

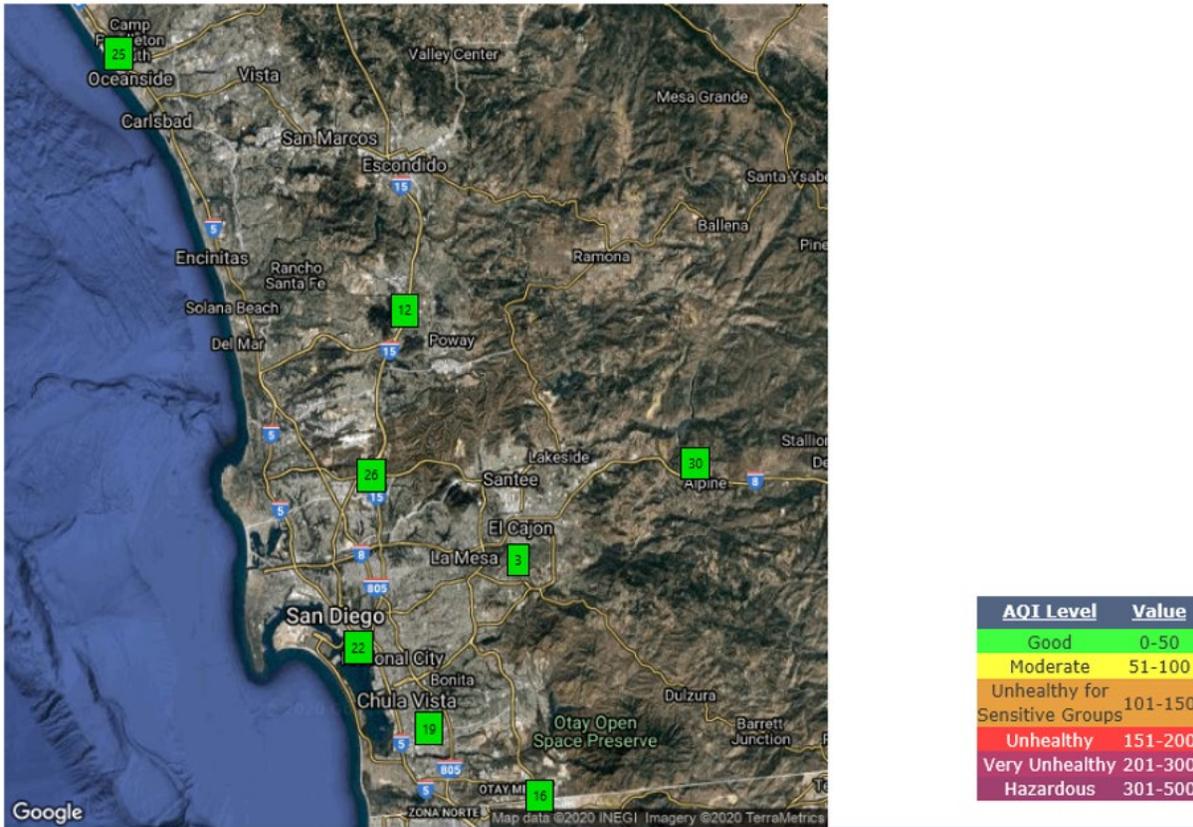
Chapter 4 – Technical Assessment

Air Monitoring Data



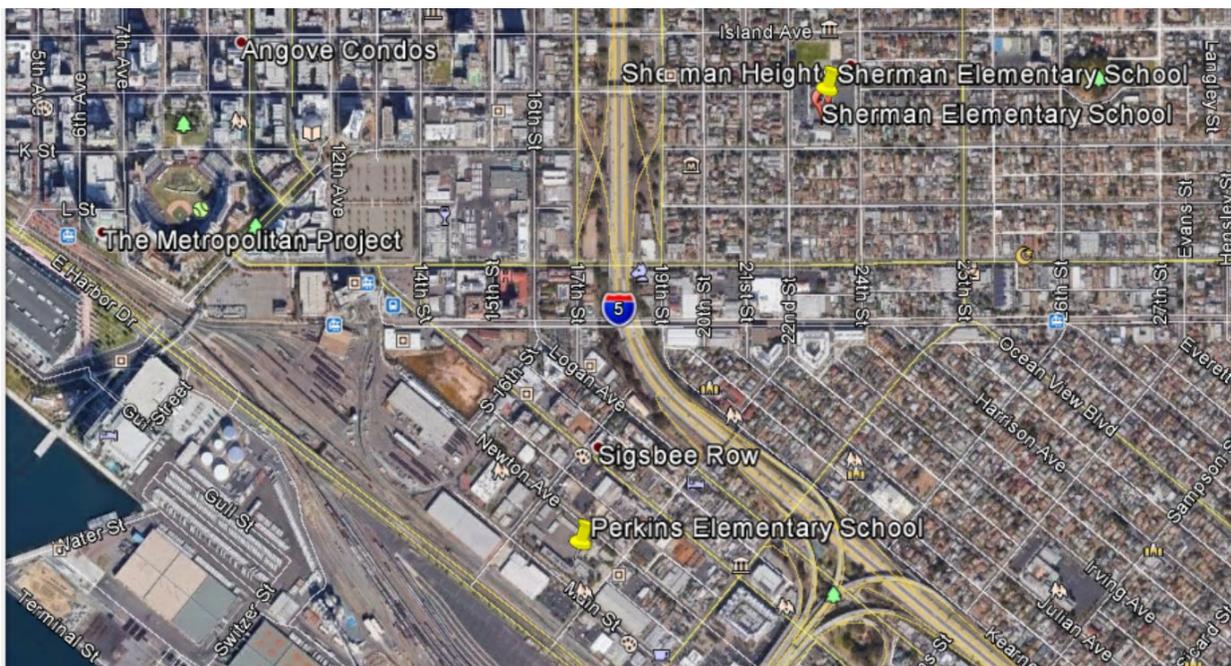
The Federal Clean Air Act of 1970 defined health-based standards for a variety of airborne pollutants. These health-based standards, known as National Ambient Air Quality Standards, or NAAQS, are periodically reviewed and revised as determined by the latest scientific evidence, to protect public health and welfare.

Monitoring of the air is needed to determine if these standards were being met for a given region. In San Diego county, the San Diego County Air Pollution Control District (District or APCD) is responsible for conducting ambient air quality monitoring. Air monitoring stations are located within the county based upon population and geographic factors, and continuously monitor for a variety of air pollutants to determine whether the county meets or exceeds the NAAQS (the map below shows the locations of the APCD’s permanent, regional air monitoring stations). The standard for each pollutant (sulfur dioxide, particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), carbon monoxide, ozone, nitrogen dioxide, and lead) has its own criteria to determine if it is being met within a limited time frame. Except for the NAAQS for 8-hour ozone, San Diego county meets all other NAAQS. The 8-hour ozone standard is typically exceeded in Alpine, which is in the foothills, approximately 12 miles east of El Cajon.



Link	Description
Today's 8-Hour Ozone	Today's 8-Hour Ozone Rolling Average Report (start hour)
Today's Daily Report	Today's Daily Report - All Data
Yesterday's 8-Hour Ozone	Yesterday's 8-Hour Ozone Rolling Average Report (start hour)
Yesterday's Daily Report	Yesterday's Daily Report - All Data

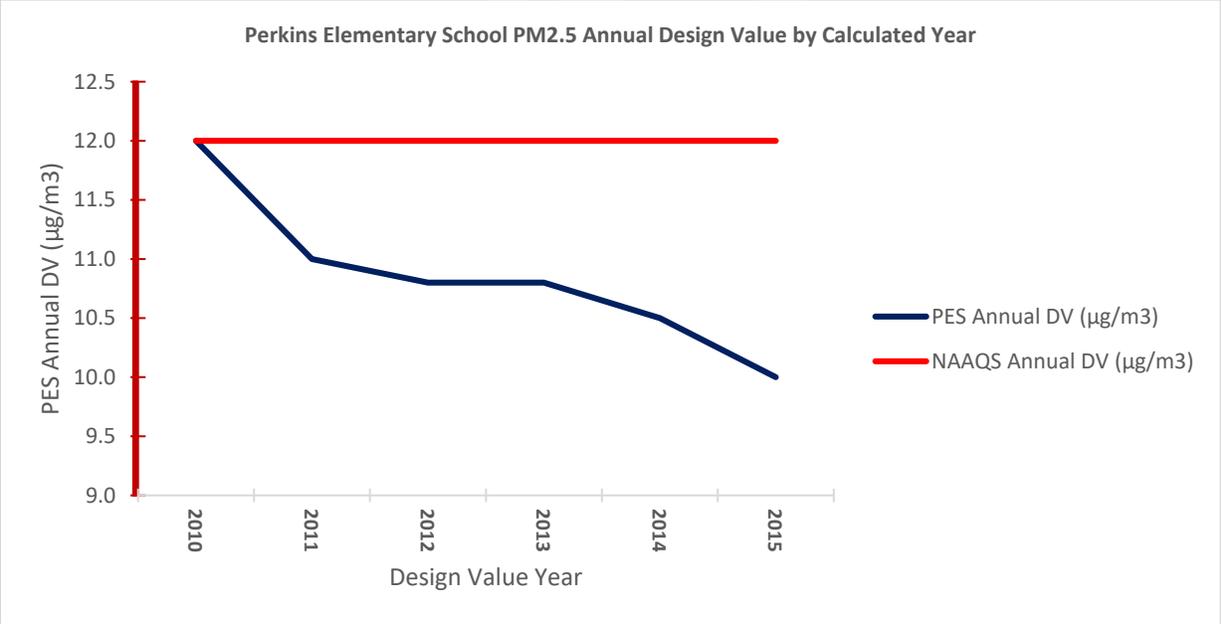
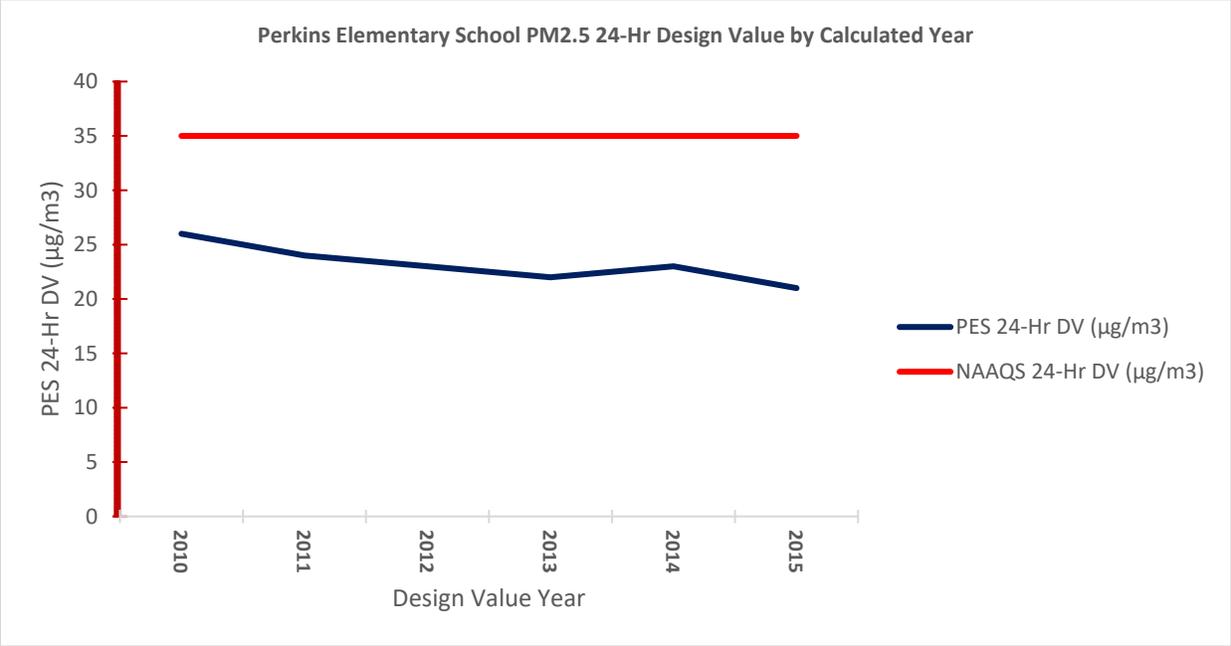
The APCD has conducted air monitoring in the Portside area for many years. From July 2005 through October 2015, the APCD operated an air monitoring station on the grounds of Perkins Elementary School (near the northwest corner of the school grounds), located in Barrio Logan. The air monitoring data collected at the Perkins Elementary School site found that the air met (i.e., attained) all NAAQS. At the request of the San Diego Unified School District, the APCD removed the air monitoring station from Perkins Elementary School in 2016. A replacement site is now operating at Sherman Elementary School in Sherman Heights, located in the Portside Community.



Airborne microscopic particles, or particulate matter, represent one of the most significant threats to public health from air pollution, and particulate matter standards have evolved over time to reflect new information from health studies. The current health-protective standard for particulate matter is for particles of 2.5 micrometers and less in diameter, known as PM_{2.5}. Combustion is the primary source of airborne PM_{2.5} and is one of the pollutants the community has expressed concerns about within the Portside area.

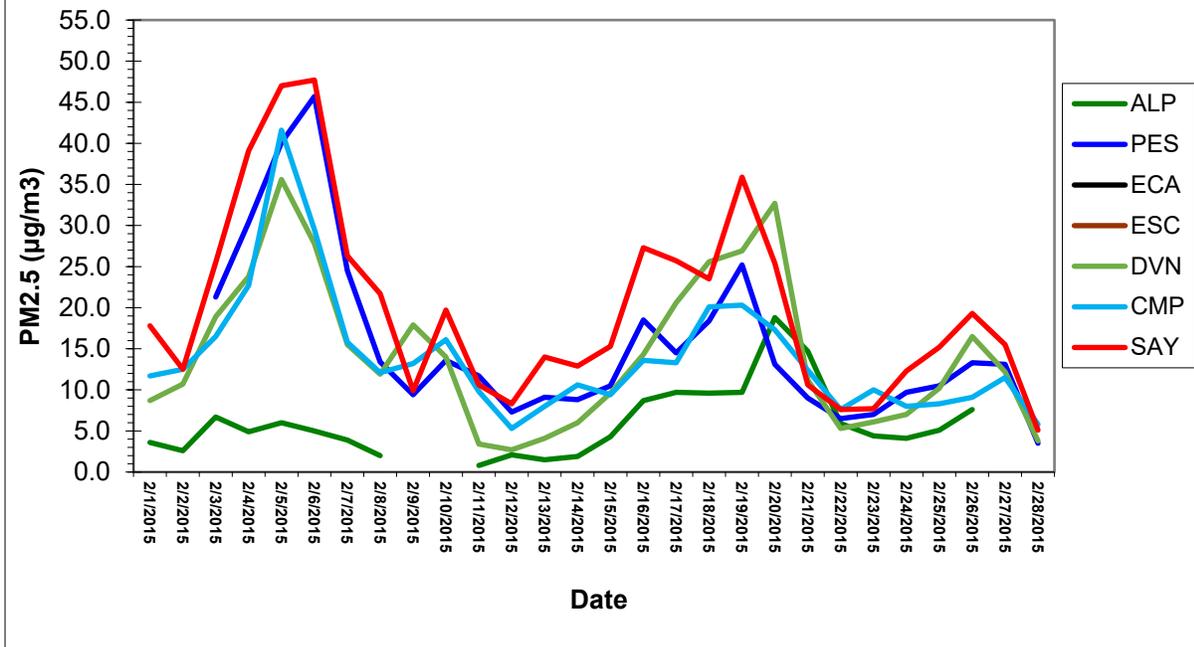
There are two separate NAAQS for PM_{2.5}. The 24-hour standard is designed to protect against higher and short-term concentrations, while the annual standard protects against lower and long-term concentration levels. The 24-hour standard for PM_{2.5} is 35 micrograms per cubic meter, and the annual standard is 12.0 micrograms per cubic meter. Attainment of the standards is determined by calculating the Design Value for each standard from the measured concentrations. Design Values are statistics that describes the air quality status in comparison to the NAAQS.

The charts below show the 24-hour PM_{2.5} Design Values from Perkins Elementary School (PES) compared to the 24-hour NAAQS, and the Annual Design Values compared to the Annual NAAQS. These charts show that the Perkins Elementary School site met the 24-hour and Annual Design Values, and that measured concentrations were decreasing through 2015, which is consistent with all emissions inventory estimates for the area.



The next chart shows an entire month of 24-hour PM_{2.5} averages measured in the APCD’s air monitoring network. This chart shows that PM_{2.5} concentrations typically increase and decrease throughout the region, reflecting changes in the atmosphere rather than changes in daily emissions. The data also shows that PM_{2.5} concentrations in the Portside Community are not always the highest measured in the county.

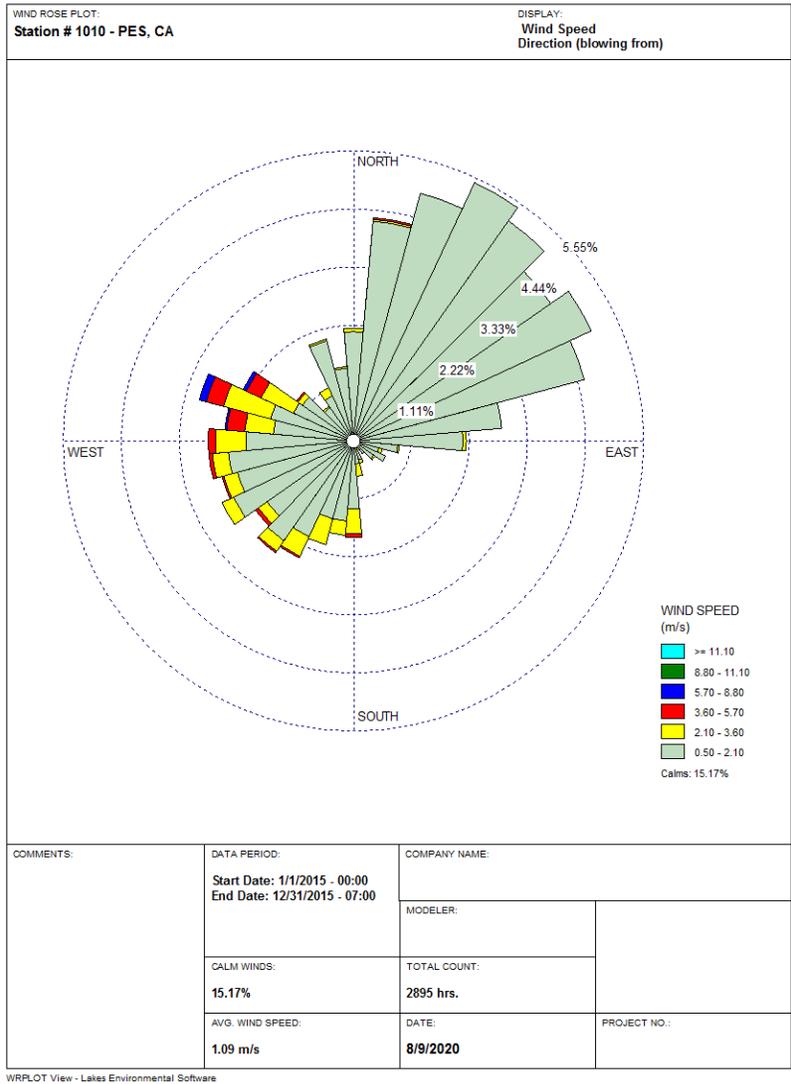
**ALP, PES, ESC, DVN, CMP, and SAY PM2.5 (BAM) Data for:
February 2015**



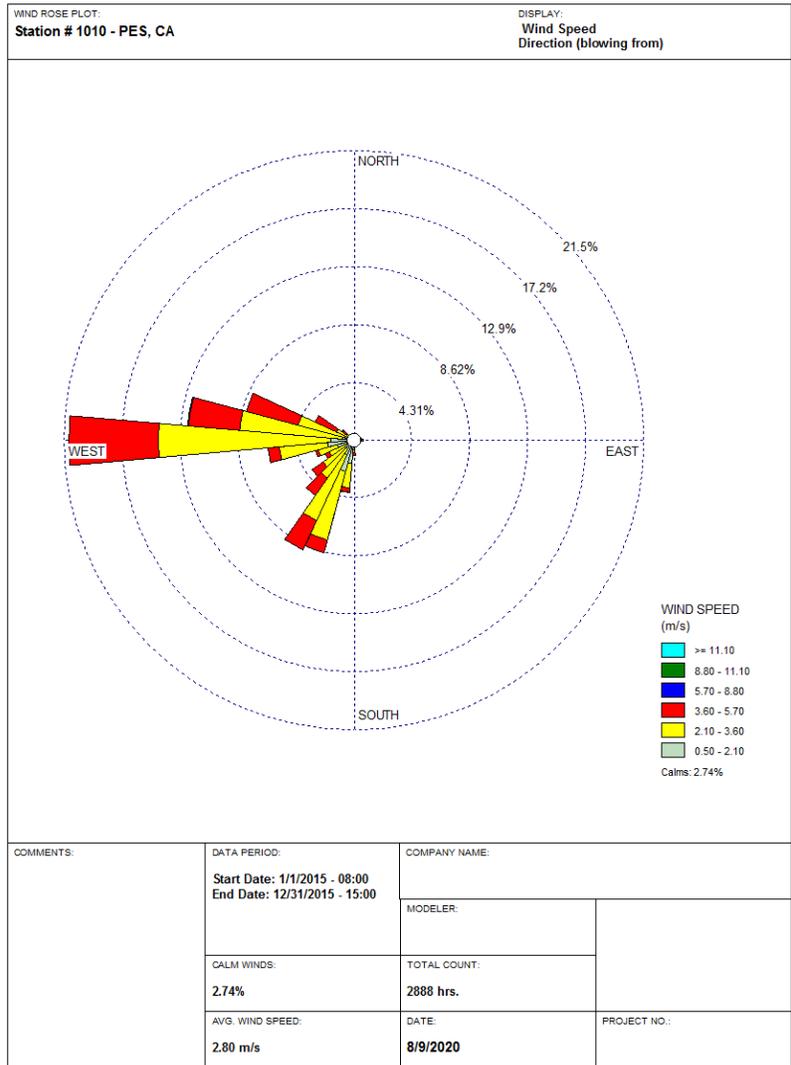
- ALP = Alpine*
- PES = Perkins Elementary School*
- ESC = Escondido*
- DVN = Donovan (near Otay Mesa)*
- CMP = Camp Pendleton*
- SAY = San Ysidro*

These emission changes can be partly explained by the meteorology of the coastal areas, which are characterized by the daytime onshore wind flow (water to land) and weak offshore (land to water) at night. The daytime winds, when most emissions can be expected to occur, move locally generated emissions away, limiting the buildup of higher ambient concentrations.

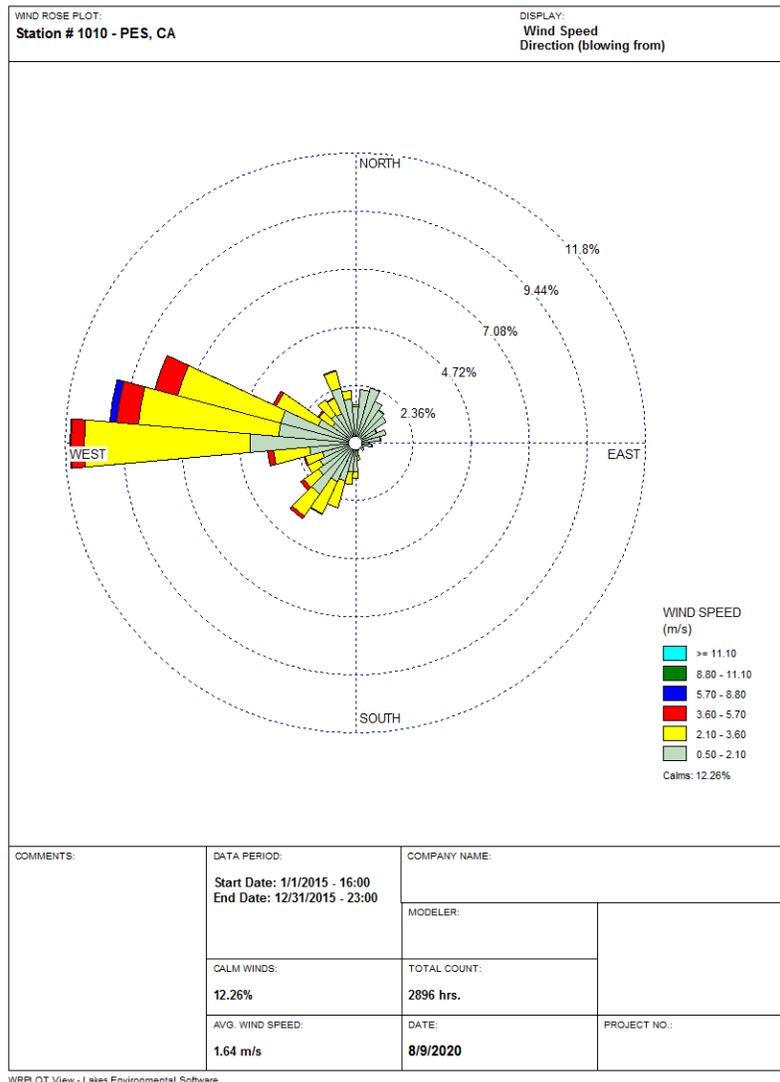
A useful tool for visualizing the winds measured at a given location is a wind rose. These plots illustrate the percentage of time that the wind blows from a given direction and speed. The direction of the longest spoke shows the wind direction with the greatest frequency, and colored bands show the wind speed ranges. The charts below are wind roses based on data collected in 2015 from Perkins Elementary School. Climatology shows that the winds follow similar patterns over time. The first wind rose below represents the winds in the Portside Community from midnight to 7 am and indicate that most of the winds are lightly offshore (from the northeast quadrants).



The next wind rose shows the winds in the Portside Community from 8 am through 3 pm, where winds are consistently from the westerly and southwesterly quadrants. The winds are typically stronger during this time as well (sea breeze).



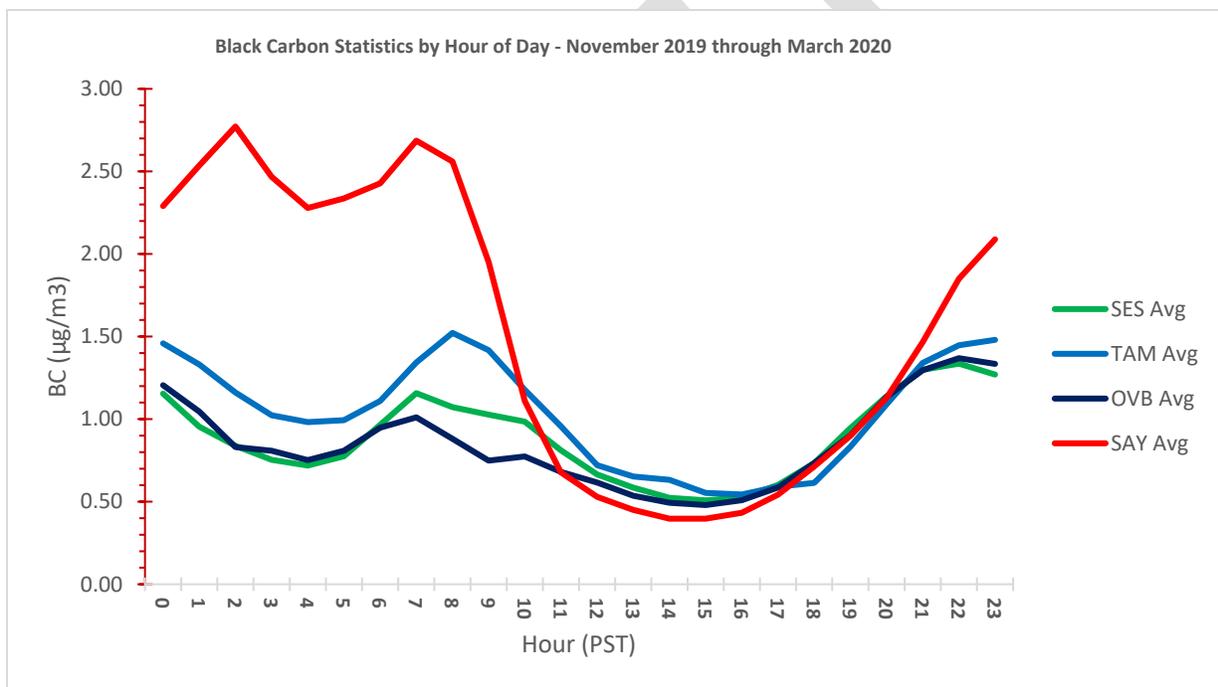
The wind rose below shows the winds from 4 pm through midnight, where winds are slowing down (decreased sea breeze) and starting to turn to offshore (i.e., out of the northeast quadrant).



The fact that long-term measurements of criteria air pollutants (i.e., pollutants with defined NAAQS) in the Portside Community meet all NAAQS highlights the need for detailed measurements of additional pollutants in more locations to help determine the [CalEnviroScreen](#) score for the community. As part of AB 617, the APCD has installed and is operating new, real-time (i.e., continuous) black carbon (a surrogate for diesel particulate matter) analyzers at several locations in the Portside Community. These include the Tenth Avenue Marine Terminal (immediately adjacent to the Bay), Chicano Park (central Barrio Logan), Sherman Elementary School (in Sherman Heights), and at Oceanview Blvd. (Oceanview Blvd. at I-15, roughly 1.7 miles east of Perkins Elementary School). Additionally, one additional monitor was installed in San Ysidro (near the border with Mexico), which represents another Environmental Justice area of interest in San Diego county.

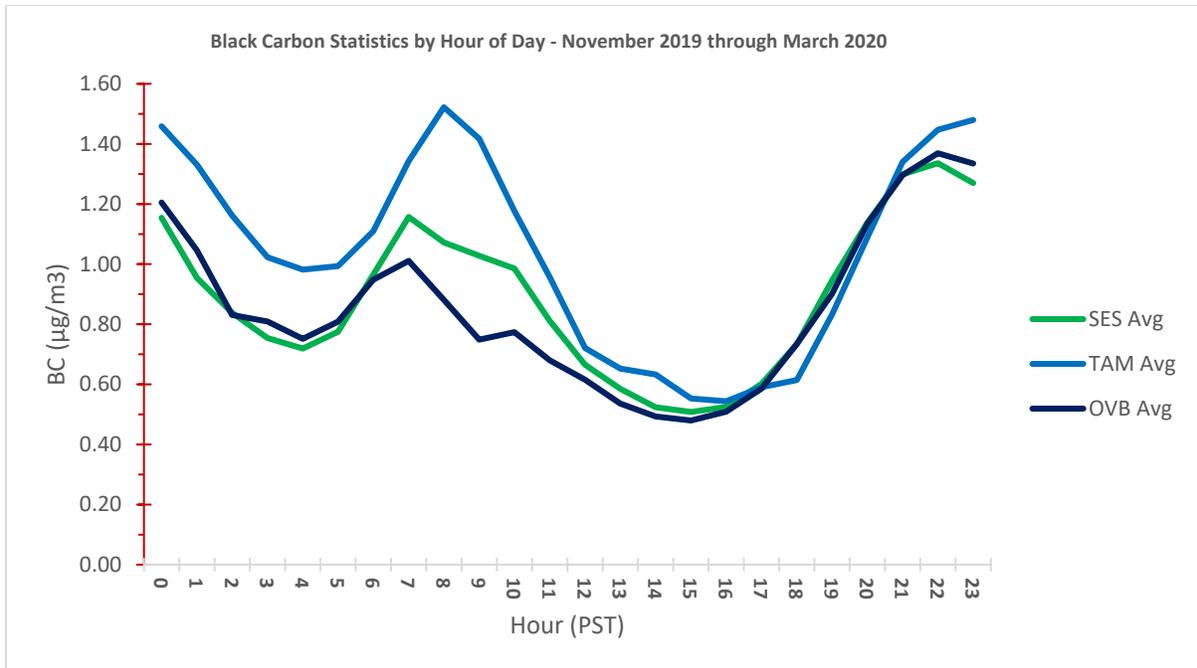
The chart below shows the hourly-averaged black carbon concentrations measured at Sherman Elementary School (SES), the Tenth Avenue Marine Terminal (TAM), Oceanview Blvd. (OVB), and San Ysidro (SAY) from November 2019 through March 2020 (months currently available when all sites were operating and data have been validated). The data shows that black carbon concentrations are highest in the morning hours when the atmosphere is most stable and corresponds to morning commutes and other activities involving diesel engines. This chart further shows that the black carbon concentrations are consistently higher in San Ysidro, showing a strong influence from emissions from Mexico.

It should be noted that results from the mobile monitoring project conducted by Aclima found similar results between the border area and the Portside Community for black carbon and PM_{2.5}.



SES = Sherman Elementary School
TAM = Tenth Avenue Marine Terminal
OVB = Oceanview Blvd.
SAY = San Ysidro

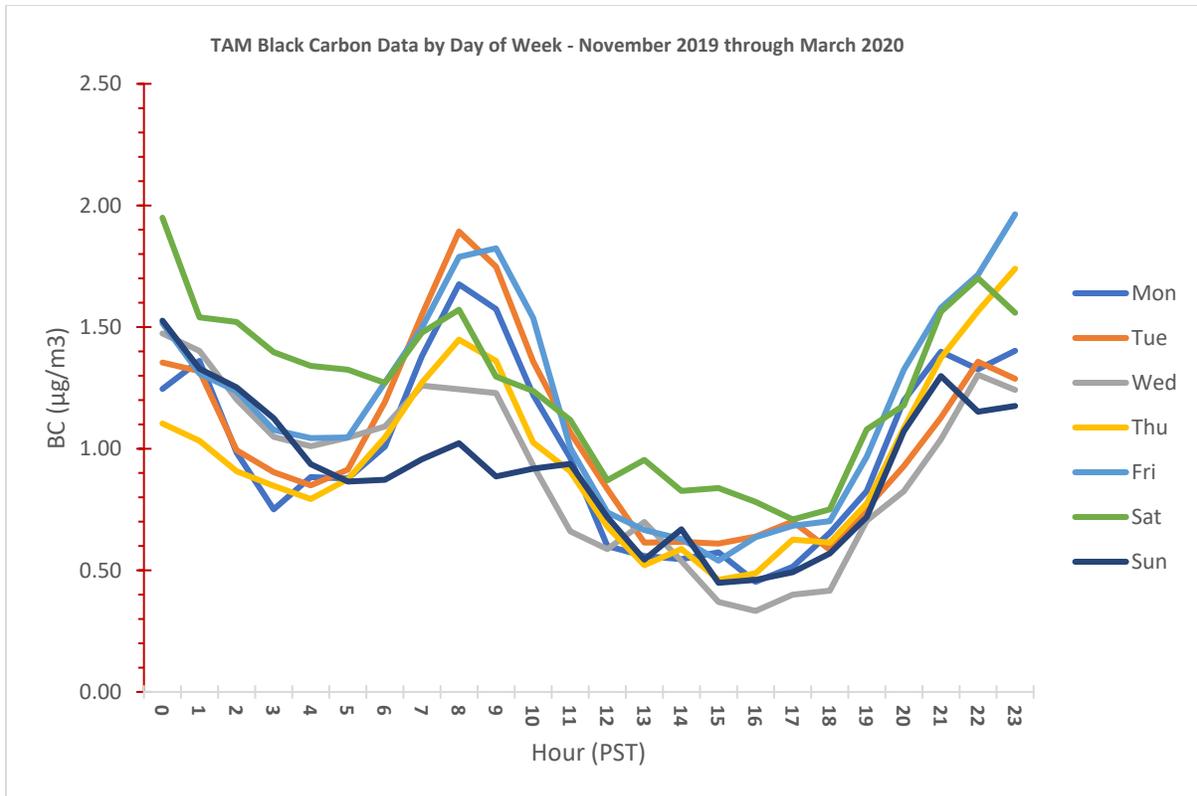
The following chart focuses only on black carbon concentrations in the Portside Community and shows that in the morning, concentrations are highest at the Tenth Avenue Marine Terminal location, which is consistent with the offshore winds so prevalent in the morning hours. The higher concentrations at the Tenth Avenue Marine Terminal may also suggest that diesel-powered vessels on the water are contributing to the values measured there.



SES = Sherman Elementary School
TAM = Tenth Avenue Marine Terminal
OVB = Oceanview Blvd.

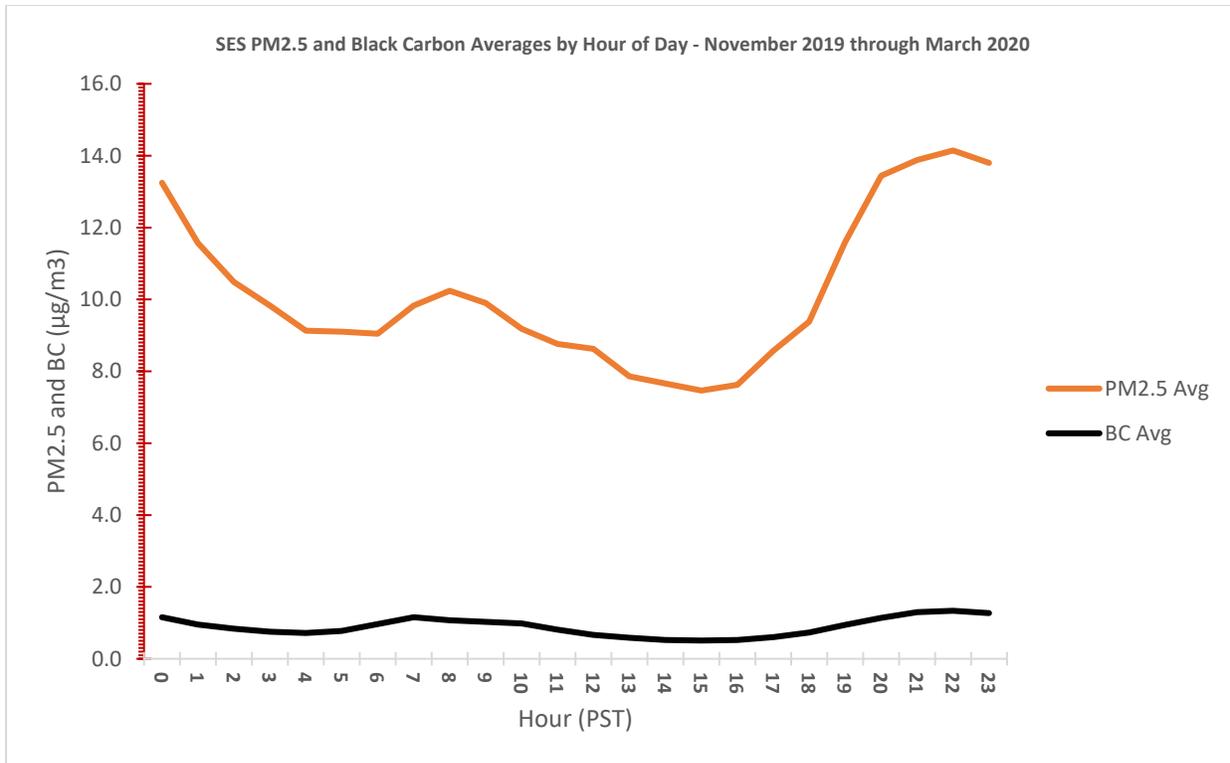
The black carbon concentrations decrease in the mid-day hours at all three locations as the atmosphere becomes less stable and the sea breeze (onshore winds) increases. During the late afternoon and early evening hours, the concentrations are nearly identical at all three locations, with the Tenth Avenue Marine Terminal site starting to increase around midnight as the winds turn to the land breeze (offshore winds) regime.

It is also interesting to see how day-to-day activities in the Portside Community contribute to black carbon concentrations. The chart below shows the black carbon concentrations by day-of-week at the Tenth Avenue Marine Terminal (TAM) from November 2019 through March 2020. This chart shows the same morning peak associated with the morning commute and more stable atmospheric conditions. It also shows that Sunday mornings are lower than other days of the week (less overall activity), Saturday afternoons are higher than other days of the week (indicating that there are significant contributions off the water from diesel-powered boats/ships – winds are typically onshore in the afternoon), and higher concentrations late on Friday nights continue into early Saturday mornings as the winds shift and the atmosphere becomes more stable.



TAM = Tenth Avenue Marine Terminal

The Sherman Elementary School site monitors for real-time PM_{2.5} and black carbon. The chart below shows the hourly averages of each pollutant from November 2019 through March 2020. During this time, black carbon concentrations were roughly 9% of PM_{2.5} concentrations (which is consistent with the latest emissions inventory for the Portside Community). It will be interesting to see how this ratio holds up over time and from location to location throughout the region as more data are gathered.



SES = Sherman Elementary School

The Portside Community have also expressed concerns about airborne metals from activities in and around the area. Although the metals monitoring efforts under the AB617 program is in the early phases, we do have historical metals data from other sites in the APCD’s air monitoring network.

The APCD has sampled for Toxics-Metals at the following sites:

- Perkins Elementary School (Portside): 2014-2016
- Donovan (Otay Mesa): 2016-2018
- Lexington Elementary School (El Cajon): 2017-2018

These data are in the National Air Toxics Assessment (NATA) database. Toxics-Metals selected for this analysis included the metals highlighted on the NATA database with the highest risk value (currently there is no data available for hexavalent chrome concentrations, so this pollutant has not been reported here). These metals include:

- Arsenic
- Beryllium
- Cadmium
- Nickel
- Lead – additional metal of interest

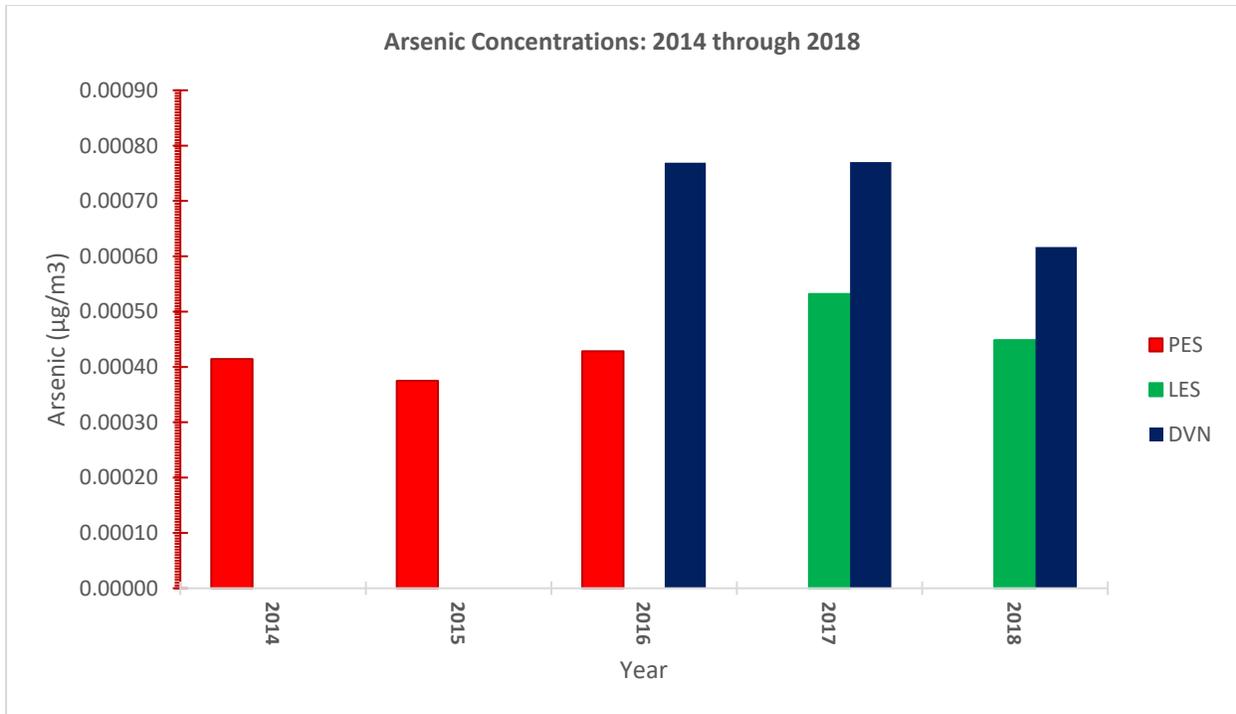
The data was reviewed, and the key points include:

- There is a seasonal variation in Toxics-Metals concentration. Concentrations are higher in the winter months, which is consistent with atmospheric stability conditions (more stable in colder months than warmer months).
- For most of the reported metals, concentrations are highest at the Donovan (Otay Mesa) site near the US-Mexico border.

The APCD also estimated the health risks from exposure to these metals for both long-term, non-cancerous risk and for cancer risk. For the long-term, non-cancerous risk, all three sites showed that the average concentrations of the metals are below their reference exposure level (REL, the level at which long-term health effects can be caused from breathing the ambient air). However, risk from toxic air pollutants can also come from the pollutants falling to the ground and entering a person's body through skin contact or through their mouth (from dust that is picked up by a person's hand who then touches their mouth with that hand or from eating food that this dust has fallen on). Taking into account these other ways a pollutant can get into a person's body, the total long-term, non-cancerous risk from arsenic is above the level at which long-term health effects can be caused from the total exposure. Specifically, the total long-term, non-cancerous risk from arsenic is 2.95 times the threshold at Perkins Elementary School, 3.55 times the threshold at Lexington Elementary School, and 4.73 times the threshold at Donovan. The other metals were all below their threshold. For context, under the Air Toxics "Hot Spots" Program, if a stationary source subject to APCD permit requirements had a long-term, non-cancerous risk above a pollutants' threshold, the stationary source would be required to both notify their neighbors about the risk and reduce the risk below that threshold.

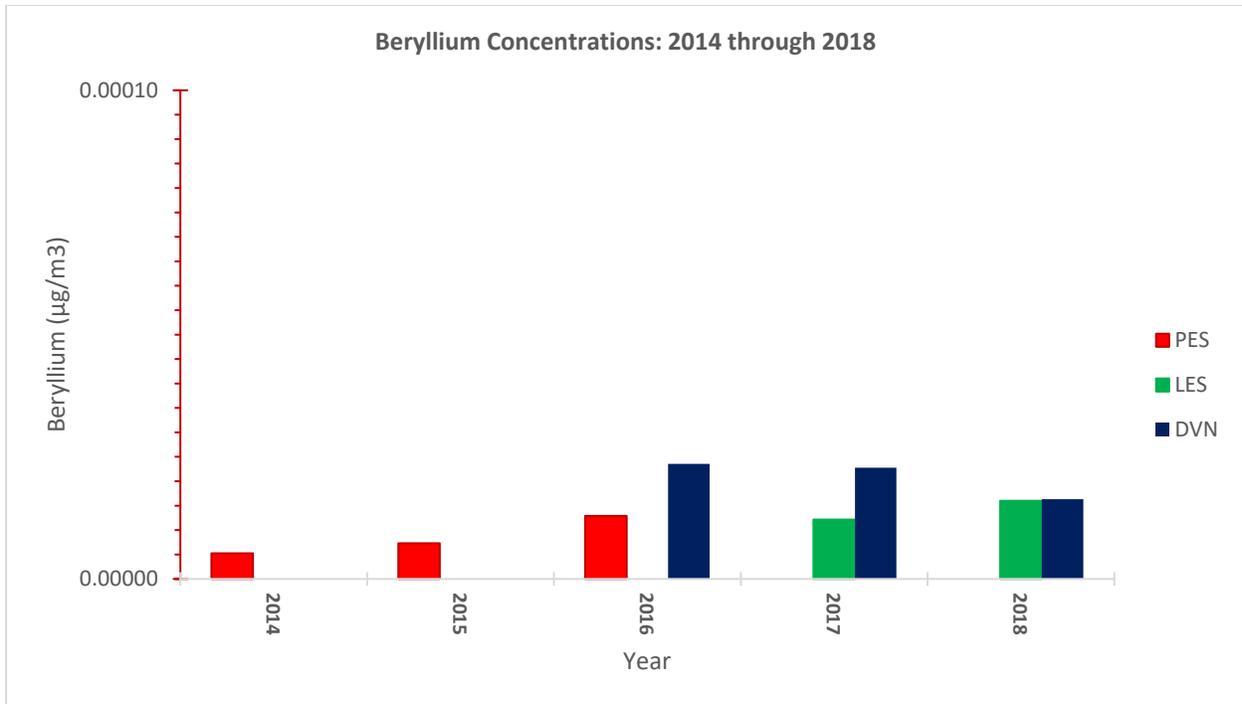
Cancer risk is the risk that a person could develop cancer due to the exposure to certain pollutants if that person was exposed to the average concentrations measured for 24-hours a day, 7-days per week, for a 30-year period. The cancer risk was estimated to be 56.8 in one million at Perkins Elementary School, 64 in one million at Lexington Elementary School, and 112 in one million at Donovan. For context, under the Air Toxics "Hot Spots" Program, if a stationary source subject to APCD permit requirements had a maximum cancer risk above 10 in one million, the stationary source would be required to notify their neighbors about the risk, and if the cancer risk were above 100 in one million, the stationary source would be required to reduce their risk below that threshold.

The plot below shows annual averaged concentrations for Arsenic at Perkins Elementary School (PES), Lexington Elementary School (LES – in El Cajon), and the Donovan site in Otay Mesa. The highest concentrations were found at the Donovan site, with Lexington showing lower concentrations, but still higher than Perkins Elementary School (Barrio Logan).



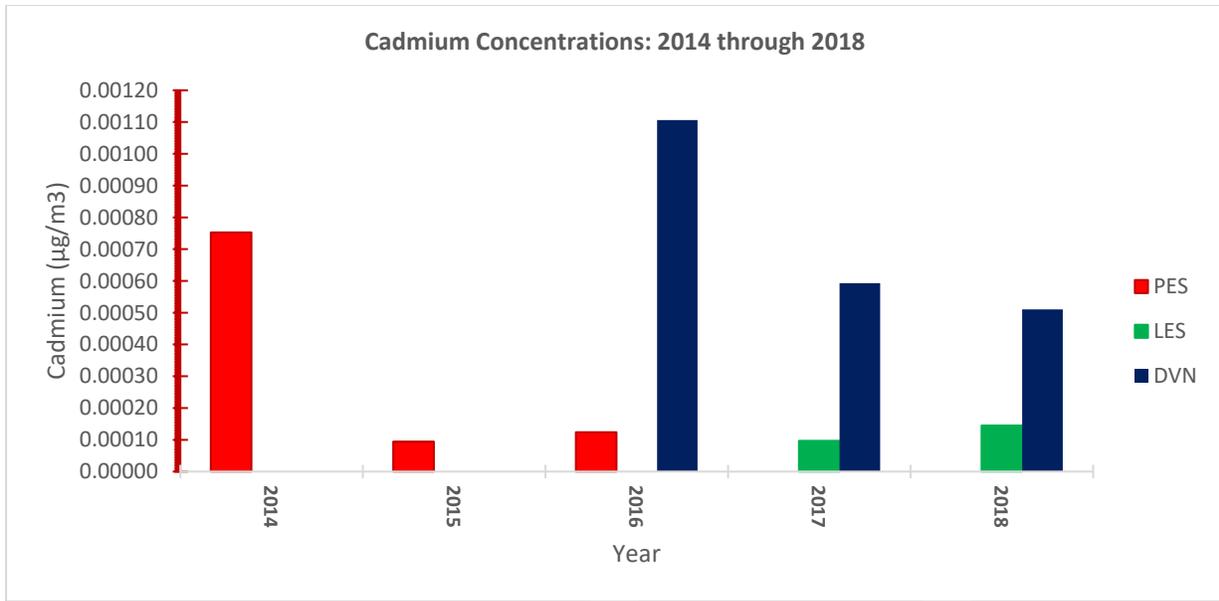
PES = Perkins Elementary School
LES = Lexington Elementary School (El Cajon)
DVN = Donovan

The plot below shows annual averaged concentrations for Beryllium at Perkins Elementary School (PES), Lexington Elementary School (LES – in El Cajon), and the Donovan site in Otay Mesa. The highest concentrations were found at the Donovan site (0.00002 µg/m³), with Lexington and Perkins sites showing lower concentrations.



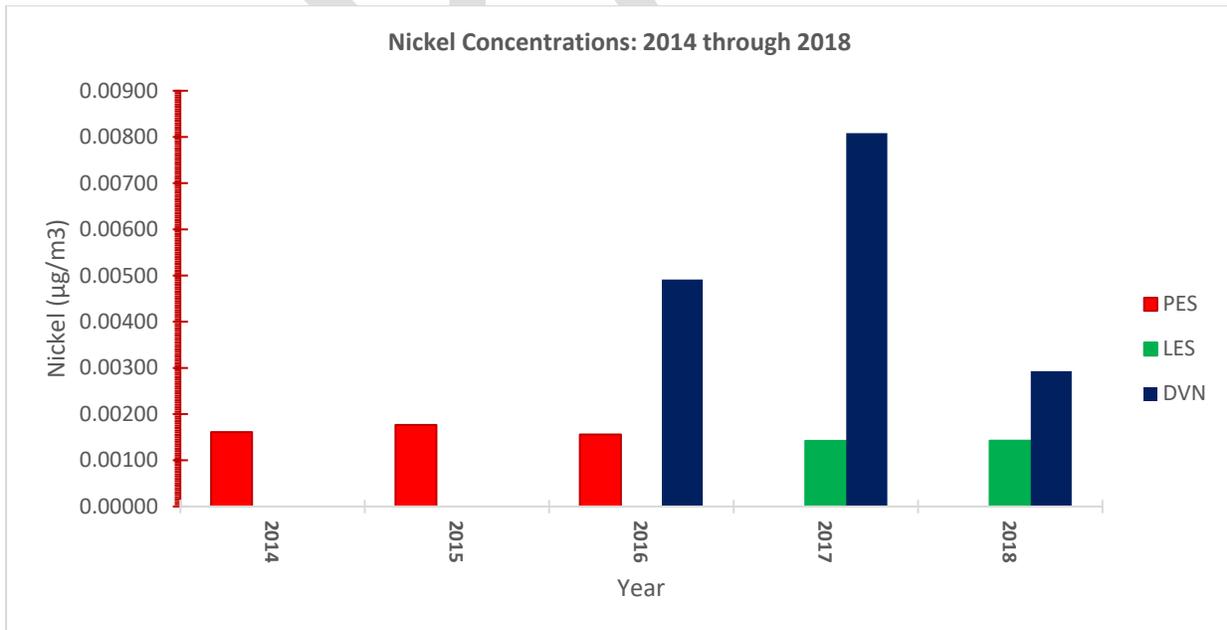
PES = Perkins Elementary School
LES = Lexington Elementary School (El Cajon)
DVN = Donovan

The plot below shows annual averaged concentrations for Cadmium at Perkins Elementary School (PES), Lexington Elementary School (LES – in El Cajon), and the Donovan site in Otay Mesa. The highest concentrations were found at the Donovan site, which does show a decrease over time (which is also apparent in the Perkins data).



PES = Perkins Elementary School
LES = Lexington Elementary School (El Cajon)
DVN = Donovan

The plot below shows annual averaged concentrations for Nickel at Perkins Elementary School (PES), Lexington Elementary School (LES – in El Cajon), and the Donovan site in Otay Mesa. The highest concentrations were found at the Donovan site, with measurements at the Perkins and Lexington sites being much lower and relatively steady.



PES = Perkins Elementary School
LES = Lexington Elementary School (El Cajon)
DVN = Donovan

The Portside Community have also expressed concerns about airborne toxic gases (known as toxic Volatile Organic Compounds, or VOCs) from activities in and around the area. Although the AB 617 toxic-VOC monitoring is in the early phases, we do have historical toxic-VOC data from other sites in the APCD's air monitoring network.

The District has sampled for Toxic-VOCs at the following sites:

- Perkins Elementary School: suspended sampling in 2015. Eviction.
- Otay Mesa: Sampled until 2014.
- Donovan site (Otay Mesa area): Began sampling in 2014, suspended sampling 2016 and 2017 for instrument replacement.
- Escondido: Sampling suspended in 2015.
- Sherman Elementary School: Started sampling in October 2019.

The Toxic-VOCs selected for analysis included the VOCs highlighted on the NATA database with the highest risk value. These VOCs include:

- Benzene (and the other BTEX compounds; Toluene, Ethylbenzene, m/p-Xylene, o-Xylene
- Naphthalene
- Carbon Tetrachloride
- P-Dichlorobenzene
- 1,3-Butadiene

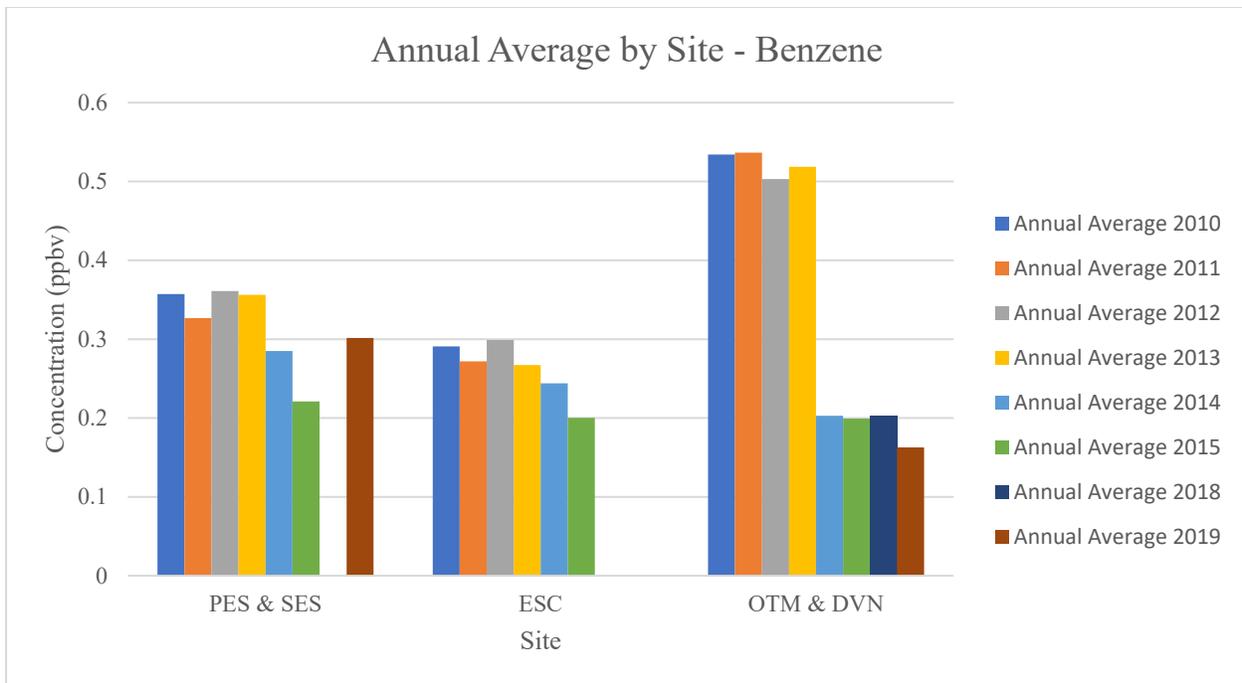
The data was reviewed, and the key points include:

- The VOC concentrations trend downward over time. For example, benzene concentrations at Perkins Elementary School decreased from 0.290 ppbv in 2010 to 0.200 from 2015.
- Similarly, Toluene concentration decreased from 0.690 ppbv to 0.347 ppbv from 2010 to 2015 at Perkins Elementary School.
- BTEX concentrations are lower in the Downtown community (PES) compared to the Otay region (DVN & OTM) and Escondido.
- Other VOCs sampled in the Portside Community are also lower.
- One exception is carbon tetrachloride, which is typically around 0.09 ppbv from site and year.
- The Toxic-VOCs, specifically BTEX compounds are higher (approximately double) at the old Otay Mesa site. This site was located at the border and was impacted by local vehicle traffic. This is representative of a source sample rather than ambient data. The BTEX compounds dropped significantly (e.g. Benzene dropped from ~0.5 ppbv to ~0.2 ppbv) when the site was relocated to Donovan.
- Toxic-VOCs were sampled at Perkins Elementary School until 2015. Sampling started at our new Sherman Elementary School site in October 2019. The higher concentrations from the Sherman Elementary School site in 2019 is likely due to seasonal variations. BTEX compounds are higher in the winter, and all measurements at Sherman Elementary School were collected in October, November, and December of 2019.

The APCD also estimated the health risks from exposure to these toxic VOCs for both long-term, non-cancerous risk and cancer risk. For the long-term, non-cancerous risk, all five sites showed that the average concentrations of these VOCs are below their reference exposure level (REL, the level at which long-term health effects can be caused from breathing the ambient air), and the total long-term, non-cancerous risk (which include the other way's a pollutant can get into a person's body) is below the level at which long-term health effect can be caused by the total exposure.

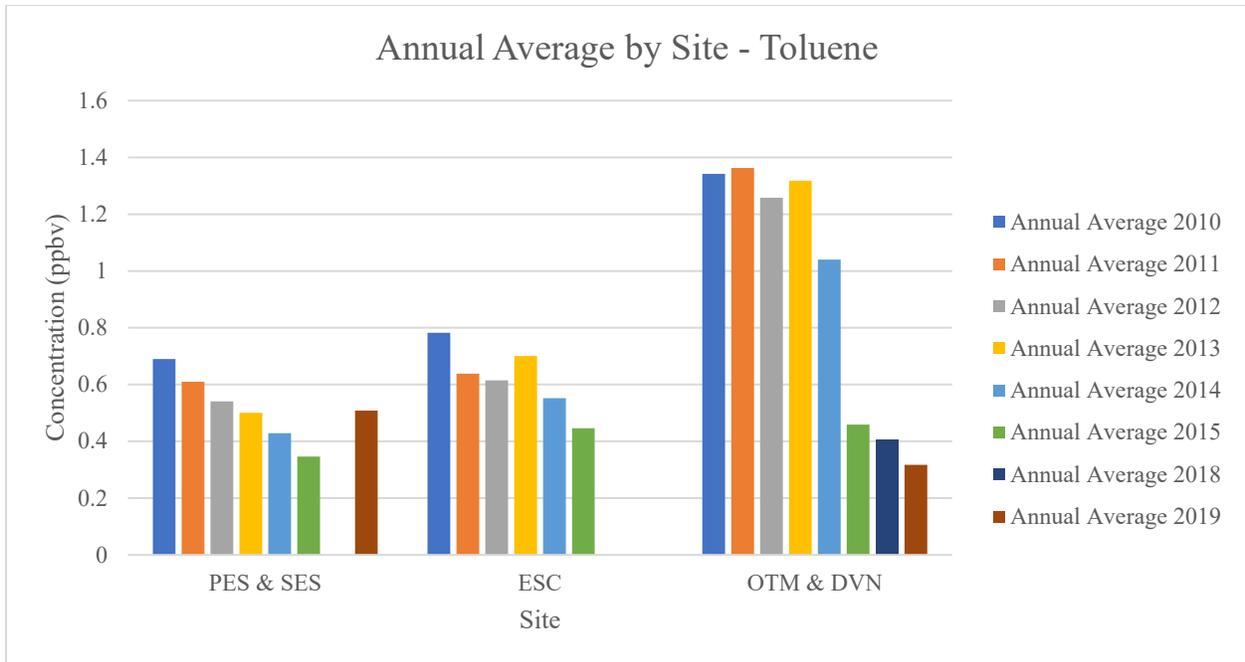
Cancer risk is the risk that a person could develop cancer due to the exposure to certain pollutants if that person was exposed to the average concentrations measured for 24-hours a day, 7-days per week, for a 30-year period. The cancer risk was estimated to be 141 in one million at Donovan, 193 in one million at Escondido, 195 in one million at Sherman Elementary School, 199 in one million at Perkins Elementary School, and 261 in one million at Otay Mesa. For context, under the Air Toxics "Hot Spots" Program, if a stationary source subject to APCD permit requirements had a maximum cancer risk above 10 in one million, the stationary source would be required to notify their neighbors about the risk, and if the cancer risk were above 100 in one million, the stationary source would be required to reduce their risk below that threshold.

The chart below shows the annual average benzene concentrations for the monitoring locations mentioned above. This chart shows that benzene concentrations were decreasing at Perkins Elementary School (PES) between 2013 and 2015. The Sherman Elementary School (SES) averages for 2019 show higher values, due to the sampling being conducted in the more stable months of the year. This chart also shows that the average benzene concentrations at Perkins Elementary School in Barrio Logan were slightly higher than in Escondido (ESC), and these sites were showing decreasing concentrations between 2013 and 2015. The highest concentrations of benzene measured were at the Otay Mesa site (OTM), which was located directly at the Otay Mesa border crossing. The Donovan site (DVN), a few miles north of the border shows lower concentrations than the OTM site.



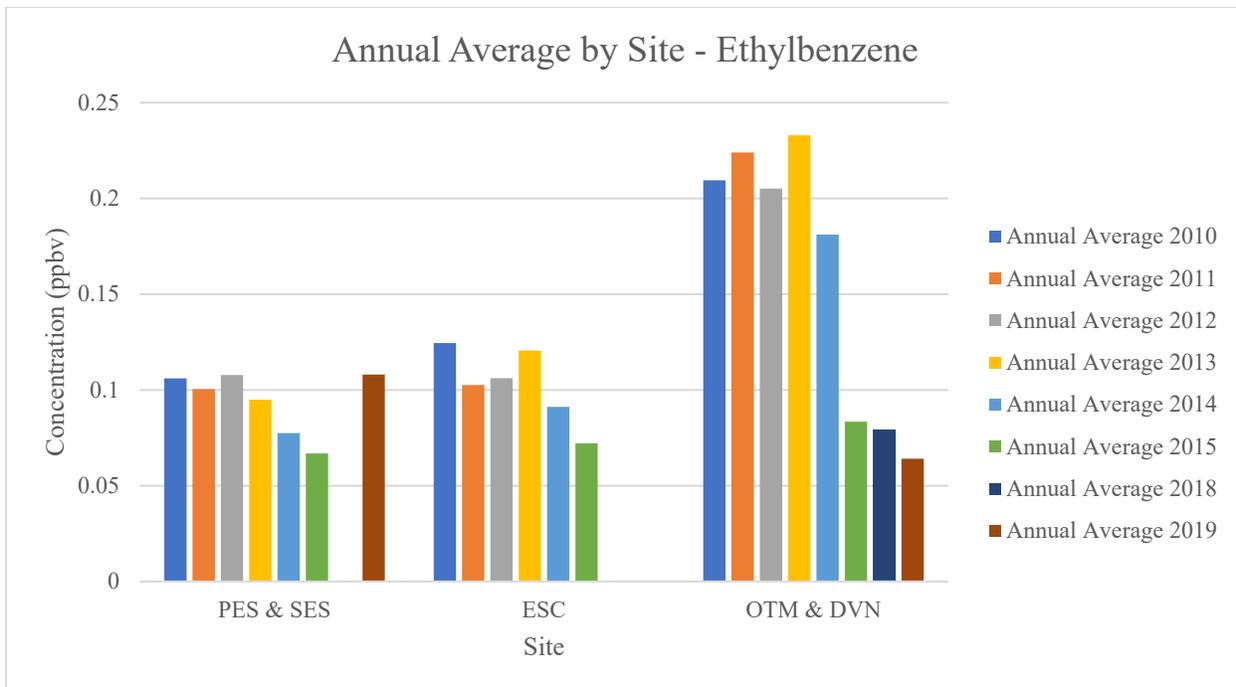
PES = Perkins Elementary School
SES = Sherman Elementary School
ESC = Escondido
OTM - Otay Mesa Site (2011 – 2014)
DVN = Donovan (2015-2019)

The chart below shows the annual average toluene concentrations for the monitoring locations mentioned above. This chart shows that toluene concentrations were decreasing at Perkins Elementary School (PES) between 2010 and 2015. The Sherman Elementary School (SES) averages for 2019 show higher values, due to the sampling being conducted in the more stable months of the year. This chart also shows that the average toluene concentrations at Perkins Elementary School in Barrio Logan were lower than in Escondido (ESC), and these sites were showing decreasing concentrations between 2010 and 2015. The highest concentrations of toluene measured were at the Otay Mesa site (OTM), which was located directly at the Otay Mesa border crossing. The Donovan site (DVN), a few miles north of the border shows lower concentrations than the OTM site.



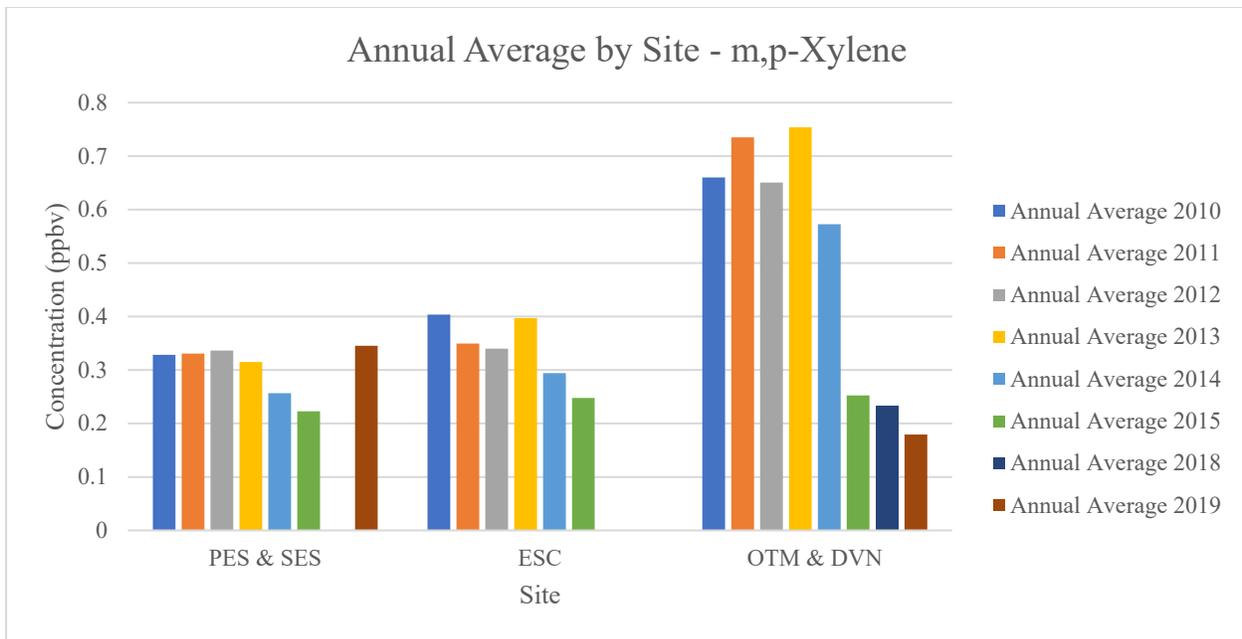
PES = Perkins Elementary School
SES = Sherman Elementary School
ESC = Escondido
OTM - Otay Mesa Site (2011 – 2014)
DVN = Donovan (2015-2019)

The chart below shows the annual average ethylbenzene concentrations for the monitoring locations mentioned above. This chart shows that ethylbenzene concentrations were decreasing at Perkins Elementary School (PES) between 2013 and 2015. The Sherman Elementary School (SES) averages for 2019 show higher values, due to the sampling being conducted in the more stable months of the year. This chart also shows that the average ethylbenzene concentrations at Perkins Elementary School in Barrio Logan were lower than in Escondido (ESC), and these sites were showing decreasing concentrations between 2013 and 2015. The highest concentrations of ethylbenzene measured were at the Otay Mesa site (OTM), which was located directly at the Otay Mesa border crossing. The Donovan site (DVN), a few miles north of the border shows lower concentrations than the OTM site.



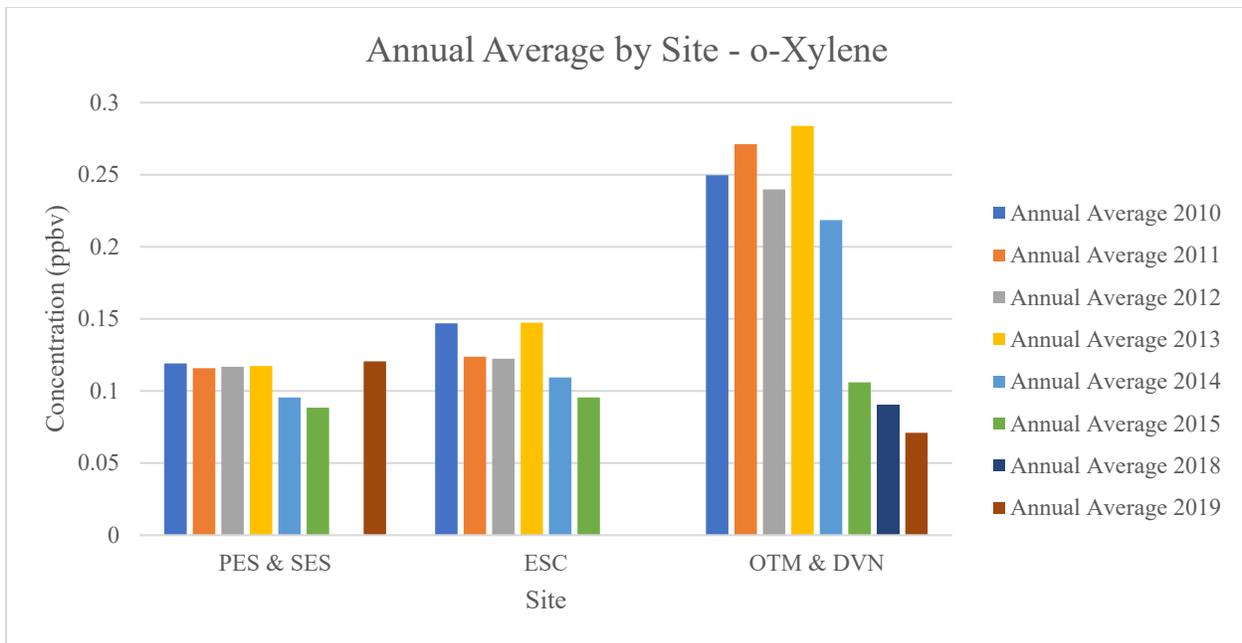
PES = Perkins Elementary School
SES = Sherman Elementary School
ESC = Escondido
OTM - Otay Mesa Site (2011 – 2014)
DVN = Donovan (2015-2019)

The chart below shows the annual average m,p-Xylene concentrations for the monitoring locations mentioned above. This chart shows that m,p-Xylene concentrations were decreasing at Perkins Elementary School (PES) between 2013 and 2015. The Sherman Elementary School (SES) averages for 2019 show higher values, due to the sampling being conducted in the more stable months of the year. This chart also shows that the average m,p-Xylene concentrations at Perkins Elementary School in Barrio Logan were lower than in Escondido (ESC), and these sites were showing decreasing concentrations between 2013 and 2015. The highest concentrations of m,p-Xylene measured were at the Otay Mesa site (OTM), which was located directly at the Otay Mesa border crossing. The Donovan site (DVN), a few miles north of the border shows lower concentrations than the OTM site.



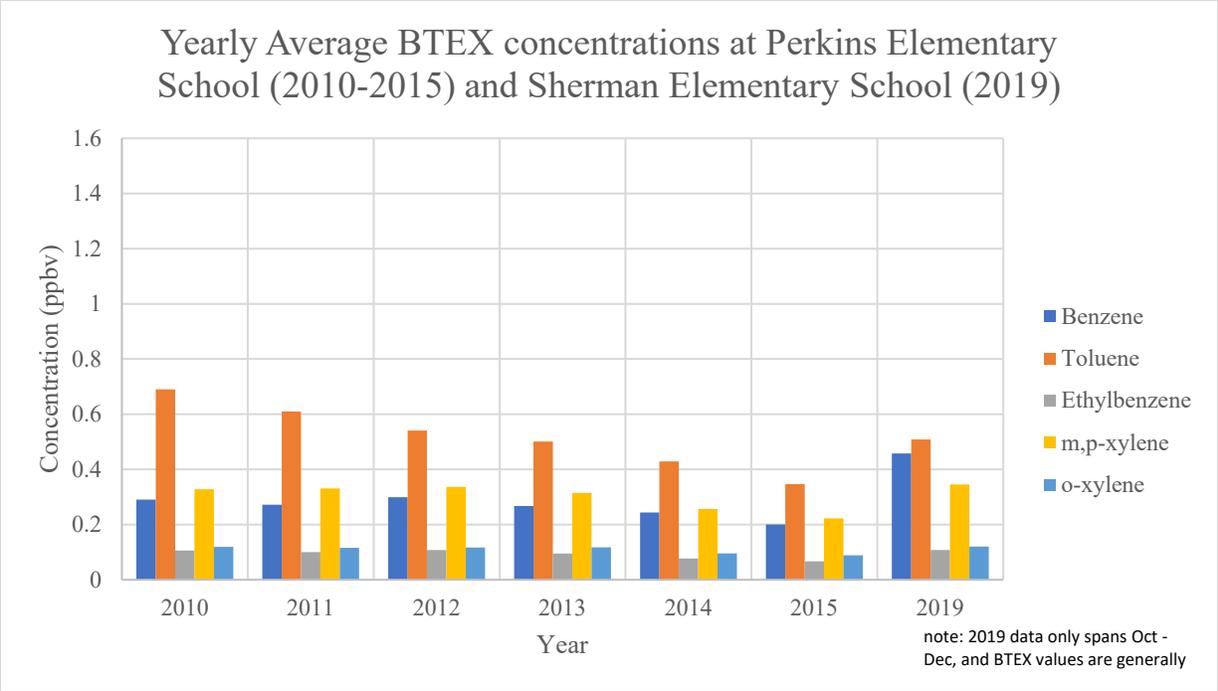
PES = Perkins Elementary School
SES = Sherman Elementary School
ESC = Escondido
OTM - Otay Mesa Site (2011 – 2014)
DVN = Donovan (2015-2019)

The chart below shows the annual average o-Xylene concentrations for the monitoring locations mentioned above. This chart shows that o-Xylene concentrations were decreasing at Perkins Elementary School (PES) between 2013 and 2015. The Sherman Elementary School (SES) averages for 2019 show higher values, due to the sampling being conducted in the more stable months of the year. This chart also shows that the average o-Xylene concentrations at Perkins Elementary School in Barrio Logan were lower than in Escondido (ESC), and these sites were showing decreasing concentrations between 2013 and 2015. The highest concentrations of o-Xylene measured were at the Otay Mesa site (OTM), which was located directly at the Otay Mesa border crossing. The Donovan site (DVN), a few miles north of the border shows lower concentrations than the OTM site.



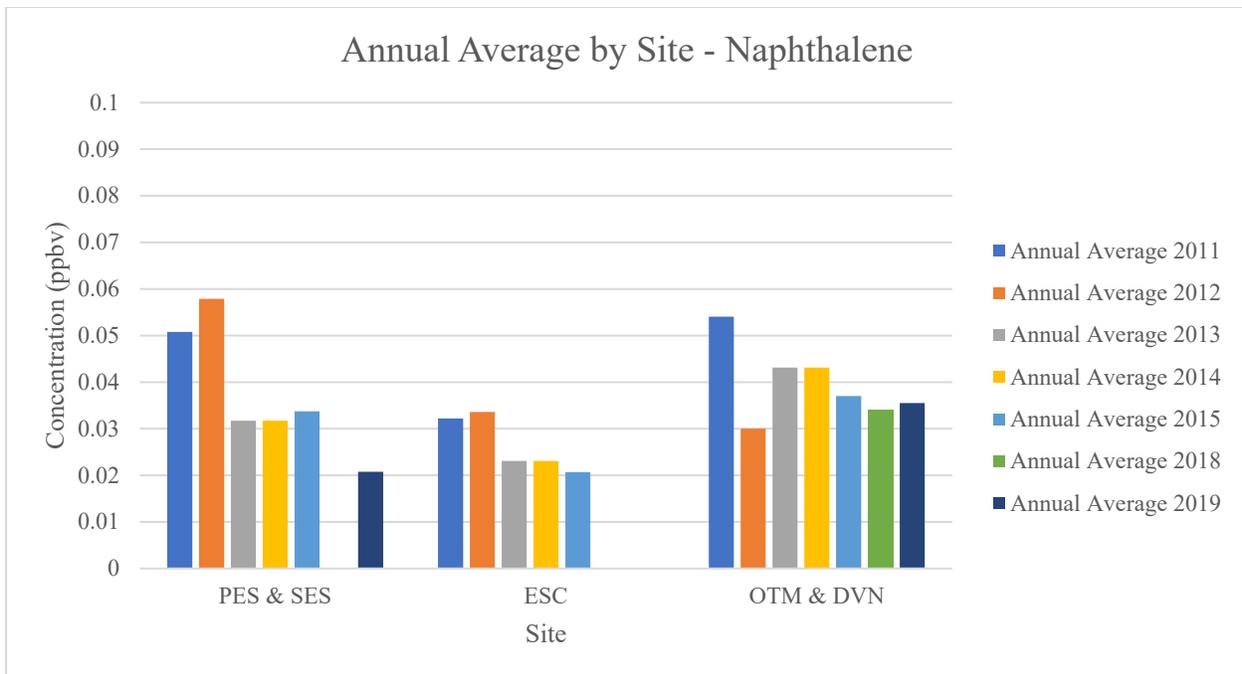
PES = Perkins Elementary School
SES = Sherman Elementary School
ESC = Escondido
OTM - Otay Mesa Site (2011 – 2014)
DVN = Donovan (2015-2019)

A summary of the BTEX compounds (Benzene, Toluene, Ethylbenzene, m/p-Xylene, and o-Xylene) measured in the Portside Community sites of Perkins Elementary School and Sherman Elementary School is shown below. The chart shows that average BTEX compounds were decreasing at the Perkins site between 2010 and 2015. The limited set of BTEX compound measurements at the Sherman site are shown for reference, although these measurements were all collected in the winter months, when pollutant concentrations tend to be higher due to higher atmospheric stability.



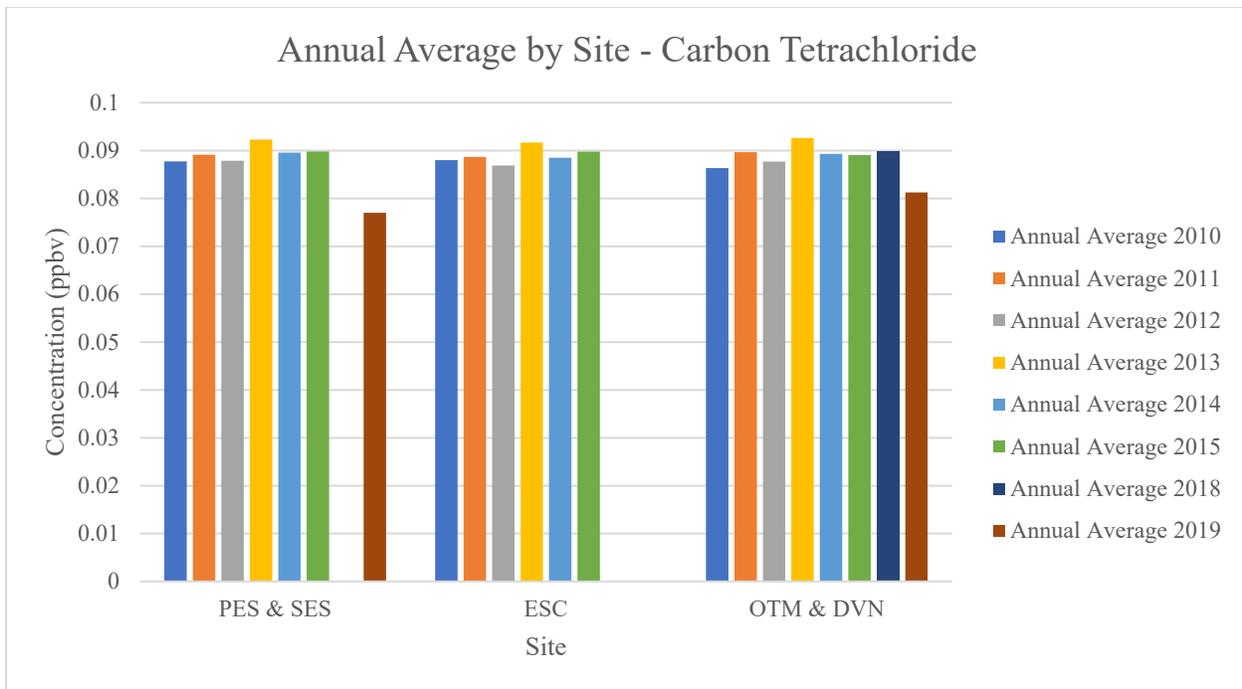
PES = Perkins Elementary School
SES = Sherman Elementary School
ESC = Escondido
OTM - Otay Mesa Site (2011 – 2014)
DVN = Donovan (2015-2019)

The chart below shows that the annual average naphthalene concentrations were relatively consistent at Perkins Elementary School (PES) between 2013 and 2015 (after decreasing between 2012 and 2013). The Sherman Elementary School (SES) averages for 2019 show lower values than the Perkins site. This chart also shows that the average naphthalene concentrations at Perkins Elementary School in Barrio Logan were higher than in Escondido (ESC), which showed decreasing concentrations between 2013 and 2015. Concentrations of naphthalene measured at the Otay Mesa site (OTM) and Donovan (DVN) were highest between 2013 and 2019, with only a modest decrease between the two locations.



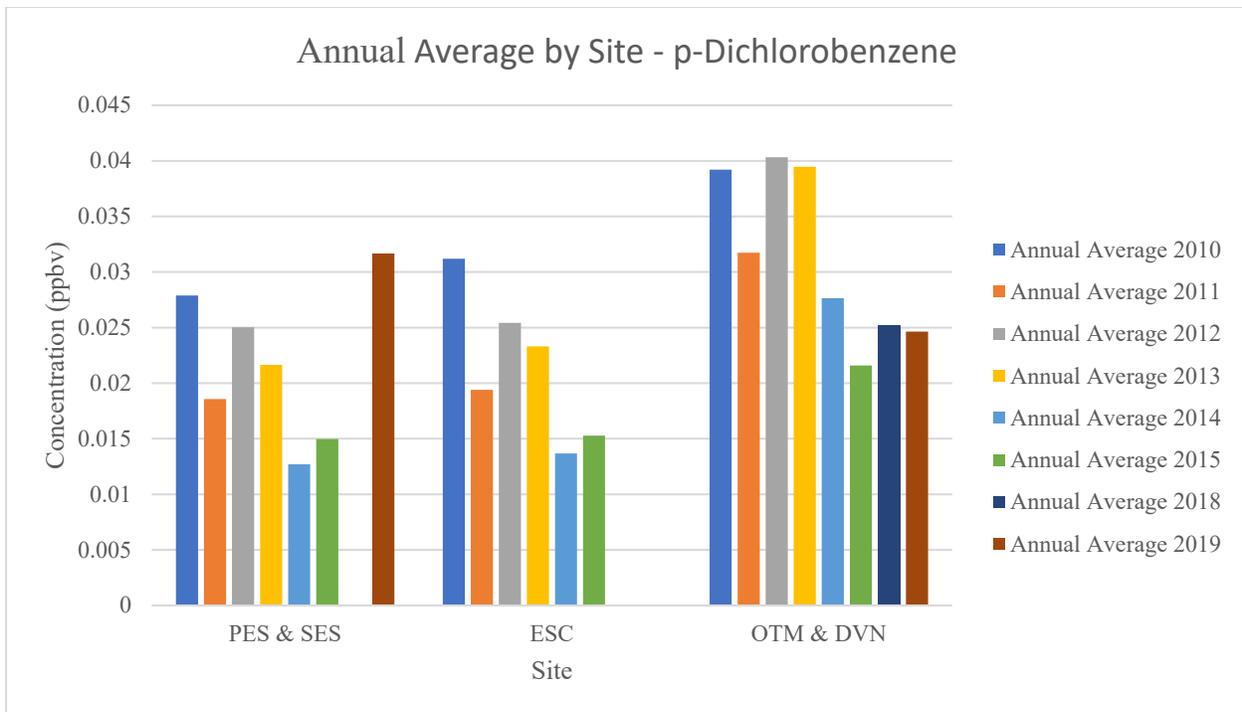
PES = Perkins Elementary School
SES = Sherman Elementary School
ESC = Escondido
OTM - Otay Mesa Site (2011 – 2014)
DVN = Donovan (2015-2019)

The chart below shows that annual averages of carbon tetrachloride measured at the sites mentioned above. The chart does show that all sites are roughly equal for this compound, which was banned worldwide in an update to the Montreal Protocol in 2010 to help protect the earth's stratospheric ozone layer. Worldwide concentrations are expected to continue to drop as this compound is no longer being manufactured.



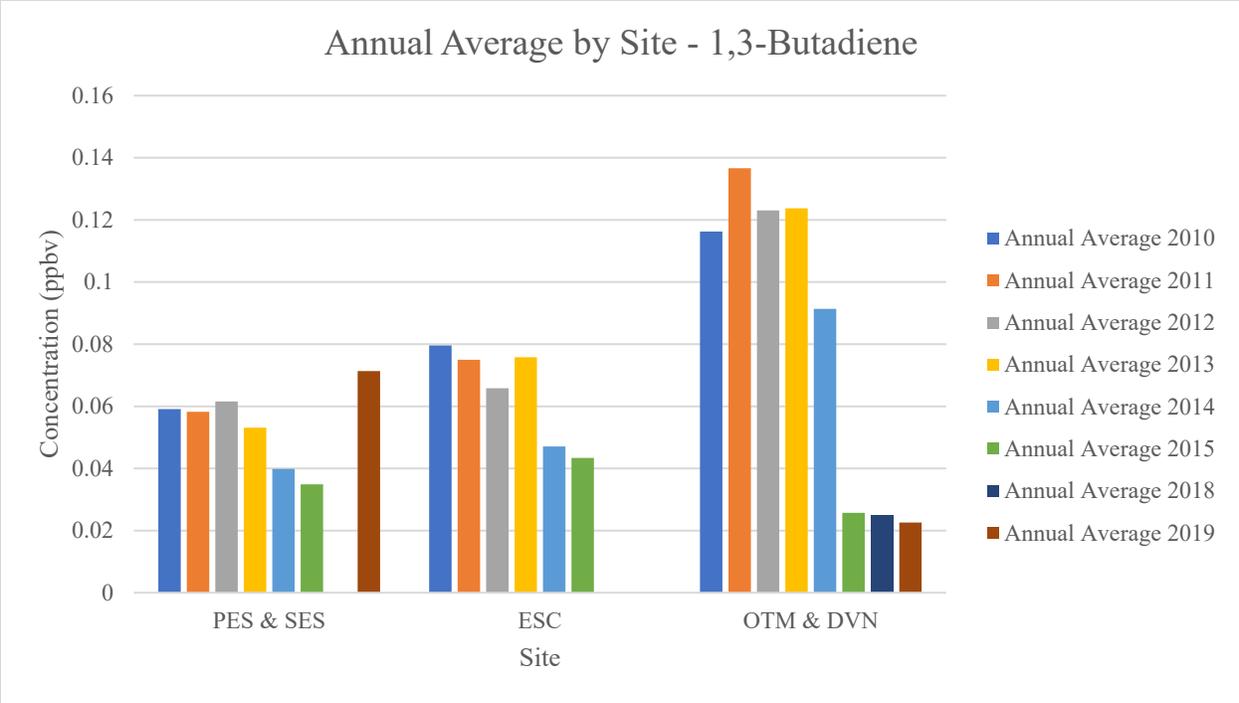
PES = Perkins Elementary School
SES = Sherman Elementary School
ESC = Escondido
OTM - Otay Mesa Site (2011 – 2014)
DVN = Donovan (2015-2019)

The chart below shows the annual average p-Dichlorobenzene concentrations for the monitoring locations mentioned above. This chart shows that p-Dichlorobenzene concentrations were decreasing at Perkins Elementary School (PES) between 2012 and 2014 (2015 is a little higher than 2014). The Sherman Elementary School (SES) averages for 2019 show higher values, due to the sampling being conducted in the more stable months of the year. This chart also shows that the average p-Dichlorobenzene concentrations at Perkins Elementary School in Barrio Logan were lower than in Escondido (ESC). The highest concentrations of p-Dichlorobenzene measured were at the Otay Mesa site (OTM), which was located directly at the Otay Mesa border crossing. The Donovan site (DVN), a few miles north of the border shows lower concentrations than the OTM site.



PES = Perkins Elementary School
SES = Sherman Elementary School
ESC = Escondido
OTM - Otay Mesa Site (2011 – 2014)
DVN = Donovan (2015-2019)

The chart below shows the annual average 1,3-Butadiene concentrations for the monitoring locations mentioned above. This chart shows that 1,3-Butadiene concentrations were decreasing at Perkins Elementary School (PES) between 2012 and 2015. The Sherman Elementary School (SES) averages for 2019 show higher values, due to the sampling being conducted in the more stable months of the year. This chart also shows that the average 1,3-Butadiene concentrations at Perkins Elementary School in Barrio Logan were lower than in Escondido (ESC). The highest concentrations of 1,3-Butadiene measured were at the Otay Mesa site (OTM), which was located directly at the Otay Mesa border crossing. The Donovan site (DVN), a few miles north of the border shows lower concentrations than the OTM site.



PES = Perkins Elementary School
SES = Sherman Elementary School
ESC = Escondido
OTM - Otay Mesa Site (2011 – 2014)
DVN = Donovan (2015-2019)

Most of the data provided in this document is based on the District’s monitoring stations, which are primarily intended for measuring regional air quality. Although these stations provide historical air quality data, currently the District has limited data as it relates to the community-focused and community-driven monitoring stations. The District is committed to continuing to work collaboratively with the Steering Committee to obtain community-level emission data and further quantify the emissions impacting the Portside community. Although continued air monitoring is needed, the proposed emissions reduction strategies identified under this CERP will significantly benefit all residents in the Portside community, surrounding areas, and all of San Diego County.