

The San Diego County Air Pollution Control District
AB 617: Community Air Protection Program
Submittal for
Community Air Monitoring
Community Emission Reductions

April 27, 2018

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MISSION STATEMENT

To Improve Air Quality and Public Health in San Diego Disadvantaged Communities

GUIDING PRINCIPLES

1. Community-involved actions to reduce air pollution that improves public health
2. Form a collaborative process that is diverse and inclusive
3. Transparent, accessible, accountable, proven, effective, adaptive, and defined
4. Science-based decisions
5. Leverage resources
6. Share information and lessons learned with other communities
7. Promote accelerated deployment of clean technology
8. Be aligned with other programs, including local climate action plans

The San Diego County Air Pollution Control District (District) is tasked with implementing and leading this community air monitoring program. One of the first orders of business is to identify and prioritize air monitoring for disadvantaged communities within the county. This document describes the methodology used to identify communities, the steps taken to date to determine community concerns, the next steps needed to measure air pollutants and then identify their sources so we can work to improve air quality in those communities.

The proposed elements of the Community Air Monitoring Program are listed in Table 1.

PROPOSED ELEMENTS FOR COMMUNITY AIR MONITORING PLANS (under development)

Table 1

#	Element	Activities	Participants
1	Engage community members	Establish a participating structure	District, Community, TBD
2	Develop community-specific problem statements	Assess existing monitoring and identify problems community monitoring will address	District, Community, TBD
3	Define air monitoring objectives	Describe goals and resulting actions	District, Community, TBD
4	Define data quality objectives	Identify precision, accuracy, completeness, and representativeness	District, Community, TBD
5	Establish roles and responsibilities	Assign tasks	District, Community, TBD
6	Select equipment and methods	Identify appropriateness of equipment for pollutants of concern	District, Community, TBD
7	Determine monitoring locations and frequencies	Identify areas, frequency, and duration	District, Community, TBD
8	Design quality control procedures	Identify calibration and audit requirements	District, Community, TBD
9	Provide work plan for conducting field measurements	Develop timeline and process for coordinating with community	District, Community, TBD
10	Manage and validate data	Discuss path from collection, analysis, storage, and presentation	District, Community, TBD
11	Specify process for evaluating effectiveness	Describe process to evaluate data to intended objective and when air monitoring is complete	District, Community, TBD
12	Analyze and interpret data	Interpret data, trends	District, Community, TBD
13	Communicate Results	Describe final reporting format, frequency, and content to established California Air Resources Board (CARB) standards	District, Community, TBD

COMMUNITY OUTREACH and APPROACH

In November 2017, the District participated in a CARB-led community meeting about AB 617, Community Air Monitoring, in National City and learned about the issues and concerns pertaining to air quality from a variety of people in several communities. For example, community members at the meeting expressed concerns about idling trucks. The District promptly started conducting inspections to ensure compliance with the State of California's idling rules. Non-compliant trucks were found and the District has undertaken appropriate enforcement actions. The surveillance for, and inspections of, idling trucks in the community continues as a routine District practice.

The District attended two CARB-led meetings in Riverside that discussed AB 617 and how to effectively engage communities. The key point taken from these meetings is that community engagement must be ongoing and transparent, with meaningful action taken for the benefit of the community. We heard from community leaders that the key to success is building trust, which takes time. The District is committed to a continued community engagement and a successful long-term program.

On March 23, 2018, the District held a kick-off meeting at their office where approximately 20 non-District staff attended. In attendance were people from the Environmental Health Coalition representing the Community of Portside Environmental Justice Neighborhoods, Casa Familiar (representing San Ysidro community), academia from San Diego State University and University of California San Diego, industry members, the US Navy, and San Diego Gas & Electric. The District gave a brief presentation and then opened the meeting up for ideas and suggestions on how to move forward with community monitoring, emission reductions and outreach. An excellent discussion took place, with many good ideas provided and potential partnerships formed. For example, the University California San Diego has portable testing equipment that might be available to measure ultra-fine particulates in disadvantaged communities. Meetings are being set up with the Port of San Diego to explore the use of electrically operated equipment in lieu of diesel-powered equipment. The Port of San Diego property is adjacent to portside communities and diesel particulate matter air pollution is a major concern in those areas. A member of the Environmental Health Coalition mentioned that the District's "Tell us Now App," which is a phone app to enable people to report air pollution related complaints, is only in English and needed to be in Spanish to be fully effective. The District expects to have the phone app translated into Spanish within two months.

On March 29, 2018, the District attended a San Ysidro community meeting where OEHHA, San Diego State University, the University of Washington and members of Casa Familiar provided updates on the San Ysidro Community Air Quality Study. The District gleaned important information from the presentation. Additionally, the District presented a short talk about AB-617 and its approach to fulfilling the requirements of that legislation. The District fielded questions and, after the presentation, met with community members at an information table set up for that purpose. The District received comments on where to monitor for air pollution, the air pollution-impacted areas and sources of air pollution within the community. Pollution from Tijuana, Mexico, and vehicle idling at border crossings are a great concern for the community as well as for those people walking across the border in both directions. There is

community concern about recent changes to border inspection strategies that cause longer wait times and increased air pollution because of vehicles idling or moving slowly in addition to the large number of vehicles in the area. Additional community monitoring in the San Ysidro and Otay areas will greatly assist in determining the impact of traffic on these areas and will in the development and implementation to effective air pollutant emission reduction strategies.

After the March 23rd and March 29th meetings, the District continued its dialogs with Casa Familiar, the Environmental Health Coalition and industry. These communications helped in identifying census tracts in the San Ysidro, Otay Mesa, and portside communities that should be monitored for air pollutants to enable the implementation of emission reduction strategies. Discussions are ongoing and the process will be dynamic and ever evolving, so that changes can be made and an effective program developed.

On April 11, 2018, the District participated in an Environmental Health Coalition meeting at their offices, where community residents from the Portside Environmental Justice Neighborhoods of National City, Logan Heights and Sherman Heights discussed concerns about air pollution in their neighborhood. Community members expressed concerns as to whether the District could take action immediately on such as idling trucks and odor problems. Several specific areas were named and the District is following up. As to long term projects such as enhanced community monitoring and electrification commitments at the Port of San Diego, the District is fully engaged and will continue to participate as we move forward. The meeting was very positive, with lots of good information being shared, and the District looks forward to additional meetings that will help it to fully understand and address the communities' concerns.



On April 27, 2018 a public meeting was conducted where the District discussed their community nominations, rationale for selections, community emission reduction ideas, and the formation of steering committees. In attendance were members of environmental justice groups, industry, Port of San Diego,

SANDAG, the US Navy, San Diego State professor, and various District staff. An excellent discussion ensued and helpful information was provided. Input on the steering committee formation was most helpful.

Going forward, it is felt the best way to be transparent, hear ideas and concerns, and to respond to community concerns is through the steering committee meetings. The steering committee meetings will be an effective way to provide in-person updates on community emission monitoring and inspection results and to learn of the community members' concerns.

The second approach to disseminating information is through the use of a website. The District will develop a separate website or a link on our existing one (www.sdapcd.org). Information will include updates on emission monitoring (possibly real-time or near real-time air quality data), updates on incentive funding, inspection results, a place for comments, and a public complaint link. Information will be linked to other community websites so as to facilitate transparency.

SAN DIEGO COUNTY EMISSION INVENTORY ANALYSIS (under review)

Table 2- Summary of emissions by type

EMISSION SOURCE (TONS/DAY)	ROG	NOX	PM2.5	TOTAL FOR (ROG, NOX, PM2.5)	DIESEL PM (%) OF TOTAL
MOBILE SOURCE	52.2	89.7	5.1	147	91
AREAWIDE	33.9	1.7	12.2	47.8	6
STATIONARY SOURCE	29.2	4	2.7	35.9	3
TOTAL	115.3	95.4	20	230.7	100

The emission data shown in Table 2 are from the California Air Resources Board (CARB) website and include pollutants that are ozone precursors or of special health concern. Ozone, oxides of nitrogen (NOx), and fine particulates (PM_{2.5}) were taken for several reasons. AB-617 requires air districts who are in non-attainment for a criteria pollutant to apply expedited best available retrofit control technology (BARCT) to specified sources. The District is non-attainment for ozone, a secondary pollutant. ROG and NOx emissions are the precursors to ozone, therefore they need to be analyzed for expedited BARCT reasons. PM_{2.5} is included because the San Ysidro/Otay Mesa Community scores are in the 95% Percentile for this pollutant. The diesel particulate matter (PM) is included because the Portside Environmental Justice Neighborhoods scores in the 95+ Percentile for this toxic air contaminant.

As has been discussed in this application, the District must do its part to help communities and we are committed to this effort. But as is shown above, mobile source emission reductions are key to success. With the majority of emissions being mobile source related, their emission reductions are critically needed. For example, per modeling completed in 2017, we need a total of 22.8 tons/day of NOx emission reductions in order to reach attainment for the 2015 national ozone standard (70 ppb). A 26% reduction in NOx mobile source emissions would get us there, while a 26% reduction in stationary source NOx emissions would yield reductions of approximately one ton, over 21 tons short of the required amount. If

all the stationary sources in the county shut down, we would still be short over 18 tons of the required reductions.

Table 3- Detailed emissions by category (under review)

SOURCE TYPE	EMISSION SOURCE (TONS/DAY)	ROG	NOx	PM2.5
STATIONARY	ELECTRIC UTILITIES	0.05	0.41	0.31
STATIONARY	COGENERATION	0.04	0.22	0.06
STATIONARY	MANUFACTURING AND INDUSTRIAL	0.07	0.86	0.08
STATIONARY	FOOD AND AGRICULTURAL PROCESSING	0.01	0.15	0.39
STATIONARY	SERVICE AND COMMERCIAL	0.24	1.10	0.43
STATIONARY	OTHER (FUEL COMBUSTION)	0.07	0.72	0.01
STATIONARY	SEWAGE TREATMENT	0.03	0.07	0.02
STATIONARY	LANDFILLS	2.17	0.23	0.41
STATIONARY	INCINERATORS	0.00	0.00	0.00
STATIONARY	SOIL REMEDIATION	0.00	0.00	0.00
STATIONARY	OTHER (WASTE DISPOSAL)	0.26	0.00	0.00
STATIONARY	LAUNDERING	0.10	0.00	0.00
STATIONARY	DEGREASING	1.54	0.00	0.00
STATIONARY	COATINGS AND RELATED PROCESS SOLVENTS	7.32	0.00	0.00
STATIONARY	PRINTING	4.56	0.00	0.00
STATIONARY	ADHESIVES AND SEALANTS	2.64	0.00	0.00
STATIONARY	OTHER (CLEANING AND SURFACE COATINGS)	0.12	0.00	0.00
STATIONARY	PETROLEUM MARKETING	5.85	0.01	0.00
STATIONARY	OTHER (PETROLEUM PRODUCTION AND MARKETING)	0.00	0.00	0.00
STATIONARY	CHEMICAL	2.68	0.00	0.00
STATIONARY	FOOD AND AGRICULTURE	0.06	0.00	0.01
STATIONARY	MINERAL PROCESSES	0.23	0.19	0.99
STATIONARY	METAL PROCESSES	0.01	0.01	0.03
STATIONARY	GLASS AND RELATED PRODUCTS	0.00	0.00	0.00
STATIONARY	ELECTRONICS	0.00	0.00	0.00
STATIONARY	OTHER (INDUSTRIAL PROCESSES)	1.15	0.05	0.02
AREAWIDE	CONSUMER PRODUCTS	17.61	0.00	0.00
AREAWIDE	ARCHITECTURAL COATINGS AND SOLVENTS	9.10	0.00	0.00
AREAWIDE	PESTICIDES/FERTILIZERS	0.60	0.00	0.00
AREAWIDE	ASPHALT PAVING / ROOFING	2.34	0.00	0.01
AREAWIDE	RESIDENTIAL FUEL COMBUSTION	0.53	1.68	3.28
AREAWIDE	FARMING OPERATIONS	1.27	0.00	0.03
AREAWIDE	CONSTRUCTION AND DEMOLITION	0.00	0.00	3.31

AREAWIDE	PAVED ROAD DUST	0.00	0.00	1.49
AREAWIDE	UNPAVED ROAD DUST	0.00	0.00	0.64
AREAWIDE	FUGITIVE WINDBLOWN DUST	0.00	0.00	0.02
AREAWIDE	FIRES	0.05	0.02	0.10
AREAWIDE	MANAGED BURNING AND DISPOSAL	0.24	0.06	0.18
AREAWIDE	COOKING	2.23	0.00	3.24
AREAWIDE	OTHER (MISCELLANEOUS PROCESSES)	0.00	0.00	0.00
MOBILE	LIGHT DUTY PASSENGER (LDA)	7.39	5.56	1.07
MOBILE	LIGHT DUTY TRUCKS - 1 (LDT1)	2.03	0.95	0.09
MOBILE	LIGHT DUTY TRUCKS - 2 (LDT2)	3.15	2.46	0.35
MOBILE	MEDIUM DUTY TRUCKS (MDV)	2.95	2.63	0.22
MOBILE	LIGHT HEAVY DUTY GAS TRUCKS - 1 (LHDGT1)	0.94	1.13	0.03
MOBILE	LIGHT HEAVY DUTY GAS TRUCKS - 2 (LHDGT2)	0.10	0.16	0.01
MOBILE	MEDIUM HEAVY DUTY GAS TRUCKS (MHDGT)	0.14	0.27	0.01
MOBILE	HEAVY HEAVY DUTY GAS TRUCKS (HHDGT)	0.02	0.08	0.00
MOBILE	LIGHT HEAVY DUTY DIESEL TRUCKS - 1 (LHDDT1)	0.19	3.33	0.07
MOBILE	LIGHT HEAVY DUTY DIESEL TRUCKS - 2 (LHDDT2)	0.06	0.78	0.02
MOBILE	MEDIUM HEAVY DUTY DIESEL TRUCKS (MHDDT)	0.30	4.92	0.20
MOBILE	HEAVY HEAVY DUTY DIESEL TRUCKS (HHDDT)	0.35	11.36	0.12
MOBILE	MOTORCYCLES (MCY)	2.78	0.67	0.01
MOBILE	HEAVY DUTY DIESEL URBAN BUSES (UBD)	0.15	2.08	0.08
MOBILE	HEAVY DUTY GAS URBAN BUSES (UBG)	0.02	0.05	0.00
MOBILE	SCHOOL BUSES - GAS (SBG)	0.01	0.02	0.01
MOBILE	SCHOOL BUSES - DIESEL (SBD)	0.01	0.46	0.02
MOBILE	OTHER BUSES - GAS (OBG)	0.03	0.09	0.01
MOBILE	OTHER BUSES - MOTOR COACH - DIESEL (OBC)	0.01	0.22	0.00
MOBILE	ALL OTHER BUSES - DIESEL (OBD)	0.01	0.20	0.00
MOBILE	MOTOR HOMES (MH)	0.04	0.25	0.01
MOBILE	AIRCRAFT	3.66	8.61	1.68
MOBILE	TRAINS	0.11	2.12	0.04
MOBILE	OCEAN GOING VESSELS	0.86	17.17	0.08
MOBILE	COMMERCIAL HARBOR CRAFT	0.50	5.05	0.15
MOBILE	RECREATIONAL BOATS	11.64	2.54	0.23
MOBILE	OFF-ROAD RECREATIONAL VEHICLES	0.96	0.02	0.00
MOBILE	OFF-ROAD EQUIPMENT	11.74	14.48	0.52
MOBILE	FARM EQUIPMENT	0.44	2.05	0.07
MOBILE	FUEL STORAGE AND HANDLING	1.70	0.00	0.00
TOTAL (TONS/DAY)		115.44	95.48	20.15

Using risk factors from CalEnviroScreen 3.0, the District devised a ranking system to determine priority communities. The priority ranking system was as follows:

PRIORITIES (high to low):

1. High Pollution Burden Score (high air pollution exposure), High Population Characteristic Score
2. Lower Pollution Burden Score (high air pollution exposure), High Population Characteristic Score
3. High Pollution Burden Score (lower air pollution exposure), High Population Characteristic Score
3. High Pollution Burden Score (high air pollution exposure), Lower Population Characteristic Score
4. Lower Pollution Burden Score (high air pollution exposure), Lower Population Characteristic Score
5. Lower Pollution Burden Score (lower air pollution exposure), Lower Population Characteristic Score

Tie

Note: The separation point between high and lower score is the 75 Percentile because CalEPA designates the highest scoring 25% of census tracts from Cal EnviroScreen 3.0 as disadvantaged communities.

Special consideration will be given to:

- Disadvantaged communities where historical regional and/or community air pollution data is lacking
- Situations where disadvantaged communities are impacted by factors outside of local control

ONGOING TECHNICAL ASSESSMENT OF POLLUTANTS IN EACH COMMUNITY:

1. Utilize all CalEnviroScreen 3.0 factors
2. Utilize historical air quality data
3. Utilize health risk modeling programs to identify acute, chronic, cancer health risks
4. Feedback from community
5. Identify mobile, area, and stationary source emission sources
6. Develop a community-level emission inventory database

Additional details and ranking information for the Communities of Portside Disadvantaged Neighborhoods and San Ysidro/Otay Mesa are provided below. The District proposes to form Steering Committees for the Barrio Logan and San Ysidro/Otay Mesa communities to help identify issues/concerns and to seek workable strategies/solutions. These Steering Committee information is found in Appendix 1 and 2.

RELATIONSHIP WITH STAKEHOLDERS:

The District has a good working relationship with all parties, some have been established for years and others are becoming more established. We will be transparent, engaging, open to ideas, and inclusive. We plan to meet with community residents at a neighborhood level to better understand concerns; meet with companies individually to develop emission reduction ideas, meet with other agencies/companies who can assist with community goals; and meet as a group at steering committee meetings to provide updates, hear ideas, concerns, and get additional public input. We expect the process to be dynamic and flexible as lessons are learned and new issues arise.

IDENTIFIED COMMUNITIES:

First Year (Selected for Community Monitoring and Emission Reductions)

1. **Community of Portside Environmental Justice Neighborhoods**- Barrio Logan / Portion of National City/Sherman Heights/Logan Heights Census Tracts 6073005000; 6073004900; 6073003902; 6073003601; 6073003901; 6073005100; 6073003603; 6073004000; 6073003502; 6073021900; 6073004700; 6073011602
2. **Community of San Ysidro / Otay Mesa** (Census Tracts 6073010009, 6073010013, 6073010111, 6073010005, 6073010012, 6073010109, 6073010015)

Subsequent Years

1. National City (Census Tracts 6073011700, 6073011601, 6073011801, 6073022000)
2. Chula Vista (Census Tracts 6073012502, 6073013205, 607312501, 6073012600)
3. El Cajon (Census Tracts 6073016202, 6073015901)
4. San Diego (Census Tracts 6073003602, 6073003501, 6073005300, 6073005700, 6073003301, 6073004800, 6073003403, 6073004100, 6073002502, 6073003404, 6073003305, 6073005200, 6073003303, 6073002501)

See Table 4 below for listing of the above 37 census tracts.

Table 4- Identified Census Tracts in San Diego County

SD Rank	Census Tract	Total Population	ZIP	City	CES 3.0 Pctl	CES 3.0 Pctl Range	Pollution Burden Pctl	Population Char Pctl
1	6073005000	2227	92113	San Diego	99.42	96-100%	95.81	97.39
2	6073004900	5028	92113	San Diego	99.00	96-100%	94.19	97.23
3	6073003902	4927	92113	San Diego	98.95	96-100%	94.49	96.63
4	6073003601	3250	92113	San Diego	98.73	96-100%	92.50	97.45
5	6073003901	4241	92113	San Diego	96.17	96-100%	81.28	97.63
6	6073005100	7140	92113	San Diego	95.79	96-100%	91.28	89.42
7	6073003603	4228	92113	San Diego	90.26	91-95%	82.04	86.29
8	6073004000	5160	92102	San Diego	89.68	86-90%	70.30	93.68
9	6073003502	4946	92113	San Diego	88.55	86-90%	69.66	92.23
10	6073012502	4466	91910	Chula Vista	88.31	86-90%	81.80	82.02
11	6073016202	3337	92020	El Cajon	87.58	86-90%	87.03	75.38
12	6073021900	6816	91950	Nat City	87.55	86-90%	94.66	65.82
13	6073004700	1858	92102	San Diego	86.72	86-90%	81.54	79.57
14	6073011602	3228	91950	Nat City	86.40	86-90%	63.91	92.24
15	6073003602	3079	92113	San Diego	86.13	86-90%	54.14	97.14
16	6073003501	4255	92113	San Diego	85.21	86-90%	62.96	91.32
17	6073015901	3450	92020	El Cajon	85.18	86-90%	54.26	96.44
18	6073005300	6667	92101	San Diego	84.59	81-85%	78.88	78.08
19	6073005700	1948	92101	San Diego	84.51	81-85%	74.70	81.30
20	6073003301	3337	92113	San Diego	84.22	81-85%	62.31	90.24
21	6073004800	4115	92102	San Diego	84.16	81-85%	59.70	91.95
22	6073013205	2381	91911	Chula Vista	83.64	81-85%	73.22	81.16
23	6073011700	6773	91950	Nat City	83.48	81-85%	65.89	86.61
24	6073011601	5891	91950	Nat City	81.99	81-85%	60.47	88.09
25	6073003403	4283	92102	San Diego	80.59	81-85%	65.69	81.56
26	6073011801	3961	91950	Nat City	79.72	76-80%	66.53	79.58
27	6073012501	3858	91910	Chula Vista	79.33	76-80%	68.30	77.51
28	6073004100	6546	92102	San Diego	78.41	76-80%	73.94	72.00
29	6073002502	6264	92105	San Diego	77.88	76-80%	67.38	76.08
30	6073003404	4634	92102	San Diego	77.69	76-80%	60.54	80.67
31	6073010009	6693	92173	San Ysidro	76.84	76-80%	66.47	74.81
32	6073003305	5738	92113	San Diego	76.40	76-80%	50.13	87.26
33	6073022000	4186	91950	Nat City	76.21	76-80%	43.91	92.07
34	6073005200	4563	92101	San Diego	75.70	76-80%	87.84	55.98
35	6073012600	5047	91910	Chula Vista	75.60	76-80%	69.99	70.02
36	6073003303	4193	92113	San Diego	75.53	76-80%	40.30	94.12
37	6073002501	5504	92105	San Diego	75.24	76-80%	46.91	88.12

DESCRIPTION OF COMMUNITY OF PORTSIDE ENVIRONMENTAL JUSTICE NEIGHBORHOODS

(Info from Environmental Health Coalition, in italics)

“National City is the poorest city in San Diego County. It is a community of color with significant challenges including language barriers, insufficient access to reliable transportation and healthy food, and high exposure to pollutants. Notably, 22% of residents live below the federal poverty line and 35% of the population has less than a high school education¹. The majority of residents are people of color (88%) with Latinos constituting the greater share of the population (63%) and Asian-American/Pacific Islanders following with 20%¹. The community is also quite young with approximately 26% of residents under the age of 18.”

Logan Heights is similar in its demographic makeup. An estimated 86% of residents are Latino with Black and Whites constituting the secondary and tertiary largest ethnic groups². Among Logan Heights’ residents, approximately 50% have less than a high school diploma and 30.8% live below the federal poverty line³. At the last census, 34% of Logan Heights’ residents were under the age of 18⁴.

Barrio Logan is a mixed-use neighborhood south of downtown San Diego. Its bayfront is highly industrialized. In the period between the 1920s and 1950s, Mexican American, African American and Asian residents as well as Mexican immigrants moved into Logan Heights/Barrio Logan because of its proximity to the bay front and railroad jobs and the availability of affordable housing.⁵ The community was heavily residential and continued to be so as multi-family units were developed throughout the neighborhood to house the continuous influx of immigrant labor.

The neighborhood of Barrio Logan achieved its current identity as a consequence of its separation from Logan Heights due to the construction of Interstate 5 in 1963 and the San Diego-Coronado Bay Bridge in 1969, as well as the rezoning of the area from strictly residential to mixed use. Although it is considered a cultural gem of the county as San Diego’s original Mexican-American neighborhood and a landmark site of the 1960s Chicano rights movement, the community still faces significant challenges: 78% of residents are characterized as low-income, 32% of the population is linguistically isolated, and 42% of the population has less than a high school education.^{6”}

Barrio Logan’s rate of asthma-related hospital visits is higher than 92.9 percent of census tracts throughout the state, with about 81 visits per 10,000 people. Cancer is also a major health hazard for residents. Barrio Logan’s cancer risk is in the 80th - 90th percentile nationally⁶.

¹ “Demographic and Socioeconomic Profile 2010, Zip 91950”. San Diego Association of Governments.

² 2016 ACS 5-Year Estimates. “Selected Characteristics of the Total and Native Populations in the United States”.

³ “Greater Logan Heights: Five Neighborhoods, One Community”.

<<https://www.sandiego.gov/sites/default/files/legacy/planning/community/profiles/southeasternsd/pdf/greaterloganeightstfiveneighborhoodsononecommunity.pdf>>.

⁴ 2010 Decennial Census. “Sex by Age”.

⁵ Smith, Brian F. and Associates and the City of San Diego City Planning and Community Investment/Planning Divisions. “Barrio Logan Historical Resources Survey”. 1 February 2011.

<<https://www.sandiego.gov/sites/default/files/legacy/planning/programs/historical/pdf/2013/201304blhistoricsurvey.pdf>>

⁶ “EJSCREEN Report (Version 2016) Block group: 060730050001”. EJSCREEN Tool. US Environmental Protection Agency.

The Community of Portside Environmental Justice Neighborhoods is being selected because it has several census tracts with very high CalEnviroScreen 3.0 (CES 3.0) ratings (Table 1). It has four census tracts that are in the 98th percentile for CES 3.0 and another eight that are in the 85th percentile. Over 50,000 San Diegans (Table 2) reside in this area and are subject to significant pollution exposure.

Of particular concern is diesel particulate matter (PM) which is a known carcinogen and the greatest toxic air pollutant risk in the County. Eleven of the twelve census tracts (over 45,000 people) have an exposure risk greater than the 95th percentile. Four of the census tracts (over 15,000 people) are in the 99th percentile for diesel PM.

There are also significant environmental effects indicators, including groundwater threats, hazardous waste, solid waste and impaired water bodies. Several of the census tracts have pollution effects in the 95th+ percentile.

The Community of Portside Environmental Justice Neighborhoods is a very sensitive population as evidenced by its CES 3.0 indicators. Of particular concern is the asthma indicator with five census tracts (20,000 residents) in the 95th+ percentile. With the high asthma indicator and significant pollution exposure, residents are very vulnerable to effects of asthma.

There are very significant socioeconomic factor indicators that show how the Community of Portside Environmental Justice Neighborhoods residents are limited in overcoming the pollution exposure and environmental effects. Residents in seven of the census tracts (30,000 people) are in the 95th percentile for poverty. The high poverty rate prevents residents from purchasing goods and services that would minimize any exposure. Ten of the census tracts (40,000+ residents) are in the 90th percentile for housing burden. With significant poverty levels and having much of their limited income going towards housing, their ability to protect themselves from pollution exposure is greatly limited.

Table 4- CES 3.0 Data for Community of Portside Environmental Justice Neighborhoods

Census Tracts 6073005000 (SD Rank 1); 6073004900 (SD Rank 2); 6073003902 (SD Rank 3); 6073003601 (SD Rank 4); 6073003901 (SD Rank 5); 6073005100 (SD Rank 6); 6073003603 (SD Rank 7); 6073004000 (SD Rank 8); 6073003502 (SD Rank 9); 6073021900 (SD Rank 12); 6073004700 (SD Rank 13); 6073011602 (SD Rank 14)

SD Rank	1	2	3	4	5	6	7	8	9	12	13	14
CA Rank	47	80	84	102	305	335	773	819	909	988	1054	1079
Total Pop.	2227	5028	4927	3250	4241	7140	4228	5160	4946	6816	1858	3228
Zip code	92113	92113	92113	92113	92113	92113	92113	92102	92113	91950	92102	91950
CES 3.0 Score	70.91	68.27	67.79	66.76	59.42	58.65	51.41	50.87	49.67	48.70	47.99	47.62
CES 3.0 Pctl	99.42	99.00	98.95	98.73	96.17	95.79	90.26	89.68	88.55	87.55	86.72	86.40
CES 3.0 Pctl Range	96-100%	96-100%	96-100%	96-100%	96-100%	96-100%	91-95%	86-90%	86-90%	86-90%	86-90%	86-90%
O3 Pctl	22.34	22.34	22.34	22.34	22.34	22.34	22.34	22.34	22.34	25.87	22.34	25.87
PM 2.5 Pctl	66.23	66.23	66.23	66.23	66.23	66.23	66.23	66.23	66.23	69.14	66.23	66.23
Diesel PM Pctl	99.65	99.65	97.08	94.52	97.98	99.65	97.24	98.56	87.28	95.49	99.65	97.24
Drinking Water Pctl	22.24	22.24	22.24	22.24	22.24	22.24	34.03	22.24	22.24	27.09	22.24	27.09
Pes. Pctl	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tox. Release Pctl	61.84	53.75	78.14	58.76	56.14	44.49	55.70	50.19	50.09	56.50	44.16	52.81
Traffic Pctl	73.37	84.33	75.47	86.82	54.52	70.61	84.30	50.11	53.35	80.42	82.63	36.01
Clean up Sites Pctl	89.49	81.78	53.92	45.15	27.62	86.92	6.33	2.72	39.78	98.10	56.79	61.42
Groundwater Threats Pctl	96.79	96.24	80.80	94.36	74.91	99.55	90.75	79.18	39.42	99.67	96.97	41.19
Haz. Waste Pctl	97.37	95.92	98.37	95.27	82.35	95.48	46.52	57.13	90.70	85.19	92.40	65.56
Imp. Water Bodies Pctl	97.26	71.61	95.64	89.54	80.63	76.39	80.63	29.25	48.80	63.17	15.26	29.25
Solid Waste Pctl	93.61	92.38	96.39	84.51	84.77	73.54	73.54	75.64	52.84	91.70	65.24	70.29
Poll. Burden Pctl	95.81	94.19	94.49	92.50	81.28	91.28	82.04	70.30	69.66	94.66	81.54	63.91
Asthma Pctl	97.23	97.23	97.23	97.08	93.62	81.00	94.07	90.13	97.23	13.76	88.57	85.04
Low Birth Weight Pctl	63.17	68.47	51.34	70.24	83.21	93.13	26.44	84.06	24.98	83.21	50.72	82.81
Cardio Disease Pctl	70.78	70.78	70.78	69.53	50.80	44.11	55.75	49.35	70.78	56.84	45.01	77.04
Edu Pctl	90.79	96.14	98.20	97.12	97.45	66.19	91.16	93.05	97.72	45.60	90.95	86.35
Ling. Iso. Pctl	96.29	93.15	97.03	86.72	95.13	58.23	95.45	88.80	91.92	83.22	77.34	84.60
Poverty Pctl	99.02	94.70	97.25	95.90	97.57	91.41	85.72	95.84	97.49	84.34	87.59	87.94
Unemp Pctl	90.84	82.80	96.19	89.91	97.33	95.91	87.12	62.53	94.29	54.39	36.77	54.39
Housing Burden Pctl	97.68	95.71	91.18	96.89	98.07	92.36	90.42	96.99	91.50	81.70	97.30	73.17
Pop Char Pctl	97.39	97.23	96.63	97.45	97.63	89.42	86.29	93.68	92.23	65.82	79.57	92.24

Figure 2 - Community of Portside Environmental Justice Neighborhoods (Census Tracts and Sand Diego CES 3.0 Ranking)



Community of San Ysidro and Otay Mesa

(From David Flores of Casa Familiar):

“San Ysidro is home to approximately 30,000 people. San Ysidro residents identified as 93% Hispanic in the 2010 U.S Census with 87% speaking Spanish and 60% speaking both Spanish and English. The linguistic isolation burden percentage was calculated at 86% by the CalEnviroScreen tool. According to the 2010 SANDAG Community Profile, San Ysidro has a relatively young population with 31.6% of residents under 18 years old and 9.1% of residents over 65 years old as compared to 21% and 11%, respectively, in the City of San Diego. The median age in San Ysidro is 29.1, lower than the median age of 33.8 in the City of San Diego. Further, the unemployment rate in San Ysidro is significantly higher at 12.4% when compared to 8.4% in the City of San Diego. The median household income is also significantly lower at \$35,993 when compared to the median of \$63,198 in the City of San Diego. The poverty rate in San Ysidro is 25.1%, more than double that of the City of San Diego.”

The environmental context of the community of San Ysidro is best understood based on its proximity to the U.S.-Mexico International Border. In 1954 interstate 5 was constructed establishing a major route to the border and bisecting the San Ysidro community. In the 1970s Interstate 805 and 905 were constructed, adding an additional physical division within the community of San Ysidro and limiting the pedestrian mobility of San Ysidro residents and travelers. San Ysidro is located immediately adjacent to the busiest land Port-of-Entry (POE) in the Western Hemisphere, the San Ysidro POE. Each day as many as 50,000

vehicles and 25,000 pedestrians cross the POE in the northbound direction and in 2012 passenger vehicle crossing times averaged 74 minutes (BHET Report, 2015). Vehicular cueing to cross this POE extends to beyond 5 miles on local freeways during busy traffic hours. POE Operations reports that 6 of 10 persons entering & exiting through any port of the United States happens through the SY POE, and that this facility has the most 911 emergency calls in all of the National emergency call system. This accounts for disproportionate impacts & exposure of the San Ysidro community to vehicle emissions from border traffic. Further, port reconfiguration and expansion is underway to accommodate a projected 87% increase in traffic by the year 2030 (US General Services Administration, 2017). Changes at the port are likely to have a substantial impact on the air quality in the surrounding South San Diego communities. San Ysidro has been identified as a disadvantaged community under SB 535 with an overall CalEnviroScreen 3.0 percentile calculated at 76-80%, with higher percentage reflecting higher burden based on environmental indicators. Of note, the tool also calculated the PM_{2.5} burden at 95% and the traffic burden was calculated at 100%.

Localized Air Quality

Casa Familiar, academia, and state/local agencies have been conducting an air study in the area where they have deployed low cost sensors. The study is two-fold. First, it is measuring air pollutants at the community level and, second, an evaluation of the sensors utilized in the study by academia is being conducted. The District has assisted with the San Ysidro study by accommodating the side-by-side placement of the study's sensors next certified instruments at District ambient air quality monitoring stations. This collocation allows for the comparison of new technology to long-established state and federal reference measurement methods used by the District. There is widespread interest in identifying and using low cost sensors to monitor air pollutants and the District is committed to continue assisting with the San Ysidro study and future air quality studies in disadvantaged communities.

Recently, the District partnered with Cal-EPA and the USEPA to locate a PM_{2.5} monitor at the San Ysidro Border Crossing. This first-of-its-kind monitoring was helpful in identifying particulate levels at that port of entry, yet was short-lived due to real estate issues. The plan is to resume with monitoring in this general area as soon as possible. This is because data on long-term air pollutant trends are needed if we are to work to mitigate the sources of the pollution. Additionally, such monitoring will assist with the assessment of new, developing technologies and in the creation of protocols for community-level monitoring.

With this, the District is concurrently working on locating a USEPA-required near-road monitor in the San Ysidro community. While the required monitoring is to be used primarily for measuring nitrogen dioxide (NO₂) and PM_{2.5}, this location will also be utilized for measuring other pollutants of community concern and to assist the ongoing The San Ysidro Community Air Study.

Furthermore, the new monitoring location will enable the District to have a place where new sensor technology can be co-located with and whose data can be compared to federal reference method instrument results. The goal is to have proven low cost, simple to operate, accurate sensors deployed throughout our communities.

The Community of San Ysidro/Otay Mesa is being selected because San Ysidro has the highest traffic percentile in the state and its PM_{2.5} levels are in the 95+ percentile. The District is concerned that the PM_{2.5} and diesel particulate may be underreported. In the CalEnviroScreen 2.0 report, San Ysidro was not considered a disadvantaged community. It was only when CalEnviroScreen 3.0 was completed that a

higher PM_{2.5} exposure was determined. More community monitoring is needed to insure the air quality data fully represents the exposure burden of the community.

There are very significant socioeconomic factor indicators that show San Ysidro residents are limited in overcoming the pollution exposure and environmental effects. Over 27,000 residents have population burdens, including an 86+ percentile for poverty, 79+ percentile for unemployment, 89+ percentile for education, and 85+ for linguistic isolation. With significant poverty levels and having much of their limited income going towards housing, their ability to protect themselves from pollution exposure is greatly limited.

The San Ysidro/Otay Mesa community is also confronted with pollution from another country, specifically the area of Tijuana, Mexico. The San Ysidro Community Air Quality Study showed elevated particulate levels in the community when it was downwind of Tijuana. Additional monitoring and cooperation with our neighbors is needed to reduce the elevated pollution levels and better protect the residents of San Ysidro. To this end, it is recommended Tijuana representatives participate in the steering committee.

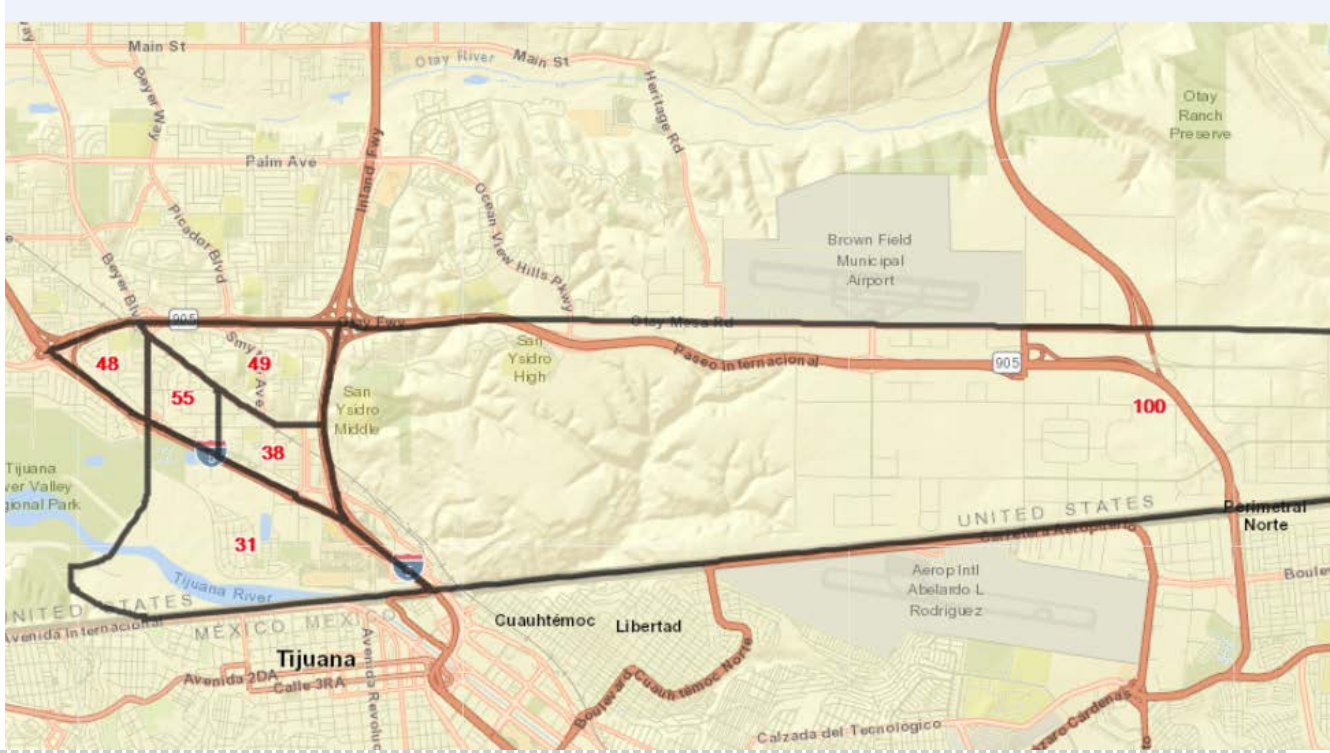
Working with the community and academia, locations throughout the area (Table 5) will be selected to measure for PM_{2.5} and toxic contaminants associated with vehicular exhaust. To insure success, lessons learned from the San Ysidro Community Study will be incorporated into the next level of community testing.

Table 5. San Ysidro / Otay Mesa

San Diego Rank	31	38	48	49	55	65	100
CA Rank	1837	1991	2281	2337	2571	2695	3457
Census Tract	6073010009	6073010013	6073010111	6073010005	6073010012	6073010109	6073010015
Total Population	6693	5484	3072	7366	4581	4595	2803
Zip code	92173	92173	92173	92173	92173	92154	92154
Area	San Ysidro	San Ysidro	San Ysidro	San Ysidro	San Ysidro	Otay Area	Otay Area
CES 3.0 Score	40.54	39.27	36.66	36.34	34.57	33.53	28.20
CES 3.0 Pctl	76.84	74.90	71.24	70.54	67.59	66.02	56.41
CES 3.0 Pctl Range	76-80%	71-75%	71-75%	71-75%	66-70%	66-70%	56-60%
Ozone Pctl	16.94	16.94	16.94	16.94	16.94	16.94	16.94
PM_{2.5} Pctl	95.27	95.27	94.96	94.96	94.96	94.96	95.27
Diesel PM Pctl	40.41	46.38	30.11	43.14	30.11	13.91	66.82
Drinking Water Pctl	22.24	22.24	17.30	22.24	22.24	13.12	34.34
Pesticide Pctl	57.24	27.04	0.00	0.00	0.00	36.22	1.52
Toxic Release Pctl	57.28	58.27	57.65	59.04	57.82	53.23	73.27

Traffic Pctl	99.99	57.51	75.64	61.34	59.94	100.00	99.97
Cleanup Sites Pctl	0.00	0.00	0.00	0.00	0.00	62.81	78.77
Groundwater Threats Pctl	23.60	56.62	32.03	55.16	32.03	46.01	82.51
Hazardous Waste Pctl	43.11	8.56	25.76	0.00	25.76	43.11	97.16
Imp. Water Bodies Pctl	94.41	94.41	94.41	94.41	94.41	99.54	94.41
Solid Waste Pctl	0.00	0.00	0.00	0.00	0.00	61.92	78.52
Poll. Burden Pctl	66.47	48.94	39.84	40.91	37.21	77.59	96.68
Asthma Pctl	59.29	68.89	68.89	68.89	68.89	40.93	34.80
Low Birth Weight Pctl	27.80	26.20	55.94	69.49	49.89	54.72	14.79
Cardio Disease Pctl	55.25	69.98	69.98	69.98	69.98	24.20	18.40
Edu Pctl	90.66	95.55	89.06	91.62	91.29	72.50	69.40
Linguistic Isolation Pctl	85.63	91.12	85.43	94.56	88.39	59.38	59.10
Poverty Pctl	87.94	93.66	86.79	85.47	87.59	44.02	39.28
Unemployment Pctl	87.38	96.90	96.27	93.43	79.82	59.88	20.10
Housing Burden Pctl	74.73	89.01	72.81	30.01	69.61	67.68	34.69
Pop Char Pctl	74.81	85.91	87.70	86.09	84.49	50.56	24.72

Figure 2- Community of San Ysidro & Otay Mesa



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The District operates air monitoring stations spread throughout the County as shown in Figure 3 below. While the District's monitoring stations are mostly intended for measuring regional air quality, that is they are designed to provide a picture of the air over a wide region, these stations will be very useful with community monitoring.

First, they will provide data for the community in which they are located. In fact, three stations that will be operational in the coming months are located in the two communities nominated for the first year. A monitoring station is being constructed at Sherman Heights Elementary School, which is located in the Barrio Logan area. This station will measure ozone, NO₂, PM_{2.5}, PM₁₀, and toxics. In fact, PM_{2.5} will be measured in near-real time (known as "continuous") and via a filter-based, federal reference method. The District will propose measuring black carbon as well because of the high diesel PM percentile in the portside community.

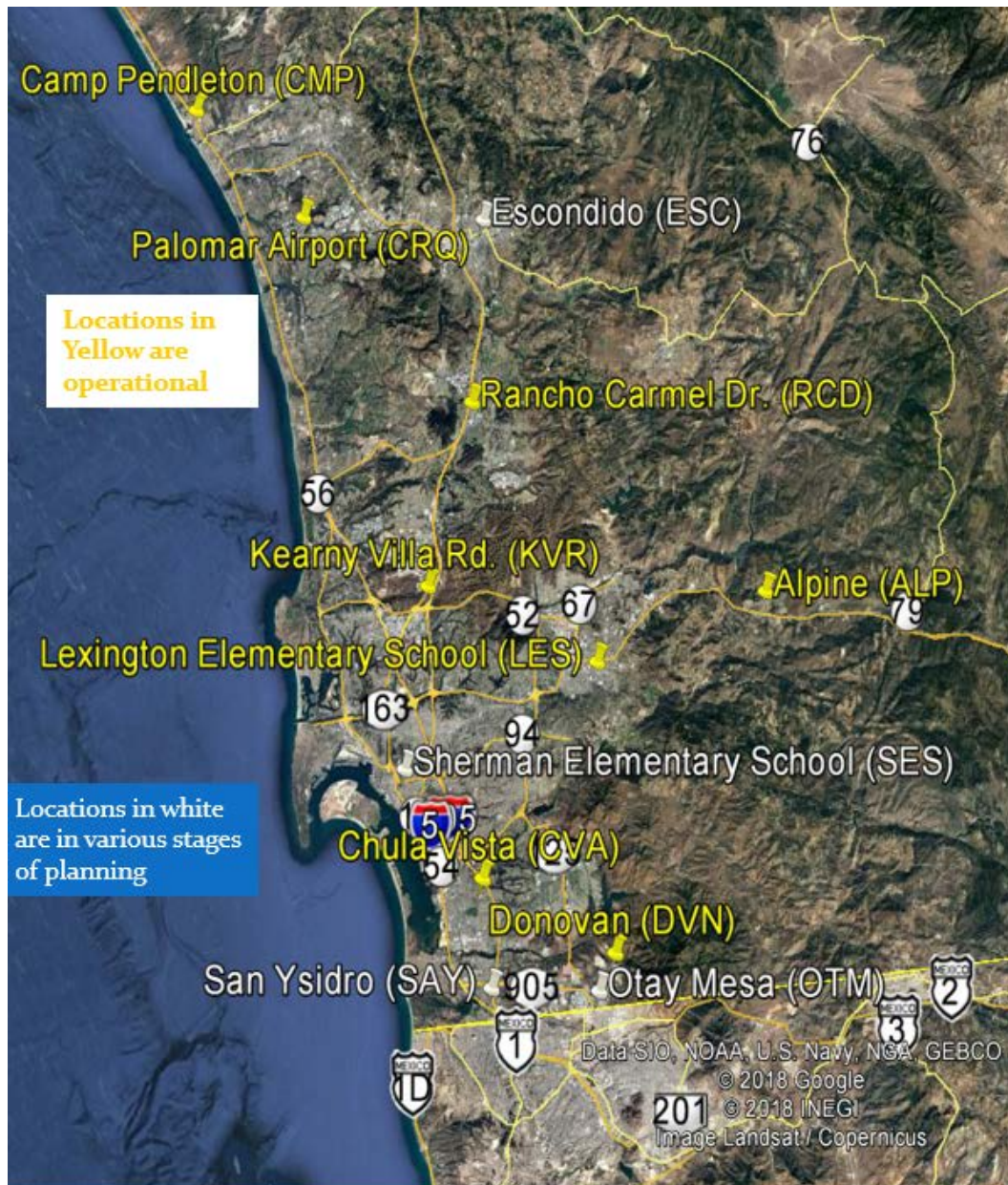
Two stations are being built in the San Ysidro and Otay areas. USEPA has requested we operate a PM_{2.5} (continuous) monitor at the Otay Truck Crossing, and we will also be operating an USEPA-required near-road monitoring station at the San Ysidro Fire Station. At the San Ysidro location we will be operating NO₂ and PM_{2.5} (continuous) monitors. The District will propose measuring black carbon as well due to the high vehicular traffic volume in the area.

Low cost sensors are gaining popularity for their simplicity and ease of use and these devices show much promise. This being said, the District feels they need to undergo additional testing to verify their accuracy precision, and stability if we are to depend on their measurements for decision making. The District anticipates working closely with interested parties who wish to compare sensors to reference test methods by allowing collocation at San Ysidro, Otay, and Sherman Heights. To this end, the District also plans to undertake the testing of some portable sensors at these stations in order to create some direct comparisons of reference methods vs. portable sensors. Additionally, as our instrument technicians gain experience with portable sensors, the District will be able to provide helpful information to others who wish to operate such sensors.

The District plans to locate portable sampling equipment in areas of concern within each of the identified communities. We will measure for toxics using summa canisters (which is a vacuum canister type of sampler), and PM_{2.5} (via filter samples). Using portable sampling will enable frequent testing in multiple locations and allow the District to sample the air as a part of its response to community concerns and air pollution complaints.

Once data is collected and its accuracy verified it will allow the District to inform the community of its findings via a website posting and with quarterly updates at steering committee meetings. These data will enable the public to provide feedback and ideas, which the District very much values and appreciates.

Figure 3-Air Monitoring Station Locations



The ultimate goal of this Community Monitoring effort is to identify the major sources of emissions in the community and determine the most immediate and effective strategies for reducing these emissions. Our current vision for community emission reductions plans is shown below.

COMMUNITY EMISSION REDUCTION PLAN

IDENTIFY STRATEGIES TO REDUCE EMISISONS AND EXPOSURE:

Short-Term (0-3 years)

1. Identify District strategies that can be implemented now
 - a. Complete BARCT analysis by December 31, 2018.
 - b. Identify and implement a community-level inspection strategy by 12/31/18
 - c. Advocate for incentive funding
 - d. Identify any needed regulatory changes
 - e. Re-prioritize inspection strategies as needed
 - f. Develop community partnerships that foster engagement
 - i. Develop steering committee
 - ii. Schedule public meetings
 - g. Develop community monitoring platform
 - i. Who does it?
 - ii. What is measured & how often?
 - iii. How do we report it?

2. Identify Community Mitigation Strategies
 - a. Air filtration, buffers, and vegetative barriers
 - b. Reduced vehicle miles traveled plans
 - c. Alternate truck routes
 - d. Green vehicles, fueling stations
 - e. Clean homes
 - f. Additional air monitoring

Long-Term (3 years – 10 years)

1. Annual review of community factors, including air quality data
 - a. Re-prioritize inspection strategies as needed
 - i. Check non-compliance rates
 - ii. Have air pollution sources changed?
 - b. Adjust incentive funding strategy as needed
 - i. Funding sources may change
 - ii. Will they affect our reduction goals?
 - c. Adjust community monitoring as needed
 - i. Technologies may change
 - ii. Pollution sources may change
 - d. Review regulations
 - e. Review community strategies

MOBILE SOURCE EMISSION REDUCTIONS THROUGH INCENTIVE FUNDING

Mobile Source Emission Reductions through Incentive Funding

Table 2- Summary of emissions by type (shown previously)

EMISSION SOURCE (TONS/DAY)	ROG	NOX	PM2.5	TOTAL FOR (ROG, NOX, PM2.5)	DIESEL PM (% OF TOTAL)
MOBILE SOURCE	52.2	89.7	5.1	147	91
AREAWIDE	33.9	1.7	12.2	47.8	6
STATIONARY SOURCE	29.2	4	2.7	35.9	3
TOTAL	115.3	95.4	20	230.7	100

As has been discussed in this application, the District must do its part to help communities and we are committed to this effort. But as is shown above, mobile source emission reductions are key to success. With the majority of emissions being mobile source related, mobile emission reductions are critically needed. For example, per modeling completed in 2017, we need a total of 22.8 tons/day of NOx emission reductions in order to reach attainment for the 2015 national ozone standard (70 ppb). A 26% reduction in NOx mobile source emissions would get us there, while a 26% reduction in stationary source NOx emissions would yield reductions of approximately one ton, over 21 tons short of the required amount. If all the stationary sources in the county shut down, we would still be short over 18 tons of the required reductions. As such, the District believes a heavy focus on mobile source emission reduction will be critical to improving air quality in the identified communities, but also to attain state and national ozone standards.

The incentive funding is key to reducing the diesel PM, which is a major concern for the Community of Environmental Justice Neighborhoods. Per CES 3.0, Diesel PM is in the 95+ percentile for this community. Diesel emission reductions are needed to significantly reduce the associated health risk.

The District will work with facilities, both permitted and unpermitted by the District, in the identified communities that utilize diesel-powered mobile equipment in their operations to see how diesel emissions can be lowered. For example, if a stationary source facility contracts out for trucking services or off-road activities, require contractors utilize the cleanest-operating equipment possible. If electric-powered equipment is possible, but an adequate charging system is lacking, maybe incentive funds could be utilized. These possibilities will be explored by the District in collaboration with all parties.

MOBILE SOURCE PROGRAM AND INSPECTION STRATEGY IN DISADVANTAGED COMMUNITIES

Historically, the District has regulated stationary sources of air pollution for more than 62 years. However, because over seventy percent of the total air pollution in San Diego County is emitted by mobile sources the District saw a need to more closely regulate them.

In the way of history, over the past 15 years CARB has adopted various diesel regulations that apply to tens of thousands of vehicles, vehicle fleet owners, and off-road equipment. Although these regulations apply to many types of mobile sources, the number of statewide inspections have been somewhat limited because the CARB has limited staff resources, as do we all. Because the State is such a vast geographic region with thousands of miles of roads, hundreds of construction sites and tens of thousands of diesel powered vehicles and pieces of equipment, it makes sense to engage the inspection resources of the San Diego County Air Pollution Control District to help with the mobile source inspections within this county.

The result is that in 2014 the District signed a Memorandum of Understanding (MOU) with the California Air Resources Board (CARB) that allows it enforce certain mobile source regulations. The MOU grants the District authority to enforce specific mobile source regulations, including the *In-Use Off-Road Diesel Vehicle Regulation* (for off-road construction equipment) and the *In-Use On-Road Heavy-Duty Diesel Vehicles Regulation* (a statewide truck and bus regulation). These rules focus on reducing diesel exhaust emissions and the public's exposure to toxic diesel pollutants, which adversely impact public health (they are a known carcinogen).

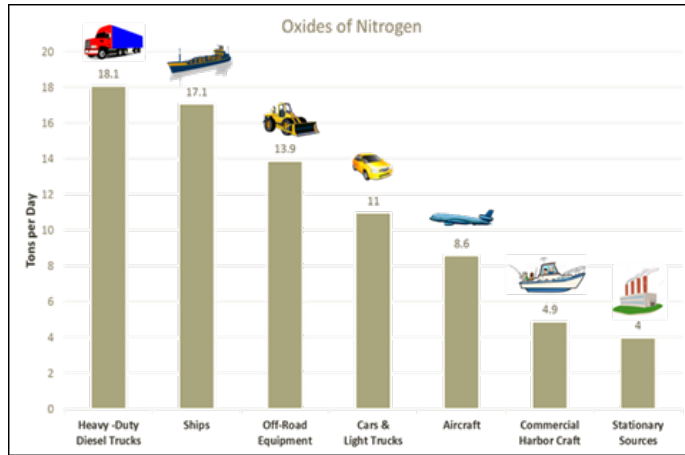
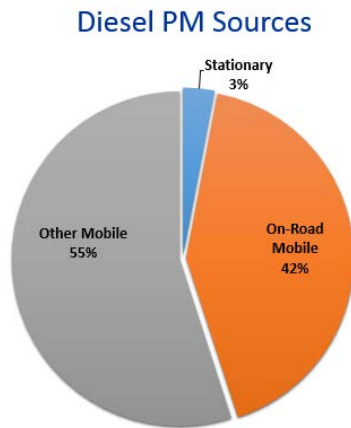
In 2014, when the MOU was signed, the CARB Enforcement Report provided the following statewide non-compliance rates for three main regulations:

Table 3- Statewide Non-Compliance Rates for Mobile Equipment

Non-Compliance Rate	Regulation	No. of Inspection
21%	Truck and Bus Program	5,372
32%	Transport Refrigeration Unit Program (TRU)	2,443
23%	Off-Road Diesel Vehicle Program	336

During the same period, the non-compliance rate for the programs the District regulates - including stationary sources - was about 7 % (based on 8,791 inspections). The District has been striving to decrease the non-compliance rates for mobile source regulations by partnering up with CARB, enhancing outreach and training efforts, and increasing the number of inspections locally.

The following graphs highlight the sources of nitrogen oxides and diesel particulate matter (PM). Nitrogen oxides contribute to the formation of ozone, which negatively impacts public health by damaging lung tissue and being an eye, nose, and throat irritant. Especially vulnerable are children, the elderly, and people with respiratory ailments. Diesel particulate matter can contribute to a range of health problems including irritation to the eyes, throat and nose, cardiovascular disease, and lung cancer.



Enforcing mobile source regulations is critical to reducing air pollutant emissions from those sources in San Diego County. The District has been working to address this issue by undertaking substantial public outreach, closely working with stakeholders and doing inspections of vehicles to verify compliance with On-Road regulations. Inspections are being done at the San Ysidro and Otay Mesa Border areas, the CHP Weigh Station near San Onofre on Interstate 5, the CHP Weigh Station near Rainbow on Hwy 15, in the Port of San Diego, and at local trucking companies. Additionally, we have divided the county into 4 sectors where each one is assigned to a mobile source inspector who is responsible for enforcing all regulations under the MOU with CARB. Furthermore, the District inspectors are conducting mobile equipment inspections at construction sites, they are monitoring locations where illegal truck idling is likely to occur (such as in downtown San Diego and the port area), and packing houses where Transport Refrigeration Units (TRU's) on trucks and trailers operate. In 2017, we revised the MOU to allow the District to settle citations issued for Off-Road equipment and TRU violations. Settling these citations in-house will make the process more efficient and will allow District staff to closely work with operators as they correct deficiencies. Additionally, since November 2017, the mobile source team is spending at least one day per week conducting inspections at Environmental Justice areas.

Based on data collected in 2017, we have documented the following non-compliance rates in San Diego.

Table 5- Mobile Source Non-Compliance Rates Based on District Inspections

Non-Compliance Rate	Regulation	No. of Inspections
33%	Truck and Bus Program & Transport Refrigeration Unit Program	787
19%	Off-Road Diesel Vehicle Program	2,967

The District's mobile source program continues to evolve and we have been able to increase the number of inspections and work to educate the regulated businesses, which can lead to increased compliance by them.

STATIONARY SOURCE INSPECTION PROGRAM AND STRATEGY IN DISADVANTAGED COMMUNITIES

The San Diego Air Pollution Control District's mission statement is *"Improve air quality to protect public health and the environment."* In order to support this mission, the Compliance Division has the following programs:

- ✓ Stationary Source Inspections – We strive to inspect all permitted facilities at least once a year. Currently the District has 8,228 active permits for various sources.
- ✓ Air Quality Complaints – The District quickly responds to all air quality complaints, often the same day. In 2017 we received and responded to 801 air pollution related complaints.
- ✓ Asbestos Inspections – Asbestos is a hazardous air pollutant for which there's no safe level of exposure. The District enforces asbestos regulations that work to prevent asbestos emissions during renovation and demolition projects. This prevents human exposure to asbestos fibers and public nuisances.
- ✓ Statewide Portable Equipment Registration Program (PERP) - The District inspects PERP registered equipment to verify compliance with the State's Portable Diesel Engine Airborne Toxic Control Measure (ATCM) and other applicable requirements.

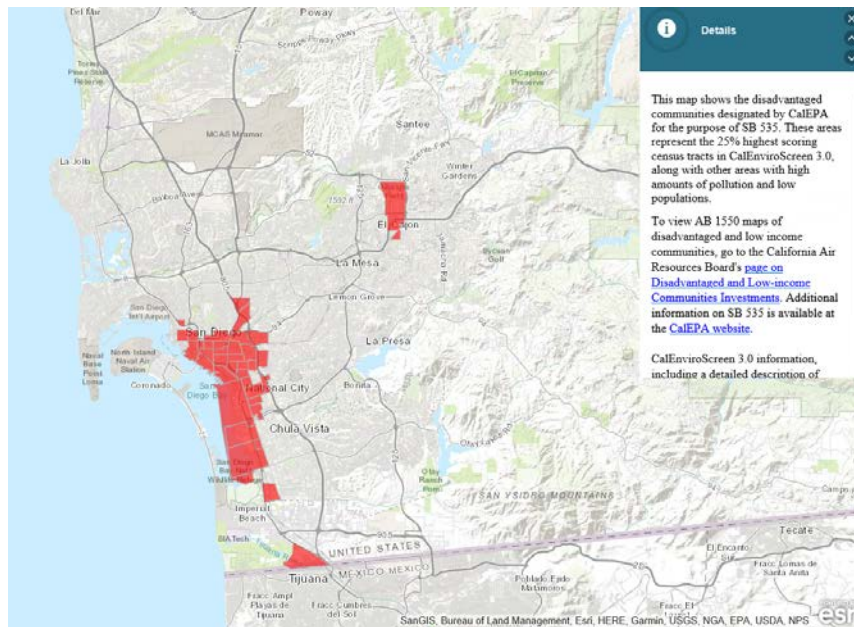
Although most stationary sources are inspected annually, certain sources are inspected more frequently. For example, sources subject to the Title V of the Clean Air Act are inspected twice per year. Additionally, for several years the District has been conducting more frequent inspections at the Barrio Logan area, which is considered a disadvantaged community in accordance with CalEPA.

Community of Portside Environmental Justice Neighborhoods

Stationary Sources of Air Pollution

Currently, the Barrio Logan area has 318 APCD permitted facilities, amounting to approximately 4% of all the stationary source permits in San Diego County. Over 50% of the 318 permits are for coating and abrasive blasting operations and engines. Noteworthy is that the District has been conducting quarterly inspections at the following facilities within the Barrio Logan area. The District chose to inspect them more frequently than other facilities because they are the largest of the permitted sources, comprising 36% of the permits in the area.

- ✓ BAE Systems
- ✓ Chevron USA Inc
- ✓ CP Kelco
- ✓ General Dynamics NASSCO
- ✓ Tesoro Logistics Operations



Stationary Source Violations in the Community of Portside Disadvantaged Neighborhoods

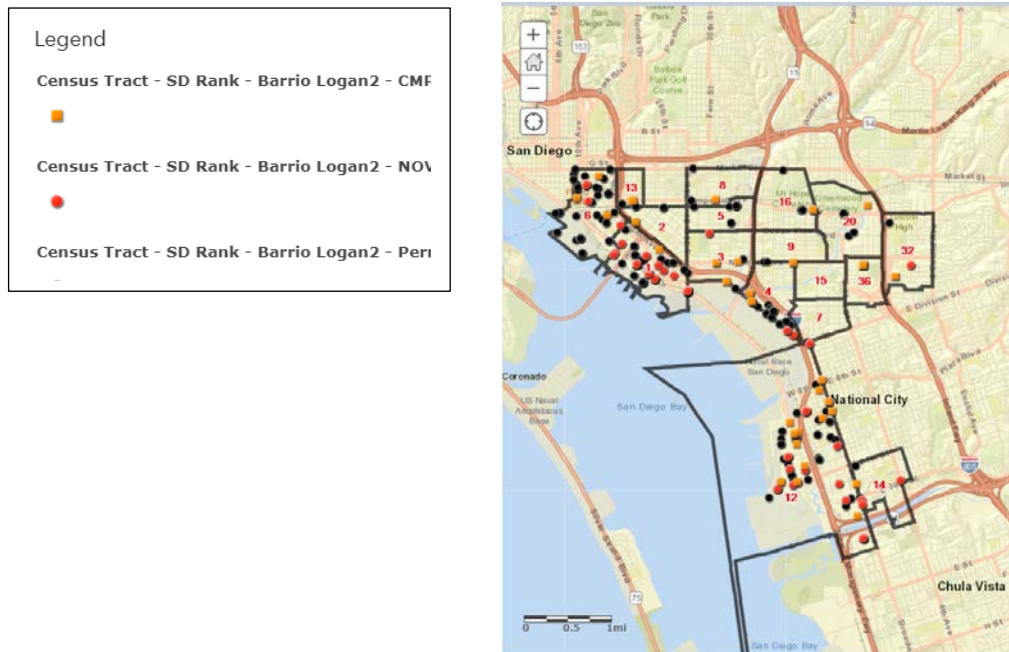
In the time span of January 1 of 2016, to the date this document was drafted, a total of 2,205 NOVs were issued to facilities located within San Diego County. Of those NOVs, only 66 (or 3%) of them were issued to facilities located in Barrio Logan. As shown in Table 6, below, 38 NOVs were emissions related and 20 were for administrative violations. Such violations encompass failing to keep proper records and not conducting required maintenance. Additionally, 8 of the NOVs were issued to facilities for operating without a required APCD Permit to Operate.

Table 6- NOVs issued in Community of Portside Environmental Justice Neighborhoods

No. of NOVs Issued since January of 2016 –Barrio Logan	
Total No. of NOVs	66
No. of Emissions Related NOVs	38
No. of Administrative NOVs	20
No. of NOVs for Operating without APCD Permit	8
Types of NOVs Issued since January of 2016 –Barrio Logan	
Percentage of NOV Related to Coating Operations	33%
Percentage of NOV Related to Gasoline Bulk Terminals	18%
Percentage of NOV Related to Engines	17%
Percentage of NOV Related to Gas Stations	8%

In addition to evaluating the NOVs issued within the Barrio Logan area, the District also analyzed the number of air quality complaints received from that community. Since January of 2016, the District has received a total of 1,739 air quality complaints and 43 (2.5%) of them were for the Barrio Logan area. The majority of the complaints were related to odors and smoke, but there were a few related to vehicle idling and asbestos removal.

The following map shows the NOVs and complaints received for the community.



The District will further engage with the community to ensure residents and business owners to both learn more about their concerns and help people understand how we can serve them. One recent example is where we were informed that our cell phone complaint app needs to be in Spanish as well as English. That is now in the works.

Actions recommended and being undertake to ensure the District better serves the Barrio Logan community

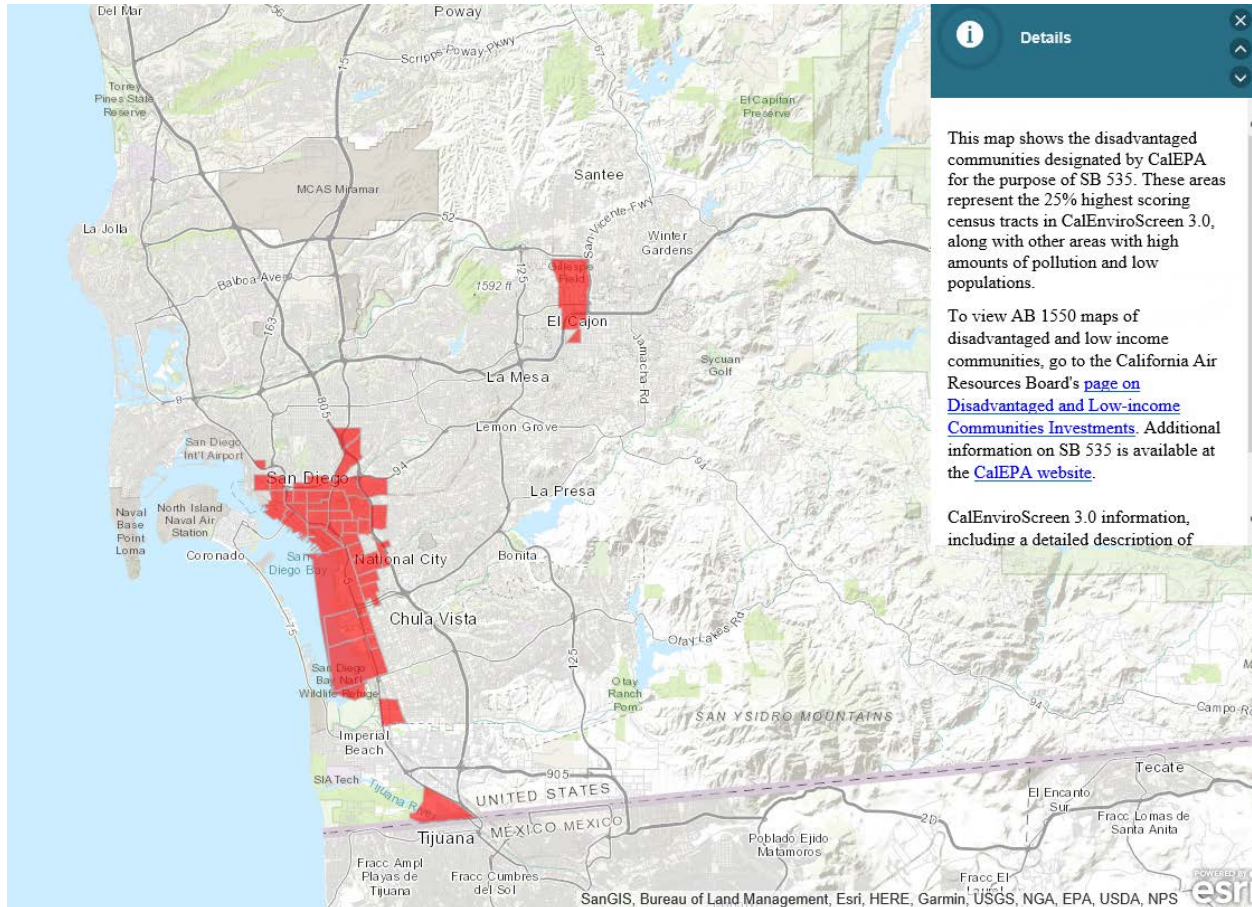
- ✓ The District will be conducting mobile source inspections at the Barrio Logan area at least twice per month.
- ✓ The District will continue to work with CARB to establish an agreement with CHP that will allow the District to conduct truck inspections independently of CARB staff. This will result in more frequent inspections at CHP stations.
- ✓ The District will work with CARB to conduct additional inspections at the gasoline bulk terminals located in the community.

- ✓ District will enhance its education and outreach efforts by promoting and providing additional training classes for the regulated community.
- ✓ The District will continue to engage with community members to improve our understanding of their needs and to enable us to better serve them.

San Ysidro and Otay Mesa

Currently the San Ysidro and Otay areas have 137 District-permitted businesses, which represent about 1.7% of all permits in San Diego County. The majority of the 137 permits are for engines, gasoline dispensing facilities, and coating operations.

In addition to inspecting the permitted sources within these areas, last November the District’s mobile source team began conducting mobile equipment inspections here and in other communities that have been identified as disadvantaged communities by CalEPA, as shown below.



To gain a better understanding of the causes of excess air pollutant emissions the District evaluated the Notices of Violations (NOV) issued for facilities located in the San Ysidro/Otay Mesa community.

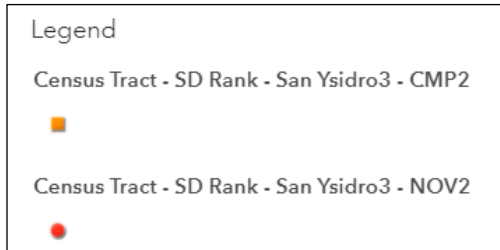
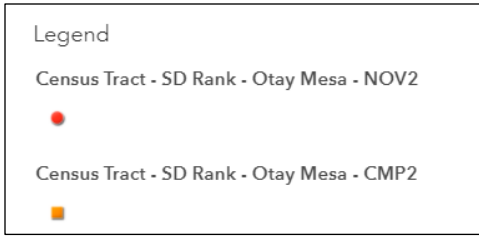
Since January 1, 2016, a total of 2,205 NOVs have been issued to facilities located in San Diego County. 75 of the NOVs issued (3.4%) were for facilities located in San Ysidro/Otay Mesa areas. Out of the 75 NOVs issued, 32 NOVs were emission related, 37 were for an administrative violation (meaning the NOVs were issued for not having records available on site or for not conducting required maintenance), and 6 were issued for operating without a permit.

No. of NOVs Issued since January of 2016 – San Ysidro/Otay Mesa	
Total No. of NOVs	75
No. of Emission Related NOVs	32
No. of Administrative NOVs	37
No. of NOVs for Operating without a Permit	6
Types of NOVs Issued since January of 2016 – San Ysidro/Otay Mesa	
Percentage of NOV Related to Gas Stations	47%
Percentage of NOV Related to Engines	19%
Percentage of NOV Related to Coating Operations	12%

The percentage of violations issued to gasoline stations is significant. The District offers gas station training classes multiple times per year, but it will enhance outreach by promoting its training classes that will educate facility operators about staying in compliance.

In addition to evaluating the NOVs issued for the San Ysidro/Otay Mesa areas the District also analyzed the number of air quality complaints received for these communities. Since January of 2016, we have received a total of 1,739 air quality complaints for San Diego County, with 54 of these complaints being in the San Ysidro/Otay Mesa areas. This is approximately 3% of all complaints received. The vast majority of the complaints (70%) were related to odors and dust, but there were a few related to smoke and asbestos removal.

The following map shows the NOVs and complaints received in the San Ysidro/Otay areas.



In summary, the following actions will be taken to better serve the San Ysidro/Otay Mesa community:

- ✓ The District will be conducting mobile source inspections at the San Ysidro/Otay Mesa areas at least twice a month.
- ✓ The District will continue to work with CARB to establish an agreement with CHP that will allow the District to conduct inspections independently, which will result in more frequent inspections at CHP stations.
- ✓ District will enhance our outreach efforts by promoting our training classes and educating facilities on how to avoid violations.
- ✓ The District will further engage with the community to ensure residents and business owners understand how we can serve them.

METRICS TO TRACK PROGRESS:

Emission reductions due to plan (calculated or measured)

Number of public meetings

Amount of incentive dollars spent

Additional number of monitors / sensors implemented

Number of inspections (mobile and stationary)

Amount of reduction in health risk (acute, chronic, cancer)

Local economic impacts

Number of hospital visits

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Include process where plans reviewed by appropriate counsel

(For the District it will be County Counsel, Paula Forbis)

DISTRICT CONTACT INFORMATION:

San Diego County Air Pollution Control District
Robert Kard, Director/Air Pollution Control Officer
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(858) 586-2600

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District Subject Matter Experts:

Inspections and Public Complaints– Mahiany Luther, mahiany.luther@sdcounty.ca.gov

Air Quality Monitoring- Bill Brick, william.brick@sdcounty.ca.gov

Incentives/Grants- Andy Hamilton, andy.hamilton@sdcounty.ca.gov

Kathy Keehan, katheleen.keehan@scounty.ca.gov

Nick Cormier, nick.cormier@sdcounty.ca.gov

Emission Inventory/BARCT/Permitting- jim.swaney@sdcounty.ca.gov

California Environmental Quality Act (CEQA) / Legal - Paula Forbis, paula.forbis@sdcounty.ca.gov

APPENDIX 1

COMMUNITY OF PORTSIDE ENVIRONMENTAL JUSTICE NEIGHBORHOODS
STEERING COMMITTEE NOMINATION FORM AND BYLAWS

COMMUNITY OF PORTSIDE DISADVANTAGED NEIGHBORHOODS

STEERING COMMITTEE NOMINATION FORM

NAME: _____

PHONE NUMBER: _____

EMAIL ADDRESS: _____

AFFILIATION: Community ____ Industry ____ Academia ____ Power Supplier ____
Medical Expert: ____ Port of San Diego ____ US Navy ____

REQUEST IS FOR: PRIMARY MEMBER: ____ Alternate: ____ (You can request both)

INTEREST IN PARTICIPATION: What special knowledge, experience, or perspective can you provide?

Print Name: _____

Signature: _____

Date: _____

GOALS OF STEERING COMMITTEE

The goals of the committee are straight forward. The committee is to hear updates on community air quality monitoring and emission reduction efforts and to provide suggestions to maximize results. The committee will hear concerns from the public and other stakeholders and alert appropriate parties so action, as warranted, can occur promptly.

COMMITTEE BYLAWS

1. The Air Pollution Control Officer will select the members with deference given to suggestions from each of the interest groups
2. The committee shall consist of eight interest groups and up to 22 members:
 - Up to eight members from the community;
 - Up to three industry representatives;
 - Up to three members from academia;
 - One member from the Port of San Diego
 - Up to two members from the US Navy
 - Up to two medical experts;
 - One member from power generating / suppliers; and
 - Up to two members from local planning / transportation agencies
3. Community members must reside or work within the Community of Portside Environmental Justice Neighborhoods/National City area as defined by the census tracts selected for identifying the community.
4. There may be one alternate for each committee member.
5. Members will serve on a voluntary basis, without compensation, for a two-year term provided, however, that members may continue to serve until a successor has been appointed.
6. Members can be re-appointed.
7. The District will chair the meetings.
8. The Chair will open the meeting; approve the draft agenda and meeting notes by simple majority; adjust the order of agenda items to help facilitate meeting; and close the meeting.
9. Meetings will be held monthly or as appropriate.
10. Members will notify Chair and their alternate if they cannot make a meeting.

11. Meetings will be open to the public.
12. The District will take meeting minutes.
13. The Chair will send out a draft agenda and draft minutes from previous meeting at least 20 days prior to the meeting.
14. The Chair will accept agenda suggestions up to ten days prior to the meeting.
15. The Chair will update the agenda at least five days prior to any meeting.
16. All meetings will have time set aside for public comment.
17. Public comment will be limited to three minutes per person.
18. All meetings will be at a time and location conducive for community involvement.
19. District staff will give an update on community monitoring and emission reductions at each meeting.
20. The bylaws will be reviewed and updated as needed on an annual basis

APPENDIX 2

COMMUNITY OF SAN YSIDRO/OTAY MESA

STEERING COMMITTEE NOMINATION FORM AND BYLAWS

SAN YSIDRO/OTAY MESA STEERING COMMITTEE NOMINATION FORM

NAME: _____

PHONE NUMBER: _____

EMAIL ADDRESS: _____

AFFILIATION: Community _____ Industry _____ Academia _____ Power Supplier _____

Medical Expert: _____ Tijuana Community _____

State Agency (at least one from EPA) _____ Federal Agency (at least one from EPA) _____

Local Planning/Transportation Agency _____

REQUEST IS FOR: PRIMARY MEMBER: _____ **Alternate:** _____ (You can request both)

INTEREST IN PARTICIPATION: What special knowledge, experience, or perspective can you provide?

Print Name: _____

Signature: _____

Date: _____

GOALS OF STEERING COMMITTEE

The goals of the committee are straight forward. The committee is to hear updates on community air quality monitoring and emission reduction efforts and to provide suggestions to maximize results. The committee will hear concerns from the public and other stakeholders and alert appropriate parties so action, as warranted, can occur promptly.

COMMITTEE BYLAWS

1. The Air Pollution Control Officer will select the members with deference given to suggestions by each of the interest groups in #2 below.
2. The committee shall consist of nine interest groups and up to 23 members:
 - Up to eight members from the San Ysidro/Otay community;
 - Up to two industry representatives;
 - Up to three members from academia;
 - Up to three members from the Tijuana community
 - Up to two members from federal agencies (one must be from EPA)
 - Up to two members from a state government agency (one must be from CARB)
 - Up to two medical experts;
 - Up to one member from power generating / suppliers; and
 - Up to two members from local planning / transportation agencies
 - One member from the Port of Entry
3. Community members must reside or work in the San Ysidro/Otay area as defined by the census tracts selected for identifying the community.
4. There may one alternate for each committee member.
5. Members will serve on a voluntary basis, without compensation, for a two-year term provided, however, that members may continue to serve until a successor has been appointed.
6. Members can be re-appointed.
7. The District will chair the meetings.
8. The Chair will open the meeting; approve the draft agenda and meeting notes by simple majority; adjust the order of agenda items to help facilitate meeting; and close the meeting.
9. Meetings will be held monthly or as deemed appropriate.

10. Members will notify Chair and their alternate if they cannot make meeting.
11. Meetings will be open to the public.
12. The District will take minutes of the meeting.
13. The Chair will send out a draft agenda and draft minutes from previous meeting at least 20 days prior to the meeting.
14. The Chair will accept agenda suggestions up to ten days prior to the meeting.
15. The Chair will update the agenda at least five days prior to any meeting.
16. All meetings will have time set aside for public comment.
17. Public comment will be limited to three minutes per person.
18. All meetings will be at a time and location conducive for community involvement.
19. District staff will give an update on community monitoring and emission reductions at each meeting.
20. The bylaws will be reviewed and updated as needed on an annual basis

APPENDIX 3

COMMUNITY OF PORTSIDE ENVIRONMENTAL JUSTICE NEIGHBORHOODS

STATIONARY SOURCE ANALYSIS – under review

The District is currently reviewing permits located in the Community of Portside Environmental Justice Neighborhoods. There are 395 permits consisting primarily of emergency / prime IC engines; coating operations, sandblasting; and gasoline dispensing operations. Some of the equipment is equipped with best available control technology (BACT), some equipment cannot be equipped with it, and it is not cost effective to install best available control technology on equipment that could be retrofitted with it.

The cost effectiveness for the most stringent BACT is as high as 2300 dollars a pound. The high cost effectiveness values is due to the cost of the equipment and the relatively small emissions emitted. The cost threshold in District regulations is \$6.60 a pound. Types of BACT identified for operations in the community included regenerative thermal oxidizers (RTO), diesel particulate filters (DPF)/selective catalyst reduction (SCR) for IC engines, and low-NOx burners for boilers.

A potential cost effective method for coating operations is no / low VOC coatings. The District will work with these sources to see if such coatings are feasible. As shown in Table 3 commercial charbroiling operations emit 2.5 tons / day of PM_{2.5} emissions. These operations are permit exempt, as the County is in attainment with the PM_{2.5} standard. With incentive funding, these operations located in the community could be equipped with controls that significantly reduce PM emissions. The District will study the feasibility of the charbroiler control option.

To reduce PM_{2.5} and diesel particulates in the community from stationary source operations diesel-powered equipment needs to be replaced with electric power/other alternative fuel or be equipped with external controls. It would be fundamentally unfair to businesses to require such changes when not legally required and would place them in an unfair business advantage to those businesses outside the community. Incentive funding to replace diesel-powered equipment with electric power is a possibility that will be explored by the District.

APPENDIX 4

COMMUNITY IF SAN YSIDRO / OTAY MESA STATIONARY SOURCE ANALYSIS (under review)

The District is currently reviewing permits located in the Community of Portside Environmental Justice Neighborhoods. There are 137 permits consisting primarily of emergency IC engines; aggregate processing operations; coating operations, sandblasting; and gasoline dispensing operations. Some of the equipment is equipped with BACT, some equipment cannot be equipped with it, and it is not cost effective to install best available control technology on equipment that could be retrofitted with it.

The cost effectiveness for the most stringent BACT is as high as 180 dollars a pound. The high cost effectiveness values is due to the cost of the equipment and the relatively small emissions emitted. The cost threshold in District regulations is \$6.60 a pound. Types of BACT identified for operations in the community included regenerative thermal oxidizers (RTO), diesel particulate filters (DPF)/selective catalyst reduction (SCR) for IC engines, and low-NOx burners for boilers.

A potential cost effective method for coating operations is no / low VOC coatings. The District will work with these sources to see if such coatings are feasible. As shown in Table 3 commercial charbroiling operations emit 2.5 tons / day of PM_{2.5} emissions. These operations are permit exempt, as the County is in attainment with the PM_{2.5} standard. With incentive funding, these operations located in the community could be equipped with controls that significantly reduce PM emissions. The District will study the feasibility of the charbroiler control option.

To reduce PM_{2.5} and diesel particulates in the community from stationary source operations diesel-powered equipment needs to be replaced with electric power or be equipped with external controls. It would be fundamentally unfair to businesses to require such changes when not legally required and place them in an unfair business advantage to those businesses outside the community. Incentive funding to replace diesel-powered equipment with electric power is a possibility that will be explored by the District.