District regulations, and has concluded based on all available evidence that there will be no such significant adverse impacts. The support for this conclusion and the evidence on which it is based were addressed in Section 3.3 of this EIR.

3.4 GROWTH INDUCING IMPACTS

3.4.1 INTRODUCTION

CEQA defines growth-inducing impacts as those impacts of a proposed project that "could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects, which would remove obstacles to population growth" (CEQA Guidelines §15126.2(d)).

To address this issue, potential growth-inducing effects are examined through the following considerations:

- Facilitation of economic effects that could result in other activities that could significantly affect the environment;
- Expansion requirements for one or more public services to maintain desired levels of service as a result of the proposed Project modifications;
- Removal of obstacles to growth, e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area or through changes in existing regulations pertaining to land development;
- Adding development or encroachment into open space; and/or
- Setting a precedent that could encourage and facilitate other activities that could significantly affect the environment.

3.4.2 ECONOMIC AND POPULATION GROWTH, AND RELATED PUBLIC SERVICES

The proposed amendments would not directly foster economic or population growth or the construction of new housing in the Bay Area. The proposed amendments are not expected to involve any significant construction activities or new development. Therefore, they would not stimulate significant population growth, remove obstacles to population growth, or necessitate the construction of new community facilities that would lead to additional growth.

A project would directly induce growth if it would directly foster economic or population growth or the construction of new housing in the surrounding environment (e.g., if it

would remove an obstacle to growth by expanding existing infrastructure). The proposed amendments would not remove barriers to population growth, as they involve no changes to General Plan, zoning ordinance, or related land use policy. The proposed amendments do not include the development of new housing or population-generating uses or infrastructure that would directly encourage such uses. Therefore, the proposed amendments would not directly trigger new residential development in the Bay Area.
Further, the proposed amendments would not be expected to result in an increase in local population, housing, or associated public services (e.g. fire, police, schools, recreation, and library facilities) since the proposed amendments would not result in an increase in workers or residents. Likewise, the proposed amendments would not create new demand for secondary services, including regional or specialty retail, restaurant or food delivery, recreation, or entertainment uses. As discussed in the NOP/IS (see Appendix A), implementation of the proposed amendments would not increase the demand for water, wastewater, electricity, solid waste disposal capacity, or natural gas. As such, the proposed amendments would not foster economic or population growth in the surrounding area in a manner that would be growth-inducing.

3.4.3 REMOVAL OF OBSTACLES TO GROWTH

The proposed amendments would not employ activities or uses that would result in growth inducement, such as the development of new infrastructure (i.e., new roadway access or utilities) that would directly or indirectly cause the growth of new populations, communities, or currently undeveloped areas. Likewise, the proposed amendments would not result in an expansion of existing public service facilities (e.g., police, fire, libraries, and schools) or the development of public service facilities that do not already exist.

3.4.4 DEVELOPMENT OR ENCROACHMENTS INTO OPEN SPACE

Development can be considered growth-inducing when it is not contiguous to existing urban development and introduces development into open space areas. The proposed amendments are not expected to require any new development. Therefore, the proposed amendments would not result in development within or encroachment into an open space area.

3.4.5 PRECEDENT SETTING ACTION

The proposed rule amendment will largely implement existing federal air permitting requirements, allowing the District to implement and issue certain approvals and permits (i.e., NSR and Title V permits), as opposed to the EPA. As these permit programs are already established under federal regulations, the proposed amendments would not result in precedent-setting actions that might cause significant environmental impacts.

3.4.6 CONCLUSION

The proposed amendments would not be considered growth-inducing, because they would not result in an increase in production of resources or cause a progression of growth that could significantly affect the environment either individually or cumulatively.

3.5 SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED AND SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Section 15126.2(b) of the CEQA Guidelines requires that an EIR describe significant environmental impacts that cannot be avoided, including those effects that can be mitigated but not reduced to a less than significant level. As evaluated in the preceding portions of Chapter 3 of this EIR, the proposed amendments are not expected to result in any significant or unavoidable impacts.

3.6 ENVIRONMENTAL EFFECTS NOT FOUND TO BE SIGNIFICANT

The environmental effects of the proposed amendments are identified and discussed in detail in the preceding portions of Chapter 3 of this EIR and in the Initial Study (see Appendix A) per the requirements of the CEQA Guidelines (§15128). The following topics of analysis in this EIR were found to have no potentially significant adverse effects, after mitigation:

Air Quality
Greenhouse Gases

The following topics of analysis were found to have no potentially significant adverse effects in the Initial Study (see Appendix A):

Aesthetics
Agriculture and Forestry Resources
Biological Resources
Cultural Resources
Geology/Soils
Hazards and Hazardous Materials
Hydrology/Water Quality
Land Use/Planning
Mineral Resources
Noise
Population/Housing
Public Services
Recreation

Transportation/Traffic
Utilities and Service Systems

No potentially significant adverse impacts were identified for the implementation of the proposed amendments.

CHAPTER 4

ALTERNATIVES

Alternatives Analysis
Discussion of Alternatives
Description of the Project Alternatives
Environmental Impacts of Project Alternatives
Conclusions

4.0 ALTERNATIVES ANALYSIS

An EIR is required to describe a reasonable range of feasible alternatives to the proposed project that could feasibly attain most of the basic project objectives and would avoid or substantially lessen any of the significant environmental impacts of the proposed project (CEQA Guidelines § 15126.6(a).) The purpose of the alternatives analysis is to identify potential ways to avoid significant impacts, and it accordingly focuses on alternatives that may avoid or lessen significant impacts. (CEQA Guidelines § 15126.6(b).) If a project will not result in a significant impact, then by definition there are no alternatives that can avoid any such impacts and there would be no purpose in considering alternatives. (See also Remy, Thomas 2007, p. 567, note 73.) As discussed in Chapter 3, the proposed amendments are not expected to result in any significant adverse environmental impacts. Accordingly, the EIR is not required to evaluate any alternatives.

Nevertheless, there are a number of policy alternatives that the District considered in developing the proposed amendments. These alternatives were not evaluated because they would reduce or avoid any significant impacts associated with the proposed amendments (as there are none). They were evaluated because of the potential that they could present a better means to implement sound air quality regulatory policy in the Bay Area. After considering all such alternatives, the District concluded the approach reflected in the proposed amendments is the most appropriate manner in which to implement the updates to the District's NSR and Title V programs. (The issues involved and the reasons why the proposed amendments reflect the best policy choices are addressed in the Staff Report accompanying the proposed amendments.) Given that the District considered these alternatives during the rule development process, this EIR also discusses them, in order to provide the public with as much information as possible about this project.

The evaluation presented here is not legally required under CEQA because there are no significant adverse impacts to be avoided or substantially lessened through an alternative to the proposed amendments. Rather, it is presented to provide the Board of Directors and members of the public with as much information as possible regarding the proposed amendments and the issues that have been considered in developing them. CEQA serves an informational purpose, and providing additional information on policy alternatives that the District considered beyond what is legally required by CEQA is in keeping with this informational purpose. Furthermore, to the extent that there is any contention that alternatives need to be considered under CEQA even where there are no significant impacts, this discussion will address any such concerns.

4.1 DISCUSSION OF ALTERNATIVES

When an EIR considers alternatives, is describes a reasonable range of feasible alternatives to the proposed project that could feasibly attain most of the basic project objectives and would avoid or substantially lessen any of the significant environmental impacts of the proposed project. (CEQA Guidelines §15126.6(a).) The objectives of the

proposed amendments are described in Chapter 2, Section 2.3., and (in summary) include the following:

- Incorporating federal NSR and Title V permitting requirements into District Regulation 2 so that they can be approved by EPA, which will allow the District to continue to implement these programs for stationary sources in the Bay Area;

- Ensuring compliance with additional state law requirements applicable to the District's permitting programs, such as SB 288 and other applicable requirements in the Health & Safety Code;

- Ensuring that the District's NSR and Title V permitting programs are implemented as efficiently and effectively as possible;

- Ensure that the NSR and Title V permitting regulations are drafted and presented in a manner that is clear and easy to understand and implement.

The proposed amendments seek to achieve these objectives through the revisions and additions to Regulation 2 contained in the proposed amendments. (See Chapter 2 for a further, detailed description.)

In considering potential alternatives, an EIR should address feasible measures to attain the basic objectives of the proposed project and should provide means for evaluating the comparative merits of each alternative. In addition, although the lead agencies should consider a sufficiently broad range of alternatives that can avoid significant impacts to permit a reasoned choice of the most appropriate alternative, it need not consider every conceivable alternative to the proposed project. The purposes of considering alternatives by a governmental agency are informed decision making and public participation. (See CEQA Guidelines, § 15126.6(a).)

The EIR should also identify any alternatives that were considered by the lead agency, but were rejected as not feasible and are therefore not considered in the EIR. Factors to be considered in eliminating alternatives from detailed consideration in an EIR are: (1) failure to meet most of the basic project objectives; (2) infeasibility; or (3) inability to avoid significant environmental impacts. (See CEQA Guidelines, § 15126.6(c).)

The possible alternatives to the proposed amendments are limited by the nature of the project. The proposed amendments are designed primarily to implement federal air quality permitting requirements, fulfilling the Air District's intended role in implementing the federal Clean Air Act under EPA's oversight. If the District fails to adopt these regulations, that would not (for the most part) relieve stationary sources and facilities within the Bay Area from being subject to these permitting requirements. It would simply mean that the requirements would be implemented federally under EPA's authority, instead of locally by the Air District under its own regulatory authority. EPA would also impose sanctions in the event it had to step in and regulate Bay Area sources

itself under its federal authority, including the loss of federal highway funds for Bay Area transportation projects.

4.2 DESCRIPTION OF PROJECT ALTERNATIVES

4.2.1 ALTERNATIVE 1 – NO PROJECT ALTERNATIVE

CEQA Guidelines § 15126.6(e) requires evaluation of a "No Project Alternative". Under the "No Project Alternative," none of the proposed rule amendments would occur and the NSR and Title V programs would continue to operate under the existing regulatory provisions. EPA would not be able to approve the District's NSR and Title V regulations, and so it would be required to adopt its own implementation programs to regulate sources in the Bay Area directly under its own federal regulatory authority. Major sources would thus be required to comply with the Clean Air Act's NSR and Title V permit requirements by obtaining permits directly from EPA, rather than through the District as the implementing agency. The District's current Regulation 2 would still remain in effect under state law, however, and so regulated facilities would also have to comply with the District's NSR and Title V programs and would be required to obtain District permits under the Health & Safety Code. These permits would continue to be required under state law, although they would no longer be effective for federal purposes upon EPA's dis-approval of the District's regulations. In addition, the Bay Area would face sanctions for failure to have an approved State Implementation Plan, include a loss of federal highway funds.

Alternative 1 is not a feasible alternative for these reasons. Failure to update the District's NSR and Title V permitting programs, and the resulting EPA dis-approval of the District's programs, implementation of federal regulation in lieu of the District's program for federal Clean Air Act purposes, and the imposition of sanctions on the Bay Area, would thwart the objectives of the proposed amendments. The proposed amendments have been developed specifically to allow EPA to continue to approve the District's NSR and Title V programs and thereby avoid these outcomes. The No Project Alternative is not a reasonable or feasible alternative to the proposed amendments.

4.2.2 ALTERNATIVE 2 – NO BANKING PROVISIONS FOR $PM_{2.5}$ EMISSION REDUCTION CREDITS

Alternative 2 would implement the $PM_{2.5}$ offsets requirements for NSR permitting as proposed in Section 2-2-303, but without providing for the use of banked emission reduction credits as a means of complying with the requirement. Compliance would have to be achieved by providing contemporaneous on-site emission reduction credits, not through the use of banked credits. The District considered this as a policy alternative during development of the proposed amendments, and it is discussed in Section IV.B.1.c.iv. of the Staff Report. All the other proposed amendments would occur as proposed.

Alternative 2 would remove an essential element of flexibility in how NSR offsets requirements are implemented under state and federal law. Emissions banking is a system through which facilities can voluntarily shut down emissions sources and bank the resulting emission reductions to use later to offset new emissions. Facilities shutting down equipment and banking the resulting emissions reductions can either use the banked reductions themselves, or can sell them to other facilities for use in offsetting new emissions there. Banking provides an incentive for facilities to voluntarily shut down existing equipment when it is no longer needed and take credit for resulting reductions. Without banking, the reductions could only be used to offset new emissions if the old equipment was still in operation at the time the new source is built. If that were the case, facilities would have an incentive to keep such unneeded emissions sources online solely for the purpose of having a source to shut down when an emission reduction is needed. This would discourage voluntary shutdowns and the emissions reduction benefits that would arise from them. Moreover, banking also provides the flexibility to allow for future economic growth and development while at the same time achieving the emission reduction goals of the NSR program. Without emissions banking, no new sources subject to the offset requirements could be built except in the same location where an existing source is located that can be shut down to allow for the new source's emissions. This would remove any flexibility for the Bay Area to locate any such sources except in locations where existing sources are already present. Constraining the siting of new sources in this way would seriously hinder the Bay Area's cities and counties in their land use planning efforts. Such a result would thwart the District's goal – and the objective of the proposed amendments – to implement its regulations in the most effective and efficient manner possible.

Alternative 2 is not a feasible alternative for these reasons. Although Alternative 2 would achieve the objective of implementing the $PM_{2.5}$ NSR offsets requirements for facilities in the Bay Area, it would not achieve the objective of doing so in an efficient manner. To the contrary, requiring $PM_{2.5}$ offsets without providing for the use of banked emission reduction credits would severely hinder the flexibility of the NSR program. This is the reason why the District did not pursue this alternative during the development of the proposed amendments, as discussed in the Staff Report.

4.2.3 ALTERNATIVE 3 – USING "NSR REFORM" APPLICABILITY TEST FOR PSD PERMITTING

Alternative 3 would adopt/amend PSD provisions in Regulation 2, Rule 2 to obtain EPA approval of a District PSD program, but using the NSR Reform applicability methodologies described in Chapter 3, Sections and 3.2.3.3 and 3.3.4.2. (The NSR Reform applicability methodologies are also described in Section IV.C.3.g.ii. of the Staff Report.)

Alternative 3(a) would adopt/amend PSD provisions using the NSR Reform methodologies for all PSD pollutants. Specifically, Alternative 3(a) would allow facilities to determine whether a modification will result in a "significant" increase in emissions and trigger PSD permitting requirements using (i) their highest 24-month

emissions average in the past 10 years as their emissions baseline before the modification and (ii) their projected future emissions, rather than their maximum permitted emissions, as their future emissions after the modification. This emissions increase calculation methodology would be less stringent than the District's current Regulation 2, Rule 2, which uses average emissions over the most recent 3 years as the baseline emissions before the modification and the maximum permitted emissions as the future emissions after the modification. Relaxing the applicability procedures for pollutants that are currently regulated under the PSD provisions in Regulation 2, Rule 2 would violate state law because those procedures were in effect in 2002. SB 288 prohibits any relaxation of any elements of an air district's NSR program, including PSD provisions, that were in effect as of 2002. Adopting NSR Reform for these pollutants would therefore violate SB 288. This is not a feasible alternative for this reason.

Alternative 3(b) would adopt the NSR Reform methodologies for PSD permitting requirements for GHGs only. The proposed amendments already incorporate the more flexible 10-year baseline provision for GHGs. This alternative would also allow facilities to use their unenforceable projections of future emissions to determine whether the emissions increase from a modification will be "significant" and trigger PSD permitting requirements. Allowing the use of unenforceable projections instead of enforceable permit limits for GHG permitting would not violate SB 288, because GHGs were not regulated in 2002. SB 288 prohibits relaxing any NSR rules that were in effect as of that time, but this does not apply to GHGs because GHGs were not subject to regulation at that time. Alternative 3(b) could potentially be feasible, because SB 288 does not prohibit it and so the alternative would satisfy the objective of complying with state law requirements for the District's NSR program. Alternative 3(b) would hinder the objective of implementing effective and efficient regulation, however, as it would undermine the enforceability of the District's PSD requirements for GHGs. The PSD program is designed to ensure that important requirements such as the BACT requirement are implemented whenever there is a "significant" increase in emissions. If PSD is implemented for GHGs based on unenforceable emission projections instead of on enforceable permit limits, it is highly possible that certain modifications will result in a "significant" increase in actual emissions after they are implemented, and yet not implement BACT to control their GHG emissions. Such a result would undermine the effectiveness of the PSD permitting program.

4.3 ENVIRONMENTAL IMPACTS OF PROJECT ALTERNATIVES

4.3.1 ALTERNATIVE 1 – NO PROJECT ALTERNATIVE

Alternative 1 would not avoid or lessen any significant impacts associated with the proposed amendments. No significant impacts have been identified that would potentially result from the proposed amendments, and so there are no significant impacts to be avoided by not adopting the proposed amendments.

Moreover, Alternative 1 may result in an increase in emissions, compared to the proposed amendments, to the extent that the proposed amendments will have the potential to achieve emission reductions. For example, to the extent that the proposed NAAQS Compliance Demonstration requirement in proposed Section 2-2-308 will identify and prohibit emissions sources that will cause air quality to violate the National Ambient Air Quality Standards, the benefit from having this provision would be lost if the proposed amendments are not adopted. It is difficult to quantify the extent of any emission reductions that will be directly attributable to the proposed amendments, as they primarily implement regulatory requirements that have already been adopted and are part of the existing regulatory baseline conditions (among other reasons). To the extent that there will be environmental benefits from the proposed amendments, however, the "No Project" alternative would forego these benefits.

4.3.2 ALTERNATIVE 2 – NO BANKED CREDITS FOR SATISFYING $PM_{2.5}$ OFFSETS REQUIREMENTS

Alternative 2 would eliminate the use of banked $PM_{2.5}$ emission reduction credits for purposes of complying with the $PM_{2.5}$ emission offsets requirements being added in Section 2-2-303. Without the provision allowing banked credits to be used to satisfy the offsets requirements, $PM_{2.5}$ emissions sources subject to the offsets requirements would have to offset their own emissions on-site using contemporaneous on-site emission reduction credits. All the other proposed amendments would occur as proposed. (The existing offsets requirements in Sections 2-2-302 and 2-2-303 for other regulated pollutants would remain the same; those provisions are not being addressed as part of this update project. Facilities would continue to be able to use banked credits to comply with those offset obligations under the regulations currently in effect.)

Alternative 2 would not avoid or lessen any significant impacts associated with the addition of the $PM_{2.5}$ offsets requirements, as there will not be any such significant impacts. This is a new requirement being added in the District's NSR regulations, and as such it can only strengthen the regulations compared to existing regulatory conditions. It is not a weakening or relaxation of any regulatory requirements that could allow for an increase in emissions. Moreover, requiring offsets does not involve the addition of any new control equipment or other physical change at any facility, and so there is no potential for any secondary impacts at facilities that will have to comply with this requirement. These issues are discussed in more detail in Chapter 3, Section 3.2.3.2.

Moreover, allowing compliance with the $PM_{2.5}$ offsets requirements by providing banked credits will not result in any emissions increases that could result in significant localized air quality impacts. Thus even if the $PM_{2.5}$ offsets provisions in the proposed amendments were a relaxation from the current regulatory situation instead of a strengthening of current regulations, there would still be no potential for significant impacts that could be avoided by prohibiting banked credits. There are a number of stringent regulatory requirements in place that will prevent any source from causing such impacts, whether it complies with applicable offsets requirements with banked credits or with contemporaneous on-site emission reductions. These include the District's Toxics New Source Review requirements in District Regulation 2, Rule 5, which require that any new or modified toxics sources must demonstrate that they will not have any significant adverse toxic health impacts on any nearby sensitive receptors. In addition, for criteria pollutants the proposed amendments include the new NAAQS compliance analysis requirement (which will apply in addition to existing PSD NAAQS compliance requirements) which will require all new and modified sources with more than a *de minimis* increase in emissions of criteria pollutant to demonstrate that they will not cause or contribute to any exceedance of the health-based NAAQS standards. And all new and modified sources subject to NSR requirements will also have to comply with CEQA at the time of permitting, which will require evaluation and identification of any potential localized air quality impacts. If there were to be any significant impacts in such a situation, CEQA would also require the implementation of all feasible mitigation measures to reduce such impacts to less than significance.

4.3.3 ALTERNATIVE 3 – "NSR REFORM" APPLICABILITY TESTS

Alternative 3 involves using a less stringent applicability methodology for NSR permitting (for both sub-alternatives, Alternative 3(a) and Alternative 3(b)). Alternative 3 would result in the potential for increased emissions in cases where a project's protected emissions are not above the PSD "significant" threshold, but they turn out to be significant once the project is built and starts operating. Such projects would not be required to implement important requirements such as using Best Available Control Technology (BACT) to reduce their emissions, even though they ultimately result in significant emissions increases. These projects would have higher emissions as a result of not implementing BACT for their significant emissions increases under Alternative 3.

Industry commenters have speculated that using the more stringent applicability methodology would actually increase emissions. They have speculated that less stringent permitting requirements will allow them to voluntarily reduce their emissions, because they will be able to avoid PSD permitting requirements that discourage them from voluntarily implementing beneficial equipment upgrades that increase the efficiency of their plants and thereby reduce emissions. They claim that if the District adopts a more relaxed applicability standard for its PSD permitting requirements, they will voluntarily undertake more of these beneficial projects, which will reduce emissions in the Bay Area. The District evaluated these claims and found no evidence to support them. The District's detailed discussion of this issue is presented in Chapter 3, in Section 3.2.5.3.

(for air pollutants generally – relevant to Alternative 3(a)) and Section 3.3.4.2. (for GHGs – relevant to Alternative 3(b)). As explained there, adopting the weaker NSR Reform applicability standards would not be expected to have any such beneficial impact on sources in the Bay Area, for multiple reasons.

Therefore, Alternatives 3(a) and 3(b) would not avoid any significant air quality impacts. To the contrary, they would result in an increase in air quality impacts from sources that would be able to escape PSD permitting requirements such as the use of Best Available Control Technology based on their projected emissions, but which subsequently turn out to have significant actual emissions increases that are not subject to any permit limits.

4.4 CONCLUSIONS

Alternative 1 (the "No Project Alternative") would not reduce any potentially significant impacts, as no significant impacts have been identified for the proposed amendments. Alternative 1 could also potentially result in some additional emission increases, although it is difficult to quantify the extent of any such increases at this time. Further, Alternative 1 would not achieve any of the project objectives.

Alternative 2 would not reduce any potentially significant impacts, as no significant impacts have been identified for the proposed amendments. Alternative 2 is also not a feasible alternative, as it would not achieve an important objective of the proposed amendments. It would not allow for the flexibility in implementing the offsets requirements for $PM_{2.5}$ that is necessary for effectively implementing these requirements in the Bay Area.

Alternative 3 would not reduce any potentially significant impacts, as no significant impacts have been identified for the proposed amendments. Moreover, Alternative 3 would result in increased impacts because it would allow some projects to be built without implementing PSD emission control requirements that result in significant actual emissions increases. Alternative 3(a) would also not be feasible, as it would involve violating SB 288. Alternative 3(b) would not be prohibited by SB 288, but its feasibility is questionable given that it would undermine the enforceability of the PSD requirements for GHG emissions.

Accordingly, none of the three alternatives discussed herein would have the potential to reduce or eliminate any significant impacts; and none of them would feasibly achieve all of the objectives of this project. These are the reasons why none of these alternatives were adopted by the District in developing the proposed amendments. The same reasons would support a conclusion under CEQA that none of them is a preferred alternative (to the extent that an alternatives analysis is required for this project). The proposed project is the preferred alternative to update the District's NSR and Title V permitting regulations.

CHAPTER 5

REFERENCES

References
Organizations and Persons Consulted
List of Environmental Impact Report Preparers

5.0 REFERENCES

5.1 REFERENCES

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5.2 ORGANIZATIONS AND PERSONS CONSULTED

The CEQA statues and Guidelines require that organizations and persons consulted be provided in the EIR. A number of organizations, state and local agencies, and private industry have been consulted. The following organizations and persons have provided input into this document.

Bay Area Air Quality Management District
San Francisco, California

5.3 LIST OF ENVIRONMENTAL IMPACT REPORT PREPARERS

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San Francisco, California

Environmental Audit, Inc.
Placentia, California

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Initial Study for
Proposed Amendments to New Source Review and Title V Permitting Regulations

BAAQMD Regulation 2, Rule 1: General Requirements
BAAQMD Regulation 2, Rule 2: New Source Review
BAAQMD Regulation 2, Rule 4: Emissions Banking
BAAQMD Regulation 2, Rule 6: Major Facility Review

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Chapter 1

Chapter 2

FIGURES:

CHAPTER 1

PROJECT DESCRIPTION

Introduction

Agency Authority

Project Location

Background and Project Description

1.1 INTRODUCTION

The Bay Area Air Quality Management District (BAAQMD or District) is developing proposed amendments to its "New Source Review" (NSR) and "Title V" permitting regulations. The proposed amendments will update these important permitting programs to reflect recent regulatory developments in a number of areas. District Staff are currently developing the proposed amendments, which will be submitted to the District's Board of Directors for consideration and adoption.

The permitting regulations that are the subject of the proposed amendments are in District Regulation 2. The regulations implementing the District's New Source Review permitting program are in Regulation 2, Rule 2 (with additional supporting regulations related to emissions banking in Regulation 2, Rule 4). The regulations implementing the District's Title V permitting program are in Regulation 2, Rule 6. The proposed amendments also address elements of Regulation 2, Rule 1, which contains general provisions applicable to all District permitting programs, including NSR and Title V. These permitting programs, and the regulations implementing them, are described in more detail in Section 1.4 below.

The proposed amendments include a number of revisions to the District's NSR and Title permitting programs. The principal changes include the following:

- Adding new permitting requirements for fine particulate matter (specifically, particulate matter with an aerodynamic diameter of less than 2.5 microns, or "$PM_{2.5}$") and for greenhouse gases (GHGs).
- Adopting a "Prevention of Significant Deterioration" (PSD) permitting program – an important sub-element of the NSR program – into District regulations for approval by the U.S. Environmental Protection Agency (EPA).
- Non-substantive revisions to reorganize and clarify the regulatory language to make it easier to understand and implement.
- Other miscellaneous revisions and updates to various regulatory provisions.

These changes are described in more detail in Section 1.4.4. In addition, the specific regulatory language of the proposed amendments is set forth in the drafts that District Staff are publishing in connection with this document.

1.2 AGENCY AUTHORITY

The California Environmental Quality Act (CEQA), Public Resources Code § 21000 et seq., requires that the potential environmental impacts of proposed projects must be evaluated; and that if there will be any "significant" adverse environmental impacts, that feasible methods to reduce, avoid or eliminate such significant adverse impacts must be identified and implemented. To fulfill the purpose and intent of CEQA, the District is the lead agency for this project and has prepared this Initial Study for the Proposed

Amendments to Regulation 2, Rule 1 (General Requirements); Regulation 2, Rule 2 (New Source Review); Regulation 2, Rule 4 (Emissions Banking); and Regulation 2, Rule 6 (Major Facility Review). An EIR is the appropriate document when "there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment . . . ." (CEQA Guidelines Section 15064(a)(1).) As explained in this document, there is information that suggests that the proposed amendments may have a significant adverse environmental impact, and so the District is preparing an EIR to examine such issues in detail. No decision is made at this stage whether there will in fact be any potential for such significant adverse impacts; the purpose of the EIR is to evaluate such issues so that a final conclusion can be reached based on a comprehensive analysis.

The Lead Agency is the "public agency that has the principal responsibility for carrying out or approving a project that may have a significant effect upon the environment" (Public Resources Code Section 21067.) The District has the primary responsibility for approving and carrying out this project, because the proposed amendments involve the District's permitting regulations and it is the District that will be developing, adopting and implementing them. (See CEQA Guidelines Section 15051(a).)

The District is providing a Notice of Preparation concurrently with publication this Initial Study, as required by CEQA.

1.3 PROJECT LOCATION

The District has jurisdiction of an area encompassing 5,600 square miles that includes all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties, and portions of southwestern Solano and southern Sonoma counties. The San Francisco Bay Area is characterized by a large, shallow basin surrounded by coastal mountain ranges tapering into sheltered inland valleys. The combined climatic and topographic factors result in increased potential for the accumulation of air pollutants in the inland valleys and reduced potential for buildup of air pollutants along the coast. The Basin is bounded by the Pacific Ocean to the west and includes complex terrain consisting of coastal mountain ranges, inland valleys and bays (see Figure 1-1).

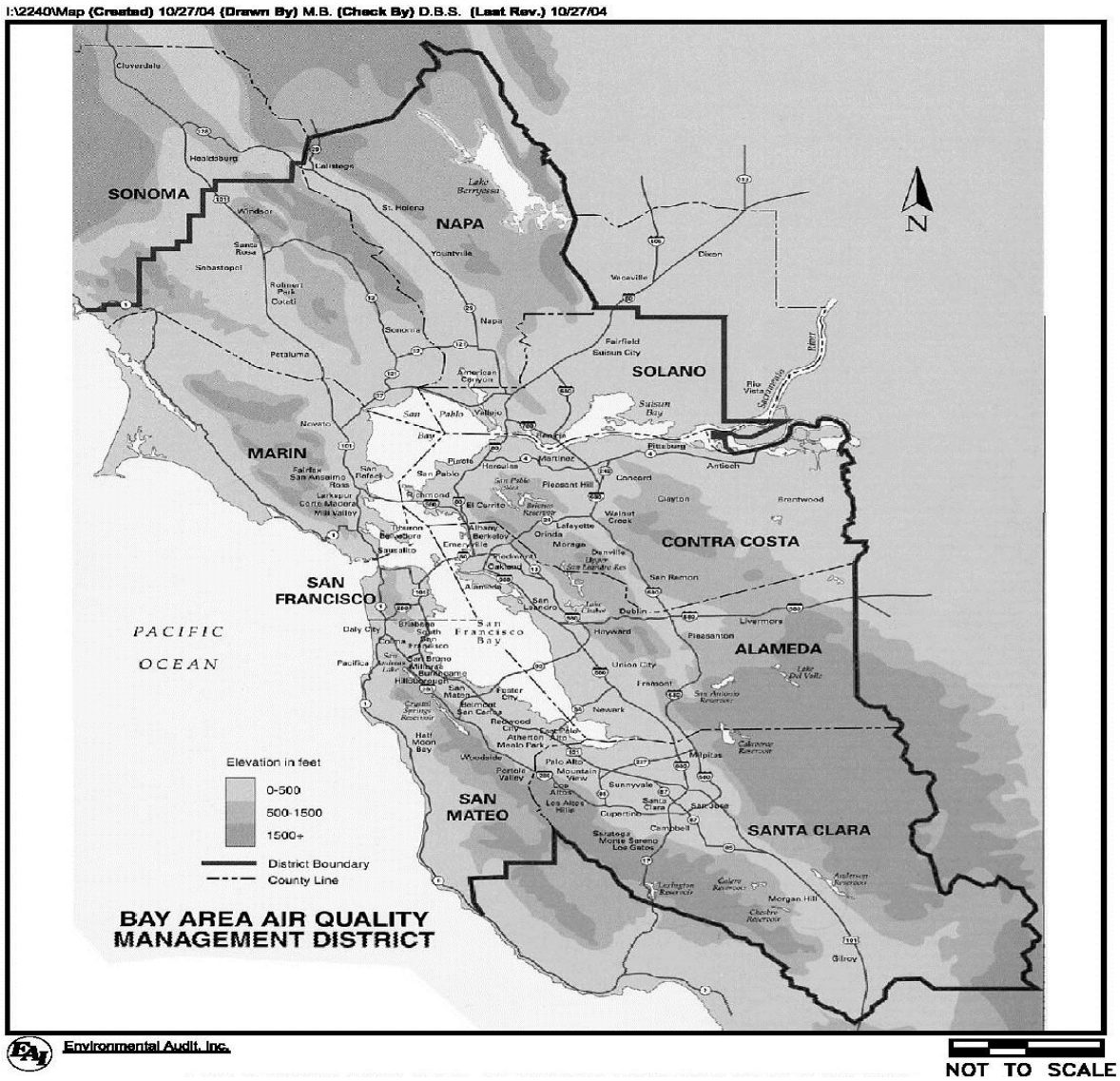

Figure 1-1 Bay Area Air Quality Management District Location

1.4 BACKGROUND AND PROJECT DESCRIPTION

1.4.1 "New Source Review" and Title V Permitting

The proposed amendments update the District's regulations that implement two important Clean Air Act permitting programs, New Source Review and Title V. The following is a background discussion to provide the context in which the proposed amendments will apply.

New Source Review

"New Source Review" is a pre-construction permitting review requirement that ensures that when a new source of air pollution is built, or when an existing source of air pollution is modified, the project will implement and comply with all current regulatory standards governing air emissions. It focuses on projects at the design stage, before construction on the source begins, where it is easiest and most appropriate to incorporate the most effective pollution control technology (i.e., as opposed to having to retrofit a source after it is built). Based upon this pre-construction review, the District issues an "Authority to Construct" for the source that authorizes construction and imposes permit conditions to ensure that the source satisfies all applicable regulatory requirements. The District's New Source Review permitting program is contained in Regulation 2, Rule 2. In addition, Regulation 2, Rule 4 contains ancillary provisions regarding emissions banking, which help implement the "offsets" requirements of the NSR program (see further description below); and Regulation 2, Rule 1 contains general requirements that apply to all District permitting, including NSR permitting.

One of the principal purposes of New Source Review permitting is to help ensure that the Bay Area's air quality complies with EPA's National Ambient Air Quality Standards (NAAQS). The NAAQS are health-based standards for the amount of air pollutants that can be present in the air we breathe. EPA establishes these standards for a group of important air pollutants called "criteria" pollutants, and then designates each region of the country as "attainment" or "non-attainment" of the NAAQS for each pollutant based on measurements of air quality in the region. Where a region is designated as "non-attainment" for a pollutant, the region needs to take regulatory action to reduce the amount of that pollutant being emitted region-wide so as to come back into attainment. Where a region is designated as "attainment", it is not out of compliance and so there is not as urgent a need for regulatory action. It is important to be vigilant so that air quality does not deteriorate to such an extent that it violates the NAAQS, however, so the region still has important responsibilities with respect to pollutants for which it is "attainment" of the NAAQS.[1]

[1] For certain pollutants, a region may be designated as "unclassified" because there is insufficient data to make an attainment determination or EPA may not have established a NAAQS for that particular pollutant. Such areas are treated the same as "attainment" areas for purposes of New Source Review permitting. The remainder of this discussion will use the term "attainment" to refer to both attainment and unclassified pollutants.

The NSR permitting program helps implement these efforts to get ambient air quality into compliance – and to stay in compliance – with the NAAQS. As noted above, it requires new sources and modifications to existing sources to obtain a pre-construction NSR permit and implement certain emissions-control requirements. It applies to "major" facilities – facilities with emissions over 100 or 250 tons per year (depending on the source category) – and it requires new and modified sources at such facilities to obtain an NSR permit where the new source or modification will result in a "significant" increase in emissions of air pollutants. This "significant" increase threshold varies by pollutant, but it is generally between 10 tons per year and 100 tons per year.

For *non-attainment pollutants*, the NSR requirements are somewhat more stringent, in recognition of the fact that more needs to be done for non-attainment pollutants to get the region into attainment of the NAAQS. This element of NSR permitting is called "Non-Attainment NSR", and the principal requirements are the following:

- Best Available Control Technology: Non-Attainment NSR requires that new and modified sources use the "Best Available Control Technology", or "BACT", to control emissions. In general, BACT is the most effective type of control technology or most stringent emissions limitation that has been required at other similar sources, or that is technically and economically feasible for the source to implement. BACT is defined in current District Regulation 2-2-206. (The definition will be moved to Regulation 2-2-202 in the proposed amendments.)
- Emission Offsets: Non-Attainment NSR also requires that new and modified sources obtain emission reductions from existing sources to counter any new emissions increases from the new or modified source. These emission reductions from existing sources "offset" the new emissions so that there is no net increase in emissions overall from sources subject to the offset requirements. The Non-Attainment NSR program also has provisions for "banking" emissions reductions so that when an existing source is shut down the associated emission reductions can be saved for later use in connection with future projects. This "banking" of emission reductions provides an incentive for existing facilities to shut down sources voluntarily when they are no longer needed, rather than keep them in operation until a new source is built that needs the reductions to offset its emissions. The District's offset requirements are in current District Regulations 2-2-302 and 2-2-303, and the banking provisions that help implement the offset requirements are in current District Regulation 2, Rule 4. (The numbering of these provisions will remain the same under the proposed amendments.)
- Compliance Certification: Non-Attainment NSR also requires that the permit applicant for a new or modified source must certify that all of the facilities that it owns in California are in compliance with all applicable air quality regulatory requirements. This requirement is in current District Regulation 2-2-307. (It will be in Regulation 2-2-309 in the proposed amendments.)

- Alternatives Analysis: Non-Attainment NSR also requires that the applicant must demonstrate that the benefits of the proposed new or modified source outweigh any environmental and social costs that would result from its location, construction or modification. This requirement is in current District Regulation 2-2-401.1. (It will be in Regulation 2-2-401.3 in the proposed amendments.)
- Public Notice and Comment Opportunity: Finally, Non-Attainment NSR requires that the public must be notified before any permit is issued for a new or modified source and must be given an opportunity to comment on and provide input into the permitting decision. This notice-and-comment requirement is in current District Regulation 2-2-405. (It will be in Regulation 2-2-404 in the proposed amendments.)

For *attainment pollutants*, the NSR permitting requirements are somewhat less stringent, given that for attainment pollutants the region is – by definition – not out of compliance with the NAAQS and so the situation is not as urgent. It is still important to take steps to control emissions of such pollutants in order that the air quality does not deteriorate to such an extent that an exceedance of the NAAQS occurs, however, and so NSR permitting applies certain important regulatory requirements for these pollutants as well. In keeping with this goal of preventing deterioration, this element of NSR permitting for attainment pollutants is called "Prevention of Significant Deterioration", or "PSD". The principal elements of PSD permitting are the following:[2]

- PSD Best Available Control Technology: PSD also requires "Best Available Control Technology", although in a slightly less stringent manner than Non-Attainment NSR. The principal difference is that for PSD, cost, energy and ancillary environmental impacts are taken into consideration. If such considerations suggest that a certain type of control technology or emissions limitation is not appropriate at a source, it would not be required as PSD BACT (unlike with Non-Attainment NSR, where BACT requires the control technology or emissions limitation to be used if it has been required at other similar facilities, regardless of any such considerations).[3]
- Air Quality Impact Analysis (and related analyses): PSD does not require "offsets" for new emissions increases, as for PSD pollutants the region is, by definition, not in violation of the NAAQS and so it can allow a certain amount of additional emissions without exceeding the health-based air quality standards. To

[2] Note that unlike Non-Attainment NSR, the relevant PSD provisions applicable to new and modified sources in the Bay Area are not in District regulations, because the District does not have an approved PSD program. See discussion below in Section 1.4.2 for more details.

[3] Under the terminology of the federal Clean Air Act, the PSD control requirement is called "Best Available Control Technology" and the more-stringent Non-Attainment NSR control requirement is called "Lowest Achievable Emissions Rate", or "LAER". California calls the more-stringent requirement "BACT", however. To distinguish these concepts, the more-stringent requirement (federal "LAER") is sometimes called "California BACT" and the less-stringent requirement "PSD BACT". This document uses the term "BACT" to refer to the more-stringent requirement, unless specifically noted otherwise.

ensure that any such increases do not jeopardize compliance with the NAAQS, however, PSD requires an analysis of the impacts that the increases will have to ensure that they will not cause or contribute to a NAAQS exceedance. In addition, the analysis must show that the increases will not consume an air quality "increment", which is an increase in air pollutant concentrations that would constitute impermissible "significant deterioration" in air quality. PSD also requires an analysis of whether such increases will adversely affect visibility, soils or vegetation in the region; and any air-quality related values in areas of special environmental value such as National Parks (called "Class I Areas").

- Public Notice and Comment Opportunity: As with Non-Attainment NSR, PSD also requires that the public must be notified before any permit is issued for a new or modified source and must have an opportunity to provide input on the permitting decision.

These two sub-elements – "Non-Attainment NSR" for non-attainment pollutants and "PSD" for attainment (and unclassified) pollutants – are the primary provisions of the New Source Review program. As noted above, they apply under the Clean Air Act at any facility that will emit 100 tons per year or more of any pollutant regulated under the Act, or 250 tons in certain limited cases; and to any new or modified source at such facilities that will cause a "significant" increase in emissions. There are also a few more minor requirements that apply to facilities below this 100/250 ton-per-year "major" facility threshold, which EPA calls "minor NSR" requirements. But for the most part, the Clean Air Act's New Source Review program is implemented through these Non-Attainment NSR and PSD provisions.

Title V

Title V permits are operating permits. Instead of applying at the pre-construction stage like New Source Review permits, the Title V permit requirement – also known as "Major Facility Review" – applies once a source is constructed and begins operating. Title V operating permit requirements also apply to "major" facilities – those with emissions of 100 tons per year or more.

Title V permitting does not impose any new substantive requirements on sources – the substantive requirements to limit emissions are imposed through the pre-construction New Source Review permitting process, through the emissions standards and limitations in the District's regulations, and through other applicable legal requirements. Instead, Title V permits compile all of these substantive requirements in one single document to improve enforceability, implementation, and transparency. The Title V permit thus becomes an important regulatory document covering the facility's operation, providing facility operators, District inspectors, interested members of the public, and others with a single location to readily access all of the legal requirements to which the facility is subject. In this way, Title V permits aid in enhancing the enforceability of air quality requirements, in ensuring compliance with such requirements by the facility, and in providing transparency to the public in how air quality regulations are being

implemented. The District's Title V Major Facility Review permitting program is contained in Regulation 2, Rule 6 (with certain elements of the District's general permitting requirements in Regulation 2, Rule 1 also helping to implement the Title V program).

District Permit Programs Implementing Federal Clean Air Act Requirements

Both the NSR and Title V permitting programs have their genesis in the federal Clean Air Act. In the Clean Air Act, Congress established a requirement that every region of the country must have NSR and Title V permitting programs in place that satisfy the Act's minimum standards. But Congress envisioned that the states would take the lead in implementing these requirements and would adopt their own permitting programs under state law to do so. Congress intended that the states would use their own regulatory powers under state law to establish state-law permitting programs that meet the minimum requirements set forth in the Clean Air Act. EPA would then review these state-law permitting programs to ensure that they were sufficiently stringent, and then would approve them as satisfying the Act's minimum requirements. Once EPA has approved a state's program, the state then implements the Act's requirements through that program, and permits issued by the state agency under that program satisfy the federal legal requirements in the Clean Air Act.

This is the situation for both NSR and Title V permitting. Congress created these programs in the Clean Air Act and then looked to the states (often through local or regional agencies such as the Air District) to adopt their own permitting programs to implement this federal mandate. Congress gave the states leeway to be more stringent if they want to, and California has also adopted its own additional requirements over and above the federal minimum requirements, in particular with respect to New Source Review. But the basic concept is that Congress established certain minimum requirements that need to be in place in every region throughout the county, and then looked to states to adopt their own state-law programs that meet or exceed these federal minimum requirements. Where a state is unwilling or unable to do so, then the federal government – through EPA – steps in and implements its own federal program to ensure that the federal minimum requirements are met in all cases.

1.4.2 The District's Current New Source Review and Title V Programs

The District has adopted permitting programs to implement these federal NSR and Title V programs, with certain additional and more stringent provisions as required by California law and/or District regulations.

With respect to New Source Review, the District has adopted Non-Attainment NSR permitting requirements in Regulation 2, Rule 2 (New Source Review) and related provisions. EPA approved the District's Regulation 2, Rule 2 for Non-Attainment NSR purposes on January 26, 1999. (See 64 Fed. Reg. 2850.) The District's Non-Attainment NSR requirements actually go beyond the federal minimum requirements in a number of

respects. For example, Regulation 2-2 requires BACT for sources with emissions of only 10 pounds per day, whereas the federal requirement does not kick in until 100 tons per year, a much higher threshold. Similarly, Regulation 2-2 requires offsets for ozone precursors (nitrogen oxides (NOx) and volatile organic compounds (VOC)) at facilities with emissions of 10 tons per year, which is also well below the federal threshold of 100 tons per year. Many of these more stringent elements are the result of state-law requirements in the California Health & Safety Code that require the District's program to exceed the federal minimum requirements.

For historical reasons, however, EPA has never approved the District's PSD program. For the PSD element of New Source Review permitting, the District has never had an EPA-approved program. Instead, EPA's federal PSD program set forth in the Code of Federal Regulations governs PSD permitting for sources in the Bay Area. (See 40 C.F.R. § 52.21.) PSD permits issued under this program are federal permits issued through EPA's authority under the Clean Air Act, not District permits issued through the District's authority under the California Health & Safety Code. These are creations of federal law, not state law. They are governed by federal law and regulations, and are appealable through the Environmental Appeals Board (EPA's federal administrative tribunal) and ultimately to the federal courts. For administrative convenience, EPA has delegated the processing of certain types of federal PSD permits to the District, and the District evaluates and issues such permits on EPA's behalf, but they remain federal PSD permits issued under EPA's authority. As EPA's Environmental Appeals Board has noted, in such cases the District does so exercising EPA's federal regulatory authority "standing in the shoes" of EPA.

With respect to Title V permitting, EPA has approved the District's Title V program. Title V permitting in the Bay Area is a District permitting program implemented through District Regulation 2, Rule 6. EPA approved the Title V permitting provisions in Regulation 2, Rule 6 on June 23, 1995. (See 60 Fed. Reg. 32,606.)

This is the current state of the District's NSR and Title V permitting regulations. The proposed amendments would make changes to these regulation programs as they currently exist. The full text of the District's current regulations can be found at www.baaqmd.gov/Divisions/Planning-and-Research/Rules-and-Regulations.aspx; for PSD permitting, the PSD regulations that currently govern permitting in the Bay Area can be found at 40 C.F.R. Section 52.21.

1.4.3 Recent Regulatory Developments

There have been a number of recent regulatory developments regarding New Source Review and Title V permitting since the District last revised its programs. The District is developing the proposed revisions to address these recent developments. These recent developments include the following.

- **Bay Area Designated "Non-Attainment" of 24-Hour $PM_{2.5}$ NAAQS:**

EPA has recently designated the San Francisco Bay Area as non-attainment of the new short term (24-hour-average) $PM_{2.5}$ NAAQS. This means that EPA has made an administrative determination that the amount of $PM_{2.5}$ in the ambient air in the Bay Area exceeds EPA's federal health-based standard for $PM_{2.5}$, averaged over 24 hours. EPA reviewed data on concentrations of $PM_{2.5}$ in the air measured at locations around the Bay Area over a period of years, and based on this data designated the Bay Area as Non-Attainment of this NAAQS effective December 14, 2009. Now that the Bay Area is designated as non-attainment, the District must update its NSR permitting regulations to add the Non-Attainment NSR requirements outlined above for sources that emit $PM_{2.5}$ (i.e., BACT, offsets, a compliance certification and alternatives analysis, and public notice and comment).

In addition, as part of EPA's $PM_{2.5}$ NSR implementation regulations, EPA has clarified how $PM_{2.5}$ emissions must be measured. There are two components to particulate matter emissions: (i) solid particles that are emitted directly from the exhaust stack; and (ii) gaseous components that are not in solid form when they are emitted but that rapidly condense to form solid particles as they cool down in the ambient air. The first component is known as "filterable" particulate matter, and the second component is known as "condensable" particulate matter. Historically, NSR regulations have not explicitly defined how particulate matter is to be measured, and in many cases NSR has been applied taking only the filterable component into account (although in some cases condensable particulate matter has been included as well). In part, this was because testing methodologies were not as advanced for the condensable component as they were for the filterable component. More recently, however, improvements in testing methodologies led EPA to revise its particulate matter definitions to specify explicitly that both the filterable and condensable components must be included for all purposes for NSR permitting. EPA's $PM_{2.5}$ NSR implementation regulations require that the District amend its particulate matter definitions – both for $PM_{2.5}$ and for particulate matter of less than 10 microns in diameter (PM_{10}) – to state explicitly that such emissions include both the filterable and condensable components. (See EPA's $PM_{2.5}$ Implementation Rule, 73 Fed. Reg. 28,321 (May 16, 2008), for further details.)

- **Federal Regulation of GHGs:**

EPA has begun regulating GHG emissions from light duty cars and trucks. Although these requirements apply to mobile sources, they are the first time that EPA has imposed substantive emissions limitations on GHG emissions under the Clean Air Act. As a result of these regulations, GHGs are now "subject to regulation" as that phrase is used under the NSR and Title V programs. Those programs require NSR and Title V permitting for major stationary sources for all pollutants that are "subject to regulation", which now includes GHGs. The District's permitting programs must now include GHGs to reflect this requirement. (See EPA's so-called "Tailoring Rule", 75 Fed. Reg. 31,515 (June 3, 2010), for further details.)

- **Problems Arising From the Lack of EPA-Approved PSD Program:**

As noted above, the District has never had an EPA-approved PSD program. Instead, EPA has been administering the PSD program itself under its federal regulations, with the District issuing PSD permits on EPA's behalf under a federal delegation agreement. When this arrangement was first set up, it appeared to be a workable arrangement because EPA's PSD permitting procedures are very similar to the District's Non-Attainment NSR permitting procedures, and it was presumed that if the District simply followed its own permitting procedures, that would satisfy both District requirements and federal PSD requirements. Experience has shown otherwise, however. A number of situations have arisen where slight differences between the District's permitting requirements and the federal PSD requirements have led to problems with PSD permitting that resulted in procedurally defective PSD permits. It is now clear that having separate permitting regulations for Non-Attainment NSR (under District regulations) and for PSD (under EPA's federal regulations) is untenable. It is clear that to avoid such problems the District needs to adopt its own District PSD permitting requirements and have EPA approve them for PSD permitting in the Bay Area.

- **Other Deficiencies in Current NSR Provisions:**

Finally, District staff have also come to realize over recent years that the District's NSR regulations are in some places difficult to understand and implement. The regulations have developed organically over the years as new requirements have been added or updated, and sometimes that has happened without an eye to how the regulations work as a coherent whole. District staff have therefore realized that Regulation 2, Rule 2 (and certain other provisions) are in need of an overhaul to reorganize and clarify them. In addition, certain regulatory language is confusing and it can be difficult to understand how the regulation is intended to be applied in practice. This situation can cause confusion among the regulatory community and others about what exactly is required by the regulations, and it can lead to inconsistent implementation by District staff. To address these issues, the proposed amendments reorganize Regulation 2, Rule 2 and related provisions and revise much of the regulatory language used to present it in a manner that is clearer and easier to understand.

Furthermore, as staff were going through this process and developing the proposed amendments, certain substantive deficiencies came to light regarding these regulations. In some cases, EPA staff and others pointed out certain areas where the District's existing NSR program does not fully satisfy EPA's requirements for such programs. In other cases, District staff identified areas in which the program should be amended in order to work more effectively. Staff are addressing these issues in the proposed amendments.

1.4.4 Proposed Amendments to Regulation 2

District Staff have developed the proposed amendments to address the recent regulatory developments outlined above. The proposed amendments will update the District's NSR and Title V permitting programs accordingly.

The proposed amendments will affect the District's permitting rules in Regulation 2, and in particular the New Source Review regulations in Regulation 2, Rule 2 and Title V regulations in Regulation 2, Rule 6. The proposed revisions to each of these Rules in Regulation 2 are set forth in draft revised regulations available on the District's website at www.baaqmd.gov/Divisions/Engineering/Proposed-Reg-2-Changes.aspx. The proposed amendments reflect a process of discussion with and input from a large number of stakeholders and other governmental agencies, including CARB and EPA, that has taken place over many months. District staff published a first draft of the proposed amendments in January of 2012 and solicited comment on it, and based on the comments received developed a revised second draft of the proposed amendments. Staff expect that the final proposal that the District's Board of Directors will be substantially what is contained in this revised second draft, although staff may make additional changes based on further input from interested members of the public and further consideration of the issues involved.

The proposed amendments include the following changes to the District's NSR and Title permitting programs:

- **Adding new NSR permitting requirements for $PM_{2.5}$.**

The proposed amendments add new Non-Attainment NSR permitting requirements for $PM_{2.5}$. They add (i) a BACT requirement for $PM_{2.5}$, in Section 2-2-301; (ii) $PM_{2.5}$ offsets requirements, in Section 2-2-303; (iii) a compliance certification requirement, in Section 2-2-309; (iv) an alternatives analysis requirement, in Section 2-2-401.3; and (v) a public notice and comment requirement, in Section 2-2-404 (and related provisions). (These requirements exist in the District's current Non-Attainment NSR requirements for other pollutants; the proposed amendments expand the existing requirements so that they apply to $PM_{2.5}$ as well.) The proposed amendments also include revisions to the District's emissions offsets banking regulation (Regulation 2, Rule 4) to ensure that the banking provisions will address $PM_{2.5}$ as well.

The proposed amendments also specify that $PM_{2.5}$ and PM_{10} must be addressed taking into account both the filterable and condensable portion of the particulate emissions. They add a new definition for $PM_{2.5}$, and revise the existing definition of PM_{10}, to specify that the condensable portion must be included. (See Sections 2-1-229 and 2-1-241.) They also include provisions to specify how to treat historical permit limits and regulatory determinations that may have been made taking into account only the filterable portion. (See sections 2-1-604 and 2-1-604.)

- **Adding NSR and Title V permitting requirements for GHGs.**

The proposed amendments will include GHG permitting requirements for the NSR and Title V programs.

For Title V, adding GHG is primarily a matter of adding GHGs to the list of regulated air pollutants in Section 2-6-222; GHGs will be added in new subsection 2-6-222.6. The proposed amendments also include a number of other ancillary additions to ensure that other related implementation provisions address GHGs as well.

For NSR, GHGs are regulated under the PSD element of the NSR program because they are not "non-attainment" pollutants. (There is no NAAQS for GHGs, and so by definition the Bay Area cannot be non-attainment for GHGs.) GHG regulation will be implemented as part of the PSD program that is included in the proposed amendments described below.

- **Adopting a PSD permitting program for approval by EPA.**

The proposed amendments add provisions to create a PSD permitting program that can be approved by EPA under the Clean Air Act. The primary PSD provisions include (i) a new term "PSD Project" in Section 2-2-224 to define the types of new sources and modifications to which the PSD provisions apply (along with some related definitions to help implement this term); (ii) a PSD BACT requirement in Section 2-2-304, which requires PSD BACT for all new and modified sources above the PSD applicability thresholds; (iii) a PSD air quality impact analysis requirement in Section 2-2-305, which requires a demonstration that the PSD Project will not cause or contribute to a violation of any NAAQS or any PSD increment; (iv) a PSD additional impacts analysis requirement in Section 2-2-306, which requires an analysis of potential impacts to visibility, soils and vegetation from the project and from any associated growth; (v) a Class I Area impact analysis in Section 2-2-307, which requires projects that may impact any Class I Area to conduct an analysis of potential impacts to air-quality-related values within such areas; and (vi) a public notice and comment requirement, in Section 2-2-404 (and related provisions). These provisions will apply to major emitters of all PSD pollutants, which includes GHGs as noted above.

- **Reorganizing and revising a number of provisions of Regulation 2 so that the regulation is clearer and easier to understand and implement.**

The proposed amendments also include a major reorganization of Regulation 2, Rule 2. This reorganization is not intended to make substantive changes to the way NSR permitting works (the various areas in which substantive changes are being proposed are described elsewhere); it is simply intended to make the regulation clearer and easier to understand and implement. In addition, the regulatory language that implements the NSR permitting requirements is being revised and clarified in a number of places, for similar reasons. The bulk of these clarifying and organization revisions are in Regulation 2, Rule

2, although a few such changes are being made in the other Rules addressed by the proposed amendments.

- **NAAQS Compliance Demonstration**

The proposed amendments also add a requirement for all new sources and modifications that will result in a significant increase in emissions to demonstrate that they will not cause or contribute to an exceedance of any National Ambient Air Quality Standard. This NAAQS compliance demonstration is similar to the air quality impact analysis required for PSD permitting, but it applies more broadly. The PSD requirement applies only to facilities over the PSD "major" facility threshold (emissions greater than 100 or 250 tons per year, depending on the source category); and it applies only to PSD pollutants. The expanded NAAQS compliance demonstration requirement applies to all facilities regardless of their size, and for all pollutants, including non-attainment pollutants. The requirement will apply to all new sources and modifications to existing sources that will result in a "significant" increase in emissions (using the established NSR "significance" thresholds, which are set forth in Section 2-2-227). Staff are adding this requirement for a number of reasons, including (i) a request by EPA Region IX staff to include provisions specifically aimed at ensuring that non-"major" sources will not interfere with attainment or maintenance of the NAAQS, as required by 40 C.F.R. Sections 51.160(a) and (b); (ii) comments received from the public noting that smaller sources could have the potential to cause NAAQS exceedances, even when they are below the NSR "major" facility thresholds; and (iii) a general policy concern that all appropriate precautions should be taken to ensure that the NAAQS are protected, given the important environmental and public health protections that those standards embody. This new requirement is in Section 2-2-308 in the proposed amendments.

- **Public Notice and Comment for Smaller Sources.**

The public notice and comment requirements described above have traditionally applied to "major" facilities. The proposed amendments would expand this requirement to provide public notice and comment for all facilities, regardless of size, where a new source or modification to an existing source will result in a "significant" increase in emissions as defined in Section 2-2-227. (This is the same applicability threshold as for the NAAQS compliance demonstration required described above.) This revised requirement is contained in Section 2-2-404 in the proposed amendments.

- **Miscellaneous Minor Revisions**

The proposed amendments also include several more minor changes. Some of these changes were requested by EPA Region IX staff to address deficiencies where the District's existing NSR program does not fully satisfy EPA requirements for NSR. For example, the proposed amendments expand the procedures for protecting visibility in Class I Areas to address non-attainment pollutants as well as attainment pollutants. Other changes are being made based on Staff's determination that they are needed to make the

District's permitting program work more effectively. For example, the proposed amendments remove the exemption for space heaters in Section 2-1-113.2.14. Please see the published drafts of the proposed amendments for all such changes.

* * * * *

The foregoing discussion is a summary of the changes that would be made under the proposed amendments. To understand these proposed amendments in more detail, please refer to the specific regulatory language of the proposed amendments that the District has publishing. Drafts of the proposed amendments can be found on the homepage for the Regulation 2 NSR and Title V updates on the District's website, at: www.baaqmd.gov/Divisions/Engineering/Proposed-Reg-2-Changes.aspx. Copies are also available for public review at District headquarters at 939 Ellis Street, San Francisco, CA, 94109, and may also be obtained by calling or emailing Carol Lee at (415) 749-4689 or clee@baaqmd.gov.

CHAPTER 2

ENVIRONMENTAL CHECKLIST FORM

INTRODUCTION

The environmental checklist provides a standard evaluation tool to identify a project's adverse environmental impacts. This checklist identifies and evaluates potential adverse environmental impacts that may be created by the proposed project.

GENERAL INFORMATION

Project Title:	Amendments to the Bay Area Air Quality Management District (BAAQMD) New Source Review and Title V Permitting Regulations: BAAQMD Regulation 2, Rule 1: General Requirements BAAQMD Regulation 2, Rule 2: New Source Review BAAQMD Regulation 2, Rule 4: Emissions Banking BAAQMD Regulation 2, Rule 6: Major Facility Review
Lead Agency Name:	Bay Area Air Quality Management District
Lead Agency Address:	939 Ellis Street San Francisco, California 94109
Contact Person:	Carol Lee
Contact Phone Number:	415-749-4689
Project Location:	These regulations apply to the area within the jurisdiction of the Bay Area Air Quality Management District, which encompasses all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties.
Project Sponsor's Name:	Bay Area Air Quality Management District
Project Sponsor's Address:	939 Ellis Street San Francisco, California 94109
General Plan Designation:	The proposed amendments apply to stationary sources of air pollution located in the Bay Area. Affected facilities would be located on sites that include a wide variety of General Plan designations such as commercial, industrial, manufacturing, residential, agricultural, and open space.
Zoning:	The proposed amendments are applicable throughout the District. Affected facilities would be located on sites that include a wide variety of zoning designations such as commercial, industrial, manufacturing, residential,
Description of Project:	See “Background and Project Description” in Chapter 1.
Surrounding Land Uses and Setting:	See “Affected Area” in Chapter 1.
Other Public Agencies Whose Approval is Required:	None

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The following environmental impact areas have been assessed to determine their potential to be affected by the proposed project. As indicated by the checklist on the following pages, environmental topics marked with a "✓" may be adversely affected by the proposed project. An explanation relative to the determination of impacts can be found following the checklist for each area.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☑ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology / Soils
☑ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials	☐ Hydrology / Water Quality
☐ Land Use / Planning	☐ Mineral Resources	☐ Noise
☐ Population / Housing	☐ Public Services	☐ Recreation
☐ Transportation / Traffic	☐ Utilities / Service Systems	☑ Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

☐ I find the proposed project COULD NOT have a significant effect on the environment, and that a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be significant effects in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☑ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Jim Karas, P.E. 6/12/12
Director of Engineering Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis.

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, Program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This checklist is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

a) the significance criteria or threshold, if any, used to evaluate each question; and

b) the mitigation measure identified, if any, to reduce the impact to less than significance.

ENVIRONMENTAL CHECKLIST AND DISCUSSION

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less-than-Significant Impact	No Impact
I.	**AESTHETICS.**				
	Would the project:				
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☑
b)	Substantially damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?	☐	☐	☐	☑
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☑
d)	Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	☐	☐	☐	☑

AESTHETICS

Setting

The Air District jurisdiction covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties, and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles), so that land uses vary greatly and include commercial, industrial, residential, agricultural, and open space uses.

Much of the proposed amendments will apply to major sources of air pollutants (generally defined as facilities with the potential to emit 100 tons per year or more of a regulated air pollutant), which are typically located in industrial and commercial areas. Some of the proposed amendments will apply to smaller sources, which may be located in other areas. Some of the proposed amendments will apply to sources with the potential to emit as little as 10 pounds per day of certain pollutants, which could include relatively small industrial or commercial equipment that could be located anywhere throughout the Air District jurisdiction, including areas within or near scenic highways or corridors.

Regulatory Background

Visual resources are generally protected by the City and/or County General Plans through land use and zoning requirements.

Discussion of Impacts

I. a-d. The proposed amendments include revising the Air District's NSR Rules (Regulation 2-2) and Title V Rules (Regulation 2-6), as well as ancillary provisions in Regulation 2. The proposed amendments are described in more detail in Chapter 1, Section 1.4.4.

The major facilities that are the principal subject of these regulatory programs are primarily located in industrial and commercially zoned areas within the District. Accordingly, any additional requirements adopted under the proposed amendments would apply primarily to facilities within industrial/commercial areas, which are generally not located in areas with scenic resources or scenic vistas.

Furthermore, to the extent that there will also be facilities or equipment affected by the proposed amendments that may be located within or near an area with scenic resources or scenic vistas, none of the amendments are expected to require any significant additional construction or other alteration at any such facility. The District's NSR regulations do in some situations require pollution control equipment to be installed at facilities, but the proposed amendments are not expected to require any significant changes in any required pollution control equipment, compared to what is already required under the current regulations. Any pollution control equipment that will be required under the proposed amendments is likely to be of similar size, and located in similar areas, as what is currently required under the existing regulations. The Air District's current permitting regulations have not caused conflicts with the protection of visual resources, and it is not anticipated that the regulations as amended under the District's proposal would cause any such conflicts.

Moreover, even if the amendments were to require a change in the required pollution control equipment that is installed, any such changes are not expected to cause any additional impacts to any scenic resources or scenic vistas. Pollution control devices installed on industrial and commercial equipment do not generally change the overall visual nature or visual impact of such equipment,[4] and so any new or different pollution control devices required as a result of the proposed amendments are not expected to have any significant impact on any scenic resources or scenic vistas, even if the equipment on which such devices are installed is located in or near an area with such resources.

[4] This includes visual impacts from both construction and operation. Any visual impacts from construction and operation of the industrial or commercial equipment that requires the pollution control device, including any light and glare, and not expected to be significantly altered if a pollution control device also has to be constructed for the equipment and operated with the equipment.

For all of these reasons, the proposed amendments are not expected to have direct impacts on scenic vistas and would not substantially damage scenic resources or substantially degrade the existing visual character of quality of any specific site or its surroundings.

Conclusion

Based upon these considerations, no adverse aesthetic impacts are expected from the adoption of the proposed amendments to the Rules. Therefore, aesthetic impacts will not be further analyzed in the EIR.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact

II. AGRICULTURE and FOREST RESOURCES.

In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☑
b)	Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?	☐	☐	☐	☑
c)	Conflict with existing zoning for, or cause rezoning of, forest land as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☑
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☑
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☑

AGRICULTURE and FOREST RESOURCES

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles), so that land uses vary greatly and include commercial, industrial, residential, agricultural, and open space uses.

Much of the proposed amendments will apply to major sources of air pollutants (generally defined as facilities with the potential to emit 100 tons per year or more of a regulated air pollutant), which are typically located in industrial and commercial areas. Some of the proposed amendments will apply to smaller sources, which may be located throughout the Bay Area. Agricultural resources may be located near some of the sources affected by the proposed amendments.

Regulatory Background

Agricultural and forest resources are generally protected by the City and/or County General Plans, Community Plans through land use and zoning requirements, as well as any applicable specific plans, ordinances, local coastal plans, and redevelopment plans.

Discussion of Impacts

II. a-e. The proposed amendments include revising the Air District's NSR Rules (Regulation 2-2) and Title V Rules (Regulation 2-6), as well as ancillary provisions in Regulation 2. The proposed amendments are described in more detail in Chapter 1, Section 1.4.4.

The major facilities that are the principal subject of these regulatory programs are primarily located in industrial and commercially zoned areas within the District. Accordingly, any additional requirements adopted under the proposed amendments would apply primarily to facilities within industrial/commercial areas, which are generally not located in areas with agricultural or forest resources.

Additionally, for any facility or equipment affected by the proposed amendments that may be located within or near an area with agricultural or forest resources, none of the amendments are expected to require any significant additional construction or other alteration at any such facility. In instances requiring pollution control equipment to be installed at facilities, the proposed amendments are not expected to require any significant changes in any required pollution control equipment compared to what is already required under current regulations. Any pollution control equipment that will be required under the proposed amendments is likely to be of similar size, and located in similar areas, as what is currently required under the existing regulations.

If the amendments were to require a change in the required pollution control equipment that is installed, any such changes are not expected to cause any additional impacts to any agricultural or forest resource. Pollution control devices installed on industrial and commercial equipment do not generally change the overall land use designation or zoning of any agricultural or forest resource. Consequently, any new or different pollution control devices required as a result of the proposed amendments would not have any significant impact on the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use, even if the equipment on which such devices are installed is located in or near an area with such resources.

The proposed amendments are not expected to have direct impacts on agricultural or forest resources, and would not substantially impact or change land use designations or zoning in agricultural or forest areas.

Conclusion

Based upon these considerations, no adverse impacts on agricultural or forest resources are expected from the implementation of proposed amendments. Therefore, agricultural and forest resources impacts will not be further analyzed in the EIR.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY.				
When available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☑
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	☑	☐	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a non-attainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☑	☐	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☑	☐	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☑

AIR QUALITY

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties, and portion of southwestern Solano and southern Sonoma Counties.

The summer climate of the West Coast is dominated by a semi-permanent high centered over the northeastern Pacific Ocean. Because this high pressure cell is quite persistent, storms rarely affect the California coast during the summer. Thus the conditions that persist along the coast of California during summer are a northwest air flow and negligible precipitation. A thermal low pressure area from the Sonoran-Mojave Desert also causes air to flow onshore over the San Francisco Bay Area much of the summer. In winter, the Pacific High weakens and shifts southward, upwelling ceases, and winter

storms become frequent. Almost all of the Bay Area's annual precipitation takes place in the November through April period. During winter periods when the Pacific high becomes dominant, inversions become strong and often are surface based; winds are light and pollution potential is high. These periods are characterized by winds that flow out of the Central Valley into the Bay Area and often include tule fog.

A primary factor in air quality is the mixing depth, i.e., the vertical dimension available for dilution of contaminant sources near the ground. Over the Bay Area, the frequent occurrence of temperature inversions limits this mixing depth and consequently limits the availability of air for dilution. A temperature inversion may be described as a layer or layers of warmer air over cooler air.

The Bay Area is subject to a combination of physiographic and climatic factors which result in a low potential for pollutant buildups near the coast and a high potential in sheltered inland valleys. In summer, areas with high average maximum temperatures tend to be sheltered inland valleys with abundant sunshine and light winds. Areas with low average maximum temperatures are exposed to the prevailing ocean breeze and experience frequent fog or stratus. Locations with warm summer days have a higher pollution potential than the cooler locations along the coast and bays.

In winter, pollution potential is related to the nighttime minimum temperature. Low minimum temperatures are associated with strong radiation inversions in inland valleys that are protected from the moderating influences of the ocean and bays. Conversely, coastal locations experience higher average nighttime temperatures, weaker inversions, stronger breezes and consequently less air pollution potential.

Air quality conditions in the San Francisco Bay Area have improved since the District was created in 1955. Ambient concentrations of air pollutants and the number of days on which the region exceeds air quality standards have fallen dramatically. The District is in attainment of the State and federal ambient air quality standards for CO, NOx, and SO_2. The District is not considered to be in attainment with the federal and state ozone standards, and state PM_{10} and $PM_{2.5}$ standards.

Regulatory Background

The Clean Air Act (CAA) Amendments of 1990 give the U.S. EPA additional authority to require states to reduce emissions of ozone precursors and particulate matter in non-attainment areas. The amendments set attainment deadlines based on the severity of problems. At the state level, CARB has traditionally established state ambient air quality standards, maintained oversight authority in air quality planning, developed programs for reducing emissions from motor vehicles, developed air emission inventories, collected air quality and meteorological data, and approved state implementation plans. At a local level, California's air districts, including the BAAQMD, are responsible for overseeing stationary source emissions, approving permits, maintaining emission inventories, maintaining air quality stations, overseeing agricultural burning permits, and reviewing air quality-related sections of environmental documents required by CEQA.

Discussion of Impacts

III. a. The proposed amendments are not expected to conflict with or obstruct implementation of the applicable air quality plan. The 2010 Bay Area Clean Air Plan (CAP) was approved by the District's Board of Directors on September 15, 2010, and is the approved air quality plan that the District operates under. Stationary Source Measure (SSM) 16 – Revisions to Regulation 2, Rule 2 New Source Review was included as a control measure in the CAP. SSM 16 was proposed to address the District's anticipated non-attainment status of the 24-hour $PM_{2.5}$ NAAQS. By amending Regulation 2, Rule 2, the District proposes to implement one of the control measures adopted in the CAP. Therefore, adoption of the proposed amendments is expected to comply with and implementation portions of the CAP.

III. b, c, d. The proposed amendments include revising the Air District's NSR Rule (Regulation 2, Rule 2) and Title V Rule (Regulation 2, Rule 6), as well as ancillary provisions in Regulation 2, to: (i) incorporate new federal permitting requirements for $PM_{2.5}$ and GHGs; (ii) adopt a District PSD permitting program; and (iii) make other miscellaneous updates and revisions. (See Chapter 1, Section 1.4.4 for further discussion.) Rather than increase emissions of non-attainment pollutants, cause or contribute to air quality violations, or expose sensitive receptors to substantial pollutant concentrations, the proposed amendments will help the District with its efforts to reduce emissions of non-attainment pollutants (and other pollutants), to bring the region into compliance with all air quality standards, and to reduce pollutant exposures for sensitive receptors, as well as to address global climate change.

In particular, the proposed amendments focus on implementing permitting programs for $PM_{2.5}$ and GHGs, two pollutants that have been the subject of increasing regulatory concern recently. The Bay Area has been designated as "non-attainment" of the federal 24-hour-average NAAQS for $PM_{2.5}$, and the proposed amendments to the District's NSR permitting program will help with the District's efforts to address that standard (as well as the District's ongoing efforts to address particulate matter concerns generally). In addition, the Bay Area, California, and the nation as a whole have committed to taking significant steps to reduce GHG emissions, adopting measures such as California's Global Warming Solutions Act of 2006 (also known as "AB 32") and EPA's GHG regulations for light duty cars and trucks. The proposed amendments will help the District implement those efforts by adopting a PSD permitting program that will include regulation of GHGs. These measures will benefit air quality in the Bay Area by helping to reduce emissions. Thus, the proposed amendments are not expected to directly cause any significant increase in emissions of air pollutants, or to directly result in any cumulatively considerable contribution to any cumulative air pollution concerns.

In some cases, the adoption of new, more stringent air quality regulations can have the potential to cause ancillary adverse environmental impacts where the revised regulations will require regulated facilities to change their operations in ways that would result in an increase in emissions in some way. For example, if an air quality regulation requires a

facility to install an air pollution control device, installing or using such equipment could itself cause an increase in air pollution emissions. Such impacts are sometimes referred to as "secondary" emissions impacts. Such impacts can indirectly produce a result that has an adverse effect on the environment, even where the primary purpose of the regulation is to reduce emissions and improve air quality. The District strives to avoid or minimize the potential for such adverse impacts from its regulations. Accordingly, the District is preparing an EIR to evaluate and consider the potential for such impacts.

The EIR will evaluate whether the regulatory changes that would be made under the proposed amendments would have the potential to result in any significant adverse impacts on air quality. The changes that the proposed amendments would make to the District's existing regulations are shown in the drafts of the proposed amendments that have been published by District Staff, as described in more detail in Chapter 1, Section 1.4.4. The EIR will evaluate whether the changes to the existing regulatory baseline (as established by the District's existing regulatory programs and other agencies' existing regulations that apply to facilities in the Bay Area) would have the potential to cause any significant increase in air pollution emissions. In particular, the EIR will evaluate whether any new, revised or additional substantive requirements that will apply to affected facilities in the Bay Area could cause them to increase their emissions in any way. Such requirements could include additional requirements for affected facilities to add emissions control devices or to otherwise change their operations to comply with the proposed amendments. The EIR will evaluate what is required under current regulatory provisions applicable to affected facilities, what changes in regulatory requirements such facilities would be subject to under the proposed amendments, what substantive changes in their operations such facilities would need to make in order to comply with the proposed amendments, and whether there could be any significant increase in emissions that would result from such changes in operation. The District has not definitively identified any specific adverse impacts at this stage. But the potential for adverse air quality impacts needs to be given full and in-depth consideration before any conclusions can be drawn and before any regulatory amendments are adopted.

In addition, District Staff have engaged with public stakeholders in the development of the proposed amendments. During this process, members of the public have raised air quality concerns, including the following:

- Implementing the revisions to the NSR program could impose permitting burdens that would hinder environmentally beneficial energy-efficiency and other emissions reduction projects, resulting in delay or postponement of these projects.

- Implementing the revisions could result in impacts from what commenters characterized as a changed definition of emission offsets.

- Implementing the revisions could result in impacts from the regulation's offset provisions.

- Implementing the revisions could result in impacts from the adoption of a District PSD rule that would take over PSD permitting from the U.S. EPA.

- Implementing the revisions could result in what the commenters referred to as a "weakening of current rules."

- Implementing the revisions could result in impacts associated with additional exemptions.

The commenters did not provide any specific evidence to demonstrate that there will be significant adverse air quality impacts from the proposed amendments as a result of such concerns. However, the potential for adverse air quality impacts needs to be given full and in-depth consideration before any conclusions can be drawn, and before any regulatory amendments are adopted. Therefore, the potential for significant air quality impacts will be addressed in the EIR so that these points can be considered in detail.

III. e. None of the amendments are expected to require any significant additional construction or other alteration at any facility. In instances requiring pollution control equipment to be installed at facilities, the proposed amendments are not expected to require any significant changes in any required pollution control equipment compared to what is already required under current regulations. Any pollution control equipment that will be required under the proposed amendments is expected to be of similar size, and located in similar areas, as what is currently required under the existing regulations.

If the amendments were to require a change in the required pollution control equipment that is installed, any such changes are not expected to cause any additional odor impacts. Pollution control devices installed on industrial and commercial equipment do not typically generate odor impacts, but rather control emissions and potential odors. Consequently, any new or different pollution control devices required as a result of the proposed amendments are not expected to generate significant odor impacts.

The proposed amendments are not expected to result in an increase in odors.

Conclusion

Based upon these considerations, the potential for significant adverse air quality impacts associated with the proposed amendments will be evaluated in the EIR. The proposed amendments would have no adverse impacts on an air quality plan or odors and these issues will not be evaluated in the EIR.

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV.	**BIOLOGICAL RESOURCES.** Would the project:				
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☑
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☑
c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☑
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☑
e)	Conflicting with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☑
f)	Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☑

BIOLOGICAL RESOURCES

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles), so that land uses vary greatly and include commercial, industrial, residential, agricultural, and open space uses.

The areas affected by the proposed amendments are located in the Bay Area-Delta Bioregion (as defined by the State's Natural Communities Conservation Program). This Bioregion is comprised of a variety of natural communities, which range from salt marshes to chaparral to oak woodland. The areas affected by the proposed amendments are primarily located within existing industrial, commercial and other developed/urbanized areas within the Bay Area. The affected areas have been graded to develop various industrial and commercial operations. Native vegetation has generally been removed from these areas with the exception of landscaping vegetation.

Regulatory Background

Biological resources are generally protected by the City and/or County General Plans through land use and zoning requirements which minimize or prohibit development in biologically sensitive areas. Biological resources are also protected by the California Department of Fish and Game, and the U.S. Fish and Wildlife Service. The U.S Fish and Wildlife Service and National Marine Fisheries Service oversee the federal Endangered Species Act. Development permits may be required from one or both of these agencies if development would impact rare or endangered species. The California Department of Fish and Game administers the California Endangered Species Act which prohibits impacting endangered and threatened species. The U.S. Army Corps of Engineers and the U.S. EPA regulate the discharge of dredge or fill material into waters of the United States, including wetlands.

Discussion of Impacts

IV.a-f. The proposed amendments include revising the Air District's NSR Rules (Regulation 2-2) and Title V Rules (Regulation 2-6), as well as ancillary provisions in Regulation 2. The proposed amendments are described in more detail in Chapter 1, Section 1.4.4.

The major facilities that are the principal subject of these regulatory programs are primarily located in industrial and commercially zoned areas, as well as other urbanized/developed portions within the District. Accordingly, any additional requirements adopted under the proposed amendments would apply primarily to facilities within industrial/commercial, and other urbanized areas, which are generally not located in areas with sensitive biological resources.

Additionally, none of the amendments are expected to require any significant additional construction or other alteration at any affected facility. The proposed amendments are not expected to require any significant changes in any required pollution control equipment compared to what is already required under current regulations. Any pollution control equipment that will be required under the proposed amendments is expected to be of similar size, and located in similar areas, as what is currently required. If the amendments were to require a change in the required pollution control equipment that is installed, any such changes are not expected to cause any additional impacts to biological resources. Pollution control devices installed on industrial and commercial equipment do not generally require additional land that would require a facility to expand its operations into adjacent biological resource areas. Such expansion and development is regulated by local General Plans. Consequently, any new or different pollution control devices required as a result of the proposed amendments would not have any significant impact on the existing environment which, due to its location or nature, could result in a conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, or with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

The proposed amendments are not expected to have direct or indirect impacts on biological resources, as no additional construction is expected to be required. Therefore, construction activities are not expected to impact biological resources.

Conclusion

Based upon these considerations, no adverse impacts on biological resources are expected from the implementation of proposed amendments. Therefore, biological resources impacts will not be further analyzed in the EIR.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?	☐	☐	☐	☑
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☐	☐	☑
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☑
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☑

CULTURAL RESOURCES

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses vary greatly and include commercial, industrial, residential, agricultural and open space uses. Cultural resources are defined as buildings, sites, structures, or objects which might have historical architectural, archaeological, cultural, or scientific importance.

The Carquinez Strait represents the entry point for the Sacramento and San Joaquin Rivers into the San Francisco Bay. This locality lies within the San Francisco Bay and the west end of the Central Valley archaeological regions, both of which contain a rich array of prehistoric and historical cultural resources. The areas surrounding the Carquinez Strait and Suisun Bay have been occupied for millennia given their abundant combination of littoral and oak woodland resources.

The new equipment affected by the proposed amendments are primarily located within industrial, commercial and other developed/urbanized areas located in the Bay Area. These areas have already been graded to allow for industrial, commercial and other types of development.

Regulatory Background

The State CEQA Guidelines define a significant cultural resource as a "resource listed or eligible for listing on the California Register of Historical Resources." (Public Resources Code Section 5024.1.) A project would have a significant impact if it would cause a substantial adverse change in the significance of a historical resource. (State CEQA Guidelines Section 15064.5(b).) A substantial adverse change in the significance of a historical resource would result from an action that would demolish or adversely alter the physical characteristics of the historical resource that convey its historical significance and that qualify the resource for inclusion in the California Register of Historical Resources or a local register or survey that meets the requirements of Public Resources Code Sections 50020.1(k) and 5024.1(g).

Discussion of Impacts

V. a – d. No impacts on cultural resources are anticipated from the proposed amendments, which apply to equipment used primarily in industrial and commercial and other urbanized/developed environments. None of the amendments are expected to require any significant additional construction or other alteration at affected facilities. In instances where the District's regulations require pollution control equipment to be installed at facilities, the proposed amendments are not expected to require any significant changes in required pollution control equipment compared to what is already required under current regulations. Air pollution control equipment that will be required under the proposed amendments is expected to be of similar size, and located within in similar areas (generally within the confines of the existing facility), as what is currently required under the existing regulations.

If the amendments were to require a change in the required pollution control equipment that is installed, any such changes are not expected to cause additional impacts to any cultural resource or construction outside of the existing facility. Consequently, any new or different pollution control devices required as a result of the proposed amendments would occur within existing, developed areas and would not require construction outside of existing developed areas that could result in a conflict with any local policies or ordinances protecting cultural resources, such as destroying a unique paleontological resource, or site or unique geologic feature, or disturbing any human remains, including those interred outside of formal cemeteries

The proposed amendments are not expected to have direct or indirect impacts on cultural resources, as no additional construction is expected to be required. Therefore, construction activities are not expected to impact cultural resources.

Conclusion

Based upon these considerations, no significant adverse impacts to cultural resources are expected from the implementation of proposed amendments. Therefore, cultural resources impacts will not be further analyzed in the EIR.

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VI.	**GEOLOGY / SOILS.**				
	Would the project:				
a)	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i)	Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☑
ii)	Strong seismic ground shaking?	☐	☐	☐	☑
iii)	Seismic-related ground failure, including liquefaction?	☐	☐	☐	☑
iv)	Landslides?	☐	☐	☐	☑
b)	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☑
c)	Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☑
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☑
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?	☐	☐	☐	☑

GEOLOGY / SOILS

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses vary greatly and include commercial, industrial, residential, agricultural, and open space uses. The facilities affected by the proposed amendments are primarily located in the commercial, industrial, and other developed/urbanized areas within the Bay Area.

The San Francisco Bay Area is a seismically active region, which is situated on a plate boundary marked by the San Andreas Fault System. Several northwest trending active and potentially active faults are included with this fault system. Under the Alquist-Priolo Earthquake Fault Zoning Act, Earthquake Fault Zones were established by the California Division of Mines and Geology along "active" faults, or faults along which surface rupture occurred in Holocene time (the last 11,000 years). In the Bay area, these faults include the San Andreas, Hayward, Rodgers Creek-Healdsburg, Concord-Green Valley, Greenville-Marsh Creek, Seal Cove/San Gregorio and West Napa faults. Other smaller faults in the region classified as potentially active include the Southampton and Franklin faults.

Ground movement intensity during an earthquake can vary depending on the overall magnitude, distance to the fault, focus of earthquake energy, and type of geological material. Areas that are underlain by bedrock tend to experience less ground shaking than those underlain by unconsolidated sediments such as artificial fill. Earthquake ground shaking may have secondary effects on certain foundation materials, including liquefaction, seismically induced settlement, and lateral spreading.

Regulatory Background

Construction is regulated by the local City or County building codes that provide requirements for construction, grading, excavations, use of fill, and foundation work including type of materials, design, procedures, etc., which are intended to limit the probability of occurrence and the severity of consequences from geological hazards. Necessary permits, plan checks, and inspections are generally required.

The City or County General Plan includes the Seismic Safety Element. The Element serves primarily to identify seismic hazards and their location in order that they may be taken into account in the planning of future development. The California Building Code is the principal mechanism for protection against and relief from the danger of earthquakes and related events.

In addition, the Seismic Hazard Zone Mapping Act (Public Resources Code §§2690 – 2699.6) was passed by the California legislature in 1990 following the Loma Prieta earthquake. The Act required that the California Division of Mines and Geology (DMG) develop maps that identify the areas of the state that require site specific investigation for

earthquake-triggered landslides and/or potential liquefaction prior to permitting most urban developments. The Act directs cities, counties, and state agencies to use the maps in their land use planning and permitting processes.

Local governments are responsible for implementing the requirements of the Seismic Hazards Mapping Act. The maps and guidelines are tools for local governments to use in establishing their land use management policies and in developing ordinances and review procedures that will reduce losses from ground failure during future earthquakes.

Discussion of Impacts

VI. a. No impacts involving geology are anticipated from the proposed amendments. The proposed amendments will not require the construction of any new structures; therefore, no new structures would be subject to earthquake fault rupture, seismic ground shaking or ground failure, or landslides. Since no new construction is required as a result of the proposed amendments, no significant impacts from seismic hazards are expected.

VI. b. No new construction activities would be required due to the adoption of the proposed amendments. Therefore, the proposed project is not expected to result in substantial soil erosion or the loss of topsoil as no major construction activities are expected to be required.

VI. c – e. The proposed amendments are not expected to require any major additional construction activities. Therefore, the proposed amendments will not involve construction of any structures on a geologic unit or soil that is unstable or that would become unstable, or potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse. Likewise, the proposed amendments will not involve construction of any structures on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property. Since no additional construction would be required, the proposed amendments would not affect soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater. Therefore, the proposed amendments are not expected to have any impacts on wastewater treatment/disposal systems.

Conclusion

Based upon these considerations, no adverse impacts to geology and soils are expected from the implementation of proposed amendments. Therefore, geology and soil impacts will not be further analyzed in the EIR.

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GREENHOUSE GAS EMISSIONS.					
Would the project:					
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☑	☐	☐	☐
b)	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☑	☐	☐	☐

GREENHOUSE GAS EMISSIONS

Setting

Global climate change refers to changes in average climatic conditions on the earth as a whole, including temperature, wind patterns, precipitation and storms. Global warming, a related concept, is the observed increase in the average temperature of the earth's surface and atmosphere. One identified cause of global warming is an increase of greenhouse gases (GHGs) in the atmosphere. The six major GHGs identified by the Kyoto Protocol are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs). GHGs absorb longwave radiant energy reflected by the earth, which warms the atmosphere. GHGs also radiate longwave radiation both upward to space and back down toward the surface of the earth. The downward part of this longwave radiation absorbed by the atmosphere is known as the "greenhouse effect." Some studies indicate that the potential effects of global climate change may include rising surface temperatures, loss in snow pack, sea level rise, more extreme heat days per year, and more drought years.

Events and activities such as the industrial revolution and the increased combustion of fossil fuels (e.g., gasoline, diesel, coal, etc.) have heavily contributed to the increase in atmospheric levels of GHGs. Approximately 80 percent of GHG emissions in California are from fossil fuel combustion and over 70 percent of GHG emissions are carbon dioxide emissions.

Regulatory Background

In response to growing scientific and political concern regarding global climate change, California has taken the initiative to address the state's greenhouse gas emissions.

California has adopted the Global Warming Solutions Act of 2006, also known as AB 32, which requires the state to reduce its GHG emissions to 1990 levels by 2020. In addition, in 2005 Governor Schwarzenegger adopted Executive Order S-3-05, which commits to achieving an 80% reduction below 1990 levels by 2050. The California Air Resources Board has begun implementation of these mandates through adoption of regulatory requirements to reduce GHG emissions (among other agency implementation actions).

At the federal level, EPA has adopted GHG emissions limits for new light-duty cars and trucks. This regulation of mobile sources has in turn triggered NSR and Title V permitting requirements for stationary sources. (See Chapter 1, Section 1.4.3 for further discussion.) These requirements include using Best Available Control Technology to control emissions from major facilities. In addition, EPA is also in the process of adopting New Source Performance Standards for major GHG source categories.

Discussion of Impacts

VII. a, b. One of the primary purposes of the proposed amendments is to implement NSR and Title V GHG permitting requirements for stationary sources. These permitting programs are intended to help reduce emissions of GHGs from stationary sources. They are not expected to generate any new GHG emissions at any facility. Moreover, they are intended to help implement applicable plans, policies and regulations adopted to reduce GHG emissions, and so they are not expected to conflict with any such plans, policies or regulations.

With respect to the potential for secondary GHG emissions impacts from the proposed amendments that could have an adverse impact on GHGs and global climate change, these concerns are similar to the general secondary emissions impacts addressed in the air quality impacts discussion above. The District has not definitively identified any specific adverse impacts at this stage. The District is preparing an EIR to consider such issues in detail, however. This analysis will include the potential for secondary emissions of GHGs.

In addition, during the development of the proposed amendments, certain concerns were raised including the following:

- Implementing the revisions to the NSR program could impose permitting burdens that would hinder environmentally beneficial energy-efficient and other reduction projects, resulting in delay or postponement of these projects.

- Implementing the revisions could result in impacts from what commenters characterized as a changed definition of emission offsets.

- Implementing the revisions could result in impacts from the regulation's offset provisions.

- Implementing the revisions could result in impacts from the adoption of a District PSD rule that would take over PSD permitting from the U.S. EPA.

- Implementing the revisions could result in what the commenters referred to as a "weakening of current rules."

- Implementing the revisions could result in impacts associated with additional exemptions.

The commenters did not provide any specific evidence to demonstrate that there will be significant adverse air quality or GHG impacts from the proposed amendments. However, the potential for adverse air quality and GHG impacts needs to be given full and in-depth consideration before any regulatory amendments are adopted. Therefore, the potential for significant air quality and GHG impacts will be addressed in the EIR so that these points can be considered in detail.

Conclusion

Based upon these considerations, greenhouse gas and climate change impacts will be evaluated in the EIR.

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:					
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☑	☐
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☑	☐
c)	Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☑	☐
d)	Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☑
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
f)	For a project within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑
h)	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☑

HAZARDS AND HAZARDOUS MATERIALS

Setting

Certain industrial and commercial operations handle, process, and transport hazardous material. Hazardous materials at these facilities are monitored and controlled under regulations designed to control hazards associated with those operations. For all affected facilities, risks to the public are reduced if there is a buffer zone between industrial processes and residences or other sensitive land uses, or the prevailing wind blows away from residential areas and other sensitive land uses. The risks posed by operations at each facility are unique and determined by a variety of factors.

Regulatory Background

There are many federal and state rules and regulations that facilities handling hazardous materials must comply with, which serve to minimize the potential impacts associated with hazards at these facilities.

Under the Occupational Safety and Health Administration (OSHA) regulations [29 Code of Federal Regulations (CFR) Part 1910], facilities which use, store, manufacture, handle, process, or move highly hazardous materials must prepare a fire prevention plan. In addition, 29 CFR Part 1910.119, Process Safety Management (PSM) of Highly Hazardous Chemicals, and Title 8 of the California Code of Regulations, General Industry Safety Order §5189, specify required prevention program elements to protect workers at facilities that handle toxic, flammable, reactive, or explosive materials.

Affected facilities that store materials are required to have a Spill Prevention Control and Countermeasures (SPCC) Plan per the requirements of 40 Code of Federal Regulations, Section 112. The SPCC is designed to prevent spills from on-site facilities and includes requirements for secondary containment, provides emergency response procedures, establishes training requirements, and so forth.

The Hazardous Materials Transportation (HMT) Act is the federal legislation that regulates transportation of hazardous materials. The primary regulatory authorities are the U.S. Department of Transportation, the Federal Highway Administration, and the Federal Railroad Administration. The HMT Act requires that carriers report accidental releases of hazardous materials to the Department of Transportation at the earliest practical moment (49 CFR Subchapter C). The California Department of Transportation (Caltrans) sets standards for trucks in California. The regulations are enforced by the California Highway Patrol.

California Assembly Bill 2185 requires local agencies to regulate the storage and handling of hazardous materials and requires development of a business plan to mitigate the release of hazardous materials. Businesses that handle any of the specified hazardous materials must submit to government agencies (i.e., fire departments), an inventory of the hazardous materials, an emergency response plan, and an employee training program. The information in the business plan can then be used in the event of an emergency to

determine the appropriate response action, the need for public notification, and the need for evacuation.

Discussion of Impacts

VIII. a - c. The proposed amendments are not expected to require any significant changes in the way any affected facility uses, transports or disposes of hazardous materials, or in the risk of release of any such materials into the environment. The primary purpose of the District's permitting programs that are the subject of the proposed amendments is to help reduce air pollution, which does not implicate the use or release of hazardous materials. These permitting programs do require the installation and use of pollution control equipment at affected facilities, but the proposed amendments are not expected to require any significant changes in any required pollution control equipment compared to what is already required under current regulations. Any pollution control equipment that will be required under the proposed amendments is expected to be of similar size, and located in similar areas, as what is currently required. To the extent that any such equipment involves the use of hazardous materials, the proposed amendments will not significantly affect the extent or nature of such use, or any transport, disposal, or risk of release associated with such use. Therefore, the proposed amendments will not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Further, the proposed amendments will not create a significant increase in hazards to the public due to an upset or accident involving the release of hazardous materials into the environment.

For the same reasons, the proposed amendments are not expected to increase hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Some facilities subject to the District's permitting programs may be located within one quarter mile of a school, but the proposed amendments will not result in any significant change in any handling of hazardous materials, substances or wastes at such facilities, or in any hazardous emissions from such facilities. Furthermore, to the extent that the proposed amendments will affect any facilities located within a quarter mile of a school, any modifications to any such facilities will be subject to the District's stringent permitting requirements for Toxic Air Contaminants in District Regulation 2, Rule 5. Regulation 2, Rule 5 applies stringent preconstruction permit review requirements to new and modified sources of toxic air contaminants. It imposes health risk limits and requires the use of Toxics Best Available Control Technology under certain circumstances. New or modified facilities seeking permits to operate would fall under the requirements of Regulation 2, Rule 5. Compliance with Regulation 2, Rule 5 is expected to minimize any potential increase of toxic air contaminants on existing or proposed schools to a less-than-significant level.

Therefore, the proposed amendments are not expected to generate significant adverse hazards impacts, as they are not expected to significantly change the existing nature or extent of the transport, use, handling, creation, disposal, or emissions of any hazardous material.

VIII. d. No impacts on hazardous material sites are anticipated from the proposed amendments. Facilities that are subject to the District's NSR and Title V permitting programs are located all over the Bay Area, and some may be located on a hazardous materials site listed pursuant to Government Code Section 65962.5. However, the proposed amendments would have no effect on hazardous materials nor would the proposed amendments create a significant hazard to the public or environment. The construction of additional structures is not expected to be required, so there will not be any construction activities that would impact hazardous waste sites. The proposed amendments neither require, nor are likely to result in, activities that would affect hazardous materials or existing site contamination. Therefore, no adverse impacts at hazardous materials sites are expected.

VIII. e – f. No impacts on airports or airport land use plans are anticipated from the adoption of the proposed amendments. The construction of additional structures is not expected to be required, so construction activities are not expected to impact airport land use plans or increase hazards near air strips. Any changes to air pollution control equipment are expected to be made within the confines of existing developed areas. No new development outside of existing industrial or commercial operations is expected to be required as a result of the proposed amendments. Therefore, no adverse impacts on an airport land use plan or on a private air strip are expected.

VIII. g. No impacts on emergency response plans are anticipated from the proposed amendments. The construction of additional equipment is not expected to be required, so construction activities are not expected to impair or interfere with an emergency response plan. Facilities affected by the proposed amendments are generally located within existing developed areas, and construction activities outside of these areas are not expected to be required. The proposed amendments neither require, nor are likely to result in, activities that would impact any emergency response plan; therefore, no adverse impacts on emergency response plans are expected.

VIII. h. No increase in hazards related to wildfires is anticipated from the proposed amendments. The construction of additional structures is not expected to be required, so construction activities are not expected to increase fire risks in wildland areas adjacent to urbanized areas. The proposed amendments are not expected to increase the use any flammable materials. Native vegetation has generally been removed from industrial, commercial, and other urbanized/developed areas with the exception of some landscape vegetation. Therefore, no increase in exposure to wildfires will occur due to the proposed amendments.

Conclusion

Based upon these considerations, no significant adverse hazards and hazardous materials impacts are expected from the adoption proposed amendments. Therefore, hazards and hazardous material impacts will not be further analyzed in the EIR.

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HYDROLOGY / WATER QUALITY.					
Would the project:					
a)	Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☑
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☑
c)	Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation onsite or offsite?	☐	☐	☐	☑
d)	Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite?	☐	☐	☐	☑
e)	Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☑
f)	Otherwise substantially degrade water quality?	☐	☐	☐	☑
g)	Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☑
h)	Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☑
i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including	☐	☐	☐	☑

	flooding as a result of the failure of a levee or dam?				
j)	Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☑

HYDROLOGY / WATER QUALITY

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties, and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses and affected environment vary substantially throughout the area and include commercial, industrial, residential, agricultural, and open space uses.

The urbanized areas affected by the proposed amendments are located throughout the District. Reservoirs and drainage streams are located throughout the area and discharge into the Bays. Marshlands incised with numerous winding tidal channels containing brackish water are located throughout the Bay Area.

The affected areas are located within the San Francisco Bay Area Hydrologic Basin. The primary regional groundwater water-bearing formations include the recent and Pleistocene (up to two million years old) alluvial deposits and the Pleistocene Huichica formation. Salinity within the unconfined alluvium appears to increase with depth to at least 300 feet. Water of the Huichica formation tends to be soft and relatively high in bicarbonate, although usable for domestic and irrigation needs.

Regulatory Background

The Federal Clean Water Act of 1972 primarily establishes regulations for pollutant discharges into surface waters in order to protect and maintain the quality and integrity of the nation's waters. This Act requires industries that discharge wastewater to municipal sewer systems to meet pretreatment standards. The 1987 amendments to the Clean Water Act enabled the U.S. EPA to regulate, under the National Pollutant Discharge Elimination System (NPDES) program, discharges from industries and large municipal sewer systems. The State of California, through the State Water Resources Control Board (SWRCB), has authority to issue NPDES permits, which meet U.S. EPA requirements, to specified industries.

In response to the Federal Act, the State Water Resources Control Board prepared two state-wide plans in 1991 and 1995 that address storm water runoff: the California Inland Surface Waters Plan and the California Enclosed Bays and Estuaries Plan, which have been updated in 2005 as the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California. The San Francisco Bay Basin Plan identifies the: (1) beneficial water uses that need to be protected; (2) the

water quality objectives needed to protect the designated beneficial water uses; and (3) strategies and time schedules for achieving the water quality objectives.

Discussion of Impacts

IX. a, b, f. The existing NSR and Title V regulations require affected facilities to install pollution control equipment where applicable. However, the proposed amendments are not expected to require significant changes in required pollution control equipment compared to what is already required under the current regulations. Any pollution control equipment that will be required under the proposed amendments is expected to be of similar size, and located in similar areas, as what is currently required under the existing regulations. There is not expected to be any change in the water use or wastewater generation at any facilities as a result of these proposed amendments. Therefore, the proposed amendments are not expected to result in water quality impacts or to deplete groundwater supplies.

IX. c - e The proposed amendments are not expected to require the construction of additional structures. Therefore, no new development outside of existing industrial, commercial, or other developed/urbanized areas is expected to be required, and no increase in paved areas is expected. Therefore, the proposed amendments are not expected to substantially alter existing drainage or drainage patterns, result in erosion or siltation, alter the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite. Nor would the proposed amendments create or contribute additional runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. The proposed amendments are not expected to substantially degrade water quality. Therefore, no adverse impacts involving storm water runoff are expected.

IX. g – i. The facilities affected by the proposed amendments are primarily located within industrial, commercial, and other developed/urbanized areas. No major construction activities are expected due to the adoption of the proposed amendments. The proposed amendments would not result in the construction of any housing or place houses within a 100-year flood plain. The proposed amendments are not expected to require any substantial construction activities, place any additional structures within 100-year flood zones, or other areas subject to flooding. Therefore, no adverse impacts due to flooding are expected.

IX. j. The operations affected by the proposed amendments are primarily located within industrial, commercial, and other developed/urbanized areas. No major construction activities are expected due to the adoption of the proposed amendments. The proposed amendments are not expected to place any additional structures within areas subject to inundation by seiche, tsunami or mudflow. Therefore, no adverse impacts on hydrology/water due to seiche, tsunami or mudflow are expected.

Conclusions

Based upon these considerations, no adverse hydrology and water quality impacts are expected from the implementation of the proposed amendments. Therefore, hydrology and water quality impacts will not be further analyzed in the EIR.

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
X.	**LAND USE / PLANNING.** Would the project:				
a)	Physically divide an established community?	☐	☐	☐	☑
b)	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to a general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☑
c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☑

LAND USE / PLANNING

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses vary greatly and include commercial, industrial, residential, agricultural, and open space uses. The facilities affected by the proposed amendments are primarily located in developed and urbanized areas throughout the Bay Area.

Regulatory Background

Land uses are generally protected and regulated by the City and/or County General Plans through land use and zoning requirements.

Discussion of Impacts

X. a-c. Facilities affected by the proposed amendments are primarily located within existing developed and urbanized portions of the Bay Area. The proposed amendments are not expected to require the construction of any new structures. Therefore, no changes to current development (e.g., existing facilities) is expected to be required. Furthermore, no changes to future development patterns are expected to occur as a result of the proposed amendments. To the extent that new facilities may be built that are subject to the District's permitting regulations, or that existing facilities may be modified, the

proposed amendments would not require any changes to such future development that would impact any established community, would implicate any land use plans, policies or regulations, or would implicate any habitat conservation plan or natural community conservation plan. For all of these reasons, no land use impacts are expected as a result of the proposed amendments.

Conclusion

Based upon these considerations, no adverse land use impacts are expected from the adoption of the proposed amendments. Therefore, land use impacts will not be further analyzed in the EIR.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☑
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☑

MINERAL RESOURCES

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses and the affected environment vary greatly throughout the area. The operations affected by the proposed amendments are primarily located in industrial, commercial and other developed/urbanized areas within the Bay Area.

Regulatory Background

Mineral resources are generally protected and regulated by the City and/or County General Plans through land use and zoning requirements.

Discussion of Impacts

XI. a-b. The existing NSR and Title V regulations require affected facilities to install pollution control equipment where applicable. However, the proposed amendments are not expected to require significant changes in required pollution control equipment compared to what is already required under the current regulations. Any pollution control equipment that will be required under the proposed amendments is expected to be of similar size, and located in similar areas, as what is currently required under the existing regulations. Therefore, the proposed amendments are not expected to require any significant additional construction of air pollution control equipment or require any other substantial construction activities. The proposed amendments would therefore not result in the loss of any known mineral resources.

Conclusion

Based upon these considerations, mineral resource impacts are not expected from the adoption of the proposed amendments. Therefore, mineral resource impacts will not be further analyzed in the EIR.

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII.	**NOISE.** Would the project:				
a)	Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☑
b)	Expose persons to or generate of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☑
c)	Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☑
d)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☑
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑
f)	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑

NOISE

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses and the affected environment vary greatly throughout the area. The facilities affected by the proposed amendments are primarily located in industrial, commercial and other urbanized/developed areas of the Bay Area. Numerous noise sources are present in the urbanized environment including mobile sources such as vehicles, trucks,

construction equipment, motorcycles, locomotives, and air planes, as well as stationary sources, such as industrial equipment.

Regulatory Background

Noise issues related to construction and operation activities are addressed in local General Plan policies and local noise ordinance standards. The General Plans and noise ordinances generally establish allowable noise limits within different land uses including residential areas, other sensitive use areas (e.g., schools, churches, hospitals, and libraries), commercial areas, and industrial areas.

Discussion of Impacts

XII. a-d. The major facilities that are the principal subject of these regulatory programs are primarily located in industrial and commercially zoned areas within the District. Accordingly, any additional requirements adopted under the proposed amendments would apply primarily to facilities within industrial/commercial areas, which are generally not located in noise-sensitive areas (e.g., within or adjacent to residential areas, schools, hospitals, etc.).

Furthermore, to the extent that there could be any facility or equipment affected by the proposed amendments that may be located within or near noise sensitive areas, none of the amendments are expected to require any substantial additional construction or other alteration. Existing regulations do in some situations require pollution control equipment to be installed at facilities, but the proposed amendments are not expected to require significant changes in any required pollution control equipment compared to what is already required under the current regulations. Any air pollution control equipment that will be required under the proposed amendments is expected to be of similar size, and located in similar areas, as what is currently required under the existing regulations. No new construction is expected to be required as a result of adopting proposed amendments. Since no construction activities are expected and no new equipment is expected to be constructed, no additional noise or vibration sources are expected to be added as a result of the proposed amendments. Moreover, even if additional pollution control equipment were to be required at any facility, such equipment does not normally make any change in any noise associated with the industrial or commercial equipment on which it is installed. Thus, to the extent that industrial or commercial equipment subject to the proposed amendments creates noise, the proposed amendments will not cause any noise impacts by creating additional noise at such locations.

The proposed amendments would not increase ambient noise levels from stationary sources, either intermittently or permanently. Therefore, there are not expected to be any noise impacts associated with the proposed amendments.

XII. e-f. The proposed amendments will not result in any changes to the amount of noise any people are exposed to residing or working at any location. The proposed amendments will not require any changes to any existing or potential future facilities regarding the amount of noise generated by such facilities or the amount of noise that

people working at such facilities will be exposed to. Most of the facilities affected by the proposed amendments are industrial and commercial facilities that do not have residents. Workers at such facilities by applicable OSHA or Cal/OSHA workplace noise reduction requirements. Moreover, all sensitive noise receptors, both residential and workplace-related, will be protected by applicable local noise ordinances. This situation applies for all areas that may be affected by the proposed amendments throughout the Bay Area, including areas near airports or airstrips as well as all other areas.

Conclusion

Based upon these considerations, significant noise impacts are not expected from the adoption of the proposed amendments. Therefore, noise impacts will not be further analyzed in the EIR.

		Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. POPULATION / HOUSING. Would the project:					
a)	Induce substantial population growth in an area either directly (e.g., by proposing new homes and businesses) or indirectly (e.g. through extension of roads or other infrastructure)?	☐	☐	☐	☑
b)	Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑
c)	Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑

POPULATION / HOUSING

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses and the affected environment vary greatly throughout the area. The areas affected by the proposed project are located throughout the area within the jurisdiction of the BAAQMD.

Regulatory Background

Population and housing growth and resources are generally protected and regulated by the City and/or County General Plans through land use and zoning requirements.

Discussion of Impacts

XIII. a. No significant construction activities are expected to be required because of the proposed amendments, and no additional employees would be needed at affected facilities. Thus, relocation of individuals, requirements for new housing or commercial facilities, or changes to the distribution of the population are not anticipated. Human population within the jurisdiction of the District is anticipated to grow regardless of implementing the proposed amendments. The proposed amendments will not have any impact on these development patterns. As a result, the proposed amendments are not

anticipated to generate any adverse effects, either direct or indirect, on population growth in the district or population distribution.

XIII. b-c. No construction activities are expected to be required because of the proposed amendments. Therefore, no construction activities that could displace a substantial number of people of housing units would be expected. The proposed amendments are not expected to result in the creation of any industry that would affect population growth, directly or indirectly induce the construction of single- or multiple-family units, or require the displacement of people or housing elsewhere in the Bay Area.

Conclusions

Based upon these considerations, no impacts to population and housing are expected from the adoption of proposed amendments. Therefore, population and housing impacts will not be further analyzed in the EIR.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. PUBLIC SERVICES. Would the project:				
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:				
Fire protection?	☐	☐	☐	☑
Police protection?	☐	☐	☐	☑
Schools?	☐	☐	☐	☑
Parks?	☐	☐	☐	☑
Other public facilities?	☐	☐	☐	☑

PUBLIC SERVICES

Setting

The District covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties, and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses and the affected environment vary greatly throughout the area. The areas affected by the proposed project are primarily located in industrial, commercial and other urbanized/developed areas throughout the Bay Area.

Given the large area covered by the District, public services are provided by a wide variety of local agencies. Fire protection and police protection/law enforcement services within the District are provided by various districts, organizations, and agencies. There are several school districts, private schools, and park departments within the Bay Area. Public facilities within the District's jurisdiction are managed by different county, city, and special-use districts.

Regulatory Background

City and/or County General Plans usually contain goals and policies to assure adequate public services are maintained within the local jurisdiction.

Discussion of Impacts

XIII. a. Implementation of the proposed amendments is not expected to require any changes in operations at affected facilities in any way that would affect police or fire protection, schools, parks, or other public facilities.

The facilities that are the principal subject of these regulatory programs are primarily located in industrial, commercial, and other developed/urbanized areas within the District with existing fire and police services. In the event of an accident, fire departments are typically first responders for control and clean-up, and police may need to be available to maintain perimeter boundaries. The proposed amendments will not require any affected facilities to change their operations in any way that would require existing fire and police responders to change the way they respond in such situations, or to increase the demand for additional emergency response services.

As noted in the "Population and Housing" discussion above, the proposed amendments are not expected to induce population growth in any way, because no major construction activities are anticipated at affected facilities, and change in operations that would generate additional employees would be required. Therefore, there will be no increase in local population and thus no increases are expected in the need for or use of local schools, parks, or any other public services (e.g., local government services) above current levels.

Conclusion

Based upon these considerations, no public services impacts are expected from the adoption of proposed amendments. Therefore, public services impacts will not be further analyzed in the EIR.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. RECREATION. Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☑
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☑

RECREATION

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that there are numerous areas for recreational activities. The facilities affected by the proposed amendments are primarily located in industrial, commercial, and other urbanize/developed areas throughout the Bay Area. Public recreational land can be located adjacent to, or in reasonable proximity to these areas.

Regulatory Background

Recreational areas are generally protected and regulated by the City and/or County General Plans at the local level through land use and zoning requirements. Some parks and recreation areas are designated and protected by state and federal regulations.

Discussion of Impacts

XV. a-b. As discussed under "Land Use" above, there are no provisions of the proposed amendments that would affect land use plans, policies, or regulations. Land use and other planning considerations are determined by local governments; no land use or planning requirements will be altered by the proposed amendments. The proposed amendments are not expected to require the construction of additional structures, so no changes in land use would be required. Further, the proposed amendments would not increase population growth and would not impact existing neighborhood and regional parks or other recreational facilities, or require the construction or expansion of

recreational facilities that might have an adverse physical effect on the environment. Therefore, no significant adverse impacts on recreation are expected.

Conclusion

Based upon these considerations, no recreation impacts are expected from the adoption of proposed amendments. Therefore, recreation impacts will not be further analyzed in the EIR.

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. TRANSPORTATION / TRAFFIC. Would the project:					
a)	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☑
b)	Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☑
c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☑
d)	Substantially increase hazards because of a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	☐	☐	☐	☑
e)	Result in inadequate emergency access?	☐	☐	☐	☑
f)	Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☑

TRANSPORTATION / TRAFFIC

Setting

Transportation systems located within the Bay Area include railroads, airports, waterways, and highways. The Port of Oakland and three international airports in the area serve as hubs for commerce and transportation. The transportation infrastructure for vehicles and trucks in the Bay Area ranges from single lane roadways to multilane interstate highways. The Bay Area contains over 19,600 miles of local streets and roads, and over 1,400 miles of state highways. In addition, there are over 9,040 transit route miles of services including rapid rail, light rail, commuter, diesel and electric buses, cable cars, and ferries. The Bay Area also has an extensive local system of bicycle routes and pedestrian paths and sidewalks.

The region is served by numerous interstate and U.S. freeways. On the west side of San Francisco Bay, Interstate 280 and U.S. 101 run north-south. U.S. 101 continues north of San Francisco into Marin County. Interstates 880 and 660 run north-south on the east side of the Bay. Interstate 80 starts in San Francisco, crosses the Bay Bridge, and runs northeast toward Sacramento. Interstate 80 is a six-lane north-south freeway which connects Contra Costa County to Solano County via the Carquinez Bridge. State Routes 29 and 84, both highways that allow at-grade crossings in certain parts of the region, become freeways that run east-west, and cross the Bay. Interstate 580 starts in San Rafael, crosses the Richmond-San Rafael Bridge, joins with Interstate 80, runs through Oakland, and then runs eastward toward Livermore. From the Benicia-Martinez Bridge, Interstate 680 extends north to Interstate 80 in Cordelia. Caltrans constructed a second freeway bridge adjacent and east of the existing Benicia-Martinez Bridge. The new bridge consists of five northbound traffic lanes. The existing bridge was re-striped to accommodate four lanes for southbound traffic. Interstate 780 is a four lane, east-west freeway extending from the Benicia-Martinez Bridge west to I-80 in Vallejo.

Regulatory Background

Transportation planning is usually conducted at the state and county level. Planning for interstate highways is generally done by the California Department of Transportation.

Most local counties maintain a transportation agency that has the duties of transportation planning and administration of improvement projects within the county and implements the Transportation Improvement and Growth Management Program, and the congestion management plans (CMPs). The CMP identifies a system of state highways and regionally significant principal arterials and specifies level of service standards for those roadways.

Discussion of Impacts

XVI. a-b. The proposed amendments will not require any new major construction activities at affected facilities, or require any additional employees. Therefore, there will not be any increase in traffic associated with the proposed amendments, and the proposed

amendments will not cause or contribute to any degradation in the current level of service at any intersection. The workforce at each affected facility is not expected to increase as a result of the proposed amendments, and no increase in traffic is expected. Thus, no traffic impacts are expected due to the proposed amendments.

XVI. c. The proposed amendments are not expected to result in any change in air traffic patterns. Although some affected facilities may be located near airports or beneath flight paths, the proposed amendments will not require any changes at such facilities that would affect air traffic. The proposed amendments will therefore not cause any substantial safety risks associated with air traffic patterns.

XVI. d - e. The proposed amendments will not change the design of any roadway or result in incompatible uses. The proposed amendments are not expected to increase traffic, alter any circulation patterns, or create impacts on the traffic circulation system. The proposed amendments do not involve construction of any roadways, so there would be no change in a roadway design feature that could increase traffic hazards. Emergency access would not be impacted by the proposed amendments, as no change in traffic, access, or circulation is required.

XVI. f. Operational activities resulting from the proposed amendments are not expected to conflict with policies supporting alternative transportation since the proposed amendments will involve not construction activities that could affect alternative transportation modes (e.g. bicycles or buses).

Conclusion

Based upon these considerations, transportation/traffic impacts are not expected from the adoption of proposed amendments. Therefore, transportation/traffic impacts will not be further analyzed in the EIR.

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. UTILITIES / SERVICE SYSTEMS. Would the project:					
a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☑
b)	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☑
c)	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☑
d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements needed?	☐	☐	☐	☑
e)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☑
f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☑
g)	Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☑

UTILITIES / SERVICE SYSTEMS

Setting

Given the large area covered by the BAAQMD, public utilities are provided by a wide variety of local agencies. Water is supplied to affected facilities by several water

purveyors in the Bay Area. Solid waste is handled through a variety of municipalities, through recycling activities, and at disposal sites.

Regulatory Background

City and/or County General Plans usually contain goals and policies to assure adequate utilities and service systems are maintained within the local jurisdiction.

Discussion of Impacts

XVII. a, b, d and e. The facilities subject to the District's NSR and Title V permitting programs are primarily located in industrial, commercial, and other developed/urbanized areas within the District, where water and wastewater services already existing. The proposed amendments are not expected to change any water use requirements or wastewater disposal needs at any affected facilities. Affected facilities will continue to use the same water supply resources and the same wastewater treatment facilities as under the current regulations. Therefore, no impacts on wastewater treatment requirements or wastewater treatment facilities are expected.

XVII. c. The proposed amendments will not require the construction of any new structures or any major changes to existing structures at existing facilities. They will not result in an increase in paved surfaces. The proposed amendments would not alter existing drainage or require the construction of new storm water drainage facilities. Nor are the proposed amendments expected to create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff. Therefore, no adverse impacts on storm drainage facilities are expected.

XVII. f and g. The proposed amendments would not affect the ability of facilities to comply with federal, state, and local statutes and regulations related to solid waste. No impacts on waste generation are expected from the proposed amendments. The proposed amendments would not generate any additional hazardous materials or hazardous waste, so no impacts to hazardous waste disposal facilities are expected due to the proposed amendments. All operations are expected to continue to comply with all applicable federal, state, and local statutes and regulations related to solid and hazardous wastes.

Conclusion

Based upon these considerations, no impacts to utilities and service systems are expected from the adoption of proposed amendments. Therefore, impacts to utilities and service systems will not be further analyzed in the EIR.

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII.	**MANDATORY FINDINGS OF SIGNIFICANCE.**				
a)	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☑
b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	☑	☐	☐	☐
c)	Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☑	☐	☐	☐

MANDATORY FINDINGS OF SIGNIFICANCE

Discussion of Impacts

XVIII. a. The proposed amendments do not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory, as discussed in the previous sections of the CEQA checklist. The proposed amendments will allow the District to implement certain air quality regulations currently regulated by the U.S. EPA, among other improvements.

The major facilities that are the principal subject of these regulatory programs are primarily located in industrial and commercially zoned areas, as well as other urbanized/developed portions within the District that have already been developed and

graded. Accordingly, any additional requirements adopted under the proposed amendments would apply primarily to facilities within industrial/commercial, and other urbanized areas, which are generally not located in areas with sensitive biological or cultural resources. As discussed in Section IV, Biological Resources and Section V, Cultural Resources, no significant adverse impacts are expected to biological or cultural resources.

Additionally, none of the amendments are expected to require any significant additional construction or other alteration at any affected facility. The proposed amendments are not expected to require any significant changes in any required pollution control equipment compared to what is already required under current regulations. Consequently, the proposed amendments are not expected to have a significant impact on the existing environment which, due to its location or nature, could result in significant impacts on biological or cultural resources.

XVIII. b-c. As explained in the discussions of potential Air Quality and GHG impacts above, the District is preparing an EIR to address the potential for significant impacts in these areas. By definition, such impacts are primarily cumulative in nature. In most cases the problems associated with degraded air quality and global climate change are not caused by any single project in isolation, but are the result of many past, present and future projects emitting air pollutants (including GHGs, among others) that combine in the atmosphere to cause the environmental impacts associated with these problems. Given the information addressed in the Air Quality and GHG impacts discussions above, and in particular public comments that have been received expressing concerns in these areas, detailed evaluation of these issues in an EIR is warranted. The EIR will evaluate whether the proposed amendments could cause any incremental contribution to any such cumulative impacts that is cumulatively considerable. Furthermore, air quality impacts and GHG impacts clearly have the potential to have substantial adverse impacts on human beings, both directly and indirectly. The EIR will evaluate whether the proposed amendments would have the potential for such adverse impacts.

References

BAAQMD, 2006. Bay Area 2005 Ozone Strategy, January 4, 2006.

BAAQMD, 2010. 2010 Clean Air Plan, September, 2010.

BAAQMD, 2012. BAAQMD Workshop Report, Proposed Amendments to BAAQMD Regulation 2, Rule 1 - General Requirements; Regulation 2, Rule 2 - New Source Review; Regulation 2, Rule 4 - Emissions Banking; and Regulation 2, Rule 6 – Major Facility Review.

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