U.S. Environmental Protection Agency

Developing Designation Recommendations for Areas of Indian Country

September 2013

CONTENTS

TABLE

LIST OF ACRONYMS AND ABBREVIATIONS

AQS	Air Quality System
BIA	Bureau of Indian Affairs
CAA	Clean Air Act
CASAC	Clean Air Scientific Advisory Committee
CFR	Code of Federal Regulations
CO	Carbon Monoxide
DHEC	Department of Environmental Health and Control
EPA	United States Environmental Protection Agency
FIP	Federal Implementation Plan
FR	Federal Register
HYSPLIT	HYbrid Single-Particle Lagrangian Integrated Trajectory
ISA	Integrated Science Assessment
NAAQS	National Ambient Air Quality Standards
NEI	National Emission Inventory
NO_2	Nitrogen Dioxide
NO_x	Oxides of Nitrogen
NOAA	National Oceanic and Atmospheric Administration
NSR	New Source Review
O_3	Ozone
OAR	Office of Air and Radiation
OAQPS	Office of Air Quality Planning and Standards
PA	Policy Assessment
Pb	Lead
PM	Particulate Matter
PPM	Parts Per Million
PSD	Prevention of Significant Deterioration
RACM	Reasonably Available Control Measures
RACT	Reasonably Available Control Technology
REA	Risk/Exposure Assessment
RFP	Reasonable Further Progress
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
TAMS	Tribal Air Monitoring Support Center
TAR	Tribal Authority Rule
TAS	Treatment in the Same Manner as a State
TIP	Tribal Implementation Plan
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound

I. INTRODUCTION

A. WHAT IS THE PURPOSE OF THIS DOCUMENT?

This manual is intended to serve as a tool to support your understanding of, and participation in, the recommendation process for designating areas for the National Ambient Air Quality Standards (NAAQS)[1] for your area of Indian country.[2] We, the United States Environmental Protection Agency (EPA), are providing general air quality background information, and template materials to assist in your decision making and development of a designation recommendation. This document does not develop new policy, but more clearly explains "existing policy."

In December 2011, we released two key guidance documents related to the process for designating areas of Indian country. The first document, *Guidance to Regions for Working with Tribes during the National Ambient Air Quality Standards (NAAQS) Designations Process*[3] provides guidance to the EPA regional offices for working with federally recognized Indian tribes regarding the designations process for Indian country. The second document, *Policy for Establishing Separate Air Quality Designations for Areas of Indian Country*[4] sets forth the EPA's policy regarding designating particular areas of Indian country separately from surrounding or adjacent areas when a tribe requests a separate designation. Please see these documents for a greater understanding of the designation recommendation process as it relates to Indian country.

Section I of this document provides basic information on the CAA air quality programs. Section II introduces the concept of designations and the designations process. Section III lists the three different designation categories and the requirements of each. Section IV discusses how you can participate in the designations process. Section V covers how to develop a designation recommendation for your area. Section VI lists and explains the five factors you need to consider when developing a tribal designation recommendation. Section VII discusses when and where to send your designation recommendation and describes the EPA review process. The Appendices contain valuable information and examples to help guide you through the designations recommendation process.

Throughout this document "you" means a federally recognized Indian tribe; "we", "our", and "us" means the EPA. This document is intended solely as an information resource. The statutory provisions and the EPA regulations described in this document contain legally binding requirements. This document is itself not a regulation, nor does it change or substitute for any statutory provisions and regulations. It does not impose legally binding requirements on the EPA, tribes or the regulated community. This document also does not confer legal rights or impose legal obligations upon any member of the public.

[1] Pursuant to §107(d)(1) of the Clean Air Act and 40 C.F.R. areas are designated as nonattainment, attainment or unclassifiable.

[2] Indian country, as defined at 18 U.S.C. §1151, means (a) all land within the limits of any Indian reservation under jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation, (b) all dependent Indian communities within the borders of the United States whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a state, and (c) all Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.

[3] http://www.epa.gov/ttn/caaa/t1/memoranda/20120117naaqsguidance.pdf.

[4] http://www.epa.gov/oar/tribal/pdfs/0067_001.pdf.

While the EPA has made every effort to ensure the accuracy of the discussion in this document, the obligations of tribes and the regulated community are determined by statutes, regulations, and other legally binding requirements. In the event of a conflict between the discussion in this document and any statute or regulations, the statutory and/or regulatory provisions are the guiding authorities.

The general description provided here may not apply to a particular situation based upon the circumstances. Interested parties are free to raise questions and objections about the substance of this guidance and the appropriateness of the application of this document to a particular situation. The EPA and other decision makers retain the discretion to adopt approaches on a case-by-case basis that differ from those described in this document where appropriate.

B. HOW DOES THIS DOCUMENT APPLY TO ME?

This document provides guidance to federally recognized tribes interested in making a NAAQS designation recommendation to the EPA for their area of Indian country. It contains guidelines for understanding, planning, preparing, and submitting your designation recommendation. If you are uncertain about whether to prepare a designation recommendation, you can use this document to help you reach a decision.

Although tribes, unlike states, are generally not required to participate in the designations process, the EPA believes it is important to work with all federally recognized tribes to provide the opportunity to participate. If a tribe chooses not to participate in the designations process, the EPA will, in consultation (if requested) with the tribe, make a designation decision for the relevant area of Indian country.

C. WHAT IS THE CLEAN AIR ACT?

The Clean Air Act (CAA)[5] is a federal law covering the entire country. States, eligible tribes, and local governments do much of the work to meet the Act's requirements. For example, representatives from these governmental bodies work with companies to reduce air pollution. They also review and approve (or disapprove, as appropriate) permit applications for construction (new or modification to existing) and operation of industrial sources that could emit certain pollutants.

1. History

In October 1948, a thick cloud of air pollution formed above the industrial town of Donora, Pennsylvania. The cloud, which lingered for five days, killed 20 people and caused sickness in 6,000 of the town's 14,000 people. In 1952, over 3,000 people died in what became known as London's "Killer Fog." The smog was so thick that buses could not run without guides walking ahead of them carrying lanterns.

Events like these alerted us to the dangers that air pollution poses to public health. Several federal and state laws were passed, including the original CAA of 1963,

[5] http://www.epa.gov/air/caa/

which established funding for the study and the cleanup of air pollution. But, there was no comprehensive federal response to address air pollution until Congress passed a much stronger CAA in 1970. That same year, Congress created the EPA and gave it a primary role in implementing the law. Since 1970, we have been responsible for developing and implementing a variety of Clean Air Act programs to reduce air pollution nationwide. However, it makes sense for state and local governments to take the lead in carrying out the CAA. They are able to develop solutions for pollution problems that require special understanding of local industries, geography, housing, and travel patterns, as well as other factors. State, local, and tribal governments also monitor air quality, inspect facilities under their jurisdictions and enforce CAA regulations.

In 1990, Congress dramatically revised and expanded the CAA providing us with even broader authority to implement and enforce regulations reducing air pollutant emissions. The 1990 Amendments also placed an increased emphasis on more comprehensive approaches to reduce air pollution.[6]

2. Role of the EPA

Our mission is to protect human health and the environment. We are responsible for setting limits on levels of certain air pollutants to help ensure basic health and environmental protection from pollution, known as the National Air Quality Standards (NAAQS). We also limit emissions of air pollutants coming from stationary (major or minor) and mobile sources. We must approve (or disapprove, as appropriate) state, tribal, and local agency plans for reducing air pollution. We can provide research, expert studies, technical support, and funding to you, the states, tribal, or local agencies to support the development of air quality plans.

3. Role of the Tribes

The 1990 revision of the CAA included the first provision of the statute comprehensively addressing the roles of Indian tribes in implementing CAA air pollution control programs in their areas of Indian country. Under the Tribal Authority Rule (TAR),[7,8] which the EPA promulgated pursuant to the CAA tribal provision, you may seek eligibility to develop CAA air quality management programs, write rules to reduce air pollution, and implement, and enforce your rules as approved under the CAA in Indian country. Unlike state and local agencies that are required to implement many CAA requirements, you may choose to develop and implement those programs, or even portions of programs, that are most relevant to your tribe's air quality needs. The EPA deemed limited sections of the CAA as inappropriate for tribes, generally including implementation deadlines and associated sanctions as well as requirements for criminal enforcement authority as a prerequisite to CAA program approval.

[6] http://epa.gov/oar/caa/caaa_overview.html.
[7] 40 CFR Part 49, Subpart A – Tribal Authority. http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&rgn=div5&view=text&node=40:1.0.1.2.37&idno=40.
[8] http://www.epa.gov/fedrgstr/EPA-AIR/1998/February/Day-12/a3451.pdf.

4. Key Elements

We implement a variety of programs under the CAA that focus on:

- Reducing outdoor, or ambient, concentrations of air pollutants that cause smog, haze, acid rain, and other problems;
- Reducing emissions of toxic air pollutants that are known to, or are suspected of, causing cancer or other serious health effects; and
- Phasing out the production and use of chemicals that destroy stratospheric ozone (O_3).

These pollutants come from stationary sources (like chemical plants, gas stations, and power plants) and mobile sources (like cars, trucks, and planes) and area, i.e., small, sources (like dry cleaning facilities and auto body refinishing shops).

D. WHAT ARE THE NATIONAL AMBIENT AIR QUALITY STANDARDS AND WHICH POLLUTANTS DO THEY ADDRESS?

The CAA requires us to set NAAQS levels for air pollutants that:

1. Can endanger public health or welfare, and
2. Come from numerous and diverse sources.

To date, we have set NAAQS for six common air pollutants, also known as "criteria pollutants." They are particle pollution (often referred to as particulate matter or PM), ground-level ozone (O_3), carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), and lead (Pb).[9] These pollutants can harm your health and the environment. Of the six pollutants, PM and ground-level O_3 are the most widespread health threats.

We call these pollutants "criteria" air pollutants because we regulate them by developing human health-based and/or environmentally-based criteria (science-based guidelines) for setting permissible levels of pollution.[10] The standards based on protecting human health are called primary standards. The standards intended to prevent environmental and property damage are called secondary standards. Every five years, the EPA is required to review the science upon which the standards for that particular pollutant are based and, as necessary, revise them to protect human health and the environment with an adequate margin of safety.

[9] See Appendix A of this document for information on each of the criteria pollutants.

[10] National Ambient Air Quality Standards (NAAQS) for six principal pollutants, which are called “criteria” pollutants. http://www.epa.gov/air/criteria.html

E. HOW DOES THE EPA SET THE NAAQS

On a periodic basis specified by the CAA, the EPA reviews the NAAQS which are set for each of the six "criteria" pollutants (PM, O_3, CO, SO_2, NO_2, and Pb). In so doing, the EPA staff undertakes an extensive review of the currently available science regarding the public health and environmental effects associated with the presence of the criteria pollutant in the air. For each review, the EPA staff produces a series of documents, which include an integrated science assessment (ISA), a risk and exposure assessment (REA) when warranted, and a policy assessment (PA). Each of these documents is extensively reviewed by a congressionally mandated group of independent scientific and technical experts known as the Clean Air Scientific Advisory Committee (CASAC).[11] This committee provides independent advice to the EPA Administrator on the adequacy of the documents to serve as a basis to inform the Administrator's judgments regarding the adequacy of the current standards and any potential revisions that might be necessary. At the same time, the EPA makes the draft documents available for review and comment from the public, which may include representatives from the scientific community, industry, and public interest groups, as well as interested individuals.

Before the EPA Administrator makes a final decision on a standards review, the proposed decision, based on the currently available scientific evidence and exposure/risk information and on considerations presented in the policy assessment, is published in the Federal Register (FR)[12] for public review and comment. Taking into consideration the comments received, the Administrator then makes the final decision to either retain or revise the existing standards. Consistent with requirements of the CAA, the NAAQS are set to protect the public health with an adequate margin of safety and the public welfare from any known or anticipated adverse environmental effects. Congress decided, and the Supreme Court upheld, that the EPA may not consider costs when setting or revising air quality standards.

F. WHAT IS THE TRIBAL AUTHORITY RULE?

On February 12, 1998, we issued the TAR.[13] This rule implements section 301(d) of the CAA. The TAR identifies those provisions of the CAA for which it is appropriate to treat eligible federally recognized tribes in the same manner as a state (TAS).[14] The TAR outlines the eligibility criteria you must meet to obtain TAS status and specifies the process by which we will act on tribal TAS applications.

You can obtain TAS for many elements of the CAA including, but not limited to, a reduced match for programmatic grants under section 105 of the CAA, monitoring, and developing and implementing a Tribal Implementation Plan (TIP). You can apply for TAS in stages as your program grows. This will allow you to obtain TAS for only those parts of the CAA you need, but you can also bundle your TAS applications for multiple elements of the CAA you intend to develop in the future. The TAR also provides a

[11] http://yosemite.epa.gov/sab/sabpeople.nsf/WebCommittees/CASAC.
[12] https://www.federalregister.gov/
[13] http://www.epa.gov/air/tribal/backgrnd.html
[14] http://www.epa.gov/tp/laws/tas.htm

modular approach for the tribes so that you can take on specific elements of CAA programs separately as long as those elements are "reasonably severable."Please note that even absent TAS, you may participate fully in the designations process and provide us with air quality information for your areas of Indian country. Please see Section IV.D below for more information on this topic.

G. SUMMARY POINTS AND FURTHER INFORMATION

- This manual is a resource for tribal environmental professionals and is intended to promote an understanding of the designations process for Indian country.
- This document will help you decide whether to prepare a designation recommendation.
- The CAA is a federal law that covers the entire United States.
- The NAAQS limit the amount (concentration) of criteria pollutants in the air.
- The air pollutants of concern that are related to designation recommendations are carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM), and sulfur dioxide (SO_2).
- The TAR establishes criteria and a process for tribes to become eligible to manage air quality under the CAA for your areas of Indian country.
- Tribes are encouraged, but not required, to submit designation recommendations.

For further information on these topics see:

- The plain language guide to the CAA: http://www.epa.gov/airquality/peg_caa/index.html.
- EPA's most recent evaluation of air pollution trends for the six criteria pollutants: http://www.epa.gov/airtrends/.
- The NAAQS and criteria air pollutants: http://www.epa.gov/ttnnaaqs/.
- The Tribal Authority Rule and general tribal air quality management information: http://www.epa.gov/oar/tribal/backgrnd.html.

II. UNDERSTANDING DESIGNATIONS FOR THE NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS)

A. WHAT DOES DESIGNATION MEAN?

Designation is a term that describes the air quality status in a particular area with respect to a NAAQS for any of the six common "criteria" air pollutants: CO, Pb, NO_2, O_3, PM, and SO_2. After working with the states and tribes, and considering the information from air quality monitors and all other relevant information, we formally designate areas as to whether they are meeting or not meeting a new or revised standard.

The CAA identifies three designation categories:

1. **Nonattainment** – not meeting the standard or contributing to air quality in a nearby area that is not meeting the standard;
2. **Attainment** – meeting the standard and not contributing to air quality in a nearby area that is not meeting the standard; and
3. **Unclassifiable**[15] – insufficient data to determine whether the area is meeting or not meeting the standard.

Each designation is for a specific air quality standard for a criteria pollutant. An area can be in attainment for one standard and nonattainment or unclassifiable for another. The three designation categories and their requirements are described in more detail in Section III below.

B. WHY ARE DESIGNATIONS MADE?

CAA section 107(d) establishes, among other things, the requirement for us to designate all areas following promulgation of a new or revised NAAQS. Designating an area as nonattainment, attainment or unclassifiable is an indication of the area's air quality. Establishing area designations is the first step in determining whether further action is needed in an area to attain (comply with) the NAAQS and provide the health and/or environmental protection intended by the CAA.

Generally, within three years after the effective date of the designation, a state area designated as nonattainment is required to develop and submit to the EPA for approval, a State Implementation Plan (SIP)[16] to demonstrate how the area will improve air quality to meet the NAAQS. For areas of Indian country that are designated as nonattainment, tribes may develop Tribal Implementation Plans (TIPs),[17] but are not required to do so. Should these tribes choose not to develop TIPs, the EPA will develop the implementation plan, where necessary or appropriate, which is known as a Federal Implementation Plan or FIP.

C. WHEN ARE DESIGNATIONS MADE?

We must finalize area designations no later than two years from the date a new or revised NAAQS is promulgated unless the EPA Administrator has insufficient information to promulgate designations by that time. In this case, the Administrator may extend this period for up to one year beyond the original deadline.

[15] Historically, for initial designations after the EPA established a new or revised NAAQS, the EPA has used a designation category of unclassifiable/attainment for areas that are monitoring attainment or that do not have monitors and that are not contributing to a nearby violation. We expect to continue to use the unclassifiable/attainment category for future designations.

[16] http://www.epa.gov/oar/urbanair/sipstatus/

[17] http://www.epa.gov/air/tribal/tip2002/

D. WHAT IS A DESIGNATION RECOMMENDATION AND HOW DO I DETERMINE WHAT TO RECOMMEND?

A designation recommendation is a formal submittal to an EPA regional office from an authorized state or tribal official. Typically on letterhead, the official specifically identifies the geographic areas and recommends for each area whether the designation category be nonattainment, attainment, or unclassifiable for the specified NAAQS.

A designation recommendation is based on certified air quality data and other relevant information that you submit. It also may include other relevant information commonly called a multi-factor analysis. The analysis evaluates the following five factors: air quality data, emissions-related data, meteorology information, geography/topography information, and jurisdictional boundaries. Section VI below contains information on the five factors to consider when developing a designation recommendation.

The following examples generally illustrate designations that could be appropriate for areas of Indian country:[18]

- Indian country with a regulatory air quality monitor showing a violation of the NAAQS would be designated as nonattainment.
- Indian country with a regulatory air quality monitor showing that the NAAQS is being met could be designated as attainment provided all criteria are met such as three consecutive calendar years of quality-assured, certified air quality from a certified regulatory monitor. However, it would be designated nonattainment if sources on Indian country are contributing to a violation of the NAAQS in a nearby area (outside of the Indian country boundary).
- Indian country that is lacking a regulatory monitor and is located within an area that includes one or more counties or states (also known as a multi-jurisdictional area) with a violating regulatory monitor that is not representative of the Indian country could be recommended as unclassifiable. However, the Indian country could be designated as nonattainment when: 1) sources on Indian country are contributing to a violation of the NAAQS in the nearby state area, and/or 2) air quality modeling shows that the NAAQS is being violated in the Indian country area.[19]

[18] Note that for SO_2 designations only, air agencies have the flexibility to use modeling to characterize air quality around a source or source region as a surrogate for ambient monitoring.

[19] This only applies to the NAAQS for sulfur dioxide (SO_2) where both monitoring and modeling are used to establish violations.

E. ARE TRIBES REQUIRED TO SUBMIT DESIGNATION RECOMMENDATIONS?

Tribes are not required, but are encouraged, to submit designation recommendations for their areas of Indian country. The CAA section 107(d) requires us to designate all areas of the country in a timely manner following promulgation of a new or revised NAAQS. Therefore, if a tribe does not submit a recommendation, the EPA, under our CAA authorities, will promulgate an appropriate designation for the relevant area of Indian country. Although under the TAR tribes are not required to meet the same schedules as states, the CAA requires the EPA to act in a timely manner. Therefore, in order for your recommendation to influence our final designation decision, your submittal should be in the same time frame as the states.[20]

F. WHAT IS THE EPA'S ROLE IN THE DESIGNATION OF INDIAN COUNTRY?

We are primarily required to designate all areas of the country. In this process, our December 20, 2011 memorandum, *Guidance to Regions for Working with Tribes during the NAAQS Designations Process*, identifies how we will consult with and assist interested tribes with development of their designation recommendations.[21] The EPA's 1984 Indian Policy indicates that we will "give special consideration to tribal interests in making Agency policy and to ensure the close involvement of tribal governments in making decisions and managing environmental programs affecting reservation land." The following are some of the principles the EPA committed to in order to meet these objectives:[22]

- We stand ready to work directly with Indian tribal governments on a one-to-one basis (the "government-to-government" relationship), rather than as a political subdivision of states or other governmental units.
- We recognize tribal governments as the primary parties for making environmental policy decisions and managing programs for reservations, consistent with federal environmental standards and regulations.
- Until tribal governments are willing and able to assume full responsibility for delegable programs, we will retain responsibility for managing programs on reservations (unless the state has an express grant of jurisdiction from Congress sufficient to support delegation to the state government).

Our role in the designations process for Indian country is further discussed in the *Guidance to Regions for Working with Tribes during the NAAQS Designations Process*. Table 1 below provides an excerpt from this memorandum that outlines the designations process.

[20] See EPA Memorandum, Policy for Establishing Separate Air Quality Designations for Areas of Indian Country, December 20, 2011 at http://www.epa.gov/air/tribal/pdfs/0067_001.pdf.
[21] See EPA Memorandum, Guidance to Regions for Working with Tribes during the National Ambient Air Quality Standards (NAAQS) Designations Process, December 20, 2011 at http://www.epa.gov/air/tribal/pdfs/0066_001.pdf.
[22] The EPA's 1984 Indian Policy, http://www.epa.gov/tp/pdf/indian-policy-84.pdf.

Table 1. The EPA's Role in the Process for Designations of Indian Country

STEP	ACTIVITY
1	Final NAAQS promulgated and published in the Federal Register.
2	Education and outreach conducted by the EPA headquarters and regional offices on the designations process.
3	Letters sent by the EPA regional offices to tribes requesting designations recommendation and offering consultation. Letters should inform tribes of the following: • The promulgation of a new or revised NAAQS; • An opportunity for "government-to-government" consultation with the EPA; • The opportunity and process (including timeline) for submitting initial designation recommendations; • The date by which the EPA requests that tribes notify the EPA if they wish to engage in consultation and/or participate in the designations process; • The potential nonattainment designation for their Indian country (if applicable); • The time frame in which the EPA intends to promulgate designations; and • Specific contact information for questions and follow up on the letter.
4	Consultation conducted by the EPA regional offices.
5	Tribes provide designation recommendations.
6	EPA review recommendations and conducts own analysis (e.g., multi-factor analysis).
7	If the EPA intends to modify a tribe's recommendation, the EPA regional offices offer tribal staff an opportunity for technical dialogue.
8	120-day letters (which provide an opportunity for consultation) sent by the EPA regional offices to the following tribes: • All tribes that submitted initial designation recommendations; • All tribes with Indian country that the EPA intends to designate as nonattainment; and • All tribes with TAS status for CAA section 107(d) purposes.
9	Tribes have the opportunity to submit further technical information, if they disagree with intended designation.
10	Consultation (if requested) conducted by the EPA regional offices and additional information evaluated.
11	Final designations determined.
12	Final designations signed by the EPA Administrator and published in the Federal Register.[23]
13	Education and outreach conducted by the EPA headquarters and regional offices on final designations.

G. HOW WILL THE EPA ENGAGE TRIBES IN DESIGNATION ACTIVITIES?

We believe it is important to work with all federally recognized tribes to provide the opportunity to participate in the designations process for their areas of Indian country. We want to ensure early, transparent, and effective communication in proposing area designations. Therefore, we intend to solicit relevant air quality information and designation recommendations from, and offer consultation to, all tribes regardless of their TAS status. *(See Appendix B for an example of a consultation letter you would receive from the EPA.)* Even if you have not obtained TAS for the purposes of designations (CAA section 107(d)), we intend to solicit relevant air quality information and designation recommendations from you for your areas of Indian country. This approach is consistent with the federal government's trust responsibility to federally recognized Indian tribes as well as various policies relating to tribes.

We intend to conduct outreach and offer consultation to all tribes on a schedule that provides sufficient time for you to be involved in the designations process and to submit

[23] https://www.federalregister.gov/.

relevant air quality information and recommended designations. Although tribes are generally not required to participate in this process, it is important to us to provide the opportunity to participate to all federally recognized tribes. Table 1 above lists the key points of communication beginning with initial education and outreach following promulgation of a new or revised NAAQS.

H. WHAT IS THE TRIBAL ROLE IN THE DESIGNATIONS PROCESS?

The tribe can choose whether or not to participate in the designations process. If you choose to participate, you decide what level of involvement is best for you based on your interest, priorities, and available resources. For example, you may choose to submit air quality data or other information, if available, that supports your recommendation. This is discussed more in Section VI below. *Note that we are required to designate all areas of the country, regardless of whether you submit a recommendation.*

I. SUMMARY POINTS AND FURTHER INFORMATION

- Designation is a term that describes the air quality status in a particular area.
- The CAA section 107(d) requires the EPA to designate all areas of the country in a timely manner.
- Designations are generally made two years from the date a new or revised NAAQS is promulgated.
- A designation recommendation is a formal request/recommendation from an official authorized to make the request on behalf of the tribe.[24] Initial designations recommendations should be submitted on the same schedule that applies to states. However, tribes, unlike states, are not required to submit designation recommendations.
- The EPA intends to solicit air quality information and designation recommendations from, and offer consultation to, all federally recognized tribes regardless of their TAS status.[25]
- The EPA intends to engage with interested tribes in the designation progress.
- Tribes can choose the degree to which they will participate in the designations process.

[24] Although the CAA section 107(d) does not explicitly reference Indian tribes or Indian country, tribes are able to participate in the designations process. For instance, under section 301(d) and the Tribal Authority Rule (TAR) (63 FR 7254, February 12, 1998), tribes may seek treatment in a similar manner as a state (TAS) for purposes of section 107(d) designations. Even absent TAS for section 107(d) purposes, the EPA may solicit air quality information and designation recommendations from tribes for their areas of Indian country.

[25] The Executive Order (EO) 13175, the Agency's 1984 Indian Policy, and the EPA Policy on Consultation and Coordination with Indian Tribes (May 4, 2011) call for EPA to consult with tribes on actions and decisions, such as designation of their Indian country, that affect their interests.

For further information on designation topics see:

- Ground-level ozone (O_3) designations: http://www.epa.gov/ozonedesignations/.
- Fine particle (PM) designations: http://www.epa.gov/pmdesignations/.
- Nitrogen dioxide (NO_2) designations: http://www.epa.gov/no2designations/.
- Lead (Pb) designations: http://www.epa.gov/leaddesignations/.
- Sulfur dioxide (SO_2) designations: http://www.epa.gov/airquality/sulfurdioxide/designations/index.html.

III. DESIGNATION CATEGORIES

After we establish or revise a primary and/or secondary NAAQS, section 107 of the CAA requires us to designate areas as "nonattainment" (not meeting the standard or contributing to a nearby area that is violating the standard), "attainment" (meeting the standard and not contributing to a nearby area that is not meeting the standard), or "unclassifiable"[26] (insufficient information to determine whether the area is meeting or not meeting the standard) after analyzing monitoring data and other information collected by state, local, and tribal governments. An area may be designated attainment for some criteria pollutants and nonattainment for others.

A state recommendation for designation of an area that surrounds Indian country does not dictate the designation for Indian country. However, the conditions that support the state's designation recommendation, such as air quality data and the location of sources, may suggest that similar conditions exist in Indian country.

A. NONATTAINMENT AREA DESIGNATION

1. Definition

A nonattainment area is a geographic area in which the level of one of the criteria air pollutants is higher than the level allowed by the federal standards, or sources within the area are contributing to a nearby area with a violating monitor. An area is generally designated nonattainment when:

- A regulatory monitor indicates the area is violating the NAAQS.
- Existing sources of the pollutant or pollutant precursors contribute to ambient air quality in a nearby area that does not meet the NAAQS for the pollutant.

[26] Historically, for initial designations after the EPA establishes a new or revised NAAQS, the EPA has used a designation category of unclassifiable/attainment for areas that are monitoring attainment or that do not have monitors and that are not contributing to a nearby violation. We expect to continue to use the unclassifiable/attainment category for future designations.

2. Requirements

In a nonattainment area, the goal is to implement a strategy that will bring the area into attainment with the relevant NAAQS by reducing emissions of the specific criteria pollutant or precursor emissions. A federal or tribal implementation plan may include, as necessary or appropriate:[27]

- An emissions inventory to identify the sources of air pollution, their location, and the types of pollutants emitted;
- Control measures, such as Reasonably Available Control Measures/ Reasonably Available Control Technology (RACM or RACT),[28] which may include the adoption of appropriate emission limits;
- Evidence that the emission limits will reduce emissions enough to prevent NAAQS violations in Indian country and in other areas (i.e., an attainment demonstration);
- A new source review preconstruction permit program to ensure that new and modified sources of pollution do not impede progress toward cleaner air or cause a deterioration of current air quality;
- Major sources locating in Indian country that is designated nonattainment for any pollutant are subject to the Tribal New Source Review(NSR) Rule,[29] and
- Contingency measures that can be implemented in the event that an area does not attain the standard by the statutory attainment, or fails to meet Reasonable Further Progress (RFP)[30] requirements.

3. Redesignation

EPA can redesignate a nonattainment area to attainment if:

- The area has monitored attainment of the air quality standard,
- The area has a fully approved implementation plan,
- The EPA has determined that the improvement in air quality is due to permanent and enforceable reductions in emissions,
- The EPA approves a maintenance plan for the area, and
- The area has met all other applicable CAA requirements.

The EPA may approve or deny the redesignation request based on air monitoring information, the activities listed in the implementation plan, and the comments submitted by the public. Nonattainment areas that later are designated to

[27] Although we encourage tribes to develop plans to address NAAQS-related requirements, where tribes do not develop TIPs, the EPA is authorized to promulgate federal implementation plan (FIP) provisions as are necessary or appropriate to protect air quality. (See 49 CFR § 49.11(a)).

[28] Reasonable Available Control Measures (RACM) including Reasonable Available Control Technology (RACT): Control measures (measures that reduce pollution) that are technologically feasible and economically cost effective to implement for sources in a nonattainment area to reduce air pollution.

[29] http://www.gpo.gov/fdsys/pkg/FR-2011-07-01/pdf/2011-14981.pdf.

[30] Reasonable Further Progress (RFP): Annual incremental pollution reduction in a nonattainment area to help assure the attainment of the NAAQS by its statutory attainment date.

attainment are considered maintenance areas. The steps to maintain air quality are defined in a maintenance plan. Generally, the control measures used to improve air quality to a level at or below the NAAQS will remain in place after redesignation occurs.

The maintenance plan must demonstrate continued compliance, considering projected growth, for a period of ten years. If outdoor air monitors record a violation of the standard, the maintenance plan includes a commitment to determine appropriate measures to address the cause of the violation. Pursuant to section 107 of the CAA, the EPA can also redesignate an attainment or unclassifiable area to nonattainment.

B. ATTAINMENT AREA DESIGNATION

1. Definition

An attainment area is a geographic area in which the ambient air level (concentration) of the specific criteria air pollutant meets the NAAQS for that pollutant and the area does not contribute to ambient air quality in a nearby area that does not meet the NAAQS for the pollutant.

2. Requirements

In an attainment area, the goal is to maintain air quality that meets or is cleaner than the NAAQS. A tribal or federal program in an area of Indian country may include, as necessary or appropriate:

- A program to limit the impacts of emissions from new and modified major stationary sources, and
- Provisions to prevent significant contribution by sources located in Indian country to NAAQS violations in other jurisdictions.

Major sources locating in Indian country that is designated attainment for any pollutant are subject to the federal program for the Prevention of Significant Deterioration (PSD).[31] PSD requirements apply to all areas on the effective date of the NAAQS.

C. UNCLASSIFIABLE AREA DESIGNATION

1. Definition

An unclassifiable area is a geographic area that cannot be classified, on the basis of available information, as meeting or not meeting an air quality standard for a particular criteria pollutant.

[31] http://www.epa.gov/NSR/psd.html.

2. Requirements

In an unclassifiable area, the goal is to collect sufficient air quality information to determine whether the area is meeting or not meeting the NAAQS. A tribal or federal program in an area of Indian country may include, as necessary or appropriate:

- A program to limit the impacts of emissions from new and modified major stationary sources, and
- Provisions to prevent significant contribution by sources located in Indian country to NAAQS violations in other jurisdictions.

Major sources locating in Indian country that is designated unclassifiable for any pollutant would be subject to the federal PSD program. PSD requirements apply to all areas on the date that the designation becomes effective.

D. KEY POINTS AND FURTHER INFORMATION

- Attainment means an area meets the national standard for a particular criteria pollutant and the area is not contributing to ambient air quality in a nearby area that does not meet the NAAQS for the pollutant.
- The area must maintain good air quality.
- Unclassifiable means there is not sufficient available information for an area to determine whether the area is meeting or not meeting the standard.
- Nonattainment means an area does not meet the national standard for a particular criteria pollutant and includes areas that are contributing to ambient air quality in a nearby area that does not meet the NAAQS for that pollutant. The area must improve its air quality to meet the standard.
- Nonattainment areas can be redesignated to attainment once they meet the NAAQS and satisfy certain conditions spelled out in CAA section 107, including having an approved maintenance plan.

For further information on designation topics see:

- Ground-level ozone (O_3) designations: http://www.epa.gov/ozonedesignations/.
- Fine particle (PM) designations: http://www.epa.gov/pmdesignations/.
- Nitrogen dioxide (NO_2) designations: http://www.epa.gov/no2designations/.
- Lead (Pb) designations: http://www.epa.gov/leaddesignations/.
- Sulfur dioxide (SO_2) designations: http://www.epa.gov/airquality/sulfurdioxide/designations/index.html.
- *Guidance to Regions for Working with Tribes during the National Ambient Air Quality Standards (NAAQS) Designation Process*, December 2011: http://www.epa.gov/ttn/oarpg/t1/memoranda/20120117naaqsguidance.pdf.
- *Policy for Establishing Separate Air Quality Designations for Areas of Indian Country*, December 2011: http://www.epa.gov/air/tribal/pdfs/0067_001.pdf.

IV. TRIBAL PARTICIPATION IN THE DESIGNATIONS PROCESS

A. HOW CAN I PARTICIPATE IN THE DESIGNATIONS PROCESS?

To inform your decisions regarding whether to participate in the designations process, we intend to provide outreach and offer consultation to all federally recognized tribes following the promulgation of a new or revised NAAQS. While not required, your participation in the designations process is encouraged and supported by the EPA. As noted above, you decide how involved you want to be in the designations process based on your interest, priorities, and available resources. You may choose not to be involved, you may choose to submit a designation recommendation and multi-factor analysis to the EPA for review and consideration, or you may choose any level of participation in between.

Regardless of your level of participation, the EPA will promulgate a designation for the area. For reference, a list of tribal air program staff at EPA headquarters and regional offices is provided in Appendix C to this document.

Examples of past tribal participation:

- Tribe does nothing.
- Tribe only participates in the consultation process.
- Tribe submits a recommendation letter to EPA without a multi-factor analysis.[32]
- Tribe submits a designation recommendation with a detailed multi-factor analysis.
- Tribe submits a designation recommendation for a separately designated area of Indian country (separate from surrounding or adjacent areas) with the accompanying documentation of the Indian country boundary and the multi-factor analysis.

B. WHAT IS THE PROCESS FOR ESTABLISHING A SEPARATE DESIGNATION FOR INDIAN COUNTRY?

In the past, the EPA generally designated Indian country as part of the surrounding area, usually based on county boundaries. Prior to 2011,[33] the EPA did not have a policy in place for considering a tribal request for designation separate from the larger area. Since then, several tribes have established well-developed air programs and have engaged in the designations process. Some of these tribes submitted designation recommendations to the EPA and had their Indian country boundaries designated separately from the surrounding or adjacent, non-Indian country area.

The EPA's *Policy for Establishing Separate Air Quality Designations for Areas of Indian Country*, released in December 2011, now informs our decisions on these recommendations or requests on a case-by-case basis, after consultation (if requested) with the tribe and considering all other relevant information. This document provides the

[32] As discussed elsewhere in this document, tribes are not required to submit a multi-factor analysis; however, your designation recommendation will be better supported if it is accompanied by a multi-factor analysis of the available data.
[33] Policy for Establishing Separate Air Quality Designations for Areas of Indian Country, dated 12/20/2011. http://www.epa.gov/ttn/oarpg/t1/memoranda/20120117indiancountry.pdf

EPA's policy regarding designating areas of Indian country separately from surrounding or adjacent areas for the NAAQS. Consistent with this policy, if we receive an initial designation recommendation or a boundary change request for a previously designated multi-jurisdictional area from a tribe seeking to have its Indian country designated as a separate area, we will make decisions regarding these recommendations or requests on a case-by-case basis, after consultation (if requested) with the tribe, and considering the weight of evidence from the multi-factor analyses and other relevant information. Listed below are examples of scenarios covered by the 2011 policy:

- The tribe recommends/requests a separate attainment area from an adjacent attainment area;
- The tribe recommends/requests a separate attainment area from the adjacent nonattainment area;
- The tribe recommends/requests a separate nonattainment area or different nonattainment classification from the adjacent nonattainment area;[34] or
- The tribe recommends/requests a separate nonattainment area from the adjacent attainment area.

It is important for you to make certain submittals associated with an initial designation recommendation or boundary change request. These submittals include:

- A formal request/recommendation from an official authorized to make the request on behalf of the tribe.
- Documentation of the tribal boundary of the area of Indian country to which the request for separate designation pertains, and concurrence with the EPA's intent to include that area in the designation tables in 40 CFR Part 81[35] should we separately designate the area.
- A multi-factor analysis (see Section VI for more information on the factors for analysis) to support the recommendation/request.

C. WHAT ARE THE PROS AND CONS OF SUBMITTING A DESIGNATION RECOMMENDATION?

Tribes are not required to submit designation recommendations; however, you may have an interest in doing so. Participating in the designations process will give you an opportunity to build your knowledge base of the EPA's NAAQS programs and the designations process. You will also gain knowledge of what is expected should you decide to submit a designation recommendation in the future. In addition, participation in the designations process can help to build your air program's capacity to take on more responsibility. It may also raise the EPA's awareness that your tribe is interested in participating in air quality management; however, you are not required to participate in any of these activities. Some tribes see participation in the designations process as an assertion of tribal sovereignty.

[34] For certain NAAQS (e.g., ozone), the EPA "classifies" an area based on the severity of their air quality problem.
[35] The table at 40 CFR Part 81 lists the designation of areas for air quality planning purposes.

In making a designation recommendation, you should consider the possible implications which may be raised in establishing the boundary of your area of Indian country if you are requesting a separate designation. This is particularly important if you have disputed boundaries or other jurisdictional issues. If you are requesting a separate nonattainment designation based on your boundaries, you should consider possible needs for an implementation plan or other programmatic and workload issues in order to later redesignate your area from nonattainment to attainment. Another area for consideration is how general and transportation conformity would apply in a separately designated tribal nonattainment area. Activities in areas that are designated nonattainment that are conducted or supported by federal agencies must "conform" to the purpose of an applicable implementation plan, as required by section 176(c) of the CAA. The EPA's general conformity rules apply to federal activities within nonattainment areas and areas that have moved from nonattainment to maintaining the standards (i.e., areas that are redesignated as attainment). If general conformity obligations are determined to apply to emissions from a federal agency action, the general conformity rules provide federal agencies with the following options for demonstrating conformity in nonattainment or maintenance areas: (1) obtaining emission offsets (generated in the area or certain nearby areas) for the total emissions from the new project, (2) showing that the project's emissions are already included in, or accommodated by, the applicable SIP for the area (or in the absence of an applicable SIP, showing that the project's emissions will not increase the baseline emissions used in the most current emissions inventory), or (3) obtaining a written commitment from the Governor for the area or the Governor's designee for SIP actions, to include the project's emissions in a forthcoming revision of the applicable implementation plan. You should work closely with your EPA regional office to anticipate possible implications associated with designating your area separately.

When deciding whether or not to submit a designation recommendation, you should also consider the resources and knowledge required to develop and submit to the EPA the multi-factor analysis (see Section VI below). The attached, Appendix D – Decision Matrix, may also help you to decide whether or not to submit a designation recommendation.

You are not required to request a separate designation; but if you make a separate designation recommendation, you should consider the possible legal implications which may be raised in establishing the actual boundary of your area of Indian country if you are requesting a separate boundary. This is particularly important if you have disputed boundaries or other jurisdictional issues. If you are requesting a separate nonattainment designation based on your boundaries, there may be workload issues for your tribe in developing a TIP or other documents and requirements mandated under the CAA in order to later redesignate your area from nonattainment to attainment. You should work closely with your EPA regional office to anticipate possible implications associated with designating your area separately.

D. HOW ARE DESIGNATION RECOMMENDATIONS RELATED TO THE TRIBAL AUTHORITY RULE, TREATMENT IN A MANNER SIMILAR TO A STATE, AND TRIBAL IMPLEMENTATION PLANS?

For the purposes of making a designation recommendation, you do not need to obtain TAS status pursuant to the TAR. The EPA intends to solicit relevant air quality information and designation recommendations from, and offer consultation to, all federally recognized tribes irrespective of their TAS status for designation purposes. However, tribes may apply to be treated in the same manner as a state for CAA section 107(d) if you choose.

E. KEY POINTS AND FURTHER INFORMATION

- Your participation in the designations process is encouraged, but not required.
- You may want to discuss the pros and cons of participating in the designation recommendation process with your EPA regional office.
- You may make designation recommendations that seek to have your area of Indian country designated separately from the surrounding or adjacent multi-jurisdictional area. You may want to discuss the pros and cons of a separate designation with your EPA regional office.

For further information on designations process topics see:

- *Guidance to Regions for Working with Tribes during the National Ambient Air Quality Standards (NAAQS) Designations Process*, December 2011: http://www.epa.gov/air/tribal/pdfs/12_20_11-Guidance-to-Regions-for-Working-with-Tribes_NAAQSDesignations.pdf.
- *Policy for Establishing Separate Air Quality Designations for Areas of Indian Country*, December 2011: http://www.epa.gov/air/tribal/pdfs/0067_001.pdf.

V. DEVELOPING A DESIGNATION RECOMMENDATION FOR AREAS OF INDIAN COUNTRY

A. HOW DO I DEVELOP A DESIGNATION RECOMMENDATION?

The following steps will help you develop a designation recommendation:

1. **Decide whether or not to submit a designation recommendation.** You will receive a letter from us offering the opportunity to submit a designation recommendation for a particular NAAQS and offering consultation. Consider your priorities and resources and talk with your EPA regional office. Participation with your EPA regional office and consultation where appropriate will help inform your decision. If you choose not to submit a designation recommendation, the EPA will promulgate a designation for your area of Indian country after consultation, if requested, and consideration of all relevant information. (*Note, we intend to offer an opportunity for consultation to all tribes.)*

2. **Consult with your EPA regional office.** If you decide to submit a designation recommendation, consultation (if requested) with your EPA regional office will help you understand the technical requirements for developing and submitting your designation recommendation.
3. **Perform the multi-factor analysis**. See Section VI below for the five factors to consider when making a designation recommendation, if appropriate.
4. **Make an informed decision.** Based on the most current data, and where possible a multi-factor analysis, and other relevant supporting information decide which designation to recommend. Ensure that tribal leadership understands the process and the potential implications of your recommendation, including the possible legal implications which may be raised by establishing the actual boundary of your area of Indian country (particularly, if you are requesting a separate designation of your Indian country).
5. **Submit your formal designation recommendation and multi-factor analysis.** This information should be submitted to your EPA Regional Office Administrator from an authorized tribal official. *(See Appendix E for a list of EPA Regional Office Administrators.)*
6. **Follow-up with your EPA regional office.** The opportunity to submit further information happens after the EPA sends your tribe a notification letter with our intended designation. The EPA will send the letter no later than 120-days before making the final designation decision (commonly known as a 120-day letter). If more data becomes available to support your designation recommendation, contact your EPA regional office.

B. CAN I PARTICIPATE IN THE DESIGNATIONS PROCESS FOR SOME CRITERIA POLLUTANTS AND NOT OTHERS?

Yes, each time the EPA promulgates a new or revised NAAQS for a specific criteria pollutant, you can choose whether to participate in the designations process for that NAAQS. Your decision about which criteria pollutants to submit a recommendation for should be based on your air quality issues, priorities, and resources. For example, you could opt to participate for one pollutant but not for others, depending on which criteria pollutants are of concern to your tribe.

The designations process for a particular criteria pollutant will generally not occur more than once every five years, in coordination with our CAA-required five-year review of the NAAQS for each criteria pollutant. When a NAAQS is revised or a new NAAQS is promulgated, the EPA will inform you and offer you an opportunity to participate in the designations process. *(Note that the NAAQS reviews for the different criteria pollutants are on different five year schedules.)*

C. WHAT ARE THE FIVE FACTORS THAT I NEED TO ANALYZE?

There are five factors which typically need to be included as part of your multi-factor analysis:

- Air quality data,
- Emissions-related data,
- Meteorology,
- Geography/topography, and
- Jurisdictional boundaries.

See Section VI below for detailed information on each of the five factors.

D. WHAT IF I DO NOT SUBMIT A MULTI-FACTOR ANALYSIS?

As discussed elsewhere in this document, tribes are not required to submit a designation recommendation or multi-factor analysis. We understand that you may not have the resources to conduct the level of investigation generally required in a multi-factor analysis; however, your recommendation will be better supported if it is accompanied by a multi-factor analysis of the available data. In addition, if you submit a multi-factor analysis, your EPA regional office will review it and, if we plan to make any modification to the recommendation, we will provide you with an opportunity for technical dialogue and further consultation (if requested).

When submitting a request/recommendation for a separately designated area of Indian country, consistent with EPA's 2011 policy for separately designated areas of Indian country, a multi-factor analysis should be submitted as part of your request/ recommendation. The multi-factor analysis supports determining whether an area of Indian country located within or next to a larger multi-jurisdictional area should be excluded from that area and potentially designated separately, or whether it should be designated consistent with the rest of the area.

E. DO I NEED TO ANALYZE ALL FIVE FACTORS?

There may be instances when not all of the above listed five factors are relevant to a specific designation request and therefore would not need to be included in your multi-factor analysis. For example, if a tribe were to request the designation of a separate attainment area from an adjacent attainment area, it is possible that only the air quality data factor and/or jurisdictional boundaries factor would be applicable to the given situation. The EPA regional offices are available to assist you with developing your multi-factor analyses and determining which factors are most relevant to your specific situation.

F. WHAT EVALUATION TOOLS AND DATA ARE AVAILABLE FOR MY USE?

The EPA has many useful websites and tools available to help you prepare a designation recommendation. In addition, other agencies have information and resources available. See Section VI and the Appendices below for links to many resources.[36, 37, 38]

G. WHAT OTHER INFORMATION SHOULD I INCLUDE IN THE DESIGNATION RECOMMENDATION?

In addition to an analysis of the five factors, you can submit to the EPA any other information you believe is relevant to your designation recommendation. For example, you may have information and data related to air pollution transported from sources upwind of your area. See Section VI below for more information on this topic.

H. KEY POINTS AND FURTHER INFORMATION

- You can decide whether or not to develop a designation recommendation for your area of Indian country.
- If you decide not to develop a designation recommendation, the EPA will promulgate an appropriate designation for your Indian country after consultation with you (if requested).
- Designation recommendations are developed for each individual NAAQS set for a specific criteria air pollutant.
- There are five factors you typically need to consider when developing the multi-factor analysis that accompanies your recommendation.

For further information on developing a designation recommendation see:

- *Guidance to Regions for Working with Tribes during the National Ambient Air Quality Standards (NAAQS) Designation Process*, December 2011: http://www.epa.gov/air/tribal/pdfs/12_20_11-Guidance-to-Regions-for-Working-with-Tribes_NAAQSDesignations.pdf.
- *Policy for Establishing Separate Air Quality Designations for Areas of Indian Country*, December 2011: http://www.epa.gov/air/tribal/pdfs/0067_001.pdf.
- *Ground-level Ozone Designations Policy Guidance:* http://www.epa.gov/glo/designations/guidance.htm.

VI. THE FACTORS TO CONSIDER WHEN DEVELOPING A DESIGNATION RECOMMENDATION

When a new or revised national ambient air quality standard (NAAQS) is promulgated, the EPA issues designations guidance that provides specific information about the NAAQS as well as information to assist states and tribes with submitting area designations recommendations for that NAAQS. The EPA will also send you a letter offering the opportunity for government-to-government consultation

[36] See Appendix F of this document for Air Quality Education and Training Resources.
[37] See Appendix G of this document for Air Quality Monitoring Information and Data Sources.
[38] See Appendix H of this document for Air Pollution Emissions Information and Data Sources.

(commonly referred to as a "consultation letter") notifying you of the designations process and conveying detailed designation information. This information will be specific to the particular pollutant and NAAQS that was promulgated and provide comprehensive information to help you develop your multi-factor analysis using the five factors. We may also have timely links to web-based information on air quality and emissions for the pollutant of interest.

The submission of your designation recommendation of nonattainment, attainment, or unclassifiable may include your multi-factor analysis of one or more of the five factors listed below, as well as any other supporting information. An analysis of the factors also supports determining whether an area of Indian country located within or next to a larger area should be excluded from that area and potentially designated separately, or whether it should be designated consistent with the rest of the area. Although you may submit a recommendation letter only, your recommendation will be better supported if it is accompanied by a multi-factor analysis of the available data.

In instances where not all of the factors listed below are applicable to your area of Indian country, it would be helpful if your recommendation addresses why they are not relevant. For example, if a tribe were to request the designation of a separate attainment area from an adjacent attainment area, it is possible that only the air quality data factor and/or jurisdiction boundaries factor would be relevant to that given situation. We intend to work with tribes with developing their multi-factor analyses to determine which factors are most relevant to the specific request for a separate area. Note that your tribe may submit a recommendation that does not request a separate designation. You should carefully weigh the statutory, regulatory, political, workload, and sovereignty concerns in making a decision on your recommendation.

A. AIR QUALITY DATA

1. Definition

The air quality data factor involves consideration of data from the national network of monitors operated to measure air quality. After promulgation of a new or revised NAAQS, the CAA requires the EPA to designate as nonattainment any area that does not meet the NAAQS or that is contributing to a nearby area that does not meet the NAAQS. A monitor on your area of Indian country or a nearby state run monitor may be representative of the air quality in your area. The monitored data should also be of sufficient quality to be used for designation purposes.

Monitoring data are collected to measure how much pollution is in the air. These data are used to calculate a "design value." The design value describes the air quality status of a given monitor or area relative to the level of a NAAQS. Design values are often based on multiple years of data, ensuring a stable indicator. Design values are typically used to designate areas as to whether they are meeting or not meeting the NAAQS, assess progress towards meeting the NAAQS, and develop control strategies to attain and maintain the NAAQS. Design values are computed and published annually by the EPA's Office of Air Quality Planning and Standards (OAQPS) and reviewed in conjunction with the EPA regional offices.

2. Information to include in the analysis of air quality data

Data from both regulatory monitors and non-regulatory monitors can be included as part of the air quality data factor analysis. While only qualified data from regulatory monitors can be used to determine the designation status (nonattainment, attainment, or unclassifiable) for an area of Indian country, data from non-regulatory monitors can be used to support a geographic boundary determination for that designation category. By monitoring the level of pollution at the up-wind boundary compared to the boundary further down-wind, a tribe may be able to show whether air pollution is generally coming from sources up-wind of your areas of Indian country or is locally-generated pollution.

Regulatory monitors are those that:

- Have a monitoring objective that is intended for comparing design values against the level of the NAAQS (NAAQS comparison), and
- Have adequately achieved the quality assurance and data requirements for regulatory decision making.

Non-regulatory monitors are those that:

- Have been designated as a non-regulatory monitor type in the EPA's Air Quality System (AQS),[39] meaning that they have monitoring objectives other than NAAQS comparison, and therefore are not required to meet all of the quality assurance and data requirements necessary for regulatory decision making, or
- May have the objective of NAAQS comparison and have not adequately achieved the quality assurance and data requirements necessary for regulatory decision making.

We recognize that appropriate air quality data may not be available for your area of Indian country. It is also possible that despite the absence of air quality data for a particular area of Indian country, other technical information is available that characterizes air quality. For example, a nearby state regulatory monitor could be determined to be representative of air quality in your area. In these circumstances, it may be appropriate for other technical information to be used in the air quality data factor analysis.

In cases where a tribe submits a recommendation for a attainment area separate from an adjacent nonattainment area, or a nonattainment area separate from an adjacent attainment area, such recommendations are best supported by air quality data from a regulatory monitor located in the relevant area of Indian country. However, we can consider non-regulatory monitoring data and other data as supporting information. For example, if the tribe is monitoring but does not yet have a complete set of data, we can consider your information in the designations process.

[39] http://www.epa.gov/ttn/airs/airsaqs/.

3. Example: air quality factor

This example comes from the Forest County Potawatomi Community's (FCPC) March 2009 O_3 designation recommendation.

FCPC R/T/F/A Lands within Forest County
Ozone is monitored at the FCPC's single air monitoring site located in its Reservation on Sugarbush Hill in the Lincoln Township within Forest County, 4.5 miles east of the City of Crandon. The data used in this recommended designation letter was collected in accordance with the requirements of 40 CFR part 58, Appendix A.

The fourth-highest daily maximum 8-hour average ozone concentrations in 2006 through 2008 ranged from 0.066 to .073 ppm, resulting in a design value of 0.068 ppm (see attached USEPA AQS AMP450 Quick Look Report). Hence, because these values are below the 2008 0.075 ppm standard, the FCPC recommends that EPA designate the FCPC R/T/F/A lands located within Forest County as "in attainment."

4. Sources of air quality data

- The Air Quality System (AQS)[40] is the EPA's repository of ambient air quality data. AQS stores data from over 10,000 monitors, 5,000 of which are currently active. State, local, and tribal agencies collect the data and submit it to AQS on a periodic basis: http://www.epa.gov/ttn/airs/airsaqs/.
- EPA's AirData website gives you access to air quality data collected at outdoor monitors across the United States: http://www.epa.gov/airdata/.
- For the current criteria pollutant design values see: http://www.epa.gov/airtrends/values.html.
- General information on the EPA's ambient air monitoring programs: http://www.epa.gov/ttnamti1/.
- The Tribal Air Monitoring Support Center (TAMS) training and support is available without charge to all federally recognized tribes. See the TAMS website for more information: http://www.greenguide.nau.edu/air_monitoring.html.

B. EMISSION-RELATED DATA

1. Definition

Emission-related data includes information on the location of important nearby emission sources and the actual and/or estimated emissions from those sources that contribute to the air pollution in your area. Emissions data indicates the potential for an area to contribute to violations of the NAAQS, making it useful in assessing boundaries of nonattainment areas.

[40] http://www.epa.gov/ttn/airs/airsaqs/

Emission-related data includes source emission data and activities related to traffic and commuting patterns, and population density, and degree of urbanization as potential sources of pollution. Data for these sources will identify the location and magnitude of emissions.

2. Information to include in the analysis of emission-related data

Include a list of the important facilities in and around your area of Indian country. Are there certain sources that are key contributors during specific seasons? If applicable, include information on traffic and commuting patterns such as location of major transportation arteries, traffic volume, and commuting patterns in and nearby your areas of Indian country. For example, you can include an examination of the number of commuters in your area who drive to an urban area, the percent of total commuters who commute to another area, the percent of total commuters in the surrounding area who drive into the area of Indian country, as well as the total vehicle miles traveled (VMT) for your area. VMT is a measure of the extent of motor vehicle operation--the total number of vehicle miles traveled within a specific geographic area.

Also identify population characteristics, such as density and population growth of the area, and indicate the level of commercial development. Analyze growth rates and patterns. Is the area affected by urban sprawl? The growth analysis is an evaluation of actual and/or projected percent population growth for an area over a period of time (e.g., ten years). Population data can indicate the likelihood of population-based emissions that might contribute to violations.

3. Example: emission-related data factor

This example, which focuses on mobile vehicle emissions, demographics and commuting patterns, comes from the Catawba Indian Nation's February 2012 designation recommendation for the 2008 O_3 NAAQS. As part of their emission-related data analysis, the Tribe included tables and maps showing NOx and VOC emissions, population and growth statistics, and Bureau of Indian Affairs (BIA) traffic and road data.

Emissions and Emission-Related Data
There are no point sources of air quality emissions within or directly adjacent to the boundaries of the Catawba Indian Nation. Several permitted facilities with significant NOx (7,031 tons/year) and VOC (11,840 tons/year) emissions are located within York County; however, these sources are at least two miles away and it is unclear whether or not they are impacting tribal lands or tribal member's health. It is clear that these facilities do contribute to local air pollution and the formation of ozone within non-attainment areas downwind.

EPA and South Carolina Department of Environmental Health and Control (DHEC) have determined that a significant portion of NOx and VOC emissions come from area and mobile sources in the Charlotte-Gastonia-Salisbury, NC-SC area. Areas of rapidly increasing urbanization and population density

and associated increased motor vehicle emissions may contribute to ozone formation and ozone standard violations in nearby areas. US Census Bureau data shows that during the period of 2000-2010, the population of York County increased 36% from 165,705 to 226,073.

Data provided by DHEC in the March 12, 2009 South Carolina Ozone Nonattainment Boundary Recommendations report states that the eastern Non-Attainment Area of York County contains approximately 90% of the county population and 94% of the vehicle miles traveled. The DHEC report also mentions that 60% of workers who live in York County work within the county, however, neglects to mention that 36% of workers that live in York County travel north and work in North Carolina. Although data suggests that eastern York County is experiencing rapid population growth and significantly contributes to mobile source emissions problems in the regions, this information does not accurately reflect the conditions of the Catawba Indian Nation.

Catawba Indian Nation Demographics and Statistics

The Catawba Indian Nation along the eastern border of York County, outside the urban cluster of Rock Hill, remains less densely populated and is considerably more rural in character. The Catawba Indian Nation consists of two tracks of land along the Catawba River with a total land base of approximately 1,000 acres, which comprises only 0.002% of the land area of York County and 0.004% of the York Non-Attainment Area. The Catawba Indian Nation members living on the Reservation comprise only about 0.003% of the population of York County with close to zero population growth. The most recent and accurate demographic data for the Catawba Indian Nation indicates the population consists of 586 tribal members living in 312 homes on the reservation, many of which (42%) are children and elderly, who do not work or regularly commute off the reservation. There are 340 adult tribal members who are of working age living on the reservation, however, the reservation has a high unemployment rate and many adults do not have transportation. It is important to mention that in 2011, the Catawba Indian Nation initiated a public transit program to do their part in helping to reduce vehicle emission in the area as well as provide assistance to many tribal members who have limited or no transportation. This information further supports the conclusion that the Catawba Indian Nation does not significantly contribute to the high vehicle miles traveled (VMT) and mobile emissions source calculations that are more relevant along the I-77 commuter corridor within York County. Furthermore, the Catawba Indian Nation lands are located at the end of the roadways serving them so there is no thru-traffic or additional mobile emission from vehicles traveling or commuting through the reservation to other areas.

4. Sources of emission-related data

- Two brief EPA documents that will help introduce you to emission inventories:
    - *Introduction to Emission Inventories for Tribes*, October 2008,[41] and
    - *Emission Inventory Basics for Tribal Air Coordinators*, October 2008.[42]
- The EPA keeps track of the amount of pollution that comes from a variety of sources such as vehicles, power plants, and industries. The emissions data reported to the EPA by state and tribal environmental agencies can be an actual reading taken at a source or an estimate made using a mathematical calculation. Emissions data can be obtained from:
    - Air Emissions Sources website[43] (for general summaries), and
    - National Emissions Inventory (NEI) browser[44] (for detailed reports).
- EPA's draft *2008 National Emissions Inventory, Version 2 Technical Support Document*, May 2012, explains the sources of information included in the emission inventory. This document can be found at: http://www.epa.gov/ttn/chief/net/2008neiv2/2008_neiv2_tsd_draft.pdf.
- You can find emission inventory data in the NEI at: http://www.epa.gov/ttn/chief/eiinformation.html.
- EPA's Air Emissions website is designed to make emissions data for six common pollutants easy to find and understand: http://www.epa.gov/air/emissions/where.htm.
- Based on the latest National Emissions Inventory, this site uses charts and Google Earth files to answer the user's questions. Users can look at overall emissions, emissions by type of industry, or emissions by largest polluter. Learn more about this tool to view the geographical distribution of emission sources: http://yosemite.epa.gov/opa/admpress.nsf/eebfaebc1afd883d85257355005afd19/fc2da2313a4be87a8525739800655908!OpenDocument.
- County to county worker flow files (for the 2000 census) for commuting data: http://www.icpsr.umich.edu/icpsrweb/ICPSR/themes/census2000/workerflow.jsp.

[41] http://www.epa.gov/oar/tribal/pdfs/EIfortribes2008.pdf.
[42] http://www.epa.gov/oar/tribal/pdfs/EIfortacs2008.pdf.
[43] http://www.epa.gov/air/emissions/.
[44] http://www.epa.gov/ttn/chief/net/2008inventory.html.

- Information from the U.S. Census on commuting patterns at the county level: http://www.census.gov/population/www/cen2000/commuting/index.html.

- County VMT data (for 2006): http://www.epa.gov/pmdesignations/2006standards/final/TSD/tsd_J_county_vmt_data.pdf.

- To prepare VMT estimates for your area see: http://www.epa.gov/pmdesignations/2006standards/final/TSD/tsd_1.0_toc_intro.pdf.

- Census information for population data: http://www.census.gov/, and http://quickfacts.census.gov/qfd/index.html.

- Census data on urban and rural classification and data on metropolitan and micropolitan statistical areas: http://www.census.gov/geo/www/ua/urbanruralclass.html, and http://www.census.gov/population/metro/.

- Population estimates and growth data can be found at: http://www.census.gov/popest/, and http://www.census.gov/popest/data/index.html.

C. METEOROLOGY

1. Definition

The evaluation of meteorological data helps to determine the effect of meteorological conditions on the fate and transport of emissions contributing to the pollutant concentrations and to identify areas potentially contributing to the monitored violations. This section provides recommendations for summarizing meteorological data and results in support of appropriate nonattainment area boundaries. One basic meteorological analysis involves assessing potential source-receptor relationships in the area using summaries of emission, wind speed, and wind direction data. A more sophisticated assessment involves modeling air parcel trajectories.

A simplified meteorological assessment may include identifying the frequency of surface level wind speed and direction on days with high observed pollutant concentrations and comparing this frequency to the frequency of wind speed and direction for other meteorological periods, years or seasons, for example.

A more sophisticated meteorological assessment would employ trajectory models to help understand complex transport situations by illustrating the three-dimensional paths traveled by air parcels to violating monitors. The HYSPLIT (HYbrid Single-Particle Lagrangian Integrated Trajectory) modeling system may be useful for some areas to produce air parcel trajectories.

2. Information to include in the analysis of meteorology

Meteorology may show that the pollution is coming from sources up-wind of your area of Indian country. Information about how meteorological conditions affect the fate and transport of emissions from sources on or near the area of Indian country is the goal of this factor. To better account for pollution transport, consider producing, evaluating, and submitting wind trajectories and wind roses as part of the analysis of this factor. A wind rose is a diagram, for a given locality or area, showing the frequency and strength of the wind from various directions. Example wind roses can be viewed at: http://www.epa.gov/ttn/naaqs/ozone/areas/wind.htm.

3. Example: meteorology factor (weather/transport patterns)

This example comes from the Catawba Indian Nation's February 2012 designation recommendation for the 2008 O_3 NAAQS.[45] As part of their meteorology analysis, the Tribe provided a wind rose showing the wind direction for high O_3 days:

Meteorology (Weather/Transport Patterns)
EPA's analysis of National Weather Service data indicates that during the ozone season, the predominant wind direction is from the south/southwest. Therefore, precursor emission from NOx and VOC point sources and mobile vehicle sources that contribute to ozone formation will move primarily from south to north. For this reason, EPA has determined that the eastern urbanized area of York County does contribute to air quality problems and ozone standard violations in the Charlotte non-attainment area. Using this analysis and logical reasoning, the York County ozone monitor located in the far southwest rural area of the York non-attainment area more accurately represents upwind, background levels of ozone. The Arrowood ozone monitor (design value 0.076ppm) located immediately adjacent and downwind from Rock Hill urban area is likely to more accurately reflect ozone concentration from the eastern York County non-attainment area, at least during times of prevailing southwesterly winds.

4. Sources of meteorology information

Information sources related to meteorological data and air quality models can be found at:

- Meteorological Data and Processors: http://www.epa.gov/ttn/scram/metdataindex.htm.
- National Oceanic and Atmospheric Administration's (NOAA) HYSPLIT - Hybrid Single Particle Lagrangian Integrated Trajectory Model: http://ready.arl.noaa.gov/HYSPLIT.php.
- NOAA's National Climate Data Center: http://www.ncdc.noaa.gov/oa/climate/climatedata.html.

[45] http://www.epa.gov/glo/designations/2008standards/rec/staterem/R4_Catawba_120Resp.pdf

D. GEOGRAPHY/TOPOGRAPHY

1. Definition

Geography and topography includes the physical features of the land that might define the airshed and thus affect the formation and distribution of pollution. Mountains, narrow valleys, or other physical features may affect the location of emissions sources and the distribution of emissions in the airshed and may help define the boundaries of violating areas and areas contributing to violating areas. Areas with flat topography may experience a more even distribution of air quality.

2. Information to include in the analysis of geography/topography

The geography/topography analysis involves an examination of the physical features of the land that might affect the airshed and, therefore, the potential distribution of air pollutants over the area. In your analysis of this factor, include a description of any significant physical features of the land. For example, an area located in a valley bordered by mountains could experience very different effects to the airshed than an area with generally uninterrupted flat terrain.

Tribes that seek a designation separate from the surrounding area may be able to support their recommendation using this factor, if they can show that their Indian country is physically separated from the adjacent area by topography or other geographic feature such as a mountain range or other barriers that significantly limit air pollution transport from or onto their lands. You may include topographical maps of your specific areas in the technical analyses.

3. Example of geography/topography factor

The following example comes from the Pechanga Band of Luiseno Indians' December 17, 2007 designation recommendation for the $PM_{2.5}$ NAAQS:

Geography

The Pechanga Reservation is located on a total land base of approximately 5,600 acres. The Reservation is in Southern Riverside County with its southern border at the San Diego County line. The City of Temecula is located to the northwest, the town of Rainbow to the southwest, and the Cleveland National Forest to the southeast. The Reservation is comprised of mountains and plateaus, with elevations ranging from 1,100 feet to 2,600 feet in the southeastern portion. Agua Tibia Mountain and Wild Horse Peak are located to the southeast and east, and Mount Olympus and Gavilan Mountain are located to the southwest and west.

4. Sources of geography/topography information

- U.S. Geological Survey topographic information: http://topomaps.usgs.gov/.

- Google Earth is also a tool that can be used for a three dimension look at geography/topography analysis: http://www.google.com/earth/download/ge/agree.html.

- Microsoft Bing Maps is another tool that can be used to develop maps: http://www.microsoft.com/maps/.

E. JURISDICTIONAL BOUNDARIES

1. Definition

The jurisdictional boundaries factor considers the defined legal boundaries of the area that pertains to the designation recommendation. Examples of jurisdictional boundaries include tribal reservations and other Indian country, counties, and metropolitan planning organizations. An analysis of the planning and organizational structure of an area should also be considered to provide insights into how air quality planning and enforcement would be carried out in a potential nonattainment area.

The jurisdictional boundaries factor is one of the five factors that the EPA considers in the designations decision making process. It is important to note that while we intend to recognize tribal sovereignty and the jurisdictional status of Indian country in the decision making process and understand that tribal status is different than county or state status; decisions will be made after a consideration of all factors. We also know tribes retain important sovereign authorities over their territories and that jurisdiction in Indian country generally rests with the relevant tribe and the federal government.

In general, when we are deciding whether to grant a tribal request for designation of a separate area, the jurisdictional boundaries factor analysis may be the most relevant.

Several example decision making scenarios for considering tribal recommendations/requests are included below. These scenarios are meant to provide general examples, and do not suggest a definitive decision. Ultimately, the EPA's decision regarding whether to designate an area of Indian country separately will depend upon a consideration of all factors and other relevant data/information submitted by a tribe with their recommendation/request.

- Tribe submits a recommendation/request for a separate nonattainment area with the same or a different area classification (e.g., Moderate, Serious, etc.) than an adjacent nonattainment area.
  - Tribe either has its own regulatory monitor demonstrating violation of the NAAQS or has shown that a proximate regulatory monitor violating the NAAQS outside of Indian country is sufficiently representative of air quality in the Indian country area.
  - There are no significant emissions sources in Indian country that are contributing to nonattainment in the adjacent area.
  - Indian country area is impacted only by sources within the Indian country.
  - → Indian country area could be designated as a separate nonattainment area or with a different area classification.

- Tribe submits a recommendation/request for a separate nonattainment area from an adjacent nonattainment area.
  - Tribe either has its own regulatory monitor demonstrating violation of the NAAQS or has shown that a proximate regulatory monitor outside of Indian country violating the NAAQS is sufficiently representative of air quality in the Indian country area.
  - Indian country area has emissions sources that are contributing to nonattainment in the adjacent state area.
  - Indian country area is impacted by sources outside of Indian country.
  - Indian country area is meteorologically and topographically integrated with the surrounding area.
  - → Indian country area could be designated as part of a multi-jurisdictional nonattainment area, such that the tribe is one of the governing bodies within the area.

- Tribe submits a recommendation/request for a separate attainment area adjacent to a nonattainment area.
  - Tribe has its own regulatory monitor demonstrating the NAAQS is being met.
  - There are no significant emissions sources in the Indian country area that are contributing to nonattainment in the adjacent area.
  - Indian country area is separated from adjacent nonattainment area by topography or other geographic features.
  - → Indian country area could be designated as a separate attainment area.

- Tribe submits a recommendation/request for a separate nonattainment area adjacent to or within a surrounding attainment area.
  - Tribe has its own regulatory monitor demonstrating the NAAQS is being violated.
  - → Indian country area could be designated as a separate nonattainment area.

- Tribe submits a recommendation/request for a separate attainment area adjacent to or within a surrounding attainment area.
  - Tribe either has its own regulatory monitor demonstrating attainment of the NAAQS or has shown that a proximate regulatory monitor outside of Indian country that is attaining the NAAQS is sufficiently representative of air quality in the Indian country area.
  - → Indian country area could be designated as a separate attainment area.

2. Information to include in the analysis of jurisdictional boundaries

If you are seeking to have your lands designated separately from the surrounding or adjacent areas include a map and documentation of the boundary of the area of Indian country to which the request for a separate designation pertains. Consultation with us (if requested) will help ensure that those tribes who are interested in submitting a recommendation for their area of Indian country, to be designated separately from the adjacent area, are aware of the implications for their tribe (e.g., air quality planning and permitting) if their recommendation is granted.

If you do not seek to have your areas of Indian country designated separately from the surrounding or adjacent areas, you do not need to provide a description of the exterior boundaries of your lands. The EPA examines jurisdictional boundaries for the purposes of providing a clearly defined legal boundary for carrying out the air quality planning and enforcement functions for the area.

3. Example: jurisdictional boundaries factor

This example comes from the Catawba Indian Nation's February 2012 designation recommendation for the 2008 O_3 NAAQS. As part of their jurisdictional boundary analysis, the Tribe included maps and aerial photos of the Catawba Indian Nation lands. Note that the Tribe was seeking to have their reservation designated as unclassifiable, when the surrounding area was classified as nonattainment:

Jurisdictional Boundaries

The "Indian Country" of the Catawba Indian Nation is located entirely within York County and the Rock Hill-Fort Mill Area Transportation Study (RFATS) Metropolitan Planning Organization (MPO) area. The Tribe recognizes that the South Carolina Air Quality State Implementation Plan (SIP) and other regulatory policies and procedures do currently apply to the Catawba Indian Nation and Reservation lands. The proposed separate ozone designation of "attainment" for the Catawba Indian Nation is not expected to have any adverse effects on local air quality planning, permitting, or enforcement functions for the surrounding non-attainment areas. The Catawba Indian Nation will continue to serve as an active member of RFATS working on transportation conformity planning while also working toward increasing our participation and involvement in local and

regional air quality monitoring, planning, and pollution control programs and strategies. We intend to fully protect and exercise the sovereign status and federal trust relationship we have with the United States Government and U.S. Environmental Protection Agency to insure that human health and the environment are adequately protected and the Clean Air Act is properly implemented on our tribal lands and in our region.

F. OTHER RELEVANT INFORMATION

We plan to consider the above five factors, along with any other relevant information you submit, in determining the appropriate designation for your lands. The factors listed above, while generally comprehensive, are not intended to be exhaustive. You may submit additional information you believe is relevant for the EPA to consider.

For examples of designation recommendations and associated technical analyses submitted to the EPA by tribes and the EPA's responses to the submitted documents, see the following websites:

- Area designations for the 2008 ground-level ozone (O_3) standards: http://www.epa.gov/airquality/ozonepollution/designations/2008standards/rec/tribalR.htm.
- Area designations for the 2006 24-hour fine particle ($PM_{2.5}$) standards: http://www.epa.gov/pmdesignations/2006standards/rec/tribalR.htm.
- Area designations for the 2010 nitrogen dioxide (NO_2) standards: http://www.epa.gov/no2designations/tribal.html.
- Area designations for the 2008 lead (Pb) standards: http://www.epa.gov/airquality/lead/designations/2008standards/tribal.html.

VII. SUBMITTING THE DESIGNATION RECOMMENDATION

A. WHERE AND WHEN DO I SEND THE DESIGNATION RECOMMENDATION LETTER AND MULTI-FACTOR ANALYSIS?

Shortly after promulgation of a new or revised final NAAQS, your EPA regional office will send a letter that will request your designation recommendation by a date specified in the letter and offer consultation. This letter will also provide the mailing address for your designation recommendation.

Given the CAA requirement to designate all areas in a timely manner, we intend to designate all areas of the country on the same schedule. It is therefore, important, that you submit your designation recommendation no later than the deadline provided in the EPA regional office letter. This will ensure that we have adequate time to conduct appropriate consultation (if requested), and will allow us to make informed, timely decisions on any requests for separately designated areas of Indian country.

Your designation recommendation and accompanying multi-factor analysis should be submitted to your EPA Regional Office Administrator for consideration.[46] Your submittal should be accompanied by a formal letter from an authorized tribal official to your EPA Regional Administrator. We recommend that you review the checklist found in Appendix I to ensure completeness of your designation recommendation prior to submission.

B. WHEN IS THE DESIGNATION RECOMMENDATION DUE?

The designation time frame is controlled by CAA section 107(d) which establishes the requirement for the EPA to finalize the area designations no later than two years from the date a new or revised NAAQS is promulgated. However, the EPA may extend the deadline by up to one year if the EPA has insufficient information to complete the designations in two years. Recommendations are typically due one year from promulgation of the NAAQS, although the EPA has the authority to set an earlier deadline. The request letter that the EPA sends to you will provide the due date for your designation recommendation.

C. WHAT IS THE PROCESS FOR REVIEWING MY DESIGNATION RECOMMENDATION?

Your EPA regional office, along with the EPA headquarters offices, will review your designation recommendation and multi-factor analysis. We will consider, as appropriate, available air quality monitoring or, for SO_2, modeling or emissions data that you submit in support of your recommendation and all other relevant information/data. We will ensure that the data you submit with your designation recommendation are accurate and represent your current air quality status.

If the EPA intends to make any modifications to your recommendation, we intend to offer an opportunity for you to participate in technical dialogue regarding the recommendation. This will help ensure that tribal staff members have time to engage with their tribal leaders before they receive written notification from the EPA.

Following our review, we will send you a letter indicating our intended designation of your area (as nonattainment, attainment, or unclassifiable). Our intended designations are based on your initial recommendation and multi-factor analysis, as well as consideration of all other relevant information. *(See Appendix J for an example of an EPA review of the multi-factor analysis that accompanied a designation recommendation.)*

D. WHAT HAPPENS IF THE EPA AGREES WITH MY DESIGNATION RECOMMENDATION?

If we agree with your designation recommendation, we will send a letter informing you that we accept your designation recommendation. The EPA will then officially promulgate (via publication in the FR) a final designation decision that reflects your recommendation.

[46] See Appendix E of this document for a list of the EPA Regional Administrators.

E. WHAT HAPPENS IF THE EPA DOES NOT AGREE WITH MY DESIGNATION RECOMMENDATION?

If, after careful consideration and appropriate consultation, we do not agree with your initial designation recommendation and we intend to modify it, we will notify you in a letter (commonly referred to as a "120-day" letter) no later than 120 days prior to our final action to designate your area. As appropriate, consultation will be conducted after you receive the 120-day letter. Following receipt of our 120-day letter, if you have additional information that you want us to consider, we request that such information be submitted to your EPA Regional Office Administrator within 60 days after receiving our 120-day letter. This will help ensure that we can fully consider the additional information prior to issuing final designations. *(See Table 1, step 8, page 17.)*

Because of the potential implications for tribes, we will send letters containing our final designation decisions to:

- All tribes that submitted a designation recommendation regardless of whether the EPA intends to modify or agrees with the recommendation;
- All tribes within Indian country that we are designating as nonattainment; and
- All tribes with TAS status for CAA section 107(d) purposes.

Although tribes are generally not required to submit designation recommendations, the CAA does establish statutory requirements for the EPA to promulgate designations within a certain time frame. During consultation (if requested), we plan to fully inform you of this statutory requirement. This will help ensure that consultation is completed by the time the final designations are promulgated.

Following consultation and evaluation of any additional information you submit, the EPA Administrator makes the final designation decisions. The final designations are signed by the EPA Administrator and published in the Federal Register, along with a date on which the designations become effective. The effective date is usually 30 to 60 days after publication, but it may be later.

F. KEY POINTS AND FURTHER INFORMATION

- Send your designation recommendation letter and any accompanying multi-factor analysis to your EPA Regional Office Administrator.
- The due date for your recommendation is typically one year from promulgation of the NAAQS; the due date will be included in the letter that you will receive from your EPA regional office.
- Your EPA regional office, along with the EPA headquarters offices, will review your designation recommendation, multi-factor analysis and any other relevant information. We intend to provide additional opportunities for consultation (if requested) before the final designation is promulgated.
- The EPA's review will be done in a timely manner to conform to deadlines set by the CAA.

- Your multi-factor analysis will be carefully reviewed for accuracy and to ensure it represents your current air quality status.
- We intend to keep you informed of our intended designation decisions and offer the opportunity for consultation and to submit additional relevant information prior to final designation decisions.

For further information on submitting your designation recommendations see:

- *Guidance to Regions for Working with Tribes during the National Ambient Air Quality Standards (NAAQS) Designation Process*, December 2011: http://www.epa.gov/air/tribal/pdfs/12_20_11-Guidance-to-Regions-for-Working-with-Tribes_NAAQSDesignations.pdf.
- *Policy for Establishing Separate Air Quality Designations for Areas of Indian Country*, December 2011: http://www.epa.gov/air/tribal/pdfs/0067_001.pdf.

VIII. APPENDIX

This section contains valuable information to assist you in your decision making and to guide you through the designation recommendation process.

APPENDIX

APPENDIX A: INFORMATION ON CRITERIA POLLUTANTS

SO_2	**What is it?**	• Sulfur dioxide (SO_2) belongs to a family of gases called sulfur oxides (SO_x). • SO_2 is released during the burning or processing of sulfur containing ores and fossil fuels.
	Health Effects	• SO_2 contributes to respiratory illness. • SO_2 aggravates asthma, bronchitis, emphysema, cardiovascular problems.
	Environmental Effects	• Acid rain occurs when SO_2 and nitrogen oxides (NO_x) react with water and oxygen; Acid rain harms lakes and streams, and damages trees, crops, historic buildings, and monuments. • SO_2 contributes to visibility impairment in large parts of the country by contributing to haze.
	Common Emission Sources	• Utility and industrial boilers • Primary and secondary copper and lead smelters • Petroleum refineries • Aluminum smelters • Phosphate fertilizer manufacturing • Diesel vehicles • Iron and steel mills • Crude petroleum and natural gas extraction processes • Carbon black manufacturing • Sulfuric acid plants • Portland cement manufacturing • Pulp and paper mills
NO_2	**What is it?**	• Nitrogen dioxide (NO_2) belongs to a family of gases called NO_x • NO_2 is released when fossil fuels are burned and from high temperature processes. • NO_2 can react in the presence of water and sunlight to become ozone (O_3).
	Health Effects	• O_3 damages lung tissue, reduces lung function and sensitizes the lungs to other irritants; it also irritates the eyes, nose, and throat. • O_3 is especially bad for those with chronic heart and lung disease, as well as the very young and old, and pregnant women.
	Environmental Effects	• Acid rain occurs when SO_2 and NO_x react with water and oxygen; Acid rain harms lakes and streams, and damages trees, crops, historic buildings, and monuments. • O_3 is the main pollutant in smog. • NO_x can cause damage to plant foliage.
	Common Emission Sources	• Metallurgical furnaces • Blast furnaces • Plasma furnaces • Kilns • Fossil fuel power generation • On-road vehicles

O_3	**What is it?**	• Ozone (O_3) is found in two layers of the atmosphere, the stratosphere and the troposphere. In the stratosphere (the atmospheric layer 7 to 10 miles or more above the earth's surface), ozone is a natural form of oxygen that provides a protective layer shielding the earth from ultraviolet radiation. In the troposphere (the layer extending up 7 to 10 miles from the earth's surface), ozone is formed through chemical reactions and is a major component of smog. Ozone in the troposphere is produced through complex chemical reactions of NO_x and volatile organic compounds (VOC) and sunlight. • VOC are found in everything from paints and coatings to underarm deodorant and cleaning fluids. Areas in nonattainment for O_3 regulate NO_x and VOC emissions.
	Health Effects	• O_3 damages lung tissue, reduces lung function and sensitizes the lungs to other irritants; it also irritates the eyes, nose, and throat. • O_3 is especially bad for those with chronic heart and lung disease, as well as the very young and old, and pregnant women.
	Environmental Effects	• O_3 is the main pollutant in smog. • VOC and NO_x can cause damage to plant foliage.
	Common Emission Sources	• Transportation sources • Power plants • Industrial boilers and industrial processes utilizing solvents, such as surface coating (paints) and printing (inks) • Petrochemical processing • Chemical manufacturing • Dry cleaners • Paint shops • Gasoline storage and transfer
CO	**What is it?**	• Carbon monoxide (CO) is a poisonous gas formed when carbon in fuels is not burned completely. • CO is a product of vehicle exhaust, which contributes about 77% of all CO emissions nationwide.
	Health Effects	• CO reduces oxygen delivery to organs and tissues. • CO affects cardiovascular and central nervous systems. • CO causes headaches, dizziness, nausea, and listlessness. • CO is associated with visual impairment, reduced work capacity and manual dexterity, poor learning ability, difficulty performing complex tasks, inability to discriminate time intervals, and in high doses, may cause death.
	Environmental Effects	• CO is believed to contribute to global climate change.
	Common Emission Sources	• On-road vehicles • Non-road sources (lawn and garden equipment, recreational marine equipment) • Non-transportation fuel combustion (i.e., wood burning) • Chemical and allied product manufacturing (i.e., carbon black manufacturing) • Metals processing (i.e., ferrous metals)

Pb	**What is it?**	• Lead (Pb) is a naturally occurring substance. • Historically, the primary source of Pb emissions was lead additives in gasoline.
	Health Effects	• Pb causes damage to kidney, liver, brain, nervous system, and causes malformation of an embryo or fetus. • Pb is associated with heart disease, high blood pressure, anemic disorders, osteoporosis, reproductive disorders, memory problems, fatigue, and mood changes. • Infants and young children are especially susceptible to low doses of Pb, and this age group still shows the highest levels.
	Environmental Effects	• Pb can inhibit photosynthesis and reduce growth in plants. • Pb can lead to changes in species composition as plant and microbial communities become lead-tolerant. • Pb can accumulate in the environment and travel up the food chain and be ingested by humans.
	Common Emission Sources	• Lead smelters • Iron and steel production • Mining • Waste incineration • Lead alkyl manufacturing • Battery manufacturing • Pigment manufacturing • Fuel combustion (i.e., utility, industrial, other)

PM	**What is it?**	• Particulate matter (PM) is solid or liquid material suspended in the atmosphere (i.e., pieces of ash, smoke, soot, dust, and liquid droplets).
		• PM is directly emitted or formed in the air.
		• PM is characterized by coarse and fine size fractions:
		  ○ PM_{10} includes particles $\leq$ 10 µm in diameter
		  ○ $PM_{2.5}$ includes particles $\leq$ µm in diameter

	Health Effects	• PM causes eye irritation and accumulates in lungs, contributing to damaged lung tissue, decreased lung function, aggravated asthma, acute respiratory symptoms, increased hospital visits, increased frequency in childhood illness such as chronic bronchitis, premature death. • Children, asthmatics, elderly, and individuals with pre-existing cardiovascular and respiratory illness are especially sensitive populations.
	Environmental Effects	• PM contributes to visibility impairment in large parts of the country by contributing to haze.
	Common Emission Sources	• Paved and unpaved roads • Construction activities • Burning • Mineral product manufacturing • Waste disposal and recycling • Fuel combustion (utilities, industrial) • Industrial processes (metals processing, oil refining)

APPENDIX B: SAMPLE TRIBAL DESIGNATIONS CONSULTATION LETTER

8

ATTACHMENT B.
SAMPLE TRIBAL DESIGNATIONS CONSULTATION LETTER

(INSERT DATE)

«FIRST» «LAST»
«TITLE»
«TRIBE_NAME»
«ADDRESS»
«CITY», «FULL_STATE» «ZIP»

«Dear «TITLE» «LAST Name»:

The purpose of this letter is to provide you with information and guidance on the U.S. Environmental Protection Agency's (EPA) designations process for the (INSERT POLLUTANT) national ambient air quality standard (NAAQS). Your tribe may find it important to engage with us in the process of assigning designations for Indian country. Although your involvement is not required, we would like to invite you to participate in the designations process and to offer you consultation. We want to ensure early, transparent and effective communication in proposing area designations for the revised (INSERT POLLUTANT) standard.

On (INSERT DATE), EPA revised the primary (INSERT "AND SECONDARY," IF APPLICABLE) NAAQS for (INSERT POLLUTANT) to provide increased protection of public health and welfare from (INSERT POLLUTANT) pollution. The new primary (INSERT POLLUTANT) standard was lowered from (INSERT INFO REGARDING OLD AND NEW STANDARD(S)). (INSERT ANY ADDITIONAL INFORMATION REGARDING THE STANDARD(S)).

Establishing area designations is a key step in the process of providing the health and/or welfare protection intended by the Clean Air Act (CAA). Within two years of promulgation of a new or revised NAAQS, EPA must list and designate all areas in the country as either:

Attainment—areas that meet the standard;
Nonattainment—areas that either do not meet the standard, or are contributing to a nearby area that does not meet the standard; or
Unclassifiable—areas where there is insufficient information to make a determination.

These designations are based on current air quality information, recommendations from state Governors and tribal Leaders, and other relevant information discussed in the attached guidance document. We encourage you to submit your recommendation for designation of your area for consideration in this process.

[Add if area violating: Preliminarily, we believe your area potentially may be designated nonattainment for the (INSERT POLLUTANT) standard.*]* We invite and encourage you to participate in the designations process. Please notify us by (INSERT DATE) if you are interested in participating in the designations process and/or consulting with us regarding the process. When requested, consultation will

be conducted in accordance with the *EPA Policy on Consultation and Coordination with Indian Tribes* (www.epa.gov/tribal/consultation/consult-policy.htm). If you choose to participate in the designations process, we ask that you provide your recommendation to EPA by (INSERT DATE).

The enclosed memorandum provides guidance on the process for designating areas under the revised (INSERT POLLUTANT) NAAQS. We plan to announce our intended designations no later than 120 days prior to promulgating the final designations. Following the announcement of intended designations, tribes will have an additional opportunity to consult with us on any modifications EPA may propose to a tribe's original recommendation.

In accordance with section 107(d)(1)(B) of the CAA, we are required to issue final designations by no later than (INSERT DATE). Our designations will be based on the most recent three calendar years of certified, quality-assured monitoring data available, and any other relevant information. If a tribe does not submit a recommendation, we will promulgate an appropriate designation for the relevant area of Indian country.

As the process moves forward, we will keep you and your staff informed of any additional guidance or other support activities. We look forward to working with you and your staff to develop area designations under the revised (INSERT POLLUTANT) standard(s) in a timely manner. If your tribe is interested in consultation or participating in further discussions or meetings with EPA officials about the designations process, please do not hesitate to contact me or (INSERT NAME) of my staff at (INSERT TELEPHONE NUMBER) or (INSERT EMAIL).

Sincerely,

(INSERT NAME)
Regional Administrator

Enclosure

cc: Tribal environmental director
Tribal environmental staff
Appropriate State/local Agencies

APPENDIX C: EPA HEADQUARTERS AND REGIONAL OFFICES TRIBAL CONTACTS

Office of Air and Radiation (OAR)

Pat Childers
202-564-1082
childers.pat@epa.gov

Office of Air Quality Planning and Standards (OAQPS)

Laura McKelvey
919-541-5497
mckelvey.laura@epa.gov

Office of Atmospheric Programs (OAP)

Erika Wilson
202-343-9113
wilson.erika@epa.gov

Office of Transportation and Air Quality (OTAQ)

Rosalva Tapia
202-343-9534
tapia.rosalva@epa.gov

Office of Radiation and Indoor Air (ORIA)

Jed Harrison
702-784-8218
harrison.jed@epa.gov

Region 1

Eugene Benoit
617-918-1639
benoit.eugene@epa.gov

Region 2

Gavin Lau
212-637-3717
lau.gavin@epa.gov

Region 4

Ana Oquendo
404-562-9781
oquendo.ana@epa.gov

Region 5

Benjamin Giwojna
(Lead MN)
312-886-0247
giwojna@benjamin@epa.gov

Monika Lacka (WI)
312-353-6556
lacka.monika@epa.gov

Region 6

Aunjanee Gautreaux
214-665-7127
gautreaux.anunjanee@epa.gov

Carrie Paige
214-665-6521
paige.carrie@epa.gov

Mary Stanton
214-665-8377
stanton.mary@epa.gov

Region 7

Kim Olson
913-551-7458
olson.kim@epa.gov

Region 8

Matthew Langenfeld
303-312-6284
langenfeld.matthew@epa.gov

Region 9

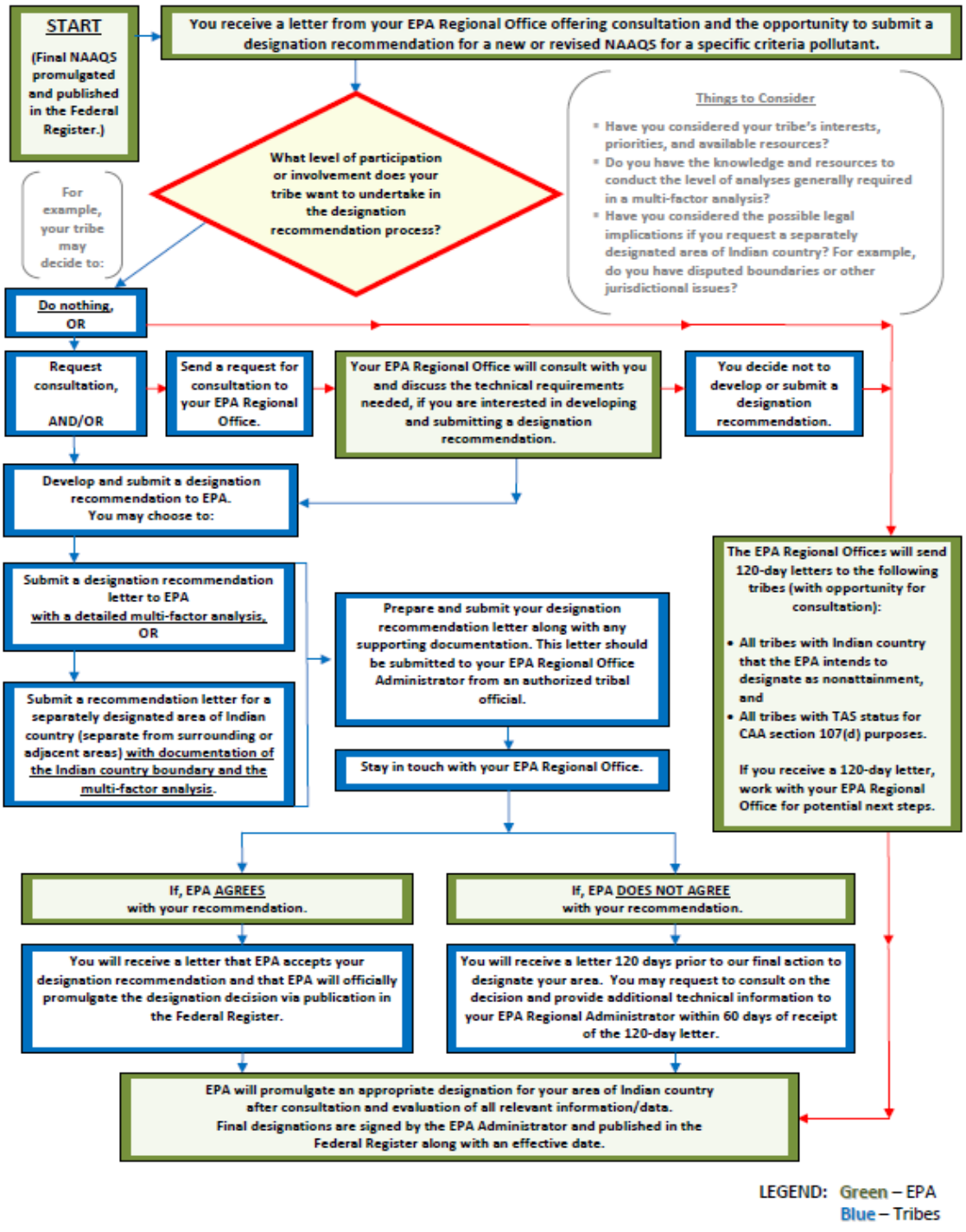
Maeve Foley
415-947-4105
foley.maeve@epa.gov

Sara Bartholomew
415-947-4100
bartholomew.sara@epa.gov

Region 10

Nancy Helm
206-553-6908
helm.nancy@epa.gov

APPENDIX D: DECISION MATRIX



APPENDIX E: EPA REGIONAL ADMINISTRATORS

Region 1

H. Curtis "Curt" Spalding
5 Post Office Square, Suite 100
Boston, MA 02109-3912
(617) 918-1010
spalding.curt@epa.gov

Region 2

Judith A. Enck
290 Broadway
New York, NY 10007-1866
(212) 637-5000
enck.judith@epa.gov

Region 4

A. Stanley Meiburg (Acting)
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303-3104
(404) 562-8357
meiburg.stan@epa.gov

Region 5

Susan Hedman
77 West Jackson Boulevard
Chicago, IL 60604-3507
(312) 886-3000
hedman.susan@epa.gov

Region 6

Ron Curry
Fountain Place 12th Floor, Suite 1200
1445 Ross Avenue
Dallas, TX 75202-2733
(214) 665-2211
curry.ron@epa.gov

Region 7

Karl Brooks
11201 Renner Blvd.
Lenexa, KS 66219
(913) 551-7006
r7actionline@epa.gov

Region 8

Shaun McGrath
1595 Wynkoop St.
Denver, CO 80202-1129
(303) 312-6308
mcgrath.shaun@epa.gov

Region 9

Jared Blumenfeld
75 Hawthorne Street
San Francisco, CA 94105
(415) 947-8702
blumenfeld.jared@epa.gov

Region 10

Dennis McLerran
1200 Sixth Avenue, Suite 900
Seattle, WA 98101
(206) 553-1234
mclerran.dennis@epa.gov

APPENDIX F: AIR QUALITY EDUCATION AND TRAINING RESOURCES

Resource	Contact Information
Air Pollution Training Institute (APTI) provides technical training to tribal air pollution professionals. Courses are available in classroom and self-instructional formats.	http://epa.gov/air/oaqps/eog/
APTI partners host classroom training and professional development throughout the United States. Please contact these partners directly to get a list of available training and to register for classroom courses.	**California Air Resources Board (CARB)** http://www.arb.ca.gov/training/training.htm **CenSARA** http://www.censara.org/ **LADCO** http://www.ladco.org/training/index.php **MARAMA** http://www.marama.org/training-center **Metro4/SESARM** http://www.metro4-sesarm.org/training.asp **NESCAUM** http://www.nescaum.org/topics/training-clean-air-academy **WESTAR** http://www.westar.org/training.html
Community Modeling and Analysis System (CMAS) offers semiannual software courses.	http://www.cmascenter.org/training/classes.cfm
The Institute for Tribal Environmental Professionals (ITEP) provides assistance (including air quality training courses to Indian tribes and other public and private groups) in promoting effective environmental-resource management on Indian lands.	http://www4.nau.edu/itep/air/training_aq.asp
National Tribal Air Association (NTAA) provides information and links to upcoming events such as EPA webinars and briefings, conferences, proposed rulemakings, and meetings.	http://www.ntaatribalair.org/
The Tribal Air Monitoring Support Center (TAMS) offers different training courses that focus on a variety of topics related to ambient air quality monitoring.	http://www4.nau.edu/tams/training/

APPENDIX G: AIR QUALITY MONITORING INFORMATION AND DATA SOURCES

Resource	Link/Information Source
Air Pollution Monitoring EPA website contains information and links to many topics associated with monitoring air pollution.	http://www.epa.gov/oaqps001/montring.html http://epa.gov/airquality/qa/monprog.html
Air Quality System (AQS) The Air Quality System (AQS) is EPA's repository of ambient air quality data. AQS stores data from over 10,000 monitors, 5,000 of which are currently active. State, local and tribal agencies collect the data and submit it to AQS on a periodic basis.	http://www.epa.gov/ttn/airs/airsaqs/
AirTrends Air Quality Monitoring Information each year EPA tracks the levels of pollutants in the air and how much of each pollutant (or the pollutants that form them) is emitted from various pollution sources. The EPA posts the results of our analyses to this web site.	http://www.epa.gov/airtrends/factbook.html
Ambient Air Monitoring Program website is a gateway to understanding the EPA's monitoring objectives and networks.	http://www.epa.gov/oar/oaqps/qa/monprog.html
Ambient Air Monitoring Regulations (Revisions) Fact Sheet outlines the 2006 changes to the national monitoring requirements.	http://www.epa.gov/air/tribal/pdfs/AmbAirRev.pdf
Ambient Monitoring Technology Information Center (AMTIC) EPA website contains information on ambient air quality monitoring programs, monitoring methods, quality assurance and control procedures, and federal regulations related to ambient air quality monitoring. The site is primarily intended for use by air monitoring staff responsible for collecting ambient air monitoring data.	http://www.epa.gov/ttn/amtic/
Options Available for Tribes to Meet Independent Performance Evaluation Requirements for the Ambient Air Monitoring Programs Collecting Data for Comparison to the NAAQS	http://www.epa.gov/oar/tribal/pdfs/NPAP_PEP%20Tribal%20Options.pdf
Quality Assurance Handbook for Air Pollution Measurement Systems: Volume II: Ambient Air Quality Monitoring Program	http://www.epa.gov/ttn/amtic/files/ambient/pm25/qa/QA-Handbook-Vol-II.pdf
Technical Guidance for the Development of Tribal Air Monitoring Programs, August 2007	http://www.epa.gov/ttn/oarpg/t1/memoranda/techguidancetribalattch.pdf
Tribal Air Monitoring Support Center (TAMS) offers support and training courses that focus on a variety of topics related to ambient monitoring.	http://www4.nau.edu/tams/

APPENDIX H: AIR POLLUTION EMISSIONS INFORMATION AND DATA SOURCES

Resource	Link/Information Source
Air Emissions Sources Website is designed to make emissions data for six common (criteria) pollutants easy to find and understand. Users can look at overall emissions, emissions by type of industry, or emissions by largest polluter.	http://www.epa.gov/air/emissions/
Air Facility Subsystem (AFS) contains compliance and permit data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies.	http://www.epa.gov/compliance/data/systems/air/afssystem.html
AirData presents annual summaries of air pollution data from the NEI (National Emission Inventory) database which provides estimates of annual emissions of criteria and hazardous air pollutants from all types of sources.	http://www.epa.gov/airdata/
AIRNow Website users search the Air Quality Index to find ozone maps to learn more about air quality and air pollution.	http://airnow.gov/
EJView, formerly known as the Environmental Justice Geographic Assessment Tool, is a mapping tool that allows users to create maps and generate detailed reports based on the geographic areas and data sets they choose.	http://www.epa.gov/compliance/environmentaljustice/mapping.html
Emission Inventory Basics for Tribal Air Coordinators, October 2008	http://www.epa.gov/air/tribal/pdfs/EIfortacs2008.pdf
EPA's Technology Transfer Network hosts the Clearinghouse for Inventories and Emission Factors.	http://www.epa.gov/ttn/chief/index.html http://www.epa.gov/ttn/chief/eiinformation.html
Introduction to Emission Inventories for Tribes, October 2008	http://www.epa.gov/air/tribal/pdfs/EIfortribes2008.pdf
The EIS Gateway, the first component of the Emissions Inventory System (EIS), was developed to provide registered users with access to emissions inventory data and to provide transparency to the emissions inventory process. Registered users can access facility inventory and emissions data for sources in their jurisdiction.	http://www.epa.gov/ttn/chief/eis/gateway/index.html
The Emissions & Generation Resource Integrated Database (eGRID) is a comprehensive source of data on the environmental characteristics of almost all electric power generated in the United States.	http://cfpub.epa.gov/egridweb/

The National Emissions Inventory (NEI) is a comprehensive and detailed estimate of air emissions of both criteria and hazardous air pollutants from all air emissions sources. The NEI is prepared every three years by the U.S. EPA based primarily upon emission estimates and emission model inputs provided by state, local and tribal air agencies for sources in their jurisdictions and supplemented by data developed by the U.S. EPA.	http://www.epa.gov/ttn/chief/net/2011inventory.html
The Tribal Emission Inventory Software Solution (TEISS) is free to all federally recognized U.S. tribes and was designed specifically to help tribes develop emission inventories.	http://www4.nau.edu/itep/air/aq_aqtteiss.asp
Window to My Environment (WME) is a powerful web-based tool that provides a wide range of federal, state, and local information about environmental conditions and features in an area of your choice.	http://www.epa.gov/myenvironment/
EPA Regional Contacts (for technical help with Emission Inventories):	
EPA Region 1	Bob McConnell Mcconnell.robert@epa.gov 617-918-1046
EPA Region 2	Raymond Forde forde.raymond@epa.gov 212-637-3716
EPA Region 3	Alice Chow chow.alice@epa.gov 215-814-2144
EPA Region 4	James Hou hou.james@epa.gov 404-562-8965
EPA Region 5	Loretta Lehrman lehrman.loretta@epa.gov 312-886-5482
EPA Region 6	Carl Young young.carl@epa.gov 214-665-6645
EPA Region 7	Steven Brown brown.steven@epa.gov 913-551-7718
EPA Region 8	Mark Komp komp.mark@epa.gov 303-312-6022
EPA Region 9	Larry Biland biland.larry@epa.gov 415-947-4132
EPA Region 10	Madonna Narvaez narvaez.madonna@epa.gov 206-553-2117

APPENDIX I: DESIGNATIONS RECOMMENDATION SUBMISSIONS CHECKLIST

1. Is the submittal accompanied by a formal letter from an authorized tribal official to an EPA Regional Administrator?

2. Did you consult with your EPA regional office to ensure you have the most current data, information, and guidance?

3. If you are requesting a separate designation, did you consider all potential implications in identifying your Indian country boundaries?

4. Are you submitting your recommendation on or before the due date?

5. Did you clearly state your recommended designation as attainment, nonattainment, or unclassifiable?

6. Did you clearly state the pollutant for which you are submitting the recommendation (for example, 8-hour ozone, $PM_{2.5}$, etc.)?

7. Did you provide the necessary technical analysis (five factors) to support your recommendation?

8. Is your technical analysis based on the most current data and information available?

9. Did you include all other available information to support your recommendation?

APPENDIX J: EPA TECHNICAL SUPPORT DOCUMENT FOR $PM_{2.5}$ DESIGNATIONS

This appendix provides an example of how the EPA reviewed the technical analysis for the Santa Rosa Band of Mountain Cahuilla Indians for the 24-hour $PM_{2.5}$ NAAQS designations. Note that the example below covers nine factors. Although, the EPA has merged the nine factors into five factors, the required information is the same.

7.0 Santa Rosa Band of Mountain Cahuilla Indians Technical Support Document

The following chapter contains the technical support document for the 24-hour $PM_{2.5}$ NAAQS designations for the Santa Rosa Band of Mountain Cahuilla Indians.

EPA Technical Analysis for the Santa Rosa Band of Mountain Cahuilla Indians

Pursuant to section 107(d) of the Clean Air Act, following the promulgation of a new or revised national ambient air quality standard (NAAQS) for any pollutant under section 109 of the Clean Air Act, EPA must designate areas as nonattainment, attainment or unclassifiable for that pollutant. EPA has re-evaluated the intended nonattainment designation for the 2006 24-hour fine particle ($PM_{2.5}$) NAAQS for the lands of the Santa Rosa Band of Mountain Cahuilla Indians that are located in that part of Riverside County, California, currently designated as nonattainment for the 1997 $PM_{2.5}$ NAAQS. As a result of this re-evaluation, in response to the Tribe's recommended designation of attainment, EPA is designating all of the lands of the Santa Rosa Band of Mountain Cahuilla Indians, including those located in that part of Riverside County, California, that are in the existing 1997 $PM_{2.5}$ nonattainment areas, as attainment for the 2006 24-hour $PM_{2.5}$ NAAQS. EPA has based this decision on the weight of evidence of the following nine factors recommended in EPA guidance and any other relevant information:

- pollutant emissions
- air quality data
- population density and degree of urbanization
- traffic and commuting patterns
- growth
- meteorology
- geography and topography
- jurisdictional boundaries
- level of control of emissions sources

Figure 1 is a map of the Santa Rosa Band of Mountain Cahuilla Indians Reservation and its location within the State of California, plus other relevant information.

7-1

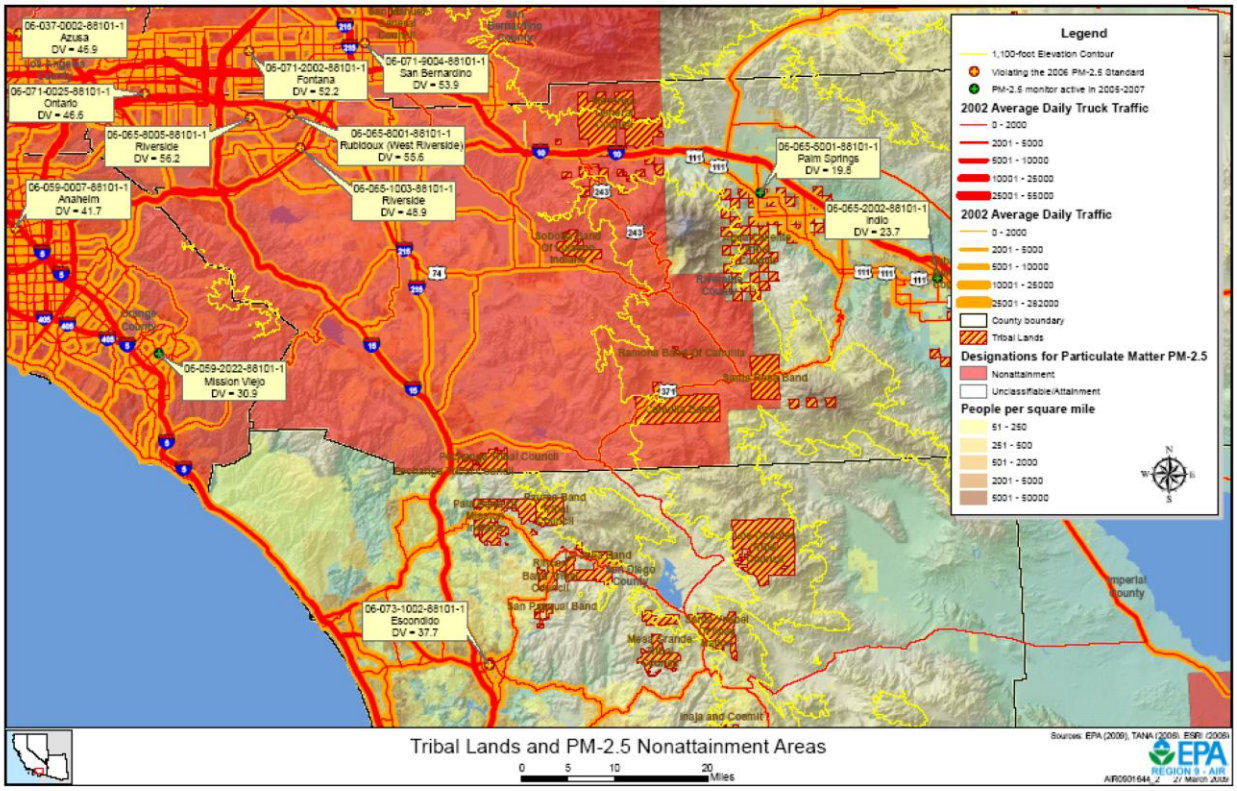


Figure 1

For this area, EPA previously established $PM_{2.5}$ nonattainment boundaries for the 1997 $PM_{2.5}$ NAAQS that included the entire South Coast Air Quality Management District including the Santa Rosa Band of Band of Mountain Cahuilla Indians Reservation.

Based on EPA's 9-factor analysis, described below, which contains currently available information, EPA is designating the lands of the Santa Rosa Band of Mountain Cahuilla Indians as unclassifiable/attainment for the 2006 24-hour $PM_{2.5}$ standards. Based on EPA's technical analysis, this area does not cause or contribute to the violations of the 2006 24-hour $PM_{2.5}$ standards.

The following is a summary of the 9-factor analysis for the Santa Rosa Band of Mountain Cahuilla Indians Reservation.

Factor 1: Emissions data

While the Tribe does not monitor or maintain an emissions inventory, there are no significant sources of $PM_{2.5}$ on the reservation. Minimal power generation sources situated atop Toro Peak, and operated in connection with certain low amperage radio and antennae transmission devices, are the only industrial sources of $PM_{2.5}$. Other potential sources of $PM_{2.5}$ are limited to wood smoke and/or emissions from mobile sources. In light of the fact that only sixty-seven Tribal Members reside on the 11,000 acre reservation, such emissions are minimal in both frequency and volume.

EPA has evaluated the information presented by the tribe and concurs that there are no significant sources of $PM_{2.5}$ on the Reservation. EPA also concurs that the contribution from area sources will be small based on the small population of the Reservation. EPA therefore believes that the potential sources of $PM_{2.5}$ are very limited and unlikely to cause or contribute to violations of the 2006 24-hour $PM_{2.5}$ standards.

Factor 2: Air quality data

There are no $PM_{2.5}$ monitors situated on the Santa Rosa Band of Mountain Cahuilla Indians Reservation. There are violating monitors maintained within the South Coast $PM_{2.5}$ nonattainment area, and these are located in Los Angeles and San Bernardino Counties, approximately 41 miles from the Santa Rosa Reservation. There is an additional monitor in Orange County located 50 miles from the Reservation, which is not violating. Given the large distance involved, as well as the characteristics of the surrounding environment where these monitors are located, none are indicative of the air quality of the Reservation. Due to the distance involved, unique topography and meteorological conditions, those measurements are not representative of air quality on the Santa Rosa Reservation.

EPA has reviewed the air quality data for the area and concurs that there are not measured violations of the $PM_{2.5}$ NAAQS at or near the Santa Rosa Band of Mountain Cahuilla Indians Reservation. However, this information does not provide conclusive evidence of the absence or existence of contribution to elevated $PM_{2.5}$ levels in the South Coast $PM_{2.5}$ nonattainment area. The contribution of the Santa Rosa Band of Mountain Cahuilla Indians Reservation to the nearby and violating monitors in the nonattainment area is discussed further in Factor 6, below.

Factor 3: Population density and degree of urbanization (including commercial development)

Approximately 67 full-time residents live on the 11,000 acres comprising the Santa Rosa Reservation. All of the Reservation's current land use is agricultural because it is used as open range land for cattle grazing. There are no cattle feedlots or crop agriculture on the reservation.

Due to the small population size and low population density at the Santa Rosa Reservation, EPA believes that the tribe is not likely to cause or contribute to a violation of the 2006 24-hour $PM_{2.5}$ NAAQS.

Factor 4: Traffic and commuting patterns

One major highway, US 371, runs through the reservation. Truck traffic on that highway is estimated to be a maximum of 2,000 trucks per day. Average daily vehicle traffic is estimated to be between 2001 and 5000 vehicles per day. This level of vehicle traffic is very low and an insignificant part of overall vehicular traffic within the South Coast Air Quality Management District, and its urbanized areas. Based on traffic and commuting patterns as shown by these statistics, it is unlikely that emissions from these vehicles have any impact on air quality in the South Coast Air Quality Management District.

EPA has evaluated the motor vehicle traffic estimate and concurs that the average vehicle traffic is limited, and together with factor 3, support that there is a not a substantial commuting pattern to the South Coast Air Basin.

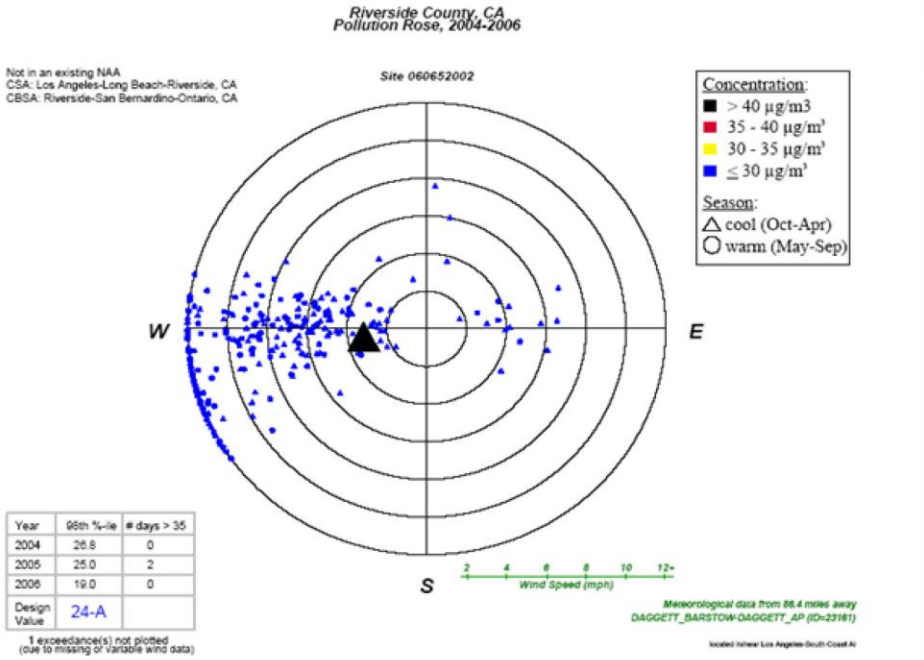
Factor 5: Growth rates and patterns

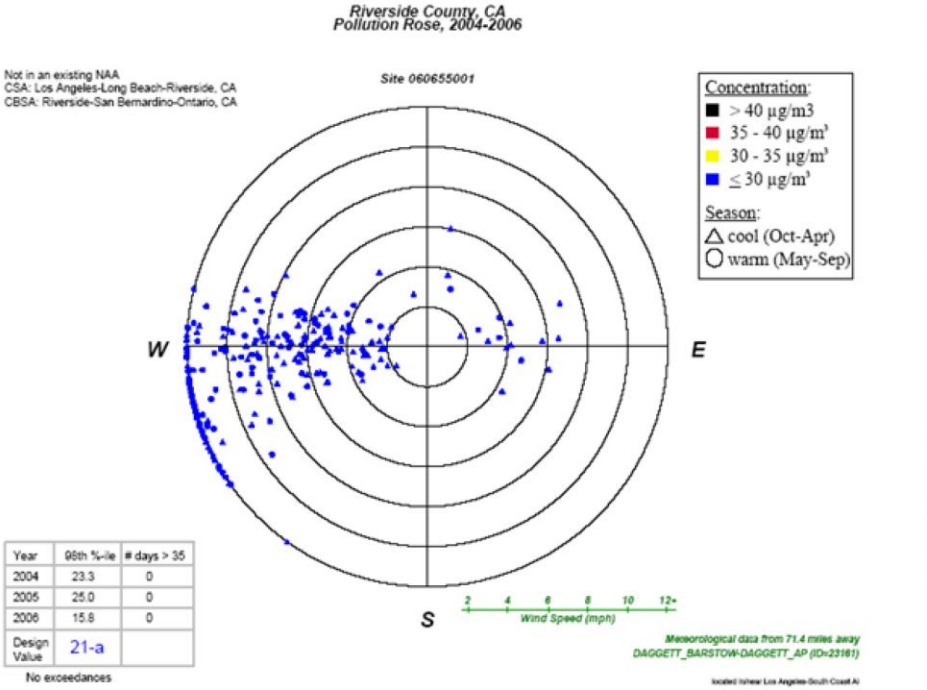
The Santa Rosa Reservation is relatively remote and sparsely populated. Historically, there has been little demand for development, and it is expected that this trend will continue. Presently, there are no pending or contemplated plans for development in this area or upon the Reservation.

EPA has evaluated this information and concurs that future growth is not likely to increase emissions. EPA therefore concludes that future growth on the Santa Rosa Band of Mountain Cahuilla Indians Reservation is unlikely to cause or contribute to a violation of the $PM_{2.5}$ standards.

Factor 6: Meteorology (weather/transport patterns)

The pollution roses for the nearest two monitoring sites in Riverside County indicate that the Santa Rosa Band of Mountain Cahuilla Indians Reservation is unlikely to contribute to elevated levels of $PM_{2.5}$. The pollution roses for the nearest two monitoring sites, Indio (060652002) and Palm Springs (060655001) in Riverside County are shown below. The monitor for Indio reflects no periods of elevated levels of $PM_{2.5}$. The monitor for Palm Springs depicts only a single day where measured $PM_{2.5}$ levels exceeded 35 μg/m3. On that date, the wind direction was primarily from the west, and it is unlikely that the Santa Rosa Reservation contributed to the elevated levels of $PM_{2.5}$ for this monitor on this day.


Riverside County, CA
Pollution Rose, 2004-2006
Not in an existing NAA
CSA: Los Angeles-Long Beach-Riverside, CA
CBSA: Riverside-San Bernardino-Ontario, CA
Site 060652002
Concentration:
> 40 µg/m3
35 - 40 µg/m³
30 - 35 µg/m³
≤ 30 µg/m³
Season:
cool (Oct-Apr)
warm (May-Sep)
W
E
S
2 4 6 8 10 12+
Wind Speed (mph)
Meteorological data from 86.4 miles away
DAGGETT_BARSTOW-DAGGETT_AP (ID=23161)
Year | 98th %-ile | # days > 35
2004 | 26.8 | 0
2005 | 25.0 | 2
2006 | 19.0 | 0
Design Value | 24-A
1 exceedance(s) not plotted
(due to missing or variable wind data)

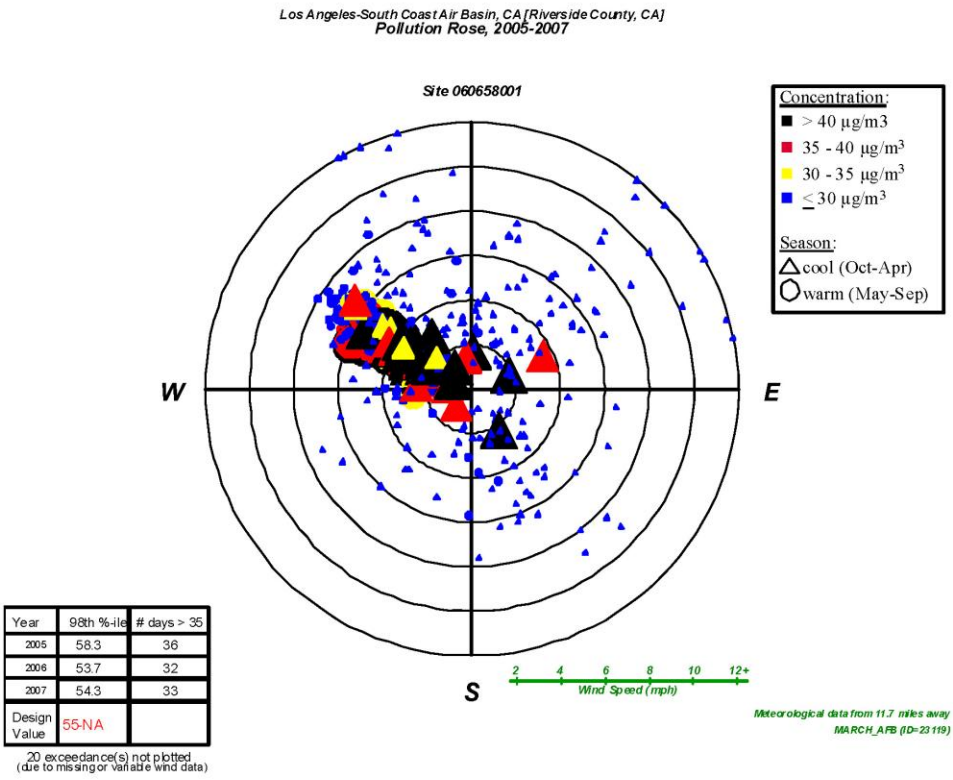


Year	98th %-ile	# days > 35
2004	23.3	0
2005	25.0	0
2006	15.8	0
Design Value	21-a	

No exceedances

In addition, EPA has reviewed the pollution rose at the Rubidoux (West Riverside) monitor, shown below. The Santa Rosa Band of Mountain Cahuilla Indians Reservation is located to the southeast of the Rubidoux monitoring site. For the years 2005-2007, 101 values above 35 µg/m3 were measured, and 81 are displayed on the pollution rose below. Of the 81 days above the level of 35 µg/m3, one day occurs when the wind is from the southeast, in the direction of the Santa Rosa Band of Mountain Cahuilla Indians Reservation. The majority of the days with elevated $PM_{2.5}$ are when the wind is from the northwest.

EPA has evaluated $PM_{2.5}$ pollution roses at the two nearest monitors to the Santa Rosa Band of Mountain Cahuilla Indians Reservation, as well as the Rubidoux monitoring site. EPA has evaluated this information and determined that the Santa Rosa Band of Mountain Cahuilla Indians Reservation does not cause or contribute to a violation of the 2006 24-hour $PM_{2.5}$ NAAQS in the South Coast $PM_{2.5}$ non-attainment area.



Factor 7: Geography/topography (mountain ranges or other air basin boundaries)

The reservation of the Santa Rosa Mountain Band of Mountain Cahuilla Indians consists of a land base of approximately 11,000 acres, and spans an elevation ranging from 4000 ft. to nearly 9000 ft. The Reservation is divided into four land parcels, one part is located in the southeastern boundary of the South Coast $PM_{2.5}$ nonattainment area in Riverside County and the other three parcels are located in that part of Riverside County that is in attainment for the 1997 $PM_{2.5}$ NAAQS.

The Reservation is bounded on the northwest by the Cahuilla Mountains and by Beauty Mountain to the southeast. The majority on the reservation is uninhabited, as is the rather substantial adjacent acreage maintained by the Department of Forestry and the Bureau of Land Management. The city of Hemet is located in southwestern Riverside County, and is located in the San Jacinto Valley. Hemet is south of the city of San Jacinto, and located near the base of the San Jacinto Mountains. The valley is surrounded by the Santa Ana Hills and San Jacinto Mountains, and is mostly dry land, except for Diamond Valley Lake to the south of Hemet.

EPA has evaluated the geography/topography information for the Reservation of Santa Rosa Mountain Band of Mountain Cahuilla Indians. EPA believes that the high elevation of the reservation (4000-9000 ft.), as well as the meteorology, discussed in factor 6, above, supports the conclusion that the Reservation of Santa Rosa Mountain Band of Mountain Cahuilla Indians is not likely to cause or contribute to a violation of the 2006 24-hour $PM_{2.5}$ standards.

Factor 8: Jurisdictional boundaries (e.g., existing PM and ozone areas)

Part of the lands of the Santa Rosa Mountain Band of Mountain Cahuilla Indians are located within the South Coast Air Quality Management District (SCAQMD), which has been designated by the U.S. EPA as nonattainment for the 2006 $PM_{2.5}$ NAAQS. The SCAQMD encompasses all of Orange County and the urban portions of Los Angeles, Riverside, and San Bernardino counties. However, the Santa Rosa Band of Mountain Cahuilla Indians is a sovereign nation and a federally recognized Indian Tribe, governed by a majority vote of all adult members, meeting as a General Council. As such, the Tribe can recommend a $PM_{2.5}$ designation for tribal lands over which it has jurisdiction. The Tribe recommends a designation of attainment/unclassifiable for the entire reservation, including that portion of the reservation historically including in the South Coast Basin.

EPA had previously designated the South Coast Air Quality Management District (SCAQMD), including part of the Santa Rosa Mountain Band of Cahuilla Indians Reservation as nonattainment for the 1997 $PM_{2.5}$ standards. EPA concurs with the tribe, that based on an evaluation of the information presented above, that a designation of attainment/unclassifiable for the entire reservation, including that portion of the reservation historically included in the South Coast Basin is appropriate for the 2006 24-hour $PM_{2.5}$ standards.

Factor 9: Level of control of emission sources

There are no major sources of $PM_{2.5}$ on the Santa Rosa Reservation, so this factor is not a consideration for the Tribe.

EPA has evaluated that emission inventory and concurs that based on the lack of major sources, this factor is not a consideration for the Tribe.

Conclusion

Based on EPA's 9-factor analysis that contains currently available information, EPA believes that the Santa Rosa Band of Mountain Cahuilla Indians Reservation should be designated unclassifiable/attainment for the 2006 24-hour $PM_{2.5}$ NAAQS. EPA's evaluation of this information confirms that it is not likely that emissions from the Santa Rosa Band of Mountain Cahuilla Indians Reservation cause or contribute to violations of the 2006 24-hour $PM_{2.5}$ NAAQS in the South Coast Air Basin.

END OF DOCUMENT