4.2 AIR QUALITY

The analysis in this section updates Chapter 4.3 in the 2011 Comprehensive Land Use Update (CLUU) Program Environmental Impact Report (PEIR), with an emphasis on potential air quality impacts that may change as a result of the Focused General Plan Update (FGPU). This section addresses the potential air quality impacts that may result from the emission of air pollutants during both construction and operations associated with implementation of the FGPU. As discussed in Chapter 3.0 Project Description, the FGPU proposes zoning changes and a number of mobility improvements within the public right-of-way. The zoning amendments would increase allowable density throughout the Planning Area and would be anticipated to result in the future buildout of 595 additional residential dwelling units and 198,688 square feet of commercial and office space over the adopted General Plan's allowed development. Complete air quality modeling data are contained in Appendix 13.C.2 of this Supplemental Program Environmental Impact Report (SPEIR) and include criteria pollutant emission data calculated using the California Emissions Estimator Model (CalEEMod) and California Air Resources Board (CARB) Emissions Factor (EMFAC).

4.2.1 Existing Conditions

4.2.1.1 Climate and Topography

The climate of San Diego County is classified as Mediterranean but has diverse microclimates due to the topography throughout its cities. The topography of the County is highly varied, consisting of coastal plains and lagoons, flatlands and mesas, broad valleys, canyons, foothills, mountains, and deserts. Generally, building structures are on the flatlands, mesas, and valleys, while the canyons and foothills tend to be sparsely developed. This segmentation is what has carved the region into a conglomeration of separate cities that led to low density housing and an automobile-centric environment.

The climate is dominated by the Pacific High-pressure system, which results in mild, dry summers and mild, wet winters. San Diego experiences about 201 days above 70 degrees Fahrenheit and 9 to 13 inches of rainfall annually (mostly in November through March). El Niño and La Niña patterns have large effects on the annual rainfall received in San Diego.

To the west of San Diego are the beaches and the Pacific Ocean; to the south is Tijuana, Mexico, and the Baja California Peninsula; to the near east are the Laguna Mountains; to the far east is the desert (the Salton Sea Air Basin), and to the north is the South Coast Air Basin (the greater Los Angeles-Riverside-San Bernardino area/air basin).

The area's topography also drives the pollutant levels. The San Diego Air Basin (SDAB) is not classified as a contributor, but it is classified as a transport recipient. The transport recipient pollutants are ozone (O_3), nitrogen oxides (NO_X), and volatile organic compounds (VOCs), which are transported from the South Coast Air Basin from the north and, when the wind shifts direction, Tijuana, Mexico, from the south.[1]

4.2.1.2 Existing Air Quality

National City is within the SDAB, which lies in the southwest corner of California and comprises the entire San Diego region. Air quality management is a shared responsibility among the U.S. Environmental Protection Agency (EPA), CARB, and the San Diego Air Pollution Control District (SDAPCD), with each managing different programs. The EPA primarily oversees mobile air pollutant emissions (on-road vehicles) and major stationary sources (and for which authority is delegated to the SDAPCD). CARB regulates consumer products (e.g., small engines, garden equipment, aerosol paints,

1 SDAPCD, 2019 Network Plan, https://www.sdapcd.org/content/dam/sdc/apcd/monitoring/2019_Network_Plan.pdf

personal care products), motor vehicle fuels, mobile sources (e.g., motor vehicles, off-road equipment), and greenhouse gases. The SDAPCD regulates stationary sources of air pollutants.

The SDAPCD operates a network of air pollutant monitoring stations throughout the County to measure ambient pollution levels and determine whether the State and federal air quality standards are being met. The nearest stations to National City are located in Chula Vista and in downtown San Diego at the Sherman Elementary School (SES).[2] Table 4.2-1 shows designation statuses for San Diego County for each of the criteria pollutants tracked by CARB on its 2020 attainment maps. The EPA designates all areas of the United States as having air quality better than the National Ambient Air Quality Standards (NAAQS) as having "attainment," worse than the NAAQS as "nonattainment," or as "unclassified" in areas for which insufficient data exist; similarly, CARB designates areas of the State according to the standards set by the California Ambient Air Quality Standards (CAAQS).

Table 4.2-1 San Diego Air Basin Attainment Status for Ambient Air Quality Standards

Criteria Pollutant	State (CAAQS)	Federal (NAAQS)
Ozone (O_3)	Nonattainment	Nonattainment
Particulate matter less than or equal to 10 microns in diameter (PM_{10})	Nonattainment	Attainment/Unclassified
Particulate matter less than or equal to 2.5 microns in diameter ($PM_{2.5}$)	Nonattainment	Attainment/Unclassified
Carbon monoxide (CO)	Attainment	Attainment/Unclassified
Nitrogen dioxide (NO_2)	Attainment	Attainment/Unclassified
Sulfur dioxide (SO_2)	Attainment	Attainment/Unclassified
Sulfates (SO_4^{2-})	Attainment	N/A
Lead (Pb)	Attainment	Attainment/Unclassified
Hydrogen sulfide (H_2S)	Unclassified	N/A
Visibility reducing particles	Unclassified	N/A

Source: CARB, Maps of State (October 2020) and Federal Area Designations (October 2018), https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations

The air quality in a region is considered to be in attainment by the state if the measured ambient air pollutant levels for ozone (O_3), carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), particulate matter less than or equal to 10 or 2.5 microns in diameter (PM_{10} and $PM_{2.5}$) are not equaled or exceeded at any time in any consecutive three-year period; and the federal standards (other than ozone, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not exceeded more than once per year. The ozone standard is attained when the fourth-highest 8-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when 99 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. An area or region is designated as in attainment for a particular pollutant when it is in compliance with an air quality standard for that pollutant.

Maximum ozone levels in the San Diego Air Basin have dropped by 21 percent since 2000, and large portions of the region meet federal ozone standards, yet there are a few areas of the County that do

2 Note: The downtown site was shut down in 2016 and relocated to SES. Monitoring resumed in mid-2019.
SDACPD, 2020 Network Assessment 2015–2019, https://www.sdapcd.org/content/dam/sdc/apcd/monitoring/2020_Network_Assessment.pdf

not. Furthermore, in 2019, the region experienced record-low levels of ozone-forming emissions and had the fewest number of exceedances of the ozone standards since air quality monitoring began there in the 1950s. Nevertheless, to attain the federal ozone standards, the region requires further reductions of air pollutants, especially from mobile sources, as they contribute 65 percent of all ozone-forming pollutants emitted in San Diego County as of 2020.

The San Diego region is currently classified by the EPA as a Severe Nonattainment Area for the 2008 ozone standard and a Severe Nonattainment Area for the 2015 ozone standard. The federal Clean Air Act (CAA) requires areas that exceed the health-based national ambient air quality standards to develop State Implementation Plans (SIPs) that demonstrate how they will attain the standards by specified dates. The SDAPCD prepared the 2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone in San Diego County, which was adopted by CARB in November 2020.[3] This plan has not yet been incorporated into the SIP.

When the EPA strengthened the 8-hour ozone standard in 2015, 19 areas in California were designated nonattainment in 2018, including San Diego County. CARB is currently in the process of considering regional SIPs for this standard by collaborating with local air districts and stakeholders. After a series of public workshops and outreach efforts, CARB staff finalized the 2022 State Strategy for the State Implementation Plan, and the Board adopted it on September 22, 2022.[4] The measures included in the 2022 State SIP Strategy provide the basis for specific legal commitments in SIPs for individual air districts that will first be considered at the regional level. CARB will then consider approval of the regional SIPs and individual SIP emissions reduction commitments prior to submitting the plans to the EPA.

4.2.1.3 Monitored Air Quality

The SDAPCD operates a network of ambient air monitoring stations throughout the San Diego County. The purpose of these stations is to measure ambient concentrations of criteria air pollutants and determine whether the ambient air quality meets State and federal standards, pursuant to the CAAQS and the NAAQS. The nearest ambient monitoring station to the City is the San Diego – SES monitoring station located approximately 2 miles north of National City's northern border at 450B 24th Street. This station monitors the following criteria air pollutants: ozone, nitrogen dioxide, and $PM_{2.5}$. Air quality data collected at the San Diego – SES monitoring station for the years 2019 through 2021 are shown in Table 4.2-2.

3 SDAPCD, 2020 Plan for Attainment the National Ozone Standards in San Diego County, https://www.sdapcd.org/content/dam/sdapcd/documents/grants/planning/Att%20A%20(Attainment%20Plan)_ws.pdf
4 CARB, 2022 State Strategy for the State Implementation Plan, https://ww2.arb.ca.gov/sites/default/files/2022-08/2022_State_SIP_Strategy.pdf

Table 4.2-2 Summary of Air Quality Monitoring Data

Pollutant Standards	2019	2020	2021
Ozone (O_3)			
Maximum concentration 1-hour period (ppm)	0.084	0.115	0.076
Maximum concentration 8-hour period (ppm)	0.072	0.087	0.063
Days above 1-hour national standard (>0.09 ppm)	0	0	0
Days above 8-hour state/federal standard (>0.070 ppm)	1	3	0
Nitrogen Dioxide (NO_2)			
Maximum 1-hour concentration (ppm)	62	53	54
Days above state 1-hour standard (0.18 ppm)	0	0	0
Days above federal 1-hour standard (0.100 ppm)	0	0	0
Suspended Particulates ($PM_{2.5}$)			
Maximum 24-hour concentration (µg/m³)	NM	54.4	26.3
Days above federal standard (>35 µg/m³)	NM	2	0

Source: CARB, Air Quality Data Statistics (October 2022), https://www.arb.ca.gov/adam/
Key:
µg/m³ = micrograms per cubic meter
NM = pollutant not monitored during this year
$PM_{2.5}$ = particulate matter less than or equal to 2.5 microns in diameter
ppm = parts per million

Monitoring data at the San Diego – SES station showed acceptable levels of carbon dioxide for the years 2019 through 2021. The State and federal 8-hour ozone standard was exceeded once in 2019 and three times in 2020. The federal $PM_{2.5}$ standard was exceeded twice in 2020.

4.2.1.4 Sources of Pollution and Emission Trends

Sources of air pollution in National City are primarily traffic or on-road vehicles. Interstate 5 (I-5) and Interstate 805 cross the Planning Area from north to south, and State Route 54 traverses the southern edge of the Planning Area. Emissions from stationary sources and motor vehicles form secondary particles that contribute to PM_{10} in many areas. Air quality in the SDAB is impacted not only by local emissions but also by pollutants transported from other areas—in particular, ozone and ozone precursor emissions transported from the South Coast Air Basin and Mexico. In the fall months, the SDAB is often impacted by Santa Ana winds, which can transport air pollution from the South Coast Air Basin and greatly increase the San Diego ozone concentrations; a strong Santa Ana also primes the vegetation for firestorm conditions.[5]

Over the years, the SDAB has seen a decrease in ozone levels, and San Diego realized a significant decrease in the three-year average of the exceedance days for ozone and seen a sharp decrease in its 8-hour Design Value since 1999.[6] Emissions of nitrogen dioxide have also decreased over the years and have been consistently below 0.10 ppm over the last 10 years in the SDAB as a result of improved emission control technology on mobile sources. The peak 8-hour indicator for carbon monoxide has steadily decreased over the years but has been impacted intermittently by wildfires in the County,

5 SDAPCD, 2021 Air Quality Monitoring Network Report, https://www.sdapcd.org/content/dam/sdapcd/documents/monitoring/2021-Network-Report.pdf
6 SDAPCD, 2020 Network Assessment 2015–2019, https://www.sdapcd.org/content/dam/sdapcd/documents/monitoring/2020-Network-Assessment.pdf
The standard-related summary statistic is the annual fourth-highest daily maximum 8-hour ozone concentration averaged over three years, also known as the design value.

which caused the SDAB to exceed the standards for carbon monoxide multiple times, but these exceedances are considered an exceptional event and do not have a lasting impact in the air basin. Sulfur dioxide emissions from stationary sources and from land-based on- and off-road gasoline and diesel-fueled engines and vehicles have decreased due to improved source controls and switching from fuel oil to natural gas for electric generation and industrial boilers. The annual average $PM_{2.5}$ and PM_{10} concentrations in the SDAB have declined over the past decade, though severe wildfires in Southern California and within the air basin have impacted maximum 24-hour concentrations intermittently.

4.2.2 Regulatory Framework

4.2.2.1 Federal

Federal Clean Air Act (CCA) (42 United States Code [U.S.C.] Section 7401 et seq.)

The CAA is the comprehensive federal law that regulates air emissions from stationary and mobile sources. Among other things, this law authorizes the EPA to establish NAAQS to protect public health and public welfare and to regulate emissions of hazardous air pollutants.[7] One goal of the CAA was to set and achieve NAAQS in every state by 1975 in order to address the public health and welfare risks posed by certain widespread air pollutants. The setting of these pollutant standards was coupled with directing the states to develop SIPs, applicable to appropriate industrial sources in the state, in order to achieve these standards. The CAA was amended in 1977 and 1990, primarily to set new goals (dates) for achieving attainment of NAAQS since many areas of the country had failed to meet the deadlines.

4.2.2.2 State

California Clean Air Act (California CAA) (Health and Safety Code Section 39000 et. seq.)

In addition to being subject to federal requirements, air quality in California is also governed by more stringent regulations under the California CAA. The California CAA is administered by CARB at the State level and by the Air Quality Management Districts at the regional and local levels. The SDAPCD regulates air quality at the county level. The California CAA, as amended in 1992, requires all air districts in the State to endeavor to achieve and maintain the CAAQS. The CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide (H_2S), vinyl chloride (C_2H_3Cl), and visibility-reducing particles. The California CAA gives California special authority to enact stricter air pollution standards for motor vehicles than those enacted by the federal government.

California Air Toxics Program

The public's exposure to toxic air contaminants (TACs) is a significant public health issue in California. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health (Assembly Bill [AB] 1807: Health and Safety Code sections 39650–39674). The legislature established a two-step process to address the potential health effects from TACs. The first step is the risk assessment (or identification) phase. The second step is the risk management (or control) phase.

The California Air Toxics Program establishes the process for identifying and controlling TACs and includes provisions to make the public aware of significant toxic exposures and for reducing risk. Additionally, the Air Toxics Hot Spots Information and Assessment Act (AB 2588, 1987, Connelly Bill) was enacted in 1987 and requires stationary sources to report the types and quantities of certain substances routinely released into the air. The goals of the Air Toxics Hot Spots Act are to collect emission data, identify facilities having localized impacts, ascertain health risks, notify nearby residents of significant risks, and reduce those significant risks to acceptable levels. The Children's Environmental Health Protection Act, California Senate Bill (SB) 25, Chapter 731 focuses on children's exposure to air pollutants. The act requires CARB to review its air quality standards from a children's

7 EPA, 42 U.S.C Section 7401 et. seq. (1970), https://www.epa.gov/laws-regulations/summary-clean-air-act

health perspective, evaluate the statewide air monitoring network, and develop any additional air toxic control measures needed to protect children's health. Locally, toxic air pollutants are regulated through SDAPCD Regulation XII.

Diesel Particulate Matter (DPM)
Of particular concern statewide are DPM emissions. DPM was established as a TAC in 1998 and is estimated to represent a majority of the cancer risk from TACs statewide (based on the statewide average). Diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by CARB and are listed as carcinogens either under the State's Proposition 65 or under the federal Hazardous Air Pollutants program. Diesel emissions generated within the County and surrounding areas pose a potential hazard to residents and visitors.

Since the identification of DPM as a TAC in 1998, CARB has worked on developing strategies and regulations aimed at reducing the risk from DPM. The overall strategy for achieving these reductions is found in the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles[8] A stated goal of the plan is to reduce the cancer risk statewide arising from exposure to DPM 85 percent by 2020.

2022 Climate Change Scoping Plan
The proposed scoping plan lays out the most recently recommended suite of policies needed to help the State achieve its greenhouse gas reduction targets. The proposed scenario builds on existing programs for the deployment of clean fuels and technologies, and for the first time brings California's forests, wetlands, and agricultural lands into the process with the potential to leverage sustainable management to use these landscapes for carbon storage. This update aims to more effectively integrate equity and environmental justice throughout and to ensure that vulnerable communities are not disproportionately impacted by climate change. The public comment period has ended for the Draft Environmental Analysis for the Draft 2022 Scoping Plan Update, and CARB is expected to submit a Final Scoping Plan Update for CARB's approval in late 2022.

CARB Air Quality and Land Use Handbook: A Community Health Perspective[9] (2005)
CARB's Air Quality and Land Use Handbook provides CARB's recommendations regarding the siting of new sensitive land uses near freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities. This list consists of the air pollution sources that CARB has evaluated in terms of proximity. It is based on available information and reflects CARB's primary areas of jurisdiction: mobile sources and toxic air contaminants.

4.2.2.3 Local

San Diego County 2018 Ozone State Implementation Plan
The CAA requires that areas not meeting the federal standards develop comprehensive plans that describe how the area will attain the federal standards, known as SIPs. The CAA specifies the required SIP elements based on the pollutant and the severity of the air quality problem. The EPA provides guidance for states to use to meet the requirements of the CAA for each standard. Each nonattainment area must submit a SIP outlining the combination of local, state, and federal actions and emission control regulations necessary to bring the area into attainment as expeditiously as practicable.

In response to court decisions, some elements included in the 8-Hour Ozone Attainment Plan for San Diego County required updates. Accordingly, CARB staff prepared the 2018 Updates to the California

8 CARB, Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles, https://ww2.arb.ca.gov/sites/default/files/classic/diesel/documents/rrpfinal.pdf
9 CARB, Air Quality and Land Use Handbook: A Community Health Perspective, http://www.aqmd.gov/docs/default-source/ceqa/handbook/california-air-resources-board-air-quality-and-land-use-handbook-a-community-health-perspective.pdf

State Implementation Plan[10] to update SIP elements for nonattainment areas throughout the State as needed. CARB adopted the updates on October 25, 2018. CARB adopted the 8-Hour Ozone Attainment Plan for San Diego County, as a revision to the California SIP. The SDAPCD adopted the plan at a public hearing on December 14, 2016.

SDAPCD Regulations

The SDAPCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The San Diego County Regional Air Quality Strategy (RAQS) was initially adopted in 1991 and is updated on a triennial basis. The 2022 RAQS—i.e., the Draft 2022 Attainment Plan for San Diego County—would be reviewed by the SDAPCD Board in November 2022. This plan will then be submitted to CARB for their approval, then to the EPA as a revision to the California SIP for attaining the ozone standards. The RAQS outlines the SPAPCD's plans and control measures designed to attain the State air quality standard for ozone. The SDAPCD has also developed the air basin's input to the SIP, which is required under the federal CAA for areas that are out of attainment for air quality standards. The SIP includes the SPAPCD's plans and control measures for attaining the ozone NAAQS.

In addition, the SDAPCD has adopted Rule 1501 for the County, which prevents federal agencies from supporting or taking actions that are inconsistent with the efforts of the SDAPCD to achieve NAAQS,[11] i.e., actions that are inconsistent with the 2017 San Diego Ozone SIP.

National City Adopted General Plan Transportation Element

The General Plan Circulation Element includes the following goal related to air quality:

- ***Goal C-4:*** *Increased use of alternative modes of travel to reduce peak hour vehicular trips, save energy, and improve air quality.*

National City General Plan Health and Environmental Justice Element

The General Plan Health and Environmental Justice Element includes the following goals and policies related to air quality:

- ***Goal HEJ-2:*** *Improved air quality to protect human and environmental health and minimized air quality impacts on sensitive population groups.*
    - ***Policy HEJ-2.2:*** *Encourage existing stationary sources of emissions to use feasible measures to minimize emissions that could have potential impacts on air quality and incentivize non-conforming uses to relocate to appropriate industrial zones if currently impacting sensitive land uses.*
    - ***Policy HEJ-2.3:*** *Avoid siting new sensitive land uses within 500 feet from the centerline of a freeway, unless such development contributes to smart growth, open space, or transit-oriented goals, in which case the development shall include feasible measures such as separation/ setbacks, landscaping, barriers, ventilation systems, air filters/cleaners, and/or other effective measures to minimize potential impacts from air pollution.*
    - ***Policy HEJ-2.6:*** *Consider air quality impacts, including cumulative impacts, from existing and new development when making land use decisions and limit the number of industrial facilities or uses to prevent cumulative air pollution impacts.*

General Plan Table 4-1 Zoning and Municipal Code (ZC)

- ***ZC-10 Air Quality Ordinance:*** *Adopt an air quality ordinance which requires an assessment of air quality for sensitive land uses proposed within 500 feet of a freeway. This ordinance will identify specific*

10 CARB, 2018 Updates to the California State Implementation Plan. https://ww3.arb.ca.gov/planning/sip/2018sipupdate/2018update.pdf?_ga=2.207264791.561507767.1601915034-262556358.1547597033
11 SDAPCD, Regulation XV. Federal Conformity. Adopted 03/07/1995, EPA Approval Effective 06/22/1999. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-1501.pdf

ventilation requirements for removing PM 2.5 to an acceptable level if dangerous levels of PM 2.5 are identified as part of the assessment.

General Plan Table 4-5 Monitoring and Evaluation (ME)

- ***ME-12 Mitigation Monitoring:*** *Establish a plan and process to improve monitoring and enforcement of all CEQA mitigation measures, including air quality emission reduction measures.*

4.2.3 Significance Determination Thresholds

The 2022 California Environmental Quality Act (CEQA) Guidelines Issue III. Air Quality includes the following significance thresholds:

a) *Conflict with or obstruct implementation of the applicable air quality plan.*
b) *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?*
c) *Expose sensitive receptors to substantial pollutant concentrations?*
d) *Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

4.2.4 Methodology

The analysis in this section is based on the methodology recommended by the SDAPCD and on buildout of the proposed FGPU, as modeled using CalEEMod, the CARB EMFAC, and vehicle miles traveled (VMT) from travel demand modeling developed for the FGPU (see Appendix 13.C.2).[12]

The FGPU would include zoning reclassifications that would determine the future buildout of the City. The FGPU would not directly result in development; however, the future development consistent with the FGPU would result in air emissions. Emission estimates from area and energy sources associated with buildout of the FGPU were developed using CalEEMod 2020.4.0. CalEEMod is a tool used to estimate air quality emissions resulting from land development projects in California. In brief, the model estimates air emissions by multiplying emission factors by the estimated number of emission sources and the operational characteristics of specific sources, based on the land use information. Although buildout of subsequent development projects permitted by the FGPU is not anticipated to be complete until 2050 (planning horizon), the rate at which buildout occurs is variable. Air emissions associated with FGPU were modeled for year 2050.

As discussed in Chapter 3.0 Project Description, the FGPU would marginally increase commercial zoning and increase the allowable density of residential land uses. Specific land use designation increases include 595 additional dwelling units and 198,688 square feet of additional commercial space. Specific development within these designations may vary.

4.2.4.1 Operational Emissions

Operational emissions are long term and include sources such as vehicular traffic associated with the FGPU and use of natural gas, fireplaces, consumer products, architectural coatings, and landscaping equipment. As project-level details are not available at this time, operational emissions estimates are based on default parameters for each land-use type considered (such as residences, commercial space, and industrial use). CalEEMod's default data associated with land use development are based on surveys

12 VMT per capita, calculated for purposes of SB 743 compliance, would be reduced from buildout of the Adopted Plan in 2050, as reflected in the Traffic Impact Analysis memo (Appendix 13.C.1). One VMT represents a single vehicle traveling 1 mile.

VMT is summarized using different methods for State laws and climate analysis. SB 743 focuses on travel made by residents of National City. SB 743 Resident VMT summarizes vehicle travel by National City residents, regardless of what geographic area a trip takes place in, for all the different purposes a person travels, such as going to work or grocery shopping. Total resident VMT for the FGPU is 687,288.

VMT as used in the Climate Action Plan (CAP) focuses on VMT directly influenced by National City land use and summarizes trips coming to, going from, or staying within the National City boundaries regardless of where a person lives, works, or why they are traveling. CAP VMT is calculated as 100 percent of all vehicle trips starting and ending in National City, 50 percent of vehicle trip VMT that either starts or ends in National City, and 0 percent of vehicle trip VMT that travels through National City but does not stop within city boundaries. CAP VMT is therefore, not reflected on a "per resident" basis. CAP VMT increases in 2050 with adoption of the FGPU, as compared to the Adopted General Plan, consistent with increased residential and commercial capacity.

performed by the South Coast Air Quality Management District (SCAQMD). The land-use parameters used for the CalEEMod operational analysis are summarized in Table 4.2-3.

Table 4.2-3 Land Use Data for Operational Emissions Analysis

Land Use Parameter	2050 Adopted Land Use Buildout	2050 FGPU Preferred Alternative Buildout	Change from 2050 Adopted to 2050 Preferred
Dwelling Units	22,729	23,325	595
Retail/Office Space (SF)	13,133,424	13,332,112	198,688
Industrial Space (SF)	5,772,092	5,772,092	0

Regional mobile-source emissions were estimated based on CARB's EMFAC and the VMT attributed to National City (see Appendix 13.C.2). Based on travel demand modeling results, buildout of the FGPU would generate approximately 3,340,914 daily VMT.

4.2.4.2 Construction Emissions

Construction activities associated with new land uses proposed under the FGPU would result in emissions of fugitive dust from demolition and site grading activities, heavy construction equipment exhaust, and vehicle trips associated with workers commuting to and from the site and trucks hauling materials. Air pollutants generated by the construction of projects within the FGPU area would vary depending on the number of projects occurring simultaneously and the size of each project. The exact number and timing of all development projects that could occur under the project are unknown.

To illustrate the potential construction-related air quality impacts from projects that could occur throughout the FGPU area, a hypothetical project was evaluated. The hypothetical project is a 1.87-acre mixed-use development consisting of the demolition of a 203,000-square-foot structure and the construction of 277 multi-family residential units and 48,000 square feet of retail uses. This represents a typical mixed-use project that could be constructed in the FGPU area. Construction emissions associated with the hypothetical project were calculated using CalEEMod. CalEEMod can estimate the required construction equipment when project-specific information is unavailable. The estimates are based on surveys performed by the SCAQMD and the Sacramento Metropolitan Air Quality Management District of typical construction projects, which provide a basis for scaling equipment needs and schedule with a project's size. Although developed by the SCAQMD, these estimates are applicable to projects throughout California. Air emission estimates in CalEEMod are based on the duration of construction phases; construction equipment type, quantity, and usage; grading area; season; and ambient temperature, among other parameters.

4.2.5 Issue 1: Consistency with Air Quality Plans

As described above, the California CAA requires air basins that are designated as nonattainment for NAAQS or CAAQS to prepare and implement air quality management plans to attain the standards by the earliest practicable date. The pollutants addressed in the San Diego RAQS are reactive organic gases and oxides of nitrogen, which are the chief precursors to the formation of ozone.

Components of the RAQS include a discussion of existing air quality, a forecast of future air quality, and assessment and selection of air quality control measures to meet the NAAQS and CAAQS. The basis for the RAQS relies on information from CARB and SANDAG, including the distribution of population in the region and all other source emissions as projected by SANDAG. The SDAPCD refers to adopted general plans to forecast, inventory, and allocate regional emissions from land use and development-related sources. These emissions budgets are used in statewide air quality attainment planning efforts. Therefore, projects consistent with adopted land use designations or that generate fewer air emissions

than land uses consistent with adopted land use designations would not conflict with the RAQS. Projects that would result in greater air emissions than land uses consistent with adopted land use designations may be inconsistent with the RAQS and warrant further analysis to determine consistency with the RAQS.

The FGPU would increase the capacity for multi-family residential units and non-residential development in the Planning Area. The FGPU is anticipated to increase the amount of commercial/ retail and office uses in the Planning Area, as shown in Table 4.2-3. The overall area of industrial uses in the Planning Area would remain constant. Overall, the FGPU would increase the development potential within the Planning Area. This supports the General Plan's strategy to focus growth into mixed-use activity centers that are pedestrian-friendly, centers of community, and linked to the regional transit system. Implementation of this strategy can decrease VMT per capita and reduce mobile emissions by placing different land uses in close proximity, which encourages use of alternate modes of transportation and shortens trip length for vehicular trips. The proposed FGPU's policies, implementing actions, and design guidelines support concepts such as increased walkability, enhanced pedestrian and bicycle networks, improved connections to transit, and sustainable development and green building practices. The FGPU would be consistent with the SDAPCD's regional goals of providing infill housing, improving the balance between jobs and housing, and integrating land uses near major transportation corridors. However, because the FGPU would result in greater density, future stationary source emissions associated with buildout of the FGPU would be greater than future emissions associated with buildout of the adopted General Plan land uses.

As described in the Traffic Impact Analysis Memo prepared for the FGPU (see Appendix 13.C.1), the FGPU would result in a net decrease in VMT per capita in 2050. This modeled reduction in VMT per capita indicates that the FGPU would be a more efficient plan than the 2011 CLUU in terms of vehicular trips. Features of the FGPU that promote reduced VMT per capita include increased density near mass transit, mixed-use development, and improvements to bicycle and pedestrian infrastructure.

A summary of the modeling results, which includes mobile, area, and energy source emissions, from implementation of the FGPU, is shown in Table 4.2-4, below. The table also shows that, because the FGPU would result in greater density, overall future operational emissions associated with buildout of the FGPU would be greater than future emissions associated with buildout of the adopted General Plan land uses. Therefore, emissions of ozone precursors (reactive organic gases and oxides of nitrogen) would be greater than what is accounted for in the RAQS. Thus, the FGPU would conflict with implementation of the RAQS and could have a potentially significant impact on regional air quality. Mitigation measure **MM-AQ-1**, below, is provided to reduce any potential significant impact of the FGPU; however, as the effectiveness of the measure cannot be guaranteed at this time, the impact would be considered *significant and unavoidable* **(Impact AQ-1).**

Table 4.2-4 Maximum New Daily Operation Increase from Implementation of the FGPU

Category	Pollutant Emissions (pounds per day)					
	VOC	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Adopted Plan (Year 2050)						
Area	155,154	3,005	191,228	338	26,188	26,188
Energy	61	545	411	3	42	42
Mobile	59	434	3420	20	169	75
Total Adopted	**155,274**	**3,984**	**195,058**	**362**	**26,399**	**26,305**
Proposed FGPU (Year 2050)						
Area	162,395	3,149	200,332	354	27,437	27,437
Energy	66	593	450	4	46	46
Mobile	59	439	3,460	20	170	75
Total Proposed FGPU	162,520	4,181	204,241	378	27,652	27,557
Net Emissions	**7,246**	**197**	**9,183**	**16**	**1,254**	**1,253**

4.2.6 Issue 2: Air Quality Standards

Air quality impacts can result from the construction and operation of a project. Construction impacts are short term and result from fugitive dust, equipment exhaust, and indirect effects associated with construction workers and deliveries. Operational impacts can occur on two levels: regional impacts resulting from development and local effects stemming from sensitive receptors being located close to roadways or stationary sources. The FGPU would result in new emissions sources associated with the construction and operation of activities associated with new residential dwelling units and new commercial and retail space.

4.2.6.1 Construction Emissions

Construction activities associated with buildout under the FGPU would result in emissions of fugitive dust from demolition and site-grading activities, heavy construction equipment exhaust, and vehicle trips associated with workers commuting to and from the site and trucks hauling materials. Air pollutants generated by the construction of projects within the Planning Area would vary depending on the number of projects occurring simultaneously and the size of each individual project. The exact number and timing of all development projects that could occur under the project are unknown.

To illustrate the potential construction-related air quality impacts from projects that could occur throughout the Planning Area, a hypothetical project was evaluated. The hypothetical project analyzed is a 1.87-acre mixed-use development consisting of the construction of 329 multi-family residential units. This represents a typical project that could be constructed under the FGPU within a Focus Area for development, as based on the Financial Feasibility Evaluation – House National City (2022) (Appendix 13.B.14).

CalEEMod default estimates were used to develop the conceptual construction scenario. Where applicable, inputs were modified to reflect local ordinances and regulations. This analysis assumes that standard dust and emission control during grading operations would be implemented to reduce potential nuisance impacts and to ensure compliance with SDAPCD Rule 55.0, Fugitive Dust Control. A VOC content of 50 grams per liter for interior and exterior architectural coatings was assumed, in accordance with Rule 67.0.1, Architectural Coatings. The results are summarized in Table 4.2-5.

Table 4.2-5 Construction Emissions – 1.87-Acre Mixed-Use Project

Construction Phase	Pollutant Emissions in pounds/day					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Demolition	1.73	16.65	14.30	0.03	0.95	0.81
Site Preparation	1.34	14.65	7.30	0.02	6.96	3.60
Grading	1.57	17.01	9.48	0.02	7.91	4.13
Building Construction	2.47	14.94	19.49	0.05	2.80	1.18
Paving	0.68	6.26	9.12	0.01	0.42	0.31
Architectural Coating	134.14	1.39	2.89	0.01	0.46	0.18
Maximum Daily Emissions	134.14	17.01	19.49	0.05	7.91	4.13
Significance Threshold	137	250	550	250	100	55

The emissions summarized in Table 4.2-5 are the maximum emissions for each pollutant that may occur during different phases of construction. They would not necessarily occur simultaneously.

For assessing the significance of the air quality emissions resulting during construction of the hypothetical 1.87-acre mixed-use project, the construction emissions were compared to the thresholds shown in Table 4.2-4. As shown, the 1.87-acre mixed-use project would not result in air emissions that would exceed the applicable thresholds. However, if several projects of a similar size were to be constructed concurrently, implementation of the proposed projects could exceed the significance thresholds.

The hypothetical scenario described above provides a general assessment of an individual project; however, the exact number and timing of individual development projects that would occur as a result of implementation of the FGPU are unknown at this time, and therefore project-level emission estimates cannot conclusively be determined at the program level. Subsequent development projects would need to analyze specific construction-related criteria air pollutant impacts to ensure that emissions remain below SDAPCD thresholds. Because of the potential for multiple individual projects occurring simultaneously, construction emissions could exceed SDAPCD screening thresholds. Therefore, implementation of the FGPU would result in potentially *significant* impacts related to construction emissions (**Impact AQ-2**).

4.2.6.2 Operational Emissions

Operational source emissions would originate from traffic generated by buildout of the FGPU or as a result of future development consistent with buildout of the FGPU. Area source emissions would result from activities such as the use of fireplaces and consumer products. In addition, landscape maintenance activities associated would the proposed land uses would produce pollutant emissions.

For comparative purposes, air emissions were calculated for land uses under buildout of the adopted General Plan and the FGPU for the year 2050 (refer to Table 4.2-4, above). Actual emissions would vary depending on future projects and regulations within the Planning Area.

Program-level air emissions would exceed SDAPCD's project-level significance thresholds; however, project-level standards are not appropriate for a program-level analysis, as the thresholds are conservative and intended to ensure that multiple simultaneous individual projects would not obstruct

the timely attainment of the NAAQS and CAAQS. Generally, discretionary, program-level planning activities, such as general plans, community plans, specific plans, etc., are evaluated for consistency with the local air quality plan. In contrast, project-level thresholds are applied to individual project-specific approvals, such as a proposed development project. Therefore, the analysis of the FGPU is based on the future emissions estimates and determining whether the increased emissions are significant based on their relationship to attainment strategies derived from the adopted General Plan.

At the program level, the analysis considers emissions from buildout of the FGPU in relation to the adopted General Plan to determine if the emissions would exceed the emissions estimates included in the RAQS. If such an exceedance occurs, then the FGPU would obstruct attainment or result in an exceedance of the NAAQS and CAAQS and could cause the temporary or permanent exposure of persons to unhealthy concentrations of pollutants. Therefore, the analysis evaluates the potential for future development within the FGPU area to result in, or contribute to, a violation of any air quality standard, based on a comparison of the total change in pollutant emissions projected to result from buildout of the adopted General Plan in the year 2050 to buildout of the FGPU in the year 2050, and determines whether the total change in emissions is significant.

A summary of the modeling results, which includes mobile, area, and energy source emissions, is shown in Table 4.2-4. This table also shows that operational emissions associated with the FGPU would be greater for all pollutants when compared to the adopted General Plan.

The regulations at the federal, state, and local levels provide a framework for developing project-level air quality protection measures for future discretionary projects. The City's process for evaluating discretionary projects includes environmental review and documentation pursuant to CEQA, as well as an analysis of those projects for consistency with the goals, policies, and recommendations of the General Plan. However, it is possible that for certain projects, adherence to the regulations may not adequately protect air quality, and such projects would require additional measures to avoid or reduce significant air quality impacts. Ministerial projects would not be subject to further CEQA review. Because operational emissions associated with buildout of the FGPU would be greater for all pollutants when compared to adopted land uses and the assumptions used to develop the RAQS, and because there could be certain projects that would not be able to reduce emissions below the thresholds, this impact would be potentially *significant* **(Impact AQ-3).**

4.2.7 Issue 3: Sensitive Receptors

The term "sensitive receptor" refers to persons that may be subject to respiratory stress and/or other increased risk of health impact as a result of air pollutant exposure. Sensitive receptors are often correlated with certain types of land uses, including residences, schools, hospitals, hotels, and outdoor recreation areas, such as athletic fields. Potential impacts to sensitive receptors may result from stationary or mobile sources in the vicinity of the receptor. Buildout of the FGPU would include development of residential, commercial, and industrial uses, as well as mixed-use developments, within the FGPU area. Future development may site new sensitive receptors in proximity to land uses commonly associated with substantial air emissions, such as industrial uses.

4.2.7.1 Stationary Sources

The California Air Toxics Program establishes the process for the identification and control of toxic air contaminants and includes provisions to make the public aware of significant toxic exposures and for reducing risk. Additionally, AB 2588 was enacted in 1987 and requires stationary sources to report the types and quantities of certain substances routinely released into the air. The goals of the Air Toxics "Hot Spots" Act are to collect emission data, identify facilities having localized impacts, ascertain health risks, notify nearby residents of significant risks, and reduce those significant risks to acceptable levels.

There are more than 160 sources in National City that operate under permits approved by the SDAPCD.[13] These sources include emergency generators, boilers, gas stations, and automotive repair facilities that are common in many cities. Additional sources that are unique to National City are a number of marine coating operations and a cement terminal silo system. Heavy industrial activities occur at the Naval Base San Diego, located about a mile northwest of the city limits. The FGPU would not locate any sensitive receptors within 1,000 feet of these activities. Stationary source emissions associated with all facilities are regulated in accordance with AB 2588.

Per AB 2588, any proposed new facility that would have the potential to emit toxic air contaminants would be required to undergo assessment of air toxic problems that would result from its emissions. If air emissions from a specific facility include toxic substances or exceed identified limits, the facility is required by the SDAPCD to provide information regarding emission inventories and health risk assessments. If adverse health impacts exceeding public notification levels are identified, the facility would provide public notice, and if the facility poses a potentially significant public health risk, the facility must submit a risk reduction audit and plan to demonstrate how the facility would reduce health risks. Thus, with this regulatory framework, at the program level, impacts associated with stationary sources in and adjacent to the FGPU area would be *less than significant*.

4.2.7.2 Mobile Sources

DPM

CARB has identified DPM from heavy equipment and trucks as a TAC and estimates that DPM is responsible for 70 percent of total known cancer risk related to air toxics in California. Because traffic is responsible for the majority of DPM as well as several other carcinogens, CARB recommends caution when siting sensitive land uses near heavily traveled roadways. Specific recommendations from CARB's Air Quality and Land Use Handbook: A Community Health Perspective include maintaining a 500-foot buffer zone between sensitive receptors and freeways, urban roads with 100,000 or more vehicles per day, or rural roads with 50,000 vehicles per day whenever possible.[14] I-5 is the only roadway within 500 feet of the FGPU area that meets these criteria, with approximately 176,000 vehicles per day, according to 2020 traffic counts.[15]

The FGPU zoning designations for parcels within 500 feet of I-5 are generally Industrial and Commercial/Industrial. Parcels with a residential Specific Plan zoning designation that are entirely or partially within 500 feet of I-5 include the Focus Area 24th Street Transit Station. Therefore, future development consistent with FGPU may result in the exposure of sensitive receptors to substantial DPM concentrations from mobile sources. Impacts of the FGPU relative to DPM exposure would be *significant* (**Impact AQ-4**).

Carbon Monoxide Hot Spots

A carbon monoxide hotspot is an area of localized carbon monoxide pollution that is caused by severe vehicle congestion on major roadways, typically near intersections. Carbon monoxide hotspots have the potential to violate state and federal carbon monoxide standards at intersections, even if the broader basin is in attainment for federal and state levels. The California Department of Transportation Project-Level Carbon Monoxide Protocol (CO Protocol) screening procedures have been utilized to determine if the project could potentially result in a CO hotspot[16]. As indicated by the CO Protocol, carbon monoxide hotspots occur nearly exclusively at signalized intersections operating at level of

13 San Diego County, Air Pollution Equipment Permits, https://data.sandiegocounty.gov/Environment/Air-Pollution-Equipment-Permits/33xy-2ab9/data
14 CARB, Air Quality and Land Use Handbook: A Community Health Perspective, http://www.aqmd.gov/docs/default-source/ceqa/handbook/california-air-resources-board-air-quality-and-land-use-handbook-a-community-health-perspective.pdf
15 Caltrans, Traffic Census Program, https://dot.ca.gov/programs/traffic-operations/census
16 U.C. Davis Institute of Transportation Studies, California Department of Transportation Project-Level Carbon Monoxide Protocol, 1997 https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/co-protocol-searchable-a11y.pdf

service (LOS) E or F. Accordingly, the CO Protocol recommends detailed air quality dispersion modeling for projects that may worsen traffic flow at any signalized intersections operating at LOS E or F.

This methodology was last updated in 1997, and LOS is not currently used as an indicator of performance in traffic studies; LOS projections were not developed for the FGPU. Considering that the traffic forecasts associated with the FGPU result in reduced VMT as compared to the adopted General Plan, it is not expected that LOS would degrade at any intersection in the Planning Area and trigger the need for carbon monoxide hot spot modeling. Impacts of the FGPU relative to the creation of hot spots would be *less than significant*.

4.2.8 Issue 4: Odors

In the context of land use planning, one of the most important factors influencing the potential for an odor impact to occur is the distance between the odor source and receptors. The City considers prudent land use planning as the key mechanism to avoid odor impacts. The greater the distance between an odor source and a receptor, the less concentrated the odor emission would be when it reaches the receptor. Odors can be generated from a variety of source types, including both construction and operational activities. Although less common, construction activities that include the operation of a substantial number of diesel-fueled construction equipment and heavy-duty trucks can generate odors from diesel exhaust emissions. A project's operations, depending on the project type, can generate a large range of odors that can be considered offensive to receptors. Examples of common land use types that typically generate significant odor impacts include, but are not limited to:

- Wastewater treatment plants
- Sanitary landfills
- Composting/green waste facilities
- Recycling facilities
- Petroleum refineries
- Chemical manufacturing plants
- Painting/coating operations
- Rendering plants
- Food packaging plants

When land uses such as these or other odor-generating land uses are sited near sensitive receptors, odor impacts may occur, warranting further analysis of the nature of the odor source, the prevailing wind patterns, the number of potentially affected receptors, and other considerations.

The Planning Area would accommodate additional multi-family residential dwelling units and new mixed-use development. The FGPU would not introduce land uses known to generate substantial odor. The use of diesel-powered equipment during construction may generate transient odors. Diesel exhaust may occasionally be noticeable at adjacent properties; however, construction activities would be temporary, and the odors would dissipate quickly in an outdoor environment. Thus, the FGPU would not create objectionable odors affecting a substantial number of people. Program-level impacts associated with odor would be *less than significant*.

4.2.9 Mitigation, Monitoring, and Reporting

The following programmatic mitigation measures shall be applied to each proposed development consistent with the FGPU that is determined to require a CEQA analysis or otherwise is generally required by the City to complete:

MM-AQ-1: Conflicts with Air Quality Plans

Within six months of the certification of the Final Supplemental Program Environmental Impact Report, the City of National City shall provide a revised land use map and housing and employment

forecast for the Planning Area to the San Diego Association of Governments to ensure that any revisions to the population and employment projections used by the San Diego Air Pollution Control District in updating the Regional Air Quality Strategy and State Implementation Plan will accurately reflect anticipated growth due to the proposed project.

MM-AQ-2A: Air Quality Standards - Project-specific Construction Air Quality Impact Analysis
Proposed development projects that are subject to the California Environmental Quality Act (CEQA) and larger than the hypothetical 1.87-acre mixed-use scenario described herein shall have construction-related air quality impacts analyzed using the latest available CalEEMod model, or other analytical method determined in conjunction with the City of National City. The results of the construction-related air quality impacts analysis shall be included in the development project's CEQA documentation. If such analyses identify potentially significant regional or local air quality impacts based on the City's emissions thresholds, the City shall require the incorporation of appropriate mitigation to reduce such impacts. Examples of potential mitigation measures are provided in MM-AQ-2B, below.

MM-AQ-2B: Air Quality Standards - Construction Emissions Reduction Measures
For individual construction projects greater than 5 acres that exceed the daily emissions thresholds established by the City of National City, best available control measures/technology shall be incorporated to reduce construction emissions to the extent feasible. Best available control measures/technology shall include, but not be limited to, the following:

a) Minimizing simultaneous operation of multiple pieces of construction equipment;
b) Use of more efficient, or low pollutant emitting equipment, e.g., Tier III or Tier IV rated equipment;
c) Use of alternative fueled construction equipment;
d) Dust control measures for construction sites to minimize fugitive dust such as:
    i) Contractor(s) shall implement paving, chip sealing, or chemical stabilization of internal roadways after completion of grading.
    ii) Dirt storage piles shall be stabilized by chemical binders, tarps, fencing, or other erosion control.
    iii) A 15-mile per hour (mph) speed limit shall be enforced on unpaved surfaces.
    iv) On dry days, dirt and debris spilled onto paved surfaces shall be swept up immediately to reduce resuspension of particulate matter caused by vehicle movement. Approach routes to construction sites shall be cleaned daily of construction-related dirt in dry weather.
    v) Haul trucks hauling dirt, sand, soil, or other loose materials shall be covered, or 2 feet of freeboard shall be maintained.
    vi) Disturbed areas shall be hydroseeded, landscaped, or developed as quickly as possible and as directed by the County of San Diego and/or San Diego Air Pollution Control District to reduce dust generation.
    vii) Grading shall be terminated if winds exceed 25 mph.
    viii)Any blasting areas shall be wetted down prior to initiating the blast.
e) Minimizing idling time by construction vehicles.

MM-AQ-3: Air Quality Standards - Project-specific Operational Air Quality Impact Analysis
Proposed development projects that are subject to the California Environmental Quality Act (CEQA) (non-ministerial) shall have long-term operational-related air quality impacts analyzed using the latest available CalEEMod model, or other analytical method determined in conjunction with the City of National City. The results of the operational-related air quality impacts analysis shall be included in the development project's CEQA documentation. If such analyses identify potentially significant regional or local air quality impacts based on the City's thresholds, the City shall require the incorporation of

appropriate mitigation to reduce such impacts. Examples of potential measures shall include, but not be limited to, the following:

- Install electric vehicle charging stations;
- Improve walkability design and pedestrian network;
- Increase transit accessibility and frequency by incorporating Bus Rapid Transit routes;
- included in the San Diego Association of Governments Regional Plan; and/or
- Limit parking supply and unbundle parking costs. Lower parking supply below Institute of Traffic Engineers rates and separate parking costs from property costs.

MM-AQ-4A: Sensitive Receptors - Health Risk Assessment
Prior to the issuance of building permits for any facility within 500 feet of Interstate 5, a health risk assessment shall be prepared that demonstrates that health risks would be below the level of significance.

MM-AQ-4B: Sensitive Receptors – Enhanced Construction
Where a project consistent with the Focused General Plan Update would place sensitive receptors within 500 feet of Interstate 5, the City of National City shall require that buildings be equipped with ventilation systems that are rated at Minimum Efficiency Reporting Value of "MERV13" or better for enhanced particulate removal efficiency. The City Building Inspector shall verify the aforementioned requirements are included on plans submitted for approval of any Land Use and Building permits and shall verify compliance on-site prior to occupancy clearance.

4.2.10 Significance After Mitigation

The FGPU would not be consistent with the RAQS and SIP and would result in a significant and unavoidable impact (**Impact AQ-1**). **MM-AQ-1** requires that the City provide a revised land use map and housing and employment forecast to SANDAG to ensure that any revisions to the population and employment projects are considered in the update of the RAQS and the SIP. The provision of housing information would assist SANDAG in revising the population forecasts; however, until the anticipated growth is included in the emission estimates of the RAQS and the SIP, the direct and cumulative impacts would remain significant and unavoidable. It should be noted that the SDAPCD may revise an emission reduction strategy if the district demonstrates to CARB, and CARB finds, that the modified strategy is at least as effective in improving air quality as the strategy being replaced. Nevertheless, even with implementation of **MM-AQ -1**, impacts related to conflicts with the applicable air quality plan would remain *significant and unavoidable.*

The ability of future development to successfully implement the actions required to fully satisfy **MM-AQ-2 and MM-AQ-3** cannot be guaranteed at this time. In addition, even if the mitigation measures were fully satisfied by a future development, it is possible that the development would still result in a significant impact related to violating air quality standards **(Impact AQ-2 and Impact AQ-3**). Thus, air pollutant impacts from construction and operation under the FGPU are considered *significant and unavoidable* at the program level.

Sensitive uses (residences, parks, schools, etc.) located within 500 feet of I-5 could be exposed to unacceptable TAC levels (**Impact AQ-3**). While implementation of **MM-AQ-4A and MM-AQ-4B** would reduce TAC impacts, the ability of future development to successfully implement the actions required to fully meet the health risk threshold cannot be guaranteed at this time. Thus, TAC impacts under the FGPU are considered *significant and unavoidable* at the program level.