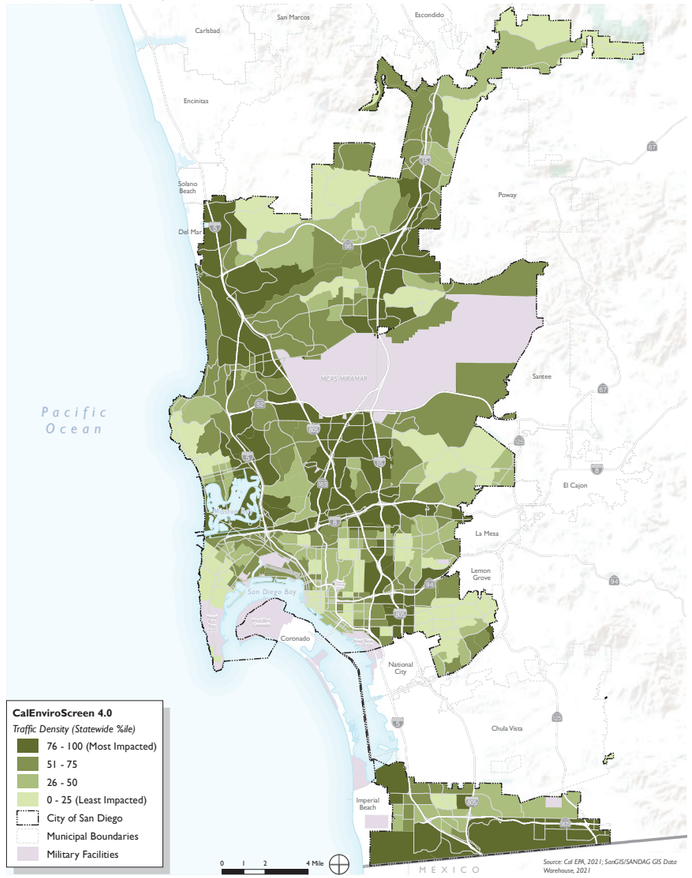
POLLUTION EXPOSURE

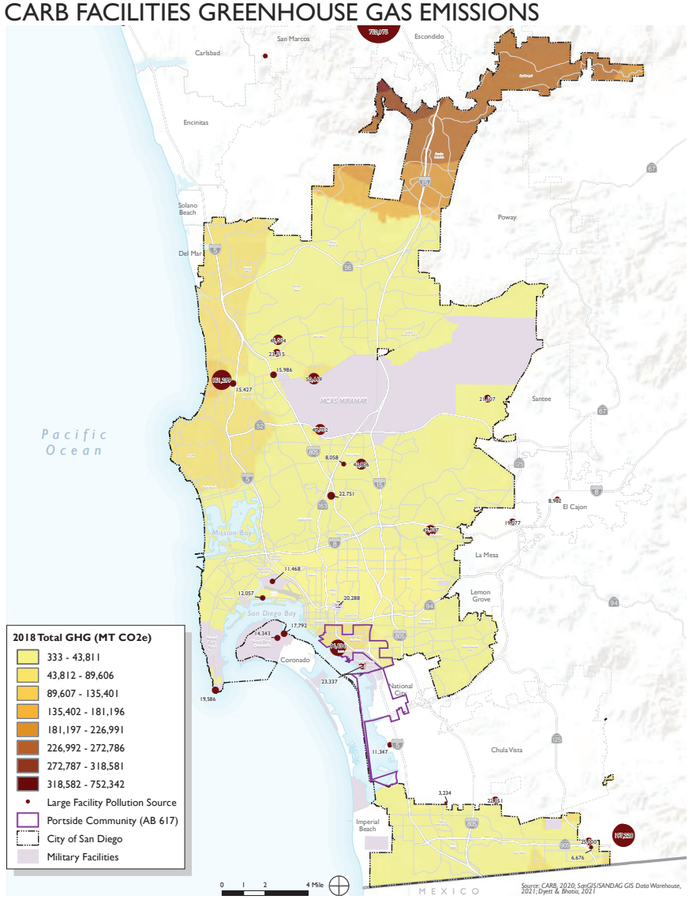
TRAFFIC DENSITY



Vehicular exhaust is the main source of air pollution in much of the state, and low-income communities and people of color are more likely to live near areas with high traffic. Many tracts along the major freeways that transect the city rank among the top 25th statewide percentile, seen in the map above.

Stationary sources such as large facilities can also emit large quantities of greenhouse gas (GHG) emissions. CARB tracts GHG emissions by these facilities, most of which are industrial sources. The above-right map shows that there are several sources in San Diego, such as near airport, industrial, and military uses (shown in gray) in central and southwestern areas. However, when assessed by quantity of GHG emissions (illustrated by the size and label of the dot), communities with the greatest exposure are in the northeastern Rancho Bernardo and San Pasqual neighborhoods.

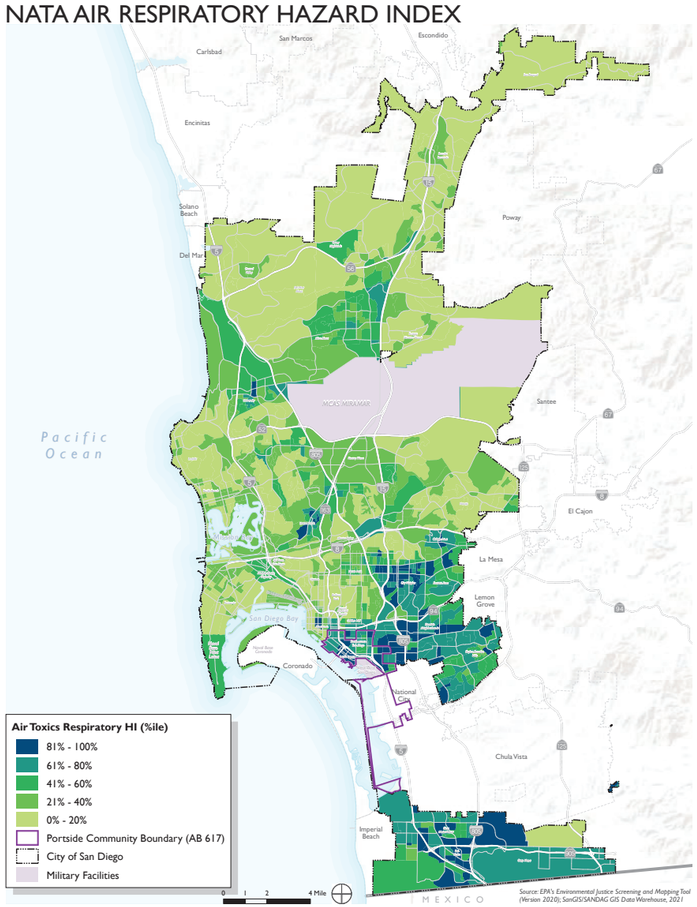
CARB FACILITIES GREENHOUSE GAS EMISSIONS



Following presidential Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, US EPA developed the EJSCREEN mapping tool to develop a single, nationally consistent method for assessing environmental and demographic characteristics of locations throughout the US. The tool was publicly released in 2015 and last updated in 2020.

The dataset includes several indices developed by EPA such as the 2014 National-Scale Air Toxics Assessment (NATA) respiratory hazard index, seen in the rightmost map, which measures the ratio of exposure concentration to health-based reference concentration. Tracts among the top 20 percent in the state are in the City Heights, Southeastern, Barrio Logan, San Ysidro, and Otay Mesa communities. These areas are generally more impacted than neighborhoods west of I-15 and north of I-8.

NATA AIR RESPIRATORY HAZARD INDEX



Assembly Bill 617

The Portside Environmental Justice Community—including Barrio Logan, West National City, Logan Heights, and Sherman Heights as outlined above in purple—is a community selected by CARB in 2018 for development of a Community Air Monitoring Plan (CAMP) and Community Emissions Reduction Program (CERP). Together, these documents form a strategic effort to reduce air pollution and disproportionate health impacts in these communities located near the local port, freight, rail, and concentrated industrial activities.

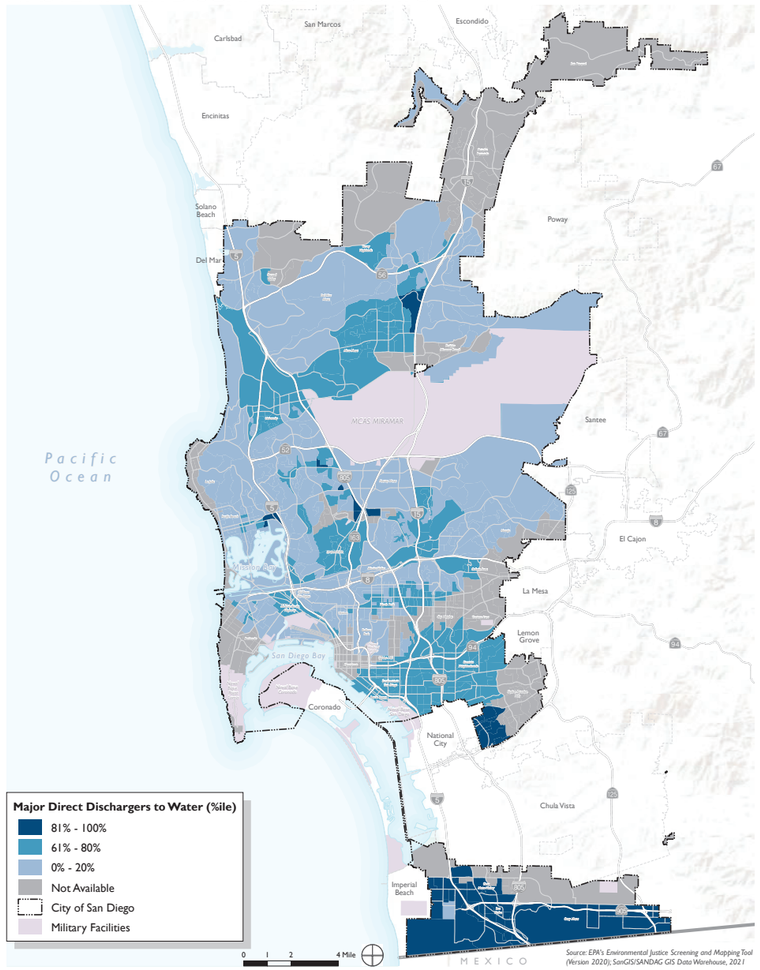
The CAMP was adopted in 2018, and the 2019 draft CERP is undergoing review by the San Diego County Air Pollution Control District and CARB.

POLLUTION EXPOSURE

Water Pollution

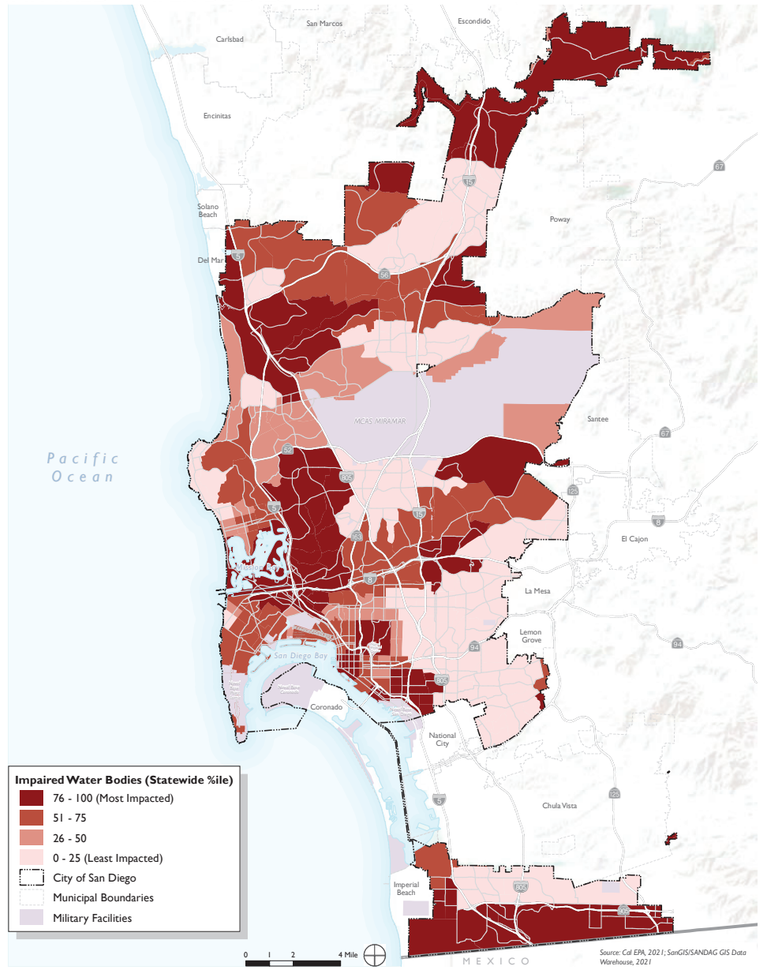
Note: The indicator below is a relative measure of water quality samples in census tracts throughout the state and does not indicate whether water is safe to drink. Furthermore, because data was obtained at the water system level, it does not necessarily reflect the water that an individual resident of that tract is drinking.

WASTEWATER DISCHARGE INDICATOR



The Wastewater Discharge Indicator is an index from EJSCREEN that measures the EPA Risk-Screening Environmental Indicators (RSEI) modeled toxic concentrations at stream segments within 500 meters. RSEI and the Toxic Releases Inventory (TRI) document the amount of toxic chemicals released from industrial and federal facilities as well as each chemical's relative toxicity, or the potential impacts it could have on human and environmental health. Based on this metric, southern tracts are most impacted by toxic releases to water such as in portions of Skyline-Paradise Hills, Otay Mesa-Nestor, Otay Mesa, San Ysidro, and Tijuana River Valley. These areas are in the top 20th percentile in the state, whereas a majority of the remainder of the city are in the bottom 20th percentile.

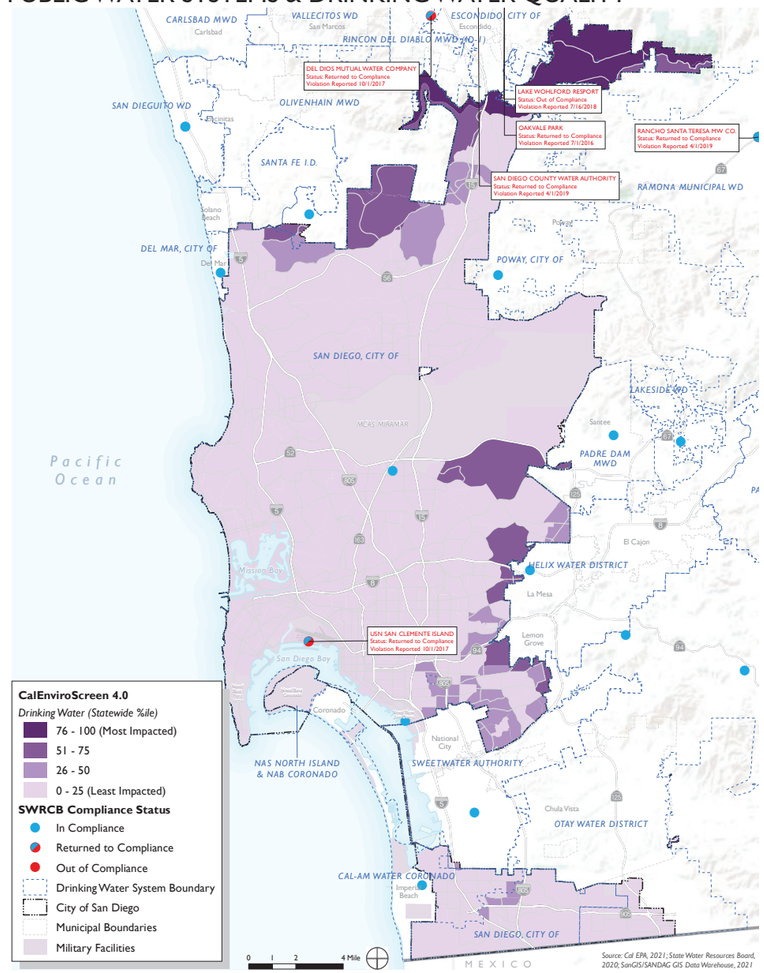
IMPAIRED WATER BODIES



Impaired water bodies are those contaminated by pollutants that can harm wildlife habitats and prevent recreation and other uses of the water body. The State Water Resources Control Board (SWRCB) maintains information on water bodies in California by tracking them on what is referred to as the Section 303(d) List of Impaired Water Bodies, which is assessed every two years (data mapped is for 2014-2016).

The San Diego Region has 5,027 miles and 210,359 acres total of impaired water bodies such as segments along Chollas and Los Pensaquitos creeks and parts of Mission Bay and the Pacific Ocean shoreline. As a result, tracts near these water bodies are most impacted and are among the top 25 percent in the state.

PUBLIC WATER SYSTEMS & DRINKING WATER QUALITY

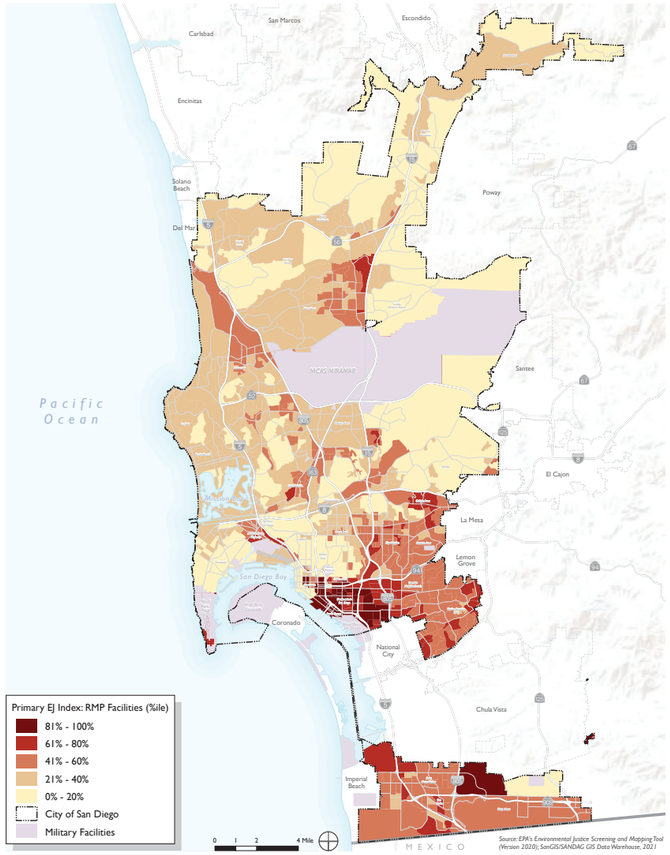


Drinking water quality, a CES indicator, measures the concentration of selected contaminants and history of violations for a given water system. Contaminants come from both natural and human sources such as rocks and soil or sewage and farm runoff.

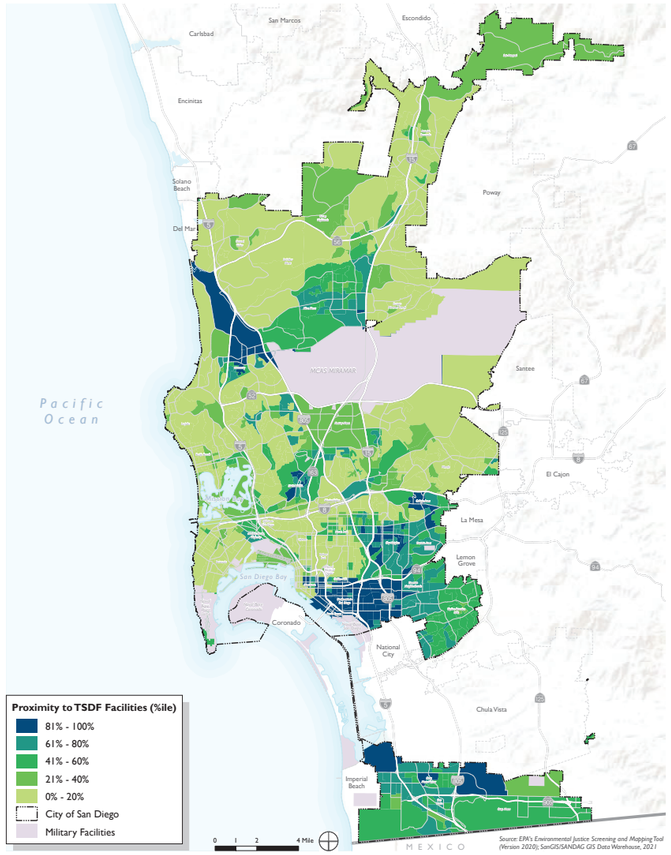
Tracts at the northern edge of the city are most exposed to drinking water contaminants as well as some tracts at the eastern edge. Several nearby public water systems north of the city have recent history of violations catalogued by the State Water Resources Control Board (SWRCB), in addition to one near the airport.

POLLUTION EXPOSURE

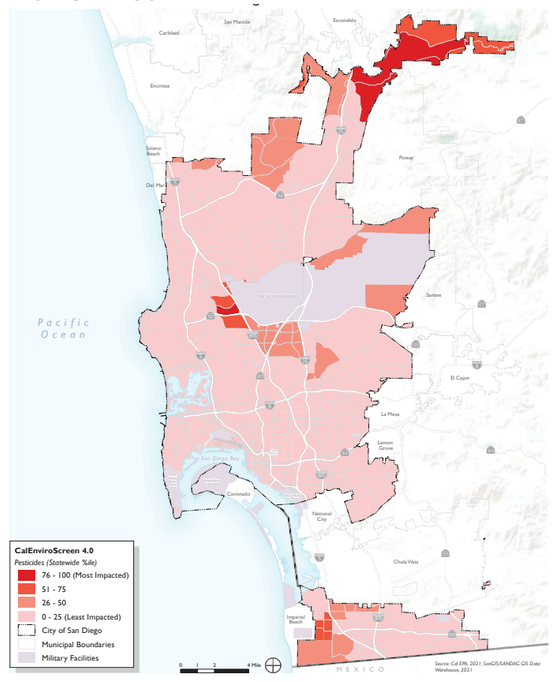
RISK MANAGEMENT PLAN FACILITIES



HAZARDOUS WASTE FACILITIES



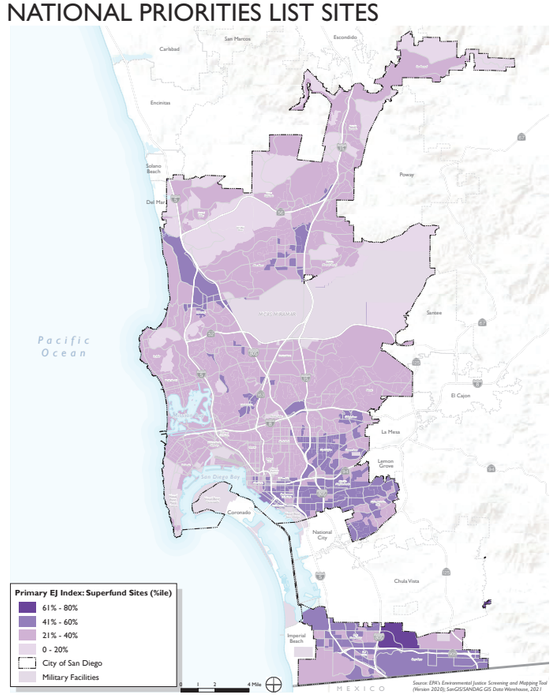
PESTICIDE USE



The map to the left shows areas most exposed to pesticide usage. Exposure to high levels of some pesticides can cause immediate illness or lead to conditions such as birth defects or cancer. CES data measures the total pounds of selected active pesticides per square mile over three years (2016-2018).

Tracts in San Pasqual, Black Mountain Ranch, Tijuana River Valley, and those surrounding the MCAS Miramar base are impacted, whereas most of the city is within the bottom 25th percentile of the state.

NATIONAL PRIORITIES LIST SITES



National Priorities List (NPL) sites, also known as superfund sites, are places where there have been known or threatened releases of hazardous substances, pollutants, or contaminants. The NPL guides EPA investigation to assess risk to human health and the environment, and many are targeted for remediation to be reused or redeveloped following cleanup.

There is only one area in the city above the 60th percentile, located in Otay Mesa. However, low income areas generally score higher than higher income areas.

Toxics & Hazardous Waste

Improper handling and management of chemical waste can contaminate air, water, and soil and harm both the natural environment as well as people. In California, information about hazardous waste generators and facilities is maintained by the Department of Toxic Substances and Control.

Proximity to Risk Management Plan (RMP) sites is measured by EPA and included in EJSCREEN. This index is the density per kilometer of potential chemical accident management plan facilities within 5 kilometers, assessed in 2020. RMPs are required by facilities that use extremely hazardous substances and provide valuable information to local safety service providers to prepare for chemical emergencies. Some tracts in the city are notably more at risk, especially those in Downtown, Barrio Logan, Southeastern, and northern Otay Mesa (see map above left).

These areas also coincide with those with high densities of hazardous waste facilities including Treatment, Storage, and Disposal Facilities (TDSFs) and Large Quantity Generators (LQGs) logged by EPA in the Resource Conservation and Recovery Act (RCRA) data base, with the addition of tracts in the University, City Heights, College Area, and Linda Vista communities, as seen in the map above.