

US EPA ARCHIVE DOCUMENT

Technical Support Document for 2008 Ozone NAAQS Designations
EPA Region 2

Tribal Nations in EPA Region 2
Area Designations for the
2008 Ozone National Ambient Air Quality Standards

Introduction and Background Information

Two Tribal Nations' lands are affected by the designation of metropolitan areas in New York State as nonattainment for the 2008 ozone national ambient air quality standard. The table below identifies the counties New York State that EPA intends to designate as nonattainment for the 2008 ozone national ambient air quality standards (2008 NAAQS). In accordance with section 107(d) of the Clean Air Act, EPA must designate an area (county part of a county) "nonattainment" if it is violating the 2008 ozone NAAQS or if it is contributing to a violation of the 2008 ozone NAAQS in a nearby area. The technical analysis supporting the boundaries for the individual nonattainment areas is provided in a separate Technical Support Document.

Table 1. Intended Nonattainment Areas in New York State

Area	New York State's Recommended Nonattainment Counties	EPA's Intended Nonattainment Counties
Jamestown – Dunkirk - Fredonia, NY	Chautauqua*	Chautauqua*
New York – Northern New Jersey – Long Island, NY, NJ, CT, PA Area** (NY portion)	Bronx, Kings, Nassau, New York, Queens, Richmond, Rockland, Suffolk***, Westchester	Bronx, Kings, Nassau, New York, Queens, Richmond, Rockland, Suffolk***, Westchester

*This county contains a portion of the Seneca Nation of Indians Cattaraugus Indian Country that extends over three counties. The other two counties are not contributing to nonattainment in Chautauqua County. EPA proposes to designate the entire Cattaraugus Indian Country as attainment for the reasons listed later in this document.

** This nonattainment area is a multi-state nonattainment area.

*** This area also includes Indian Country, the Shinnecock Indian Nation, that is wholly contained in this nonattainment area and which EPA intends to include in the nonattainment area. However, EPA is not making a separate designation for the Shinnecock Indian Nation because it is wholly included in the nonattainment area and the Shinnecocks have not requested a separate designation.

Regarding the Tribal Lands in the Jamestown area

On October 26, 2011, New York State submitted a revised recommendation that Chautauqua County be designated as nonattainment for the 2008 ozone NAAQS based on air quality data from 2008-2010. The Seneca Nation of Indians did not submit a recommendation for the designation of Cattaraugus Reservation. Chautauqua County overlaps a portion of the Seneca's lands, known as the Cattaraugus Reservation. Based on EPA's technical analysis described in the enclosed Tribal TSD, EPA believes that the emissions from the tribal lands are not contributing to nonattainment in the Jamestown-Dunkirk-

Fredonia nonattainment area and we intend to designate the Cattaraugus Reservation as unclassifiable/attainment for the 2008 ozone NAAQS.

Air Quality Data

Chautauqua County is the only county in the Jamestown – Dunkirk – Fredonia, NY metropolitan area. Chautauqua County is the only county in upstate New York that records a violation of the 2008 ozone



2010 NY O3 DV.pdf

NAAQS. Design values for New York State are attached:

The Jamestown – Dunkirk - Fredonia, NY area has previously established nonattainment boundaries associated with the 1997 8-hour ozone NAAQS. The state(s) have recommended the same boundary for the 2008 ozone NAAQS and is the same as the metropolitan area boundary.

The Jamestown – Dunkirk - Fredonia, NY area also includes portions of Indian country. As defined at 18 U.S.C. 1151, “Indian country” refers to: “(a) all land within the limits of any Indian reservation under the 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.” EPA recognizes the sovereignty of tribal governments, and has attempted to take the desires of the tribes into account in establishing appropriate nonattainment area boundaries.

The Seneca Nation of Indians areas of Indian Country, called the Cattaraugus Reservation, are partially within the boundary of Chautauqua County. These lands are on the northeast, or prevailing downwind side, of Chautauqua County. The rest of the contiguous Tribal lands are within the boundaries of two other counties, both of which we intend to designate as unclassifiable/attainment for the 2008 ozone standard. In the interest of not splitting the areas of Indian country and because we believe the tribal lands located in the adjoining counties are not contributing to violations within the county, we intend to designate the Seneca Nation’s Cattaraugus Reservation as unclassifiable/attainment with regard to 0.075 ppm ozone standard. EPA Region 2 staff have discussed this with the environmental representatives of the Tribe and they have no objections to the designation of unclassifiable/attainment.

Technical Analysis for Cattaraugus Reservation-Seneca Nation of Indians

Note: The technical analysis is not intended to be used for jurisdictional issues. This analysis was performed to determine if the Cattaraugus Reservation should be included in the Jamestown-Dunkirk-Fredonia, NY Micropolitan Statistical Area (Jamestown) nonattainment area.

Figure 1, attached, is a map of the Cattaraugus Reservation in relation the area EPA intends to designate as the Jamestown-Dunkirk-Fredonia, NY nonattainment area. The intended nonattainment area is Chautauqua County, NY. A small portion of the Reservation overlaps with the northern border of Chautauqua County. The map shows the location of air quality monitors and their associated design values upwind and downwind of the Reservation. Areas on the map colored blue indicate the Jamestown nonattainment area. The gray area indicates the location of the Reservation.

On October 26, 2011, New York State submitted a revised recommendation that Chautauqua County be designated as nonattainment for the 2008 ozone NAAQS based on air quality data from 2008-2010. The Seneca Nation of Indians did not submit any recommendations for the designation of Cattaraugus Reservation. The boundaries of Chautauqua County and the Reservation overlap. Based on EPA's technical analysis described below, EPA intends to designate the Cattaraugus Reservation in its entirety as unclassifiable/attainment for the 2008 ozone NAAQS.

Factor Assessment

Factor 1: Air Quality Data

There are no air monitors on the Reservation. An air monitor located downwind in Erie County is attaining the ozone standard, so it does not indicate that the Reservation is adversely impacting air quality.

Factor 2: Emissions and Emissions-Related Data

Emissions

There are no permitted facilities on the Reservation. There are no known sources located on the Reservation, such as Tribally-owned casinos, that may have emissions impacts.

Population density and degree of urbanization

EPA evaluated the population and vehicle use characteristics and trends of the area as indicators of the probable location and magnitude of non-point source emissions. These include ozone-creating emissions from on-road and off-road vehicles and engines, consumer products, residential fuel combustion, and consumer services. Areas of dense population or commercial development are an indicator of area source and mobile source NO_x and VOC emissions that may contribute to ozone formation. Rapid population or VMT growth (see below) in a county on the urban perimeter signifies increasing integration with the core urban area, and indicates that the associated area source and mobile source emissions may be appropriate to include in the nonattainment area.

The 2010 Demographic Profile data as collected by the U.S. Census Bureau (U.S. Census Bureau population estimates for 2010 as of November 25, 2011, <http://www.census.gov/popfinder>; NY – Cattaraugus Reservation data) indicates that the total population of the Reservation that overlaps with Chautauqua County is 38. Discussions with the Seneca Nation of Indians Environment Division also confirm that the area is sparsely populated. The small population is unlikely to have an impact on the Jamestown nonattainment area. Table 6 shows the census data used for this evaluation.

Traffic and commuting patterns

EPA evaluated the commuting patterns of residents in the area, as well as the total Vehicle Miles Traveled (VMT) for each county. In combination with the population/population density data and the location of main transportation arteries (see above), this information helps identify the probable location of non-point source emissions. A county with high VMT and/or a high number of commuters is generally an integral part of an urban area and indicates the presence of motor vehicle emissions that may contribute to ozone formation. Rapid population or VMT growth in a county on the urban perimeter signifies increasing integration with the core urban area, and indicates that the associated area source and mobile source emissions may be appropriate to include in the nonattainment area.

The New York State Department of Transportation does not have traffic counts for roads on the Reservation that overlaps with Chautauqua County. No major roadways are located in the overlapping area. The census reported population for this area is also very low (see **Population density and degree of urbanization**) and the small population has little traffic impact on the Jamestown nonattainment area.

Factor 3: Meteorology (weather/transport patterns)

EPA evaluated any available meteorological data to help determine how meteorological conditions, such as weather, transport patterns and stagnation conditions, would affect the fate and transport of precursor emissions contributing to ozone formation.

The Reservation is downwind of the Jamestown nonattainment area. Emissions transport to the nonattainment area is likely to be low or nonexistent. This factor did not play a significant role in this evaluation.

Factor 4: Geography/topography (mountain ranges or other air basin boundaries)

The geography/topography analysis evaluates the physical features of the land that might affect the airshed and, therefore, the distribution of ozone over the area.

The Cattaraugus Reservation does not have any geographical or topographical barriers significantly limiting air pollution transport within its air shed. Therefore, this factor did not play a significant role in this evaluation.

Factor 5: Jurisdictional boundaries

Once the general areas to be included in the nonattainment area were determined, EPA considered existing jurisdictional boundaries for the purposes of providing a clearly defined legal boundary and carrying out the air quality planning and enforcement functions for nonattainment areas. Examples of jurisdictional boundaries include existing/prior nonattainment areas for ozone or other urban-scale pollutants, counties, air districts, townships, metropolitan planning organizations, state lines, Reservations, urban growth boundary, etc. Where existing jurisdictional boundaries are not adequate to describe the nonattainment area, other clearly defined and permanent landmarks or geographic coordinates were considered.

EPA recognizes the sovereignty of tribal governments and tribal lands in defining appropriate nonattainment area boundaries. The Jamestown nonattainment area (Chautauqua County) intersects with the Reservation. EPA recognizes the Tribal boundaries and will not split the Reservation into separately designated areas. EPA has decided on an unclassifiable/attainment designation since a majority of the Reservation is an attaining area and does not contribute to violating air quality monitors.

Conclusion

Based on the assessment of factors described above, EPA has preliminarily concluded that the Seneca Nation of Indian's Cattaraugus Reservation does not contribute to violations in the Jamestown nonattainment area and will be classified as unclassifiable/attainment. The Reservation has a small population, no known sources, and is located downwind of violating monitors. EPA does not believe that the Reservation impacts the air quality of the Jamestown nonattainment area.

Jamestown-Dunkirk-Fredonia, NY

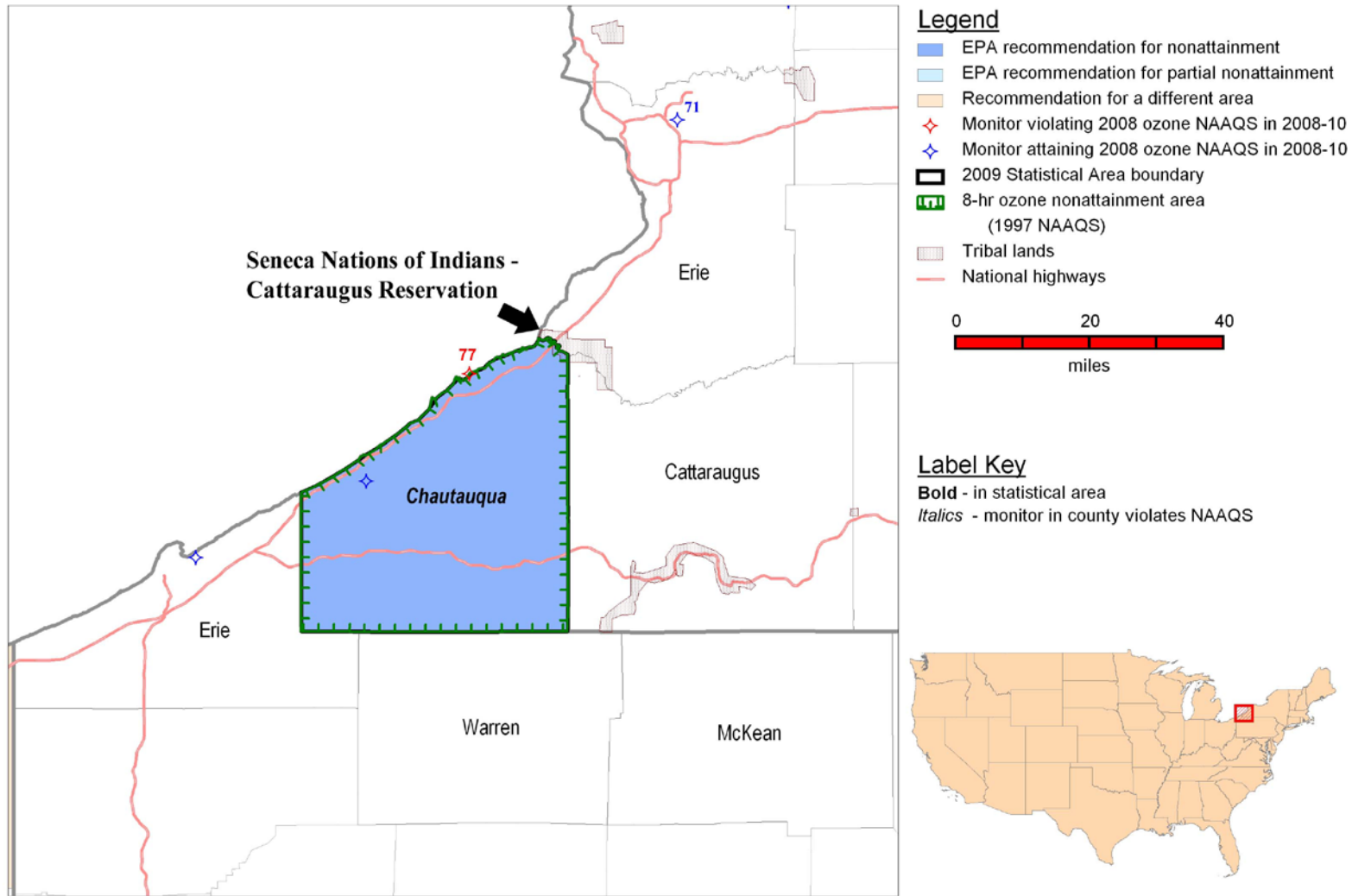


Figure 1 Map showing Cattaraugus Reservation in relation to the proposed Jamestown nonattainment area (Chautauqua County).

2010 Demographic Profile

NY - Cattaraugus Reservation

Population	
Total Population	38
Housing Status (in total housing units unless noted)	
Total	17
Occupied	15
Owner-occupied (occupied housing units)	12
Population in owner-occupied (number of individuals)	26
Renter-occupied (occupied housing units)	3
Population in renter-occupied (number of individuals)	12
Households with individuals under 18 (households)	6
Vacant	2
Vacant: for rent	0
Vacant: for sale	0
Vacant: for seasonal/recreational/occasional use	1

Population by Sex/Age	
Male	21
Female	17
Under 18	13
18 & over	25
20 - 24	2
25 - 34	5
35 - 49	8
50 - 64	6
65 & over	3

Population by Ethnicity	
Hispanic or Latino	5
Non Hispanic or Latino	33

Population by Race	
White	9
African American	0
Asian	0
American Indian and Alaska Native	28
Native Hawaiian and Pacific Islander	0
Other	0
Identified by two or more	3

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Table 6: Census information for the Cattaraugus Reservation.

Technical Analysis for Tribal Lands in the New York – Northern New Jersey – Long Island, NY, NJ, CT, PA Area (NY portion)

The Shinnecock Indian Nation, is wholly located within Suffolk County in the intended New York – Northern New Jersey – Long Island, NY, NJ, CT nonattainment area. EPA does not intend to issue a separate designation for the Shinnecock Nation, but their Tribal Lands will also be nonattainment, the same designation as the surrounding lands.

Figure 2

New York-Newark-Bridgeport, NY-NJ-CT-PA

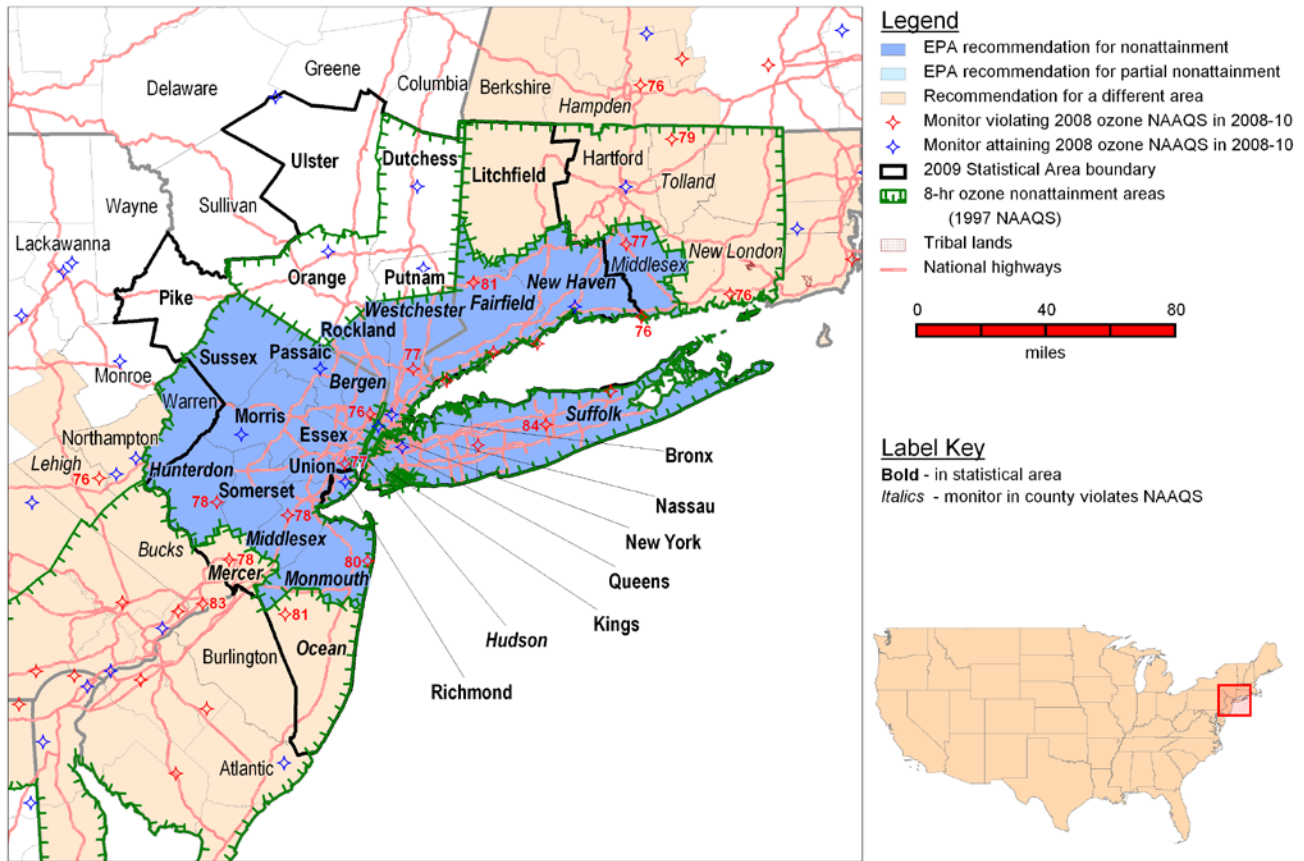


Figure 2 is a map of the New York – Northern New Jersey – Long Island, NY, NJ, CT, PA potential nonattainment area. The map provides other relevant information including the locations and design values of air quality monitors, county and other jurisdictional boundaries, as well as CSA/CBSA boundary, existing nonattainment or maintenance boundary for 1997 ozone NAAQS, major transportation arteries.

On March 12, 2009, New York State recommended that the entire counties of Bronx, Kings, Nassau, New York, Queens, Richmond, Rockland, Suffolk, Westchester be designated as nonattainment for the 2008 ozone NAAQS based on air quality data from 2006-2008. New York State provided an update to the original recommendation on October 26, 2011 based on air quality data from 2008-2010. This area includes the same counties designated as nonattainment for the 1997 ozone - standard. These data are from Federal Reference Method (FRM) monitors sited and operated in accordance with 40 CFR Part 58.

After considering these recommendations and based on EPA's technical analysis described below, EPA intends to designate the counties in New York State's requests as "nonattainment" for the 2008 ozone NAAQS as part of the New York – Northern New Jersey – Long Island, NY, NJ, CT nonattainment area, as described in Table 1 at the beginning of this document.

Conclusion

The New York – Northern New Jersey – Long Island, NY, NJ, CT area also includes the Shinnecock Nation Indian country. As defined at 18 U.S.C. 1151, "Indian country" refers to: "(a) all land within the limits of any Indian reservation under the 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." EPA recognizes the sovereignty of tribal governments, and has attempted to take the desires of the tribes into account in establishing appropriate nonattainment area boundaries. In this case, the Shinnecock Nation lands are inside of the New York – Northern New Jersey – Long Island, NY, NJ, CT intended nonattainment area and will be included in the nonattainment area.