

**SAN DIEGO COUNTY
AIR POLLUTION CONTROL DISTRICT**

**DRAFT PROPOSED PLAN FOR ATTAINING THE STATE AMBIENT AIR QUALITY
STANDARDS FOR OZONE IN SAN DIEGO COUNTY
(2022 REGIONAL AIR QUALITY STRATEGY)**

RESPONSE TO COMMENTS

The San Diego County Air Pollution Control District (District) conducted public outreach in October and November 2022, to gather feedback on the draft proposed plan to attain the state ambient ozone standards throughout the San Diego region (2022 Regional Air Quality Strategy (RAQS)). This outreach consisted of a public webinar on November 9, 2022, and presentations at three already scheduled public meetings. Advance notice of the meetings was sent to over 12,100 recipients on the District's email listservs, as well as over 3,300 organizations composed of air quality permit holders, environmental groups, industry associations, economic development corporations, chambers of commerce, the military, tribal nations, local governments, the California Air Resources Board (CARB), and other interested parties. The three public meetings were: Assembly Bill (AB) 617 Portside Community Steering Committee (October 25, 2022), AB 617 International Border Community Steering Committee (November 16, 2022), and the San Diego Region Conformity Working Group (November 2, 2022). In total, 108 attendees participated in these outreach events representing government agencies, local businesses, labor, health professionals, members of the environmental community, military, tribal nations, the general public and other stakeholders. Both written and verbal comments were received. Following is a summary of those comments and the District's responses:

1. COMMENT

New industries/companies continue to setup operations in the Portside area. How does the District permit new operations (and with it, the allowable air pollution exposure)? Do new companies need to meet air pollution requirements that exist today, or requirements that may exist in the future?

DISTRICT RESPONSE

The District administers a permitting program that requires all new, modified or relocated stationary sources to obtain a "Authority to Construct" permit prior to construction or modification of equipment operated at such stationary sources. Sources apply for the permit, and the District evaluates the equipment operation and emissions under all existing applicable District, state and federal air quality rules, regulations and requirements. During this process, the District considers if the New Source Review (NSR) program applies. The District's NSR Program is governed by Rule 20 (Rules 20.1 thru 20.8) for criteria pollutants, and District Rule 1200 for toxic air pollutants. The NSR program requires stationary industrial facilities to install modern pollution control equipment when they are built or when making a change that increases emissions. The program's intent is to protect public health and environment and to ensure that new and modified sources do not aggravate air quality problems in areas that are nonattainment for a given air pollutant. All new/modified facilities with the potential to emit over 25 tons per year of Volatile Organic Compounds (VOC) or Nitrogen Oxides (NOx) are subject to federal NSR provisions, as well as federal Operating Permit requirements or Title V permitting program. Facilities with emissions below this threshold remain subject to local NSR provisions. If these facilities also emit air toxics, they are required to limit their emissions to levels that would not pose health risks above thresholds identified in District Rule 1200.

Response to Comments
2022 RAQS & CEQA Analysis

Businesses subject to NSR provisions must apply for and obtain an NSR permit from the District prior to construction that demonstrates their facility will limit air pollutant emissions with control equipment that is either the Best Available Control Technology (BACT) available, or Lowest Achievable Emission Rate (LAER). After sources complete construction, the District issues a “Permit to Operate” to confirm the equipment was built correctly, and that its operation and emissions comply with all applicable air quality requirements and permit conditions, including any emissions testing requirements. Through the Permit to Operate, the District also enforces other requirements, including the implementation of prohibitory rules such as fugitive dust, nuisance, and source-specific rules associated with emissions or standards for different types of equipment and sources. If the requirements under source-specific rules change or become more stringent in the future, then existing sources must comply with any new applicable requirements at that time.

2. COMMENT

Portside community residents are uncertain whether Particulate Matter (PM) levels in the community can be effectively controlled. How is the District tracking PM air pollution within the community?

DISTRICT RESPONSE

PM2.5 levels have been monitored within the Portside community (either at Perkins or Sherman Elementary schools) since 2005. Additionally, pursuant to Assembly Bill 617, the District has installed and is operating new, real-time analyzers of black carbon (a surrogate for diesel PM) within the Portside community. The District will also be monitoring for toxic metals within the Portside community in the near future. For additional information, please refer to Chapter 4 (Technical Assessment – Air Monitoring) of the Portside Community Emissions Reduction Plan (CERP), which describes current and proposed monitoring activities occurring in the Portside area. The CERP can be reviewed at

<https://www.sdapcd.org/content/dam/sdapcd/documents/capp/cerp/Portside-Environmental-Justice-CERP-July-2021.pdf>

3. COMMENT

The presentation stated the largest source of NOx emissions in San Diego County was Ocean-Going Vessels (OGVs). Can the District clarify the ship type, distance to/from the Bay, and whether increasing access to shore power for these vessels would decrease OGV emissions?

DISTRICT RESPONSE

The largest source of NOx emissions in San Diego County (as of 2021) is from OGVs according to CARB’s emissions inventory. The source category emits approximately 17.6 tons of NOx per day. This includes all transit/maneuvering/anchorage emissions out to 100 nautical miles off the coastline of San Diego County. Approximately 60% of NOx from OGVs is emitted from transiting diesel-fueled military vessels, and approximately 24% is emitted from diesel-fueled tankers, container ships, and passenger ships transiting in the same vicinity. The remaining 16% of NOx comes from a variety of OGV vessel and engine types, including bulk and general cargo, auto carriers, roll-on/roll-off vessels, container ships, and tankers. When isolating OGV-related emissions to three nautical miles off the coastline, NOx emissions from OGVs significantly decreases to 2.3 tons of NOx per day. Within three nautical miles, approximately 62% of NOx from OGVs is emitted from transiting diesel-fueled military vessels, while 24% is emitted from auxiliary engines operating on anchored passenger ships primarily in San Diego Bay. Increasing

Response to Comments
2022 RAQS & CEQA Analysis

access to zero-emission shore power opportunities in San Diego Bay, particularly for passenger vessels, will further reduce NOx emissions from the source category. Historically, only one passenger cruise vessel could plug into shore power in San Diego Bay at a time. However, the Port of San Diego recently completed an upgrade at the cruise ship terminal that will now allow two cruise ships to use shore power simultaneously.

4. COMMENT

Does the District anticipate the updated ozone pollution control strategy contained in the 2022 RAQS will ultimately bring the County into attainment for state ozone standards? If so, by when is attainment projected?

DISTRICT RESPONSE

The updated ozone pollution control strategy included in the 2022 RAQS will improve regional air quality and provides for attaining state ozone standards as expeditiously as practicable and no later than 2032. This is supported by CARB's photochemical air quality modeling recently prepared as part of the [District's 2020 Federal Ozone Plan](#), which used the same emission inventory and planning assumptions as the Draft 2022 RAQS. The modeling analysis included in the District's 2020 Federal Ozone Plan concluded the region is forecasted to attain the state eight-hour ozone standard (0.070 parts per million) by 2032. Once adopted, the proposed new measures and regulations included in the Draft 2022 RAQS and CARB's [2022 State SIP Strategy](#) will provide additional emission reductions above and beyond what was accounted for in this previous air quality modeling.

5. COMMENT

Why does the community of Alpine experience the highest levels of ozone in San Diego County?

DISTRICT RESPONSE

Historically, Alpine has exhibited the highest average ambient concentrations of ozone in San Diego County. Topography in the area makes it particularly susceptible to ozone formation. Air pollution is emitted from stationary, areawide, and mobile sources mainly within the heavily populated coastal region of San Diego County, which is then blown eastward by prevailing winds. The air pollution then has time to chemically react and "cook" under sunlight and warmer weather conditions found inland, which forms ground-level ozone. This ozone pollution then gets trapped against the inland mountains and foothills of San Diego County under a meteorological inversion layer, which results in higher ozone levels around the Alpine air monitoring station.

6. COMMENT

Zero-emission technology can eliminate NOx and VOC emissions, as well as Greenhouse Gases (GHGs) and PM. However, does "low-emission" technology (i.e., Low-NOx compressed natural gas) reduce GHGs and PM by the same amount as zero-emission technology?

DISTRICT RESPONSE

Depending on the fuel used, low-emission (or "Low-NOx") combustion technology can significantly reduce GHGs and PM when compared to a standard diesel combustion engine. For example, operating a Low-NOx engine fueled by renewable compressed natural gas can reduce NOx and PM emissions by over 90% and GHG emissions by up to 30% compared to a new diesel engine. However, operating Low-NOx combustion technology using fossil-fuel based (or non-

Response to Comments
2022 RAQS & CEQA Analysis

renewable) sources yields far fewer GHG emission reduction benefits than zero-emission technology.

7. COMMENT

Many OGVs travel North and South in international waters along the coastline in San Diego County (i.e., over 24 miles offshore). These vessels idle off the coastline while waiting to anchor at the Ports of Long Beach or Los Angeles. The emissions from the idling engines can travel into the Portside community when westerly winds are present. What can the District do about these emissions, and what agency has the authority to control emissions from these vessels while they operate in international waters?

DISTRICT RESPONSE

The District does not have regulatory authority to control emissions from OGVs operating off the coastline of California. However, CARB has such authority when OGVs are transiting, maneuvering, or anchoring within Regulated California Waters (RCW) (i.e., within 24 nautical miles of the California Coast) and while docking at California seaports. CARB requires OGVs traveling within RCW to use low-sulfur diesel and requires most OGVs to use shore power while docked at California seaports. Many areas, including the Port of San Diego, also implement voluntary vessel speed reduction (VSR) incentive programs to decrease OGV emissions off the coastline. The Port of San Diego's VSR program extends 40 nautical miles off the coast of Point Loma and encourages vessels entering/leaving San Diego Bay to observe a 12-15 knot speed limit. Vessel operators that adhere to the lower speeds at least 90% of the time are recognized by the Port for their participation in the program.

Outside of RCW, the International Maritime Organization (IMO) has regulatory authority to control OGV emissions. However, IMO engine emission standards mainly focus on NOx and GHGs and generally do not require upgrading to the cleanest engine technology in short timeframes. To help address this gap in cleaning up the legacy fleet, CARB has proposed implementing several strategies in the recently adopted [2022 State SIP Strategy](#) to further reduce emissions from OGVs by 2027. These include possible future OGV operational changes, new technology requirements, new incentives, and working collaboratively with EPA and international partners to further reduce emissions from the source category.

8. COMMENT

Is there are a correlation between ambient ozone levels and vehicle miles traveled (VMT) in San Diego County?

DISTRICT RESPONSE

Historically, there has not been a direct correlation between ambient ozone concentrations and VMT. Since 1990, regionwide VMT has increased 66% while ozone levels have decreased by 39%, because of the air pollution control program including cleaner engines and fuels offsetting the impact of VMT growth. However, going forward, continued expansion of motor vehicle usage could diminish these hard-fought improvements in air quality. Moreover, GHG emissions have increased because of the VMT increases. Consequently, statewide measures are in place to further transition the vehicle fleet to low or zero-emission technologies.

Response to Comments
2022 RAQS & CEQA Analysis

9. COMMENT

Is there a correlation between ambient ozone levels and temperature increases due to climate change in San Diego County?

DISTRICT RESPONSE

Higher temperatures are generally associated with higher ozone levels overall. However, research conducted to date is not conclusive whether temperature increases associated with climate change will ultimately impact ozone levels in San Diego County, due to variables and limitations in climate and air quality forecasting. The Draft 2022 RAQS (Section 4) further describes the complex relationship between ozone, GHGs, and temperature increases due to climate change.

10. COMMENT

If combustion vehicle emissions were eliminated in San Diego County, would the region still experience high ozone levels, and as a result would public health improve? More expedient adoption and access to zero-emission vehicles could assist in lowering ozone levels and improve the health of residents quicker.

DISTRICT RESPONSE

Eliminating vehicle emissions would lower ambient ozone concentrations below the established state and federal health-based standards for ozone, and as a result would improve public health. Consequently, the District's ozone pollution control strategy relies on existing and proposed adoption of zero-emission regulations for mobile sources at the state and federal levels. CARB and the EPA have authority to mandate such technology equipment upgrades. Photochemical air quality modeling included in the [District's 2020 Federal Ozone Plan](#) (Section 4.3.4) forecasted the region attaining the existing "health protective" state eight-hour ozone standard by 2032, as a result of the current ozone pollution control strategy in place. Future state and federal regulations that further reduce vehicular emissions could shorten the timeframe for attainment.

11. COMMENT

What public outreach has been conducted by the District for communities in San Diego County that have had ozone exceedance days?

DISTRICT RESPONSE

Because ozone formation is a regional issue, the District conducted a countywide public outreach strategy. This included sending workshop notices to stakeholders throughout the region including those in the communities of Alpine, El Cajon, and Kearny Mesa; all of which experienced ozone exceedance days in 2021. The District mailed approximately 3,400 bilingual (Spanish/English) workshop notices to stakeholders countywide informing of the availability of the Draft 2022 RAQS and public workshop opportunities. This mailing was sent to all local permit holders, chambers of commerce, public agencies, and local planning organizations within San Diego County. Notices and opportunities for consultation were also sent to all tribal nations and inter-tribal councils countywide. The District also emailed a bilingual workshop announcement to over 12,100 stakeholders via the District's GovDelivery email listserv system and posted the announcement on District social media platforms. Four public workshop presentation opportunities were provided to discuss the Draft 2022 RAQS (three of which having live translation services). The District remains available to answer any questions or concerns regarding the Draft 2022 RAQS from all stakeholders.

Response to Comments
2022 RAQS & CEQA Analysis

12. COMMENT

What is being done to improve air quality in communities of San Diego County that have exceeded ozone standards in the past?

DISTRICT RESPONSE

Ozone can travel long distances, affecting areas far downwind, therefore ozone pollution is most appropriately addressed through a regional plan and regulations to control sources throughout the region. Local and statewide regulations have substantially reduced emissions from stationary, areawide, and mobile sources of air pollution. This has resulted in a significant reduction in ozone levels as a result, especially in inland foothill communities such as Alpine, which exhibited a 46% reduction in community ozone levels since 1980.

13. COMMENT

Why are stationary sources a small contributor to local ozone pollution formation and yet they are the main focus of the proposed measures included in the 2022 RAQS?

DISTRICT RESPONSE

As discussed in the 2022 RAQS, stationary sources are the main focus of the District's regulatory authority in accordance with state law. The District has limited regulatory authority to control emissions from mobile sources including passenger cars, heavy-duty trucks and buses, off-road equipment, locomotives, aircraft, and marine vessels. These sources are primarily regulated at the state and federal levels but are responsible for approximately 62% of all ozone precursor emissions in San Diego County. Consequently, further action by CARB and the EPA is necessary for the region to continue reducing emissions from these sources. Nonetheless, California Health and Safety Code section 40911 (H&SC § 40911) requires the District to prepare and implement a regional plan (the "RAQS") to attain the state ozone standards by the earliest practicable date. Furthermore, H&SC §40914 requires the RAQS to include an expeditious schedule for adopting every feasible measure to control emissions from sources under the air district's purview, primarily stationary sources in accordance with §40000. Additionally, §40716 authorizes air districts in non-attainment areas to adopt and implement regulations to reduce emissions from indirect and areawide sources. The 2022 RAQS was designed to meet these statutory requirements.

14. COMMENT

Does the District have plans to increase the existing ozone monitoring network to higher elevations above Alpine, particularly in under-resourced communities such as tribal nations?

DISTRICT RESPONSE

The District has no plans to install additional ozone monitors at higher elevations or in tribal nations at this time. In June 2022, the EPA completed a Technical Systems Audit of the region's ambient air monitoring program and determined the existing monitoring network provides adequate coverage and no new monitoring sites are necessary to comply with ozone monitoring requirements. However, two tribal nations in San Diego County (Manzanita Band of Diegueno Mission Indians and Pala Band of Mission Indians) recently were awarded grants as part of the federal American Rescue Plan to setup or enhance existing air quality monitoring networks within these tribal nations. Moving forward, the District will continue to monitor air quality in

Response to Comments
2022 RAQS & CEQA Analysis

under-resourced communities located near the Port of San Diego and International Border to comply with state requirements and will continue to engage with stakeholders on other air monitoring opportunities in other under-resourced communities.

15. COMMENT

The presentation stated that photochemical modeling isn't required by the CCAA for state air quality plans. Does the District plan to include photochemical modeling in the 2022 RAQS to better understand how emission sources may affect ozone levels at inland locations?

DISTRICT RESPONSE

As the commenter stated, the CCAA does not require air districts to include photochemical modeling within each RAQS revision. Conducting such an analysis would be resource intensive, costly, and delay the Governing Board's consideration of the updated RAQS. Consequently, the 2022 RAQS (and all RAQS revisions that have preceded it) does not include photochemical modeling analyses. However, to comply with federal requirements, Attachment K in the [District's 2020 Federal Ozone Plan](#) did include a photochemical modeling analysis conducted by CARB using the same emission inventory and planning assumptions that were used in the 2022 RAQS.

16. COMMENT

Does the District offer grant funding to equipment owners needing to meet forthcoming state or federal mobile source regulation requirements?

DISTRICT RESPONSE

The District offers several incentive funding programs for equipment owners seeking to voluntarily replace high-emitting equipment with cleaner technology. To qualify for these programs, equipment owners typically need to apply and procure new equipment well in advance of any local, state, or federal regulatory deadline to upgrade the old equipment. We encourage prospective applicants to contact District Grants staff at cleanairgrants@sdapcd.org to discuss your potential project prior to applying. Additional information can be found on the District's website at <https://www.sdapcd.org/content/sdapcd/grants.html>.

17. COMMENT

Where can the Draft 2022 RAQS and corresponding CEQA analysis be downloaded online?

DISTRICT RESPONSE

The Draft 2022 RAQS and Draft 2022 RAQS Environmental Impact Report (EIR) Addendum can be downloaded from the District's Air Quality Planning webpage at: <https://www.sdapcd.org/content/sdapcd/planning.html>

18. COMMENT

The Aclima mobile ozone monitoring data collected in 2019 determined areas within the Portside community exhibited ambient ozone levels that met existing state ozone standards (i.e., under 0.070 parts per million). However, the presentation also indicated the area can still have days where it exceeds the standard – how is that possible? Additionally, chemical reactions can take place with vehicle exhaust and other gases in the atmosphere along roadways. Consequently, it may not be accurate to present the Aclima mobile monitoring ozone data as being “lower” in relation to other areas.

Response to Comments
2022 RAQS & CEQA Analysis

DISTRICT RESPONSE

Aclima data were collected only for a nine-month study period, not an entire year; thus, days in which state and federal ozone standards are exceeded in the Portside community are still possible under certain meteorological conditions. Regarding chemical reactions taking place near roadways, the District agrees that “NO_x scavenging” (or ozone scavenging) may be present with respect to the Aclima ozone data. NO_x scavenging is a chemical process that leads to a localized depletion of ozone concentrations near roadways, by up to 40% compared to background ozone levels, according to CARB. Consequently, Aclima’s roadway ozone data may not be fully representative of the full extent of ozone pollution in the area. The District will include additional context regarding NO_x scavenging in the final version of the 2022 RAQS.

19. COMMENT

San Diego County is in proximity to Tijuana, Mexico. Are emissions from Tijuana included in the 2022 RAQS?

DISTRICT RESPONSE

The 2022 RAQS utilizes emission inventories found in the CARB California Emissions Projection Analysis Model (CEPAM). This model only includes emission sources located in California. However, CARB included Northern Mexico emissions, along with CEPAM data, in the emission inventory used for photochemical modeling analyses in the [District’s 2020 Federal Ozone Plan](#) to determine when the region would attain the state and federal 0.070 ppm ozone standard. This modeling determined that the region was forecast to attain the 0.070 ppm ozone standard by 2032. Attachment L of the 2020 Federal Ozone Plan states CARB used several sources to prepare the Northern Mexico emission inventory, including U.S. EPA’s 2011 National Emissions Inventory (NEI), the 2008 Mexico National Emissions Inventory, as well as reports prepared specifically for CARB by the Eastern Research Group.

20. COMMENT

What is the connection between the 2022 RAQS and the work of Assembly Bill (AB) 617 Steering Committees in the Portside and International Border communities?

DISTRICT RESPONSE

AB617 Steering Committees in San Diego County are composed of members of environmental groups, industry, non-profits, public agencies, military, health professionals, and members of the community. As such, each Committee’s feedback is vital for District planning documents like the 2022 RAQS. These committees work primarily on local community air quality improvements, while the 2022 RAQS is a regionwide plan. Nevertheless, the two efforts are compatible and supportive of each other. Each RAQS revision serves to notify the public about the District’s updated ozone pollution control strategy. Additionally, the 2022 RAQS now includes information about ozone in under-resourced communities, ozone’s relationship with greenhouse gases, climate change, and mobile sources of air pollution; all of which are topics of interest for the AB617 Steering Committees. The RAQS also informs stakeholders when upcoming new/amended NO_x and VOC rules that have been proposed in local CERPs may be scheduled for adoption or amendment. For example, the District included possible further control of VOC emissions from marine coating operations within the Portside CERP. As a result, this possible measure has been scheduled for evaluation and possible amendment in the 2022 RAQS.

Response to Comments
2022 RAQS & CEQA Analysis

21. COMMENT

The presentation noted that the largest source of VOC in San Diego County was consumer products (i.e., hand sanitizers, perfumes, hairsprays, cleaners, detergents, etc.). Can the District recommend any public behavioral changes that might result in reductions of VOC from this source category? Also, are the use of consumer products equally distributed amongst income brackets and regional areas of the County?

DISTRICT RESPONSE

The District recommends using consumer products containing “low” or no VOCs whenever possible. No public data is available regarding the use of consumer products by type, income bracket, or by localized regions within the County. The District recommends contacting the CARB Consumer Products Program at (800) 242-4450 for additional information.

22. COMMENT

Attachment K in the 2022 RAQS states that North County Transit District (NCTD) has eight battery-electric buses already in operation, which is incorrect.

DISTRICT RESPONSE

The District agrees and has clarified with NCTD that, as of September 2022, six battery-electric transit buses were ordered and are scheduled for delivery by early 2023. The District will include this correction in the final version of the 2022 RAQS.

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1/6/2023