EARTHJUSTICE
COALITION FOR CLEAN AIR
EAST YARD COMMUNITIES FOR ENVIRONMENTAL JUSTICE
CENTER FOR COMMUNITY ACTION AND ENVIRONMENTAL JUSTICE
COMMUNITIES FOR A BETTER ENVIRONMENT
CENTER FOR BIOLOGICAL DIVERSITY
SIERRA CLUB – ANGELES CHAPTER

VIA: ELECTRONIC MAIL ONLY

January 3, 2022

Honorable Members of the City Council
c/o Monique De La Garza, City Clerk
City of Long Beach, California
333 West Ocean Blvd., Lobby Level
Long Beach, CA 90802
(562) 570-6101
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RE: Submission of Supplemental Documents Relating to the Appeal of Long Beach Board of Harbor Commissioners' Approval of World Oil Tank Installation Project (HD-21-537)

Members of the Long Beach City Council:

Earthjustice writes to provide the following supplemental documents to the Long Beach City Council. These documents are pertinent to the appeal of the World Oil Tank Installation Project and do not raise new grounds for appeal.

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ANNUAL PROGRESS REPORT FOR AB 617 COMMUNITY EMISSIONS REDUCTION PLANS

October 2020

South Coast Air Quality Management District

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SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
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WAYNE NASTRI

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INTRODUCTION

Assembly Bill (AB) 617 was signed into law in July 2017, requiring new community-focused and community-driven action to reduce air pollution and improve public health in communities experiencing disproportionate burdens from exposure to air pollutants. Three of the ten statewide communities selected by the California Air Resources Board (CARB) in the first year of the AB 617 program are in the South Coast Air Basin. These communities are commonly referred to as 2018–designated AB 617 communities and include:

- East Los Angeles, Boyle Heights, West Commerce (ELABHWC)
- San Bernardino, Muscoy (SBM)
- Wilmington, Carson, West Long Beach (WCWLB)

Following input from Community Steering Committees (CSCs) in each of the 2018-designated AB 617 communities, the South Coast AQMD Governing Board adopted Community Emissions Reduction Plans (CERPs) on September 6, 2019. The CERPs identify actions to reduce emissions and exposures to criteria air pollutants and toxic air contaminants in each community.

BACKGROUND AND PURPOSE

AB 617 and the CARB Community Air Protection Blueprint require air districts to prepare annual progress reports summarizing the results of implementing CERPs.[1, 2] This report summarizes the progress of CERP implementation in 2018-designated AB 617 communities in the South Coast Air Basin from September 6, 2019 to June 30, 2020. Additionally, the report covers information on incentive funds distributed in the communities from July 26, 2017 to June 30, 2020. The report also includes air monitoring activities initiated by staff since June 2019, a part of the Community Air Monitoring Plans (CAMPs). The report is based on the guidelines set forth in the CARB Community Air Protection Blueprint and includes the following:

- Community profile updates
- An overview of the CERP framework
- Status of CERP actions, goals and strategies
- Metrics for tracking progress
- A qualitative assessment of CERP progress
- A summary of key plan adjustments

COMMUNITY PROFILE UPDATES

The community profile used to develop the CERPs established a baseline for each AB 617 community based on the types of pollution impacting each community, public health data, and

[1] Health and Safety Code Section 44391.2 (C)(7)
[2] California Air Resources Board "Community Air Protection Blueprint", 2018, https://ww2.arb.ca.gov/capp-blueprint. Accessed June 18, 2020.

socioeconomic factors. Data from CalEnviroScreen 3.0, Multiple Air Toxics Exposure Study (MATES) IV, and Southern California Association of Governments (SCAG) were used to inform the community profile. Since the adoption of the CERPs these data sources have not been updated; therefore, no changes to the established community profile are required.

Since the adoption of the CERPs by the South Coast AQMD Governing Board, the onset of the pandemic caused by COVID-19 has significantly altered the daily lives of communities around the world. However, mounting evidence indicates that community strategies to slow the spread of COVID-19 may cause unintentional harm, such as lost wages, reduced access to services, and increased stress, for some racial and ethnic minority groups.[3] South Coast AQMD staff is closely monitoring this information and its impacts on the data used to develop the CERPs.

OVERVIEW OF CERP FRAMEWORK

The air quality priorities for each 2018–designated AB 617 community was determined by the CSCs and identified in the CERPs. The air quality priorities focused the CERPs on addressing local air quality concerns from residents, community groups, and local businesses. The air quality priorities are below.

East Los Angeles, Boyle Heights, West Commerce

- Neighborhood and Freeway Traffic from Trucks and Automobiles
- Railyards (On-site Emissions)
- Metal Processing Facilities
- Rendering Facilities
- Auto Body Shops
- Schools, Childcare Centers, Community Centers, Libraries, and Public Housing Projects
- General Concerns about Industrial Facilities, including Waste Transfer Stations

Wilmington, Carson, West Long Beach

- Refineries
- Ports
- Neighborhood Truck Traffic
- Oil Drilling and Production
- Railyards
- Schools, Childcare Centers, and Homes

San Bernardino, Muscoy

- Neighborhood Truck Traffic
- Warehouses
- Omnitrans

[3] Centers for Disease Control and Protection, Health Equity Considerations and Racial and Ethnic Minority Groups. https://www.cdc.gov/coronavirus/2019-ncov/community/health-equity/race-ethnicity.html, Accessed August 4, 2020.

- Railyards (On-site Emissions)
- Concrete Batch, Asphalt Batch, and Rock and Aggregate Plants
- Schools, Childcare Centers, Community Centers, and Homes

To address the air quality priorities listed above, each CSC developed a set of actions and goals to achieve emissions and exposure reductions. The CERPs call for actions and goals to be implemented through six types of strategies including: rules and regulations, enforcement, air monitoring, collaboration, incentives, and public information and outreach. Figure 1 – Overview of Community Emissions Reduction Plans demonstrates the relationship between actions, goals, strategies, and emission and exposure reductions.

Figure 1: Overview of Community Emissions Reduction Plans

STATUS OF CERP ACTIONS, GOALS AND STRATEGIES

As described in the background and purpose section above, this report focuses on CERP implementation progress from September 6, 2019 to June 30, 2020. This report also includes the various air monitoring activities initiated by staff since June 2019, a part of the Community Air Monitoring Plans (CAMPs) developed for the 2018-designated AB 617 communities. The CAMPs support the actions and goals in each respective CERP and are available at http://www.aqmd.gov/nav/about/initiatives/community-efforts/environmental-justice/ab617-134/ab-617-community-air-monitoring#. Additionally, the report covers information on incentive funds distributed in the communities from July 26, 2017 to June 30, 2020. South Coast AQMD staff developed a table (see Attachment A) for each community summarizing the status (e.g.,

implementation milestones and completed elements) of the actions, goals, and strategies requiring implementation during the reporting periods identified above.

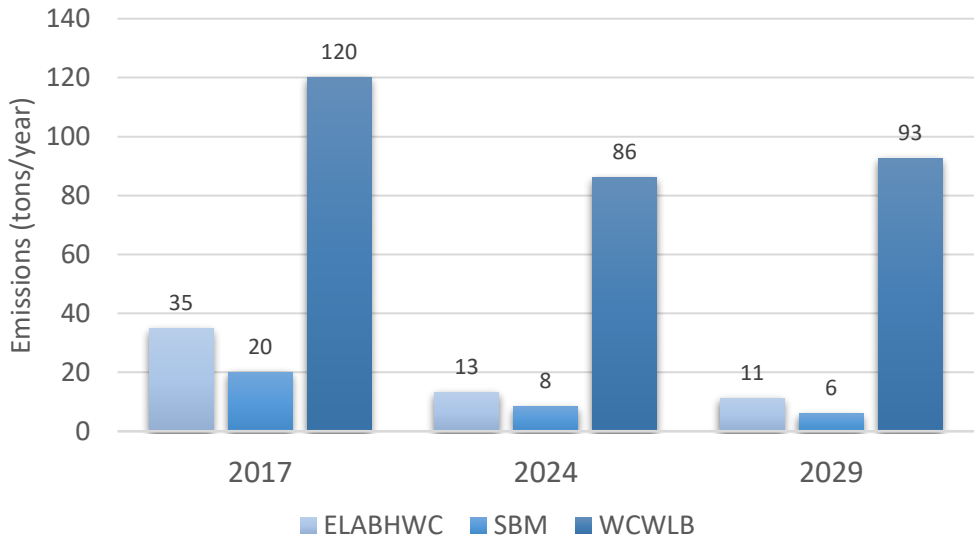
The CARB Board formally approved the CERPs for the 2018-designated AB 617 communities on September 10, 2020. Future progress reports will address all other actions approved by the CARB Board and actions, goals, and strategies requiring implementation after June 30, 2020.

Metrics for Tracking Progress

Baseline Emissions

Per CARB Guidance, CERP emissions baselines are 2017 and include milestone years 2024 and 2029. South Coast AQMD staff worked with CARB staff, the AB 617 Technical Advisory Group (TAG), and the CSCs to develop the baseline and forecasted emissions inventories for the milestone years 2024 and 2029. Diesel particulate matter (DPM) is the largest contributor to toxic air contaminants in each community. Figure 2 – DPM Emissions by Community shows the DPM emissions for the baseline year and milestones years in 2018-designated AB 617 communities. These charts reflect emission reductions from rules already adopted prior to the CERPs, and do not reflect any additional emission reductions that would result from the CERP actions. Additional baseline and milestone year emissions data for other pollutants are available in Chapter 5a: Actions to Reduce Community Air Pollution in the CERPs.

Figure 2 – DPM Emissions by Community



Emission Reduction Targets

The actions, goals, and strategies in the CERPs define a path to reduce air pollution from sources and provide additional protections at schools that reduce harmful air pollution exposure for the children who spend time at those schools. In some instances, the actions, goals, and strategies reaffirm ongoing rule development efforts and provide new commitments for localized reductions, sharing emissions data, timelines, and other related information. Further, the actions, goals and

strategies in the CERPs prioritize emission reductions and set forth emission reduction targets for the milestone years 2024 and 2029 summarized in Table 1 – Overview of Emissions Reduction Targets by 2029.

Table 1 – Overview of Emissions Reduction Targets by 2029* (tons/year)

AB 617 Community	NO_X	SO_X	VOC	DPM
ELABHWC	377	--	--	1.4
SBM	127.9	--	--	0.91
WCWLB [4]	3,207[5]	11	64	20

*Estimated emission reductions from regulations are subject to future assessments and regulatory analyses.

The reporting period for this annual progress report is limited to less than nine months from the date the South Coast AQMD Governing Board adopted the CERPs. As implementation continues, South Coast AQMD staff will work with CARB staff, the AB 617 TAG, and CSC's to quantify future emission reductions achieved by the CERP. For example, CARB recently adopted the Advanced Clean Trucks Rule requiring truck manufacturers to transition from producing diesel trucks and vans to electric zero-emission trucks, including heavy-duty vehicles beginning in 2024. The Advanced Clean Trucks Rule is a strategy in the CERPs and accounted for in the emission reduction targets. Therefore, South Coast AQMD staff will work with CARB staff, the AB 617 TAG, and the CSC to quantify the emissions reductions from each CERP, based on the rule implementation schedule beginning in 2024.

Additionally, staff will work with the CSCs and TAG to refine emission reduction targets and provide information about community level exposures to ambient air toxics when new information becomes available from community air monitoring efforts. For example, continuous metals air monitoring recently deployed at Resurrection Church in the ELABHWC community will provide information about community levels of air toxics and help track ambient air toxics levels.

[4] Per CARB guidance, the emissions baseline was estimated for 2017, and milestone years 2024 and 2029. However, the emission reductions for WCWLB in this table target a 2030 completion date, due to the complexity of the efforts. While the baseline emissions were not calculated for 2030, staff expect the emissions to be similar to the 2029 estimates.

[5] Based on maximum NOx emission reductions that may be reduced from Action 5 of WCWLB CERP Chapter 5b that is designed to achieve further reductions from refinery equipment through adoption of Proposed Rule 1109.1 – Refinery Equipment

Qualitative Assessment

As discussed above, the reporting period for this annual progress report is limited to less than nine months from the date the South Coast AQMD Governing Board adopted the CERPs. Although South Coast AQMD staff will work with CARB staff, the AB 617 TAG, and CSC's to quantify future emission reductions achieved by the CERP, this section provides a qualitative assessment of the CERP strategies (e.g., enforcement and air monitoring) implemented through June 30, 2020.

Incentives

Incentives are a strategy to achieve emission reductions for numerous actions in all three CERPs for the 2018-designated AB 617 communities. For mobile source incentives, South Coast AQMD staff adheres to the Carl Moyer Program and Prop 1B guidelines, both of which are the framework used for AB 617 project evaluations.

South Coast AQMD prioritizes eligible projects in AB 617 communities based on a process that identifies and prioritizes zero-emission projects followed by projects using the cleanest available technologies. The total investments in incentives in 2018-designated AB 617 communities from July 16, 2017 to June 30, 2020 for mobile sources and resulting emissions reductions are in Table 2 – Mobile Source Incentives in 2018-designated AB 617 Communities, below.

Table 2 – Mobile Source Incentives in 2018-designated AB 617 Communities

Community	Total Incentives Distributed (millions of dollars)	NOX	PM	VOC
		tons per year		
ELABHWC	20.7	48.1	0.6	2.0
SBM	9.6	79.7	1.3	2.3
WCWLB	53.6	179	4.1	8.6

Additionally, on April 22, 2020, South Coast AQMD staff submitted a disbursement request for Community Air Protection Program (CAPP) incentive funds to CARB for community-identified project categories, including school air filtration systems in all three 2018-designated AB 617 communities and hexavalent chromium plating facility projects in the ELABHWC community. CARB approved the disbursement request in the second quarter of 2020. The South Coast AQMD staff will begin to work with local school districts to install air filtration systems that reduce children's exposure to DPM at schools. Additionally, South Coast AQMD staff will pursue projects in the ELABHWC community to reduce emissions from hexavalent chromium plating facilities beyond regulatory requirements.

Enforcement

For all CERP actions, the South Coast AQMD Office of Compliance and Enforcement (OCE) staff has made progress in conducting field activities and taking enforcement action. Field activities

include community-specific complaint responses, evaluating and addressing notifications (e.g., equipment breakdowns or flaring), facility inspections, surveillance operations, and other daily functions carried out by OCE staff. An overview of the types of enforcement activities in the 2018-designated AB 617 communities are below.

ELABHWC

- Industrial/Autobody Facilities – Inspections have been conducted regularly at industrial facilities
- Rendering Facilities – Inspectors have regularly conducted compliance activities in and around rendering facilities to ensure compliance with Rule 415, relevant orders of abatement, and all other applicable air quality rules and regulations
- Metals Facilities – Inspections are conducted regularly and partnerships with the Monitoring Division have ensured that any elevated emissions are identified and investigated
- Idling Trucks – All quarterly idling truck sweeps committed to in the CERP to date have been conducted, and these operations incorporate community input, fleet data, and historical locations where idling tends to occur (see Table 3 below)

SBM

- Cement/Asphalt Facilities – All the cement/asphalt facilities were inspected in 2019
- Omnitrans – Both Omnitrans facilities have been inspected within the last year
- Idling Trucks – All quarterly idling truck sweeps committed to in the CERP to date have been conducted, and these operations incorporate community input, fleet data, and historical locations where idling tends to occur (see Table 3 below)

WCWLB

- Oil Wells – Inspections have been conducted regularly at oil wells, initiated by both mobile monitoring and compliance staff
- Oil Refineries – In addition to regular surveillance with the FLIR camera, OCE staff continues to conduct inspections, respond to all notifications, audits emissions, and facility inspections
- Oil Tankers – During the COVID-19 period, inspectors conduct daily surveillance along the shoreline and inner Long Beach Harbor. In the course of these and past investigations, multiple oil tankers have been boarded and inspected once docked at the port
- Idling trucks – All quarterly idling truck sweeps committed to in the CERP to date have been conducted, and these operations incorporate community input, fleet data, and historical locations where idling tends to occur (see Table 3 below)

Table 3 – Idling Truck Sweeps Conducted within 2018-designated AB 617 Communities[6]

Inspection Date	Number of Trucks Inspected	Certified Clean Idle Stickers	Notice of Violation
ELABHWC			
10/17/2019	24	0	0
10/18/2019	11	0	0
2/25/2020	17	10	1
5/19/2020	62	36	0
SBM			
9/26/2019	24	0	2
11/10/2019	11	7	0
3/31/2020	8	2	0
6/4/2020	18	16	0
WCWLB			
9/26/2019	75	2	0
1/28/2020	59	40	0
2/4/2020	0	0	0
4/29/2020	85	65	4
Totals:	**394**	**178**	**7**

Air Monitoring

AB 617 Community Air Monitoring continued to be conducted in all three South Coast AQMD 2018-designated communities as part of the AB 617 program. The locations and types of pollutants monitored are unique to each community and are determined through collaboration with the CSCs and guided by the Community Air Monitoring Plans (CAMPs). Data collected from air monitoring provides valuable information about air pollution sources, types of pollutants, and air quality impacts in AB 617 communities. Monitoring data resulting from the implementation of the CAMPs also supports CERP implementation.

To keep CSC's informed of monitoring conducted for the CAMP and CERP, South Coast AQMD staff developed infographics that track the progress of monitoring activities. The infographics have been provided to the CSC and are available on the AB 617 community webpages listed below. Additionally, the infographics are in Attachment B – Community Air Monitoring Updates.

- ELABHWC – http://www.aqmd.gov/ab-617/CAMP/infographics/ELABHWC
- SBM – http://www.aqmd.gov/ab-617/CAMP/infographics/SBM
- WCWLB – http://www.aqmd.gov/ab-617/CAMP/infographics/WCWLB

[6] Truck idling inspection locations were selected based on complaints received, CARB data sources, and locations prioritized by each respective CSC during the truck idling location prioritization activities conducted in October 2019.

Additionally, South Coast AQMD staff created an Air Monitoring Data Display for the public to view monitoring data collected at the community level for each 2018-designated AB 617 community. The Air Monitoring Data Display is available at http://xappprod.aqmd.gov/AB617CommunityAirMonitoring/Home.

Rules and Regulations

Each CERP also includes a regulatory strategy to achieve emission reductions for mobile and stationary sources. Table 4 – Status of Rules Required to be Considered for CERPs from September 6, 2019 to June 30, 2020, provides a status update of rules that are identified in the CERPs as part of the strategy to achieve emission reduction targets.

Table 4 – Status of Rules Required to be Considered for CERPs from September 6, 2019 to June 30, 2020

Regulation	Purpose	Agency	CERP Community	Expected Public Hearing Date	Updated Public Hearing Date	Status of Development
Control Measure for Ocean-Going Vessels At-Berth (At-Berth Regulation)	The Proposed Regulation would take effect in 2021 and is designed to achieve further emissions from vessels at berth to reduce adverse health impacts to communities surrounding ports and terminals throughout California.	CARB	WCWLB	December 2019	8/27/2020	Regulation was approved by CARB's Board.
Advanced Clean Truck Regulation	The Advanced Clean Truck Regulation is a requirement for truck manufacturers to sell zero-emission trucks in California and a one-time requirement for large entities to report about their facilities, types of truck services used, and fleet of vehicles.	CARB	ELABHWC, SBM, WCWLB	Early 2020	6/25/2020	Regulation was approved by CARB's Board.
Proposed Rule 2305 - Warehouse Indirect Source Rule (ISR) - Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program	This rule would establish a new regulatory program applicable to warehouses greater than 100,000 square feet. This rule would provide a menu of potential	South Coast AQMD	ELABHWC, SBM, WCWLB	Early 2020	First Quarter 2021	In response to COVID-19, public hearing dates have been delayed to allow more time to work with stakeholders and to incorporate modifications to the rulemaking process.

Regulation	Purpose	Agency	CERP Community	Expected Public Hearing Date	Updated Public Hearing Date	Status of Development
	compliance options for industry.					
Rail Yard Indirect Source Rule (ISR)	The proposed new regulation would reduce regional and local emissions from rail yards, consistent with the 2016 AQMP and the AB 617 CERPs.	South Coast AQMD	ELABHWC, SBM, WCWLB	December 2020	Second Quarter 2021	In response to COVID-19, public hearing dates have been delayed to allow more time to work with stakeholders and to incorporate modifications to the rulemaking process.
Memorandum of Understanding (MOU) for Marine Ports	Following Board's direction, staff has been pursuing a MOU with the Ports based on the San Pedro Bay Ports Clean Air Action Plan (CAAP) measures.	South Coast AQMD	WCWLB	December 2019	TBD	The Ports MOU is under development and will be based on the CAAP measures.

Collaboration

Collaboration with other public agencies and community groups is key to implementing the CERP. Examples of collaboration with other public entities and community groups initiated during this reporting period are outlined below.

- CARB and South Coast AQMD conducted joint workshops within the SBM and ELABHWC communities to discuss Railyard ISR development
- In addition to enhanced mobile source regulation enforcement within each community, South Coast AQMD and CARB enforcement are working together to receive approval from schools, and municipalities to install "no idling" signs near these sensitive receptors to prevent idling
- South Coast AQMD and Los Angeles County Department of Public Health initiated discussions to develop outreach material for various actions for the WCWLB and ELABHWC CERPs
- South Coast AQMD initiated discussions with WCWLB community-based organizations to develop and plan asthma related outreach that will discuss air quality impacts in the community and identify the benefits of air filtration systems at schools
- South Coast AQMD and Los Angeles County Department of Regional Planning initiated discussions during the ELABHWC CERP development regarding the county's proposed Green Zones Ordinance (GZO) and continued collaboration efforts through interagency participation during CSC meetings and GZO working group meetings
- South Coast AQMD and CARB are working together to deploy Automated License Plate Reader (ALPR) systems in SBM and ELABHWC communities and Portable Emissions Acquisitions System (PEAQS) within the ELABHWC community.

The Air Grants Program[7] and Supplemental Environmental Projects[8] (SEPs) can support CERP implementation. The Air Grants Program supports for community-based organizations to participate and build capacity to become active partners in the AB 617 process. SEPs fund community-based projects from a portion of the penalties received during the settlement of enforcement actions. Several community-based organizations in South Coast AQMD 2018-designated AB 617 communities are awardees of the Air Grants Program and SEPs. Future annual progress reports will summarize the contributions of community-led projects funded by the Air Grants Program and SEPs to the CERPs for 2018–designated AB 617 communities.

Public Information and Outreach

A list of key public outreach events conducted from September 6, 2019 to June 30, 2020 for CERP implementation is in Table 5 – Key Public Outreach Efforts.

[7] CARB Community Air Grants: Proposed Awardees. https://ww2.arb.ca.gov/our-work/programs/community-air-protection-program/community-air-grants/proposed-awardees. Accessed August 14, 2020.

[8] CARB Supplemental Environmental Projects (SEPs). https://ww2.arb.ca.gov/our-work/programs/supplemental-environmental-projects-seps/about. Accessed September 1, 2020.

Table 5 – Key Public Outreach Efforts

AB 617 Community	Outreach Efforts
WCWLB	Staff presented at the Wilmington Neighborhood Council Meeting in January 2020 to provide an overview of the AB 617 program, training on filing an air quality complaint, and truck idling enforcement within the community.
WCWLB	As part of the Why Air Quality Matters (WHAM) High School Education Program, staff met with students at Carson High School in February 2020 and provided an overview of South Coast AQMD, an introduction to air pollution, and AB 617 efforts within the community.
SBM	As part of the SBConnect Series: Why Healthy Air Matters, staff provided two virtual presentations to San Bernardino area high school students on April 22, 2020 and provided an overview of South Coast AQMD, an introduction to air pollution, and a dry ice experiment.
SBM	In coordination with Safe Routes Partnership, a presentation was made to the SBM CSC on May 21, 2020. The presentation highlighted the work being done in San Bernardino, Muscoy to create safer and healthier walkable neighborhoods for students and families.
ELABHWC	As part of the Why Heathy Air Matters (WHAM) High School Education Program, staff taught 11 classes from November 2019 to March 2020 that focused on air quality at schools within the community boundary, which included Boyle Heights STEM High, James A. Garfield High School, and Roosevelt High School - Math, Science, and Technology Magnet.

Since March 2020, South Coast AQMD outreach efforts have mostly transitioned to a virtual format in response to COVID-19 and related health orders. For example, in May of 2020, outreach for Carl Moyer funding opportunities was conducted via webcast in place of public workshops in the community. The workshops were posted to South Coast AQMD's website, sent to email subscribers, and shared with CSC members.

SUMMARY OF KEY PLAN ADJUSTMENTS

South Coast AQMD staff is actively working on Proposed Rule 2305 Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program. South Coast AQMD staff released the first draft rule in May 2020. The purpose of the draft rule is to reduce local and regional NOx and DPM emissions and facilitate local and regional emission reductions associated with warehouses larger than 100,000 square feet and the mobile sources

attracted to them. Based on the implementation timeline in each of the CERPs Proposed Rule 2305 was scheduled to be considered for adoption by South Coast AQMD's Governing Board in early 2020. In response to COVID-19, public hearing dates have been delayed to allow more time to work with stakeholders and to incorporate modifications to the rulemaking process. As a result, the rule is scheduled to be considered by the South Coast AQMD Governing Board in the first quarter of 2021.

The CERPs also include a regulatory strategy to develop an indirect source rule (ISR) to reduce air pollution from rail yards. Based on the CERP implementation timeline, the ISR for railyards was scheduled to be considered by the South Coast AQMD Governing Board by December 2020. Also, in response to COVID-19, public hearing dates have been delayed allowing more time to work with stakeholders and to incorporate modifications to the rulemaking process. The proposed Railyard ISR is currently scheduled for consideration by the Governing Board in the second quarter of 2021.

South Coast AQMD staff continues to work with stakeholders (i.e., rail yard operators, communities, etc.) on proposed concepts for the Railyard ISR. South Coast AQMD has limited authority over locomotives and railroad activity, and any regulations it might pass will likely require federal approval before they can go into effect. With these limits in mind, South Coast AQMD is pursuing four concepts to reduce emissions from railyards, including developing an Indirect Source Rule (ISR).[9] These include:

- Reducing exposures from locomotive maintenance and service emissions
- Requiring railroads to develop zero emission infrastructure plans for railyards
- Developing new incentive programs to focus on incentivizing cleaner locomotive activity instead of cleaner locomotive purchases
- Evaluating new monitoring approaches for in-use locomotives

[9]South Coast Air Quality Management District, Railyards and Intermodal Facilities Working Group. http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/facility-based-mobile-sourcemeasures/rail-fac-wkng-grp. Accessed July 8, 2020.

Attachment A – Status of CERP Commitments

Table 1: Actions, Goals and Strategies Required from Adoption to June 2020 for WCWLB CERP Implementation

WCWLB Air Quality Priority	Actions, Goals, and Strategies Required (Adoption-June 2020)	Status
Refineries	Begin mobile air monitoring surveys, follow-up inspections (if necessary), provide quarterly updates on findings	• July 2019 – Initiated mobile air monitoring (ongoing monitoring investigations) • January 2020 – Provided updates at quarterly CSC meeting
	Provide summary of flare emissions data and number of flaring events from 2008-2018	June 2019 – Completed by providing 2008-2018 quarterly emissions report data to CSC
	Initiate rule 1118 development activities & initiate process with stakeholders on additional improvements to flaring notifications	• July 2018 - Initiated rule development activities (e.g., evaluation of scoping plans) • December 2019 – Flaring Event Notification System (FENS) web-based portal deployed (next update expected Fall 2020)
	Deploy Rule 1180 monitoring and begin evaluating results	• January 2020 – Initiated deployment of fenceline monitoring • March 2020 – Fully implemented fenceline monitoring
	Explore SMART leak detection and repair (LDAR) technology & programs	April 2020 – Initiated research for SMART LDAR
	Provide inventory of refinery equipment and state if BARCT is being considered	September 2019 – Completed by including inventory in CERP Appendix 5B
	Continue Proposed Rule 1109.1 development (site visits, vendor meetings, etc.)	• February 2018 – Rule development initiated (over a dozen working group meetings conducted) • May 2020 – Began conducting working group meetings virtually
	Hold Proposed Rule 1109.1 working group meeting in the community	• May 2020 – Working group meetings began being conducted via virtual platforms
	Initiate process to work with local public health departments to develop outreach materials for flaring	April 2020 – Collaborative discussions in initial phases

WCWLB Air Quality Priority	Actions, Goals, and Strategies Required (Adoption-June 2020)	Status
Ports	Update CSC on CARB's enforcement of Drayage Truck Regulation	Delayed – CARB Drayage truck update expected to occur in late 2020
	Engage in outreach for PRIMER initiative	June 2019 – Initiated PRIMER outreach (outreach ongoing)
	Update CSC on demonstration projects for ships and harbor craft	• June 2020 – Initial technology demonstration project contract executed (currently in planning and design phase) • June 2020 – U.S. EPA notified South Coast AQMD that it was awarded funding for another technology demonstration project (expected to begin in 2021)
	Identify additional incentives for cleaner port equipment & Drayage Trucks	May 2020 – Initiated outreach for Carl Moyer by webcast
	Participate in CARB At-Berth Regulation development	November 2019 – Completed, South Coast AQMD comment letter submitted during CARB's public process
	Engage in outreach events when incentive programs are open for application (Ships and harbor crafts)	May 2020 – Initiated outreach for Carl Moyer by webcast
	Continue Port MOU development and begin implementing aspects of Ports Clean Air Action Plan (CAAP), if feasible	• May 2018 – South Coast AQMD Governing Board directed staff to pursue a Port MOU (development is ongoing and is based on CAAP measures) • TBD – Public hearing is TBD
Neighborhood Truck Traffic	Work to establish "no truck idling" signage with locations prioritized by CSC	October 2019 – CARB and South Coast enforcement efforts initiated based on CSC input
	Plan outreach events to inform the community members how to report idling trucks	• October 2019 – Initiated outreach efforts • January 2020 – Outreach conducted at Wilmington Neighborhood Council meeting
	Work with CARB to coordinate quarterly idling sweeps for a year	• July 2019 – Initiated collaborations with CARB

WCWLB Air Quality Priority	Actions, Goals, and Strategies Required (Adoption-June 2020)	Status
		• September 2019 – South Coast enforcement staff began conducting truck idling sweeps (4 sweeps, 219 trucks inspected, 4 NOVs)
	Begin engaging in incentive outreach events and collaborating with local businesses, agencies to provide information about incentive programs, restricted truck routes, etc.	May 2020 – Initiated outreach for Carl Moyer by webcast
	Work with city or the county to evaluate potential designated truck routes and identify resources to enforce these routes and identify	• June 2019 – Initiated potential collaboration with City of Los Angeles • May 2020 – Continued discussions with City of Los Angeles regarding community plan update
	Target incentive funds for small businesses and independent owner/operator when incentive programs are available	May 2020 – Initiated outreach for Carl Moyer by webcast
Oil Drilling and Production	Use CalGEM data to identify oil well status	July 2019 – Completed and provided this information as part of CAMP
	Work with CSC to prioritize oil wells/site locations for mobile air monitoring and begin monitoring (Post data on webpage within 30 days)	• June 2019 – Mobile air monitoring initiated (ongoing monitoring investigations) • May 2020 – Staff worked with CSC to prioritize locations based on CSC input
	Work with stakeholders to identify improvements for 1148.2	• May 2020 – Staff worked with CSC to receive input • July 2020 – Staff began evaluating path to address CSC concerns and potential rule development based on CSC input
Railyards	Provide incentive info to railyards (to replace diesel equipment)	May 2020 – Initiated outreach for Carl Moyer by webcast
	Continue ISR development for railyards	• May 2017 – Initiated railyard ISR development • November 2019 – Initial concepts released in joint community workshops with CARB • Second quarter 2021 – Public hearing is expected

WCWLB Air Quality Priority	Actions, Goals, and Strategies Required (Adoption-June 2020)	Status
Schools, Childcare Centers, and Homes - Exposure Reduction	Begin working with local health departments on outreach materials for air quality advisories	April 2020 – Collaborative discussions in initial phases
	Install new air filtration systems and extend replacement filters at schools with existing systems	• January 2020 – Prioritized schools for air filtration systems installation • April 2020 – Submitted CAPP incentive fund request for school air filtration • May 2020 – Updated CSC and provided WCWLB school prioritization list • Second quarter 2020 – CARB approved CAPP incentive request for school air filtration installation
	Outreach with community-based organizations and to school districts to provide air quality related programs	• February 2020 – WHAM outreach at Carson High School • May 2020 – Staff began working with CBOs for collaborative educational outreach for schools
	Outreach to school districts for info on safe routes/ridesharing	Delayed due to COVID-19

Table 2: Actions, Goals and Strategies Required from Adoption to June 2020 for SBM CERP Implementation

SBM Air Quality Priority	Actions, Goals, and Strategies Required (Adoption-June 2020)	Status
Neighborhood Truck Traffic	Engage and/or organize outreach event(s) for reporting idling trucks and incentive programs	October 2019 – Initiated plans for outreach events (delayed due to COVID-19)
	Conduct quarterly truck idling sweeps	• July 2019 – Initiated collaborations with CARB • September 2019 - South Coast enforcement staff began conducting truck idling sweeps (4 sweeps, 61 trucks inspected, 2 NOVs)
	Develop CARB regulations and Indirect Source Rules (ISR), and the Automated License Plate Reader policy, and truck routes, and establish designated parking areas	• August 2019 - ALPR privacy policy in progress • November 2019 - Proposed Rule 2305 (Warehouse ISR) preliminary draft rule language released • First quarter 2021 – Warehouse ISR public hearing expected
	Identify additional incentive funding	May 2020 – Initiated outreach for Carl Moyer by webcast
Warehouses	Continue Indirect Source Rules (ISR) develop and collaborate on local standard approaches for warehouse development	• May 2017 – Initiated developing Warehouse ISR • November 2019 - Proposed Rule 2305 (Warehouse ISR) preliminary draft rule language released • First quarter 2021 – Warehouse ISR public hearing expected
	Hold a public meeting in the Inland Empire to discuss proposed ISR for warehouses	Delayed due to COVID-19
	Conduct outreach to support installation of zero-emission infrastructure and equipment	June 2019 – Initiated collaboration with SCE for warehouse zero emission infrastructure outreach
Omnitrans	Conduct air measurements	• June to December 2019 – Individual air measurements taken (monitoring investigations are ongoing)

SBM Air Quality Priority	Actions, Goals, and Strategies Required (Adoption-June 2020)	Status
		• October 2019 – Provided monitoring updates to CSC
	Support Omnitrans's efforts to transition to zero-emission buses	• May 2019 – Provided letter of support for federal transit authority grant • March 2020 – Provided letter of support for grant proposal
Railyards (On-site Emissions)	Conduct air measurements	• June 2019 – Initiated mobile air monitoring (monitoring investigations are ongoing) • October 2019 – Provided monitoring updates at CSC meeting
	Consider CARB regulations and continue ISR development, and support new national locomotive standards	• May 2017 – Initiated railyard ISR development • November 2019 – Initial concepts released • Second quarter 2021 - Public hearing is expected
	Hold a public meeting in the Inland Empire on ISR for railyards	December 2019 - Joint public meeting conducted with CARB in San Bernardino
	Work to replace railyard equipment with cleaner technologies	May 2020 – Initiated outreach for Carl Moyer by webcast
Concrete Batch, Asphalt Batch, and Rock and Aggregate Plants	Conduct air monitoring; if needed, follow-up with investigations	• June 2019 – Mobile air monitoring initiated (Enforcement inspections were conducted to ensure compliance in 2019) • October 2019 – Provided monitoring updates at CSC meeting
	Conduct public outreach event on rules and complaint process	September 2019 – Began initial discussions with CSC members regarding possible dates or locations for public outreach events
Schools, Childcare Centers, Community Centers, and Homes – Exposure Reduction	Provide air quality related programs to schools or information on programs and partner with local entities and community-based organizations	• November 2019 – Began organizing WHAM events • December 2019 – Three SBM schools included in WHAM program

SBM Air Quality Priority	Actions, Goals, and Strategies Required (Adoption-June 2020)	Status
		• May 2020 – Provided information on Safe Routes Partnership at quarterly CSC meeting
	Develop outreach materials with the Department of Public Health	May 2019 – Initiated collaborative discussions during CERP development (implementation in initial phases)
	Conduct school-based air monitoring	Second quarter 2020 – Began working with CSC to establish a community sensor network (CSC chose homes instead of school-based monitoring)
	Install air filtration systems at schools	• January 2020 – Prioritized schools for air filtration systems installation • April 2020 – Submitted CAPP incentive fund request for school air filtration • May 2020 – Updated CSC and provided SBM school prioritization list • Second quarter 2020 – CARB approved CAPP incentive request for school air filtration installation
	Seek opportunities for tree planting, residential air filtration systems, and replacing school buses	April 2020 – Began efforts to identify funding for tree planting, residential air filtration systems, and school bus replacements

Table 3: Actions, Goals and Strategies Required from Adoption to June 2020 for ELABHWC CERP Implementation

ELABHWC Air Quality Priority	Actions, Goals, and Strategies Required (Adoption-June 2020)	Status
Neighborhood and Freeway Traffic from Trucks and Automobiles	Begin mobile air measurements and provide quarterly updates to the CSC on air monitoring activities	• June 2019 – Mobile air measurements initiated (ongoing monitoring investigations) • 2019 – Provided monitoring updates at quarterly CSC meeting
	Begin conducting incentive outreach events and provide quarterly or biannual updates to the CSC	May 2020 – Initiated outreach for Carl Moyer by webcast
	Work with CARB to coordinate quarterly idling sweeps for a year	• July 2019 – Initiated collaborations with CARB • October 2019 - South Coast enforcement staff began conducting idling sweeps (4 sweeps, 114 trucks inspected, 1 NOV)
	Work with local cities and county to address signage for truck idling, prioritizing locations identified by the CSC	May 2020 – Initiated outreach for Carl Moyer by webcast
	Work with CARB and community to prioritize locations for ALPR and PEAQs systems	August 2019 - ALPR policy development initiated
	Begin public outreach events to provide information to the community about cleaner technologies and provide updates to the CSC	February 2020 – Outreach meetings scheduled but delayed due to COVID-19
Railyards (On-site Emissions)	Conduct air measurements at railyards and nearby communities and provide updates to CSC	• June 2019 – Mobile air monitoring initiated (ongoing monitoring investigations) • October 2019 – Provided monitoring updates at CSC meetings

ELABHWC Air Quality Priority	Actions, Goals, and Strategies Required (Adoption-June 2020)	Status
	Provide incentive information to railyards to work towards replacing diesel-fueled equipment with cleaner technologies	May 2020 – Initiated outreach for Carl Moyer by webcast
	Continue ISR development for railyards	• May 2017 – Initiated railyard ISR development • November 2019 – Initial concepts released • Joint public meeting conducted with CARB in East Los Angeles • Second quarter 2021 - Public hearing is expected
Metal Processing Facilities	Begin mobile air measurements near metal processing facilities that have been identified as potential concerns and provide quarterly updates to the CSC	• July 2019 – Mobile air monitoring initiated (ongoing monitoring investigations) • November 2019 – Enforcement efforts driven by air monitoring findings (3 NC) • May 2020 – Provided enforcement investigation update at quarterly CSC meeting
	Provide updates to CSC on public outreach events and incentive opportunities	• April 2020 – South Coast AQMD submitted CAPP funds request for control or conversion projects • Second quarter 2020 – CARB approved CAPP incentive request for control conversion projects
Rendering Facilities	Begin outreach to provide information on Rule 415 requirements	Delayed due to COVID-19
	Begin mobile air measurements for VOCs near rendering facilities	• June 2019 – Mobile air monitoring initiated (ongoing monitoring investigations, enforcement efforts driven

ELABHWC Air Quality Priority	Actions, Goals, and Strategies Required (Adoption-June 2020)	Status
		by air monitoring findings/odor complaints) • December 2019 – Enforcement efforts initiated • January 2020 – Provided enforcement updates at quarterly CSC meeting
	Continue response to odor complaints and update complainants on a timely basis and facility inspections to evaluate compliance with Rule 415	• September 2019 – Enforcement efforts initiated to verify compliance at rendering facilities (e.g., rendering facility inspections, rendering related odor complaint response, enforcement action as necessary)
Auto Body Shops	Begin air monitoring near auto body shops as described in CAMP	July 2019 - Mobile air monitoring initiated (ongoing monitoring investigations)
	Conduct targeted enforcement activities, as needed	December 2019 – Enforcement efforts initiated/ongoing, including those driven by monitoring findings
Schools, Childcare Centers, Community Centers, Libraries, and Public Housing Projects – Exposure Reduction	Partner with community-based organizations on asthma-based programs	Delayed due to COVID-19
	Implement CARE and WHAM programs at schools	November 2019 to March 2020 – 11 WHAM events conducted at three schools
	Begin working with AltaMed on developing health messaging for advisories	Delayed due to COVID-19
	Install air filtration systems at schools	• January 2020 – Prioritized schools for air filtration systems installation • April 2020 – Submitted CAPP incentive fund request for school air filtration • May 2020 – Updated CSC and provided ELABHWC school prioritization list

ELABHWC Air Quality Priority	Actions, Goals, and Strategies Required (Adoption-June 2020)	Status
		• Second quarter 2020 – CARB approved CAPP incentive request for school air filtration installation
General Concerns about Industrial Facilities, including Waste Transfer Stations	Work with the CSC to identify community partners that would benefit from education on how to file an air quality complaint	Delayed due to COVID-19
	Engage in at least two outreach events in this community to provide information and training on how to file air quality complaints by phone, web, or mobile app	Delayed due to COVID-19
	Develop a list of relevant facility types for permit cross-check, and a list of common facility types for guideline development	Delayed due to COVID-19
	Conduct initial mobile air measurements to evaluate air quality in the community, identify high emitting facilities, and conduct follow-up air measurements as necessary	July 2019 - Mobile air monitoring initiated (ongoing monitoring investigations, enforcement efforts driven by air monitoring findings)
	Respond to odor complaints and conduct unannounced inspections	September 2019 – Enforcement staff continues to respond to all complaints received in ELABHWC (e.g., those alleging odors from waste transfer stations) with unannounced facility inspections conducted as needed

Attachment B - Community Air Monitoring Updates

Figure 3: Example of Community Air Monitoring Plan Progress Report for ELABHWC

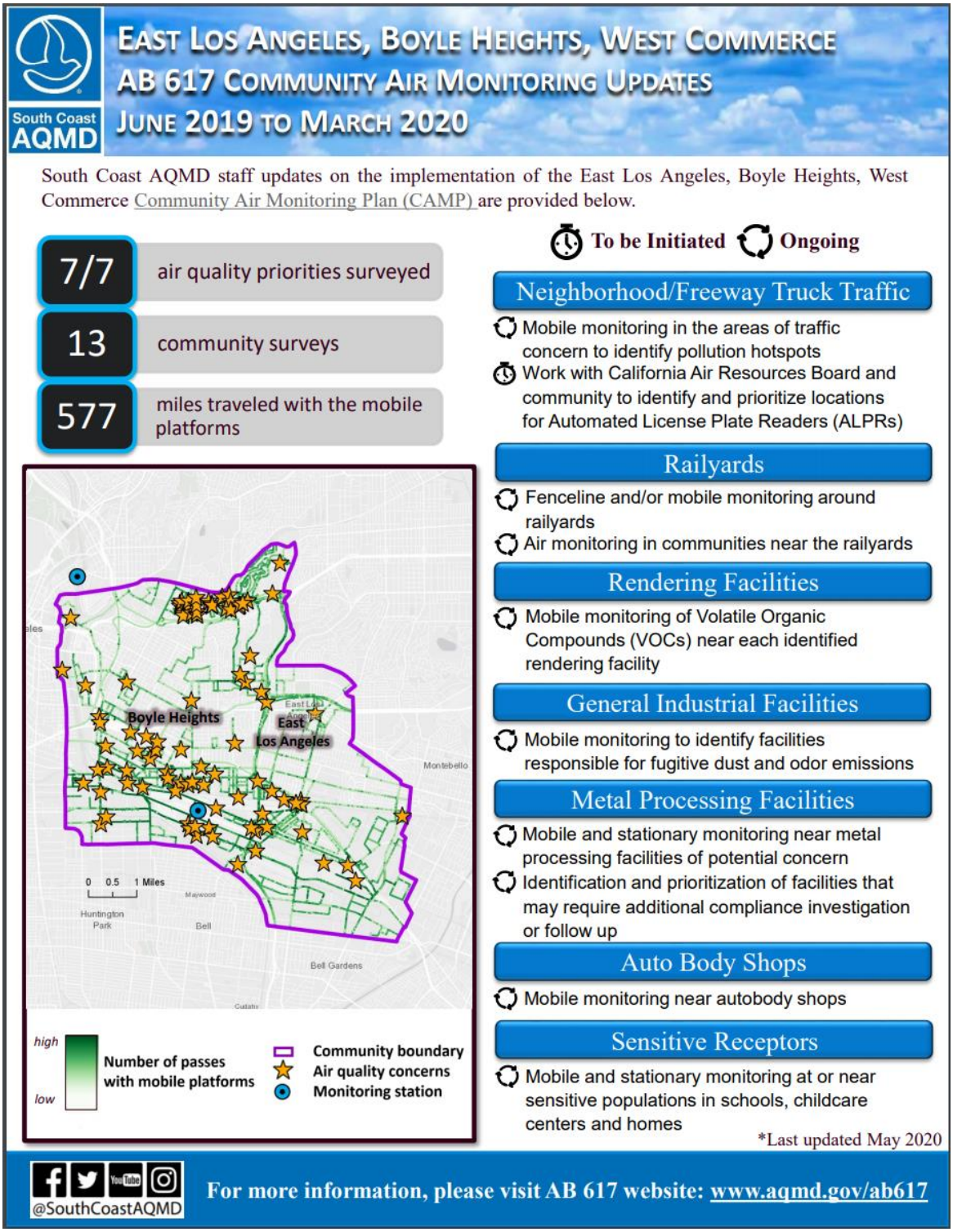


Figure 4: Example of Community Air Monitoring Plan Progress Report for SBM

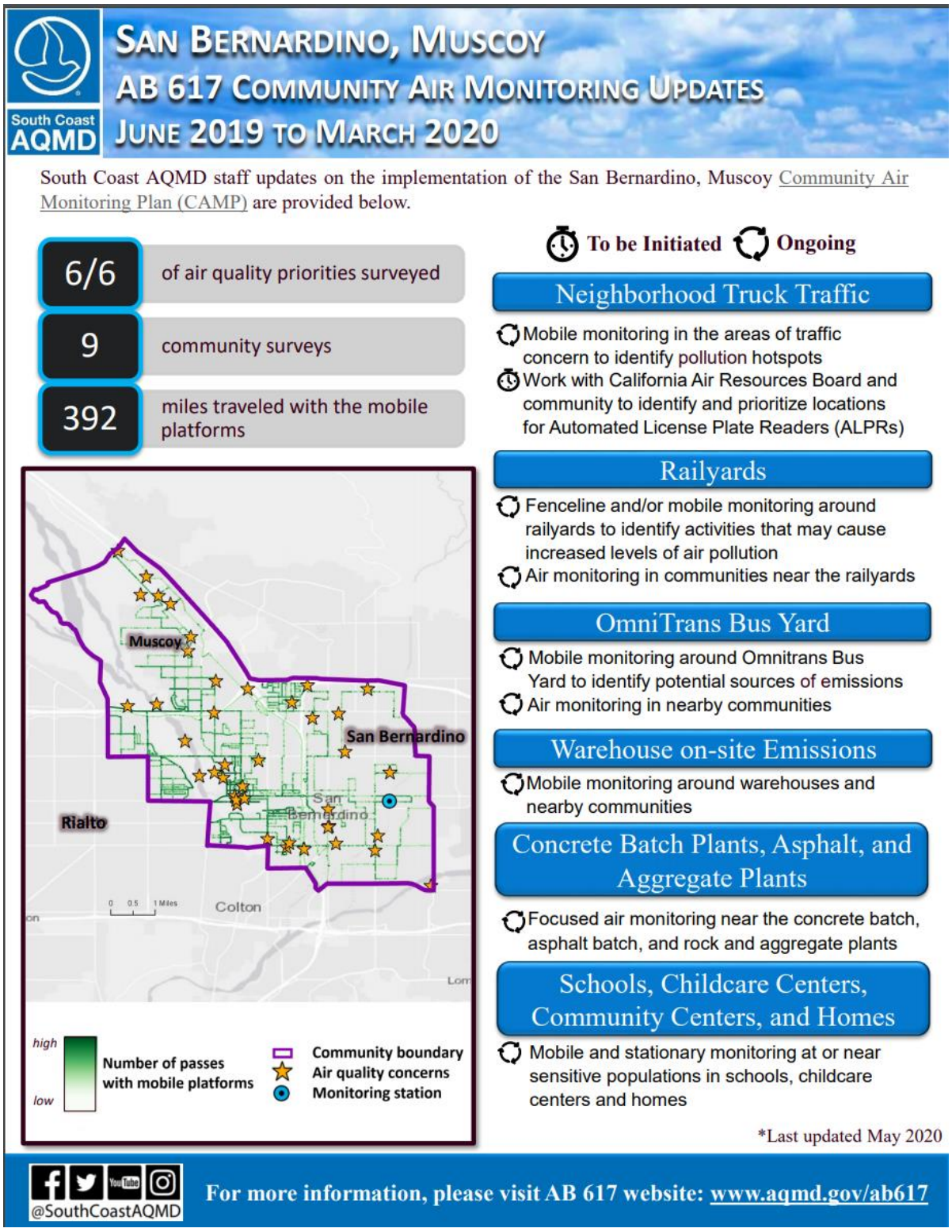
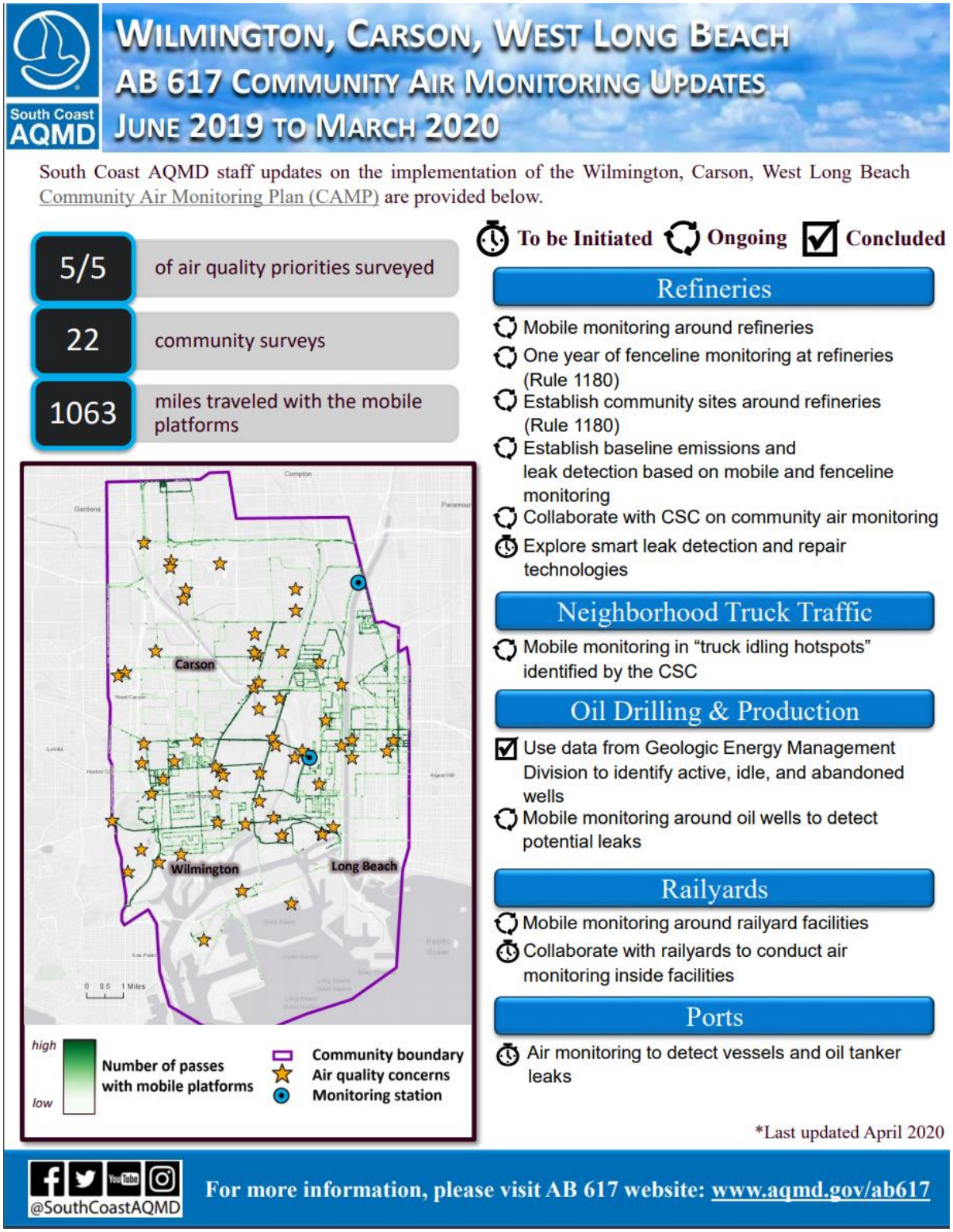


Figure 5: Example of Community Air Monitoring Plan Progress Report for WCWLB



California Oil Refinery History

Note:

- Refineries highlighted in yellow are currently operational.
- Refineries highlighted in light blue are currently idle and labeled (Idle).
- Non highlighted refineries are no longer in operation and labeled (Closed).
- Information current as of March 12, 2021.
- Contact: Media & Public Communications Office , 916-654-4989

California Refinery Facilities	Began Operations	Ownership Information	Current Crude Capacity (Barrels/Day)[1]
Anchor Refining, McKittrick Refinery (Closed)	1979	Anchor Refining: 1979-February 1984	9,000
Bridge Point Long Beach, LLC, Long Beach Refinery (Closed) Refinery to be removed and converted to commercial warehousing.	1932	Apex Oil Co: 1932-1941 Edgington Oil Co: 1941-2006 Alon USA Energy Inc: 2006-July 2017 Delek US: July 2017-July 2018 Bridge Point Long Beach, LLC: July 2018-Present	31,500
Chemoil Refining Corporation, Signal Hill Refinery (Closed)	1923	MacMillan Ring-Free Oil Co: 1923-1988 Chemoil Refining Co: 1988-April 1994	18,000

Chevron, Bakersfield Refinery (Closed)	1913	Standard Oil Co: February 22, 1913-1926 Standard Oil Company of California (Socal): 1926-1977 Chevron USA Inc: 1977-July 1986	26,000
Chevron, El Segundo Refinery	1912	Standard Oil Co: 1912-1926 Standard Oil Company of California (Socal): 1926-1977 Chevron USA Inc: 1977-2001 ChevronTexaco Corp: 2001-2005 Chevron Corp: 2005-Present	269,000
Chevron, Richmond Refinery	1902	Pacific Coast Oil: July 7, 1902-1906 Standard Oil Co: 1906-1926 Standard Oil Company of California (Socal): 1926-1977 Chevron USA Inc: 1977-2001 ChevronTexaco Corp: 2001-2005 Chevron Corp: 2005-Present	245,271
Coastal Petroleum Refiners, Inc., Bakersfield Refinery (Closed)	1980	Coastal Petroleum Refiners: 1980-December 1985	10,000
DeMenno/Kerdoon, Compton Refinery (Reprocesses Waste Oil as Oil Re-Refiner)	1977	DeMenno/Kerdoon: 1977-August 1983	15,000
Eco Petroleum, Signal Hill Refinery (Closed)	1977	ECO Petroleum: 1977-1984	10,550
Gibson Oil & Refining, Bakersfield Refinery (Closed)	1978	Gibson Oil & Refining: 1978-July 1987	9,600

Global Clean Energy Holdings, Bakersfield Refinery (Idle) - Facility to be converted to produce renewable diesel fuel with capacity of 17,000 barrels per day. Work projected to be completed by 2nd half of 2022.	1932	Mohawk Petroleum Corp: 1932-1975 Reserve Oil & Gas Co: 1975-1980 Getty Oil Co: 1980-1984 Texaco, Inc: 1984-2000 Equilon: 2000-2001 Shell Oil Co: 2001-2005 Big West of Calif. (Flying J): 2005-June 2010 Alon USA Energy Inc: June 2010-July 2017 Delek US: July 2017-May 2020 Global Clean Energy Holdings: May 2020-Present	66,000
Golden Eagle Refining, Carson Refinery (Closed)	1948	Sunset Oil: 1948-1958 Golden Eagle Refining: 1958-February 1985	16,170
Golden West Refining Company, Santa Fe Springs Refinery (Refinery Closed in March of 1992, Continued Operating as a Terminal Until 1997)	1936	Wilshire Oil Co: 1936-1960 Gulf Oil Corp USA: 1960-August 1983 Golden West Refining Co. (sub. of Thrifty Oil Co.): August 1983-March 1992	47,000
Greka Energy, Santa Maria Asphalt Refinery	1932-33	Five C Refining Co: 1932/33-1951 Douglas Oil Co: 1951-1960 Conoco: 1960-September 1981 EI du Pont de Nemours & Co (DuPont): September 1981-1994 Saba Petroleum Co: 1994-1999 Greka Energy: 1999-Present	9,500
Independent Valley Energy Company (IVEC), Bakersfield Refinery (Integrated as part of Alon USA Bakersfield Refinery)	1978	Independent Valley Energy Co: Late 1978-April 1984 Paramount Petroleum Corp.: April 1984-August 1987 Texaco: August 1987-1988 Texaco Inc: 1988 - integrated with Alon USA Bakersfield refinery	27,000

Kern Oil & Refining Company, Bakersfield Refinery	1934	El Tejon Oil & Refining Co: 1934-1943 Kreiger Oil Co: 1943-1945 Douglas Oil Co: 1945-1962 Continental Oil: 1962-1966 Edgington Oil/Signal Oil & Gas: 1966-1971 Kern County Refinery Inc. (Charter Oil Co.): 1971-1976 Kern County Refinery Inc. (Privately Held): 1976-1982 Kern Oil & Refining Co: 1982-Present	26,000
Lunday Thagard Oil Company (subsidiary of World Oil Company), South Gate Refinery	1937	Lunday Thagard Oil Co: 1937-Present	8,500
Marathon Petroleum Co., Carson Refinery	1938	Richfield Oil Corp: 1938-1966 Atlantic Richfield Company (ARCO): 1966-2000 BP West Coast Products: 2000-June 2013 Tesoro Refining & Marketing: June 2013-August 2017 Andeavor: August 2017-October 2018 Marathon Petroleum: October 2018-Present	256,830
Marathon Petroleum Co., Golden Eagle Refinery, Martinez/Avon **(Idle)** - Facility to be converted to produce renewable diesel fuel with capacity of 48,000 barrels per day by late 2023. Initial conversion to 17,000 barrels per day renewable diesel conversion work projected to be completed by late 2021 or early 2022.	1913	Associated Oil Co: 1913-1937 Tidewater Associated Oil Co: 1937-1966 Phillips Petroleum: 1966-1976 Tosco Corp: 1976-2000 Ultramar Diamond Shamrock: 2000-2002 Valero Refining Co: 2002 Tesoro Refining & Marketing: June 2013-August 2017 Andeavor: August 2017-October 2018 Marathon Petroleum: October 2018-Present	166,000

Marathon Petroleum Co., Wilmington Refinery	1923	California Petroleum Corp: 1923-1928 Texas Company: 1928-1959 Texaco, Inc: 1959-1998 Equilon Enterprises (joint venture of Shell Oil Co. & Texaco Inc.): 1998-2002 Shell Oil Co: 2002-2007 Tesoro Refining & Marketing: June 2013-August 2017 Andeavor: August 2017-October 2018 Marathon Petroleum: October 2018-Present	98,340
Pacific Refining, Hercules Refinery (Closed) Ceased refinery operations July of 1995. Continued limited storage and terminal operations until September of 1997.	1967	Sequoia Refining Corp: 1967-1968 Gulf Oil Corp USA: 1968-1976 Pacific Refining: 1976-July 1995	50,000
Pauley Petroleum Co., Newhall Refinery (Closed)	1930	San Fernando Refining Co: 1930-1942 Newhall Refining Co: 1942-February 1959 Pauley Petroleum Co: February 1959-December 1989	22,500
Pauley Petroleum Co., Wilmington Refinery (Closed)	Prior to 1951	Fletcher Oil & Refining: Prior to 1951-March 1988 Pauley Petroleum: March 1988-October 1992	29,675
PBF Energy, Martinez Refinery	1915	Shell Company of Calif: 1915-1939 Shell Oil Company, Inc: 1939-1949 Shell Oil Co: 1949-1998 Equilon Enterprises (joint venture of Shell Oil Co. & Texaco Inc.): 1998-2002 Shell Oil Co: 2002-February 2020 PBF Energy: February 2020-Present	156,400

PBF Energy, Torrance Refinery	1907	Vacuum Oil Co: 1907-1929 General Petroleum Corporation of Calif: 1929-1931 Socony-Vacuum Corp: 1931-1934 Socony-Vacuum Oil Company, Inc: 1934-1955 Socony Mobil Oil Co: 1955-1966 Mobil Oil Corp: 1966-2000 ExxonMobil: 2000-July 2016 PBF Energy: July 2016-Present	151,300
Phillips 66, Rodeo Refinery - Facility to be reconfigured to produce 800 million gallons per year of renewable diesel, renewable gasoline, and sustainable jet fuel. Production is expected to begin in 2024.	1896	Union Oil Co of Calif: 1955-1983 Unocal: 1983-1997 Tosco Corp: 1997-2001 Phillips: 2001-2002 ConocoPhillips: 2002-May 2012 Phillips 66: May 2012-Present	78,400
Phillips 66, Santa Maria Refinery	1955	Union Oil Co of Calif: 1955-1983 Unocal: 1983-1997 Tosco Corp: 1997-2001 Phillips: 2001-2002 ConocoPhillips: 2002-May 2012 Phillips 66: May 2012-Present	41,800
Phillips 66, Wilmington Refinery	1917	Union Oil Co of Calif: 1917-1983 Unocal: 1983-1997 Tosco Corp: 1997-2001 Phillips: 2001-2002 ConocoPhillips: 2002-May 2012 Phillips 66: May 2012-Present	139,000

Powerine Oil Company, Santa Fe Springs Refinery (Closed) Ceased refinery operations June of 1995. CENCO was offering the refinery equipment for sale, as of April 2007.	1934	Rothschild Oil Co/Powerine Oil Co: 1934-1984 Closed - bankruptcy: 1984-1986 Powerine Oil Co: 1986-1993 Castle Energy Corp: 1993-1995 Kenyen Resources: 1995-1996 Energy Merchant Corp: 1996-1998 Creative Energy Company (CENCO): 1998-Present	46,500
Quad Refining Company, Bakersfield Refinery (Closed)	1979	Quad Refining Co: 1979-October 1981	7,000
Road Oil Sales, Inc., Bakersfield Refinery (Closed)	1973	Road Oil Sales, Inc: 1973-December 1981	6,000
Sabre Refining, Inc., Bakersfield Refinery (Closed)	1972	Sabre Refining Co: 1972-September 1987	10,000
San Joaquin Refining Company, Bakersfield Refinery	1969	San Joaquin Refining Co: 1969-Present	15,000
Shell Oil Products US, Carson Refinery (Closed)	1923	Shell Company of Calif: 1923-1939 Shell Oil Company, Inc: 1939-1949 Shell Oil Co: 1949-1992 Converted to distribution terminal: 1992-Present	120,000
Sunland Refining Corporation, Bakersfield Refinery (Closed - Ceased Operations March 1995)	Prior to 1929	Sunland Refining Corp: Prior to 1929-December 1995	12,000
Tenby Incorporated (aka Oxnard Oil & Refining), Oxnard Refinery (Closed)	Prior to 1951	Tenby Inc: Prior to 1951-December 2011	2,800

Tosco, Bakersfield Refinery (Integrated as part of Alon USA Bakersfield Refinery)	1941	U.S. Government: 1941-1946 (Area 2) Idle 1946-1950 Norwalk Co: 1950-1950s Bankline: 1950s-1959 Signal Oil and Gas Co:1959-1970 Tosco Corp:1970-1983 Idle 1983-1986 Texaco Inc: 1986 - integrated with Alon USA Bakersfield refinery	38,800
Tricor Refining LLC, Oildale Refinery (Closed)	1938	Witco Chemical Corp: 1938-1997 Golden Bear: 1997-June 2001 Tricor Refining LLC: June 2001-January 2002	12,500
Ultramar Oil, Hanford Refinery (Closed)	1931	HH Bell Refinery Co. 1931-1932 Caminol Oil Co: 1932-1967 Beacon Oil Co: 1967-1982 Ultramar Oil Co: 1982-December 1987	17,300
USA Petrochem Corporation, Ventura Refinery (Closed)	1977	USA Petrochem Corp: 1977-December 1984	24,000
Valero, Benicia Asphalt Refinery (Part of Valero Benicia Refinery)	1982	Huntway Refining: 1982-2001 Valero Refining Co: 2001-Present	13,000
Valero, Benicia Refinery	1968	Exxon Co USA: 1968-2000 Valero Refining Co: 2000-Present	145,000
Valero, Wilmington Asphalt Refinery	1980	Huntway Refining: 1980-2001 Valero Refining Co: 2001-Present	6,300
Valero, Wilmington Refinery	1969	Champlin Petroleum Co: 1969-1987 Union Pacific Resources Co: 1987-1988 Ultramar Refining: 1988-1997 Ultramar Diamond Shamrock: 1997-2002 Valero Refining Co: 2002-Present	85,000

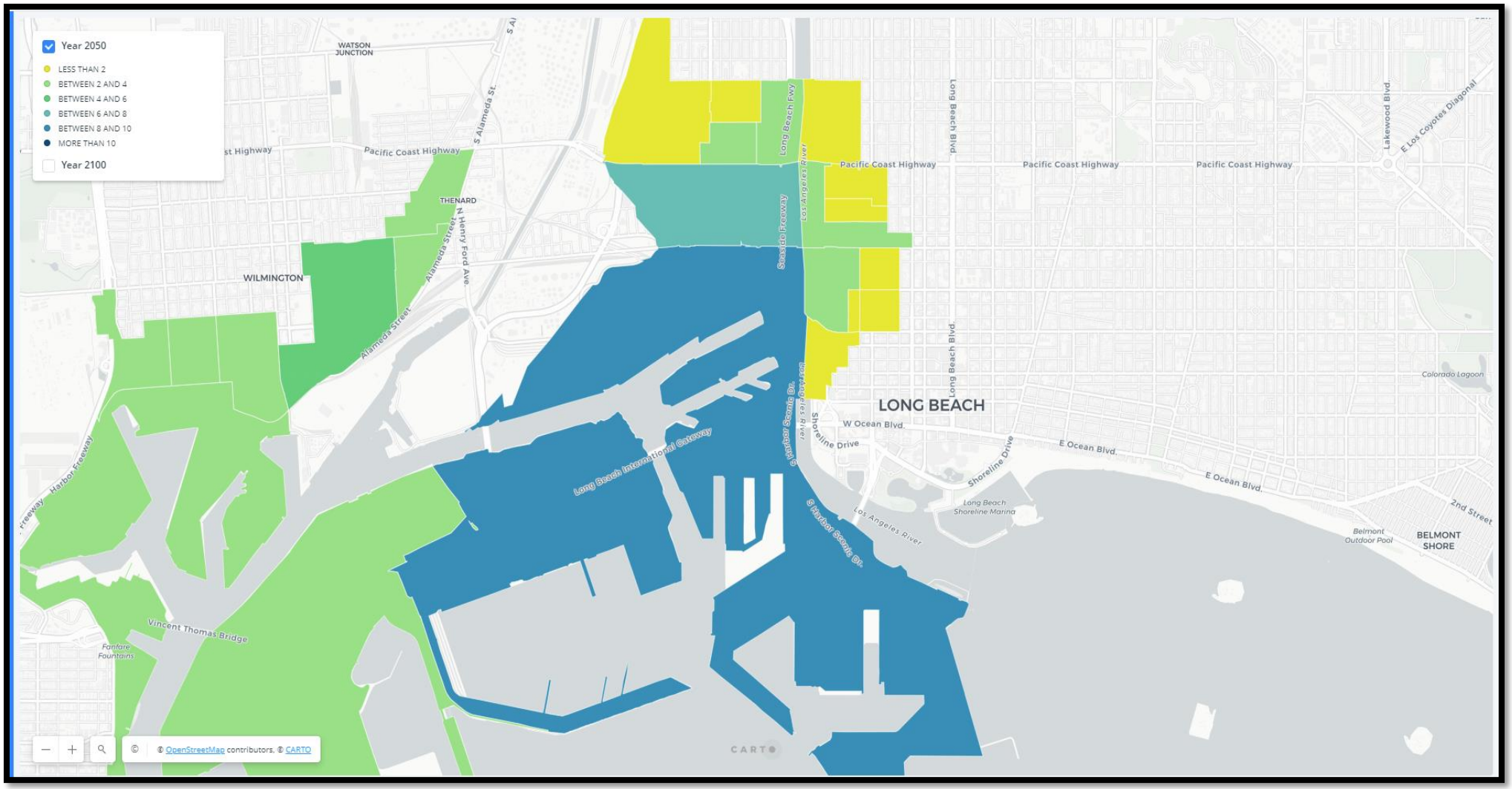
West Coast Oil Company, Oildale Refinery (Closed)	1948	West Coast Oil Co: 1948-October 1988	5,000
Western Oil & Refining, Long Beach Refinery (Closed)	1977	Marlex Oil & Refining: 1977-August 1985 Western Oil & Refining: August 1985-December 1987	19,200
World Energy, Paramount Refinery **(Idle)**	1930s	Ajax Oil Company: 1930s-1937 Kreiger Oil Co: 1937-1940s Douglas Oil Co: 1940s-1961 Continental Oil Company (Conoco): 1961-September 1981 EI du Pont de Nemours & Co: September 1981-January 1983 Pacific Oasis, Inc: January 1983-April 1984 Paramount Petroleum Corp: April 1984-2006 Alon USA Energy Inc: 2006-July 2017 Delek US: July 2017-March 2018 World Energy: March 2018-Present	50,000

Source: Compiled by California Energy Commission, Energy Assessments Division, Transportation Fuels Data Unit

Notes: 1 Atmospheric crude oil distillation processing capacity as measured in barrels per calendar day - source: Energy Information Agency - Refinery Capacity Reports

SCAQMD NOVs issued for LUNDAY-THAGARD CO DBA WORLD OIL REFINING

Notice Number	Notice Issue Date	Violation Date	Disposition Date	Disposition
L00764	9/20/1989	9/18/1989	2/11/1991	Closed Case
L05612	2/20/1991	2/14/1991	4/18/1991	Closed Case
L09931	7/27/1992	7/27/1992	4/1/1993	Closed Case
P10021	3/23/1993	3/23/1993	10/18/1993	Closed Case
P10037	7/1/1993	5/10/1993	2/24/1994	Closed Case
P10139	3/7/1994	3/7/1994	7/14/1994	Closed Case
P10145	5/2/1994	4/8/1994	12/1/1994	Closed Case
P10201	11/20/1992	11/20/1992	10/18/1993	Closed Case
P10639	5/31/2001	9/16/1998	10/16/2002	Rejected
P10908	7/7/1994	7/6/1994	4/25/1995	Closed Case
P11045	7/20/1995	7/18/1995	3/7/1996	Closed Case
P11048	8/4/1995	8/2/1995	3/7/1996	Closed Case
P11358	4/7/1998	6/27/1997	11/19/1998	Closed Case
P11844	12/3/1997	9/11/1997	5/13/1998	Closed Case
P11845	12/3/1997	9/4/1997	5/13/1998	Closed Case
P11848	1/8/1998	10/24/1987	5/13/1998	Closed Case
P11849	2/5/1998	2/3/1998	5/13/1998	Closed Case
P12122	10/13/2004	9/7/2004	5/12/2005	Closed Case
P12123	10/13/2004	9/22/2004	5/12/2005	Closed Case
P12135	1/18/2008	1/17/2008	6/16/2009	Closed Case
P34656	8/19/2009	7/24/2009	5/25/2011	Closed Case
P34657	1/29/2010	1/7/2010	5/25/2011	Closed Case
P34658	1/29/2010	6/30/2008	5/25/2011	Closed Case
P34659	2/12/2010	2/11/2010	5/25/2011	Closed Case
P34661	3/3/2010	6/30/2004	5/25/2011	Closed Case
P34662	3/3/2010	6/30/2005	5/25/2011	Closed Case
P34663	3/3/2010	6/30/2006	5/25/2011	Closed Case
P34664	3/3/2010	6/30/2007	5/25/2011	Closed Case
P34668	4/13/2010	4/8/2010	5/25/2011	Closed Case
P34669	4/16/2010	4/15/2010	5/25/2011	Closed Case
P34670	2/1/2011	11/29/2010	5/25/2011	Closed Case
P34671	2/1/2011	3/31/2010	1/18/2013	Closed Case
P34674	6/16/2011	5/26/2011	1/18/2013	Closed Case
P34685	5/24/2013	7/1/2011	1/28/2014	Closed Case
P34686	5/24/2013	5/16/2013	1/28/2014	Closed Case
P34690	1/22/2014	7/1/2012	5/4/2016	Closed Case
P39612	1/31/2008	1/29/2008	6/16/2009	Closed Case
P39615	4/24/2008	4/1/2008	6/16/2009	Closed Case
P39620	7/25/2008	7/2/2008	5/25/2011	Closed Case
P39621	7/25/2008	6/12/2008	5/25/2011	Closed Case
P39880	3/8/2006	8/9/2005	7/18/2006	Closed Case
P42631	4/10/2007	12/31/2006	6/16/2009	Closed Case
P48449	2/8/2008	1/11/2008	6/16/2009	Closed Case
P48701	2/21/2007	2/19/2007	6/16/2009	Closed Case
P48703	2/28/2007	7/1/2005	6/16/2009	Closed Case
P52786	2/27/2009	2/17/2009	5/25/2011	Closed Case
P53503	1/28/2009	1/16/2009	5/25/2011	Closed Case
P53752	11/7/2008	6/30/2008	5/25/2011	Closed Case
P53754	1/27/2009	1/9/2009	5/25/2011	Closed Case
P53758	2/27/2009	2/25/2009	5/25/2011	Closed Case
P53759	3/20/2009	3/20/2009	5/25/2011	Closed Case
P53760	3/20/2009	3/5/2009	5/25/2011	Closed Case
P61514	10/28/2015	8/11/2015	3/14/2017	Closed Case
P61515	2/3/2016	6/30/2015		
P61516	6/29/2016	1/1/2013		Void
P62071	7/15/2016	7/1/2016	3/14/2017	Closed Case
P64023	5/31/2017	1/1/2015		
P64027	8/30/2017	7/27/2017		
P64030	10/12/2017	7/1/2016		
P64032	10/12/2017	7/1/2015		
P64033	10/12/2017	1/1/2016	1/12/2018	Void
P65085	3/26/2020	7/1/2019		
P65097	6/4/2021	7/1/2019		
P65098	6/4/2021	1/1/2020		
P65396	11/28/2018	1/1/2018		
P66926	11/26/2019	7/1/2018		
P66933	11/4/2020	10/1/2019		
P66940	12/9/2021	7/1/2020		
P67803	8/8/2018	1/1/2017		
P74061	5/26/2021	7/1/2018		
P74062	5/26/2021	7/1/2020		
P74064	11/12/2021	1/1/2021		


Year 2050
LESS THAN 2
BETWEEN 2 AND 4
BETWEEN 4 AND 6
BETWEEN 6 AND 8
BETWEEN 8 AND 10
MORE THAN 10
Year 2100
WATSON JUNCTION
Pacific Coast Highway
THENARD
N Henry Ford Ave
Alameda Street
WILMINGTON
Harbor Freeway
Vincent Thomas Bridge
Fanfare Fountains
Long Beach International Gateway
Long Beach Fwy
Los Angeles River
Long Beach Blvd.
Shoreline Drive
W Ocean Blvd.
LONG BEACH
E Ocean Blvd.
Long Beach Shoreline Marina
Colorado Lagoon
Belmont Outdoor Pool
BELMONT SHORE
2nd Street
Lakewood Blvd.
E Los Coyotes Diagonal
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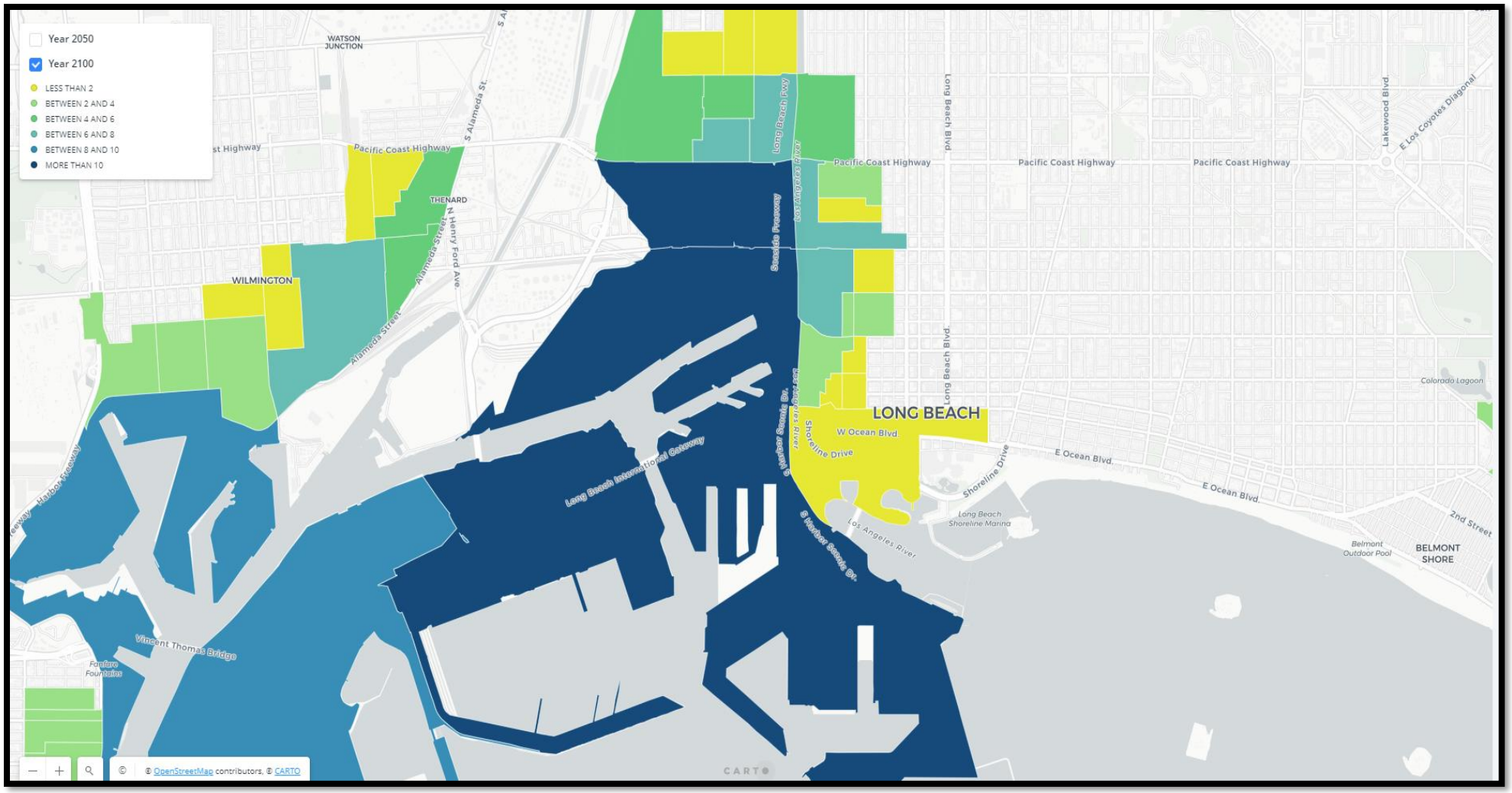
CARTO


Year 2050
Year 2100
LESS THAN 2
BETWEEN 2 AND 4
BETWEEN 4 AND 6
BETWEEN 6 AND 8
BETWEEN 8 AND 10
MORE THAN 10
WATSON JUNCTION
Pacific Coast Highway
THENARD
WILMINGTON
Alameda Street
N Henry Ford Ave
S Alameda St.
Long Beach Fwy
Los Angeles River
Long Beach Blvd
Lakewood Blvd
E Los Coyotes Diagonal
Pacific Coast Highway
Pacific Coast Highway
Pacific Coast Highway
Seaside Freeway
Los Angeles River
S Harbor Scenic Dr.
Long Beach International Gateway
Harbor Freeway
LONG BEACH
W Ocean Blvd
Shoreline Drive
E Ocean Blvd.
Shoreline Drive
E Ocean Blvd.
Long Beach Shoreline Marina
Los Angeles River
S Harbor Scenic Dr.
Colorado Lagoon
2nd Street
Belmont Outdoor Pool
BELMONT SHORE
Vincent Thomas Bridge
Fanfare Fountains
© OpenStreetMap contributors, © CARTO
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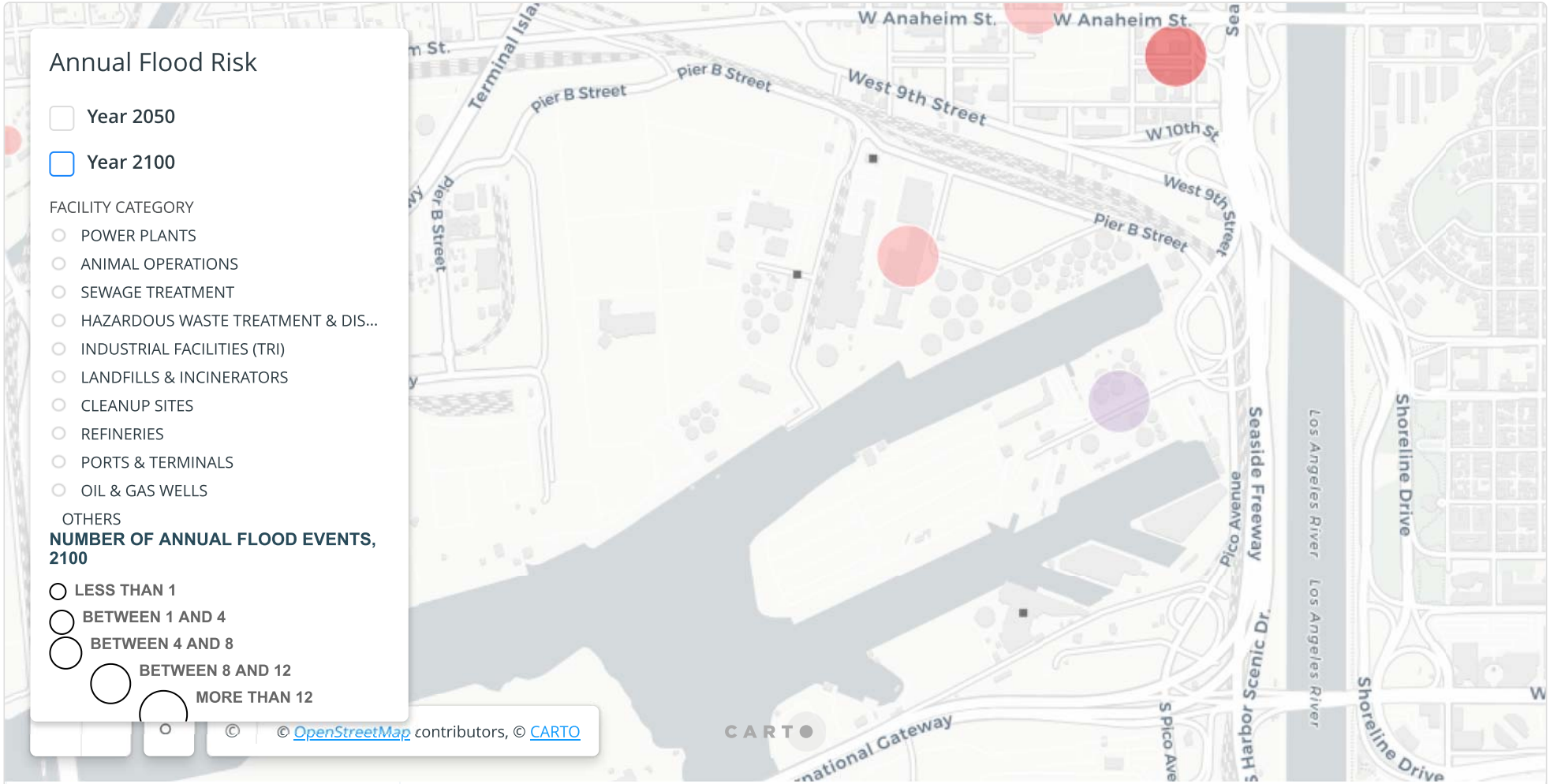


Search for category, 20...

ALL SELECTED

...	# Facilities: 1	...	# Facilities: 1

Search for category, ...

ALL SELECTED

...	# Facilities: 3	...	# Facilities: 2	...	# Facilities: 2
...	# Facilities: 1				

★ Map by yangj90

Case Studies

Richmond

Industrial history:

Richmond, CA has been a refinery town since 1901 when Chevron (then called Standard Oil) opened what is now one of the state's biggest pollution sources - the Richmond Chevron Refinery. Over the 20th century, Richmond became an industrial hub for the San Francisco Bay Area with chemical plants, factories, and World War II era shipyards, which brought a huge influx of black workers to the City. Since the 1970s, more immigrants and refugees have made Richmond their home due to its affordability, including a large Laotian population.

Over 350 toxic facilities are located in Richmond. The city is ranked among the worst in terms of pollution burden in the state, and there is community concern that these pollution sources may be associated with high rates of asthma, cancer, poor birth outcomes, and other diseases among residents. Newly arrived Laotian refugees had initially tried to garden and fish only to discover that the refinery and other industrial waste had contaminated the soil and water, making their produce and fish dangerous to consume. Grassroots advocates in Richmond, including the Laotian Organizing Project and Asian Youth Advocates, have historically organized for a better environment for their communities.

"Poor people who are affected by the crisis of pollution from the refinery need to fight for ourselves. Rich people don't care about us, that we have bad health from the pollution. If we don't fight, nobody else is going to fight for us. We want the next generation - our children and grandchildren - to have clean air so that they don't get sick and die like us now."

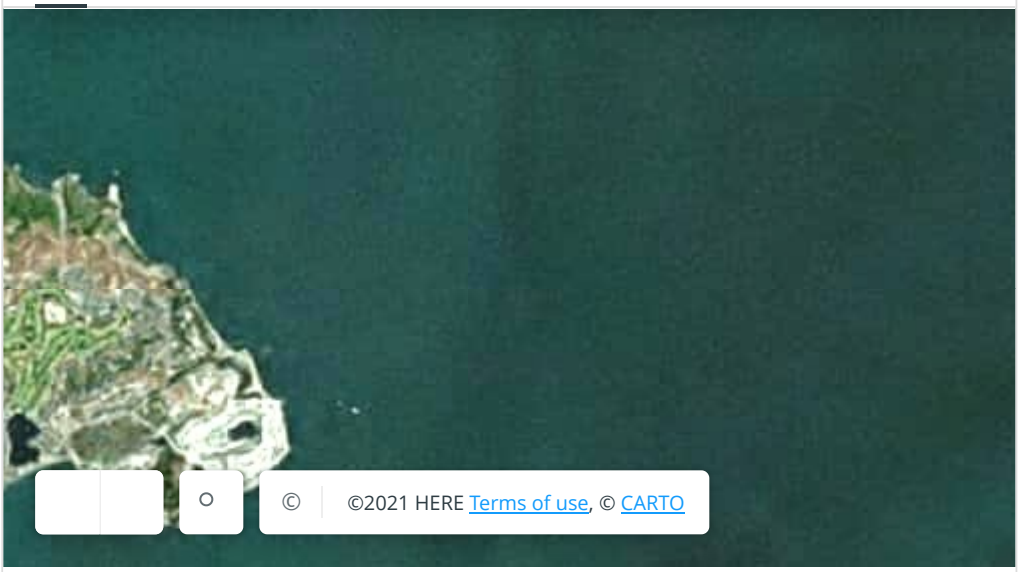
- Saeng and Lipo Chantanasak, members of the Laotian community in Richmond

Learn more about facilities at risk in Richmond.

Photo courtesy of Asian Pacific Environmental Network

Case Studies

MAP LEGENDS



Map by yangj90

Oxnard

South Oxnard is a working-class immigrant community home to many farmworker families, including indigenous communities from Southern Mexico who live alongside its industrialized coastline. Oxnard has been a center of multiracial immigrant farmworker communities since it was established in the early 20th century around a sugar factory and the labor-intensive industrial agriculture that provided its raw materials. South Oxnard was largely developed during and after World War II, with two naval bases and the Port of Hueneme, as the community boomed with new working-class housing tracts replacing farmland.

With Civil Rights Era housing desegregation and the end of the Bracero Program, many Latino families and other people of color moved into South Oxnard, which experienced “white flight” to neighboring communities like Camarillo and Ventura. During this period, affordable housing was built in South Oxnard alongside a power plant, sewage plant, paper mill, port storage facilities, and toxic waste dump, as the city government zoned the area for heavy industry.

South Oxnard continues to be home to not just environmental threats, but Southern California’s largest remaining coastal wetlands, undergoing a decades-long cleanup and restoration effort. South Oxnard residents have organized for years to remove toxic and polluting facilities from their coast, reduce pollution from industrial smokestacks and diesel truck exhaust, and restore green space for public access to the coastal wetlands of Ormond Beach.

Photo courtesy of Central Coast Alliance United for A Sustainable Economy (CAUSE)

Case Studies

MAP LEGENDS

Map by yangj90

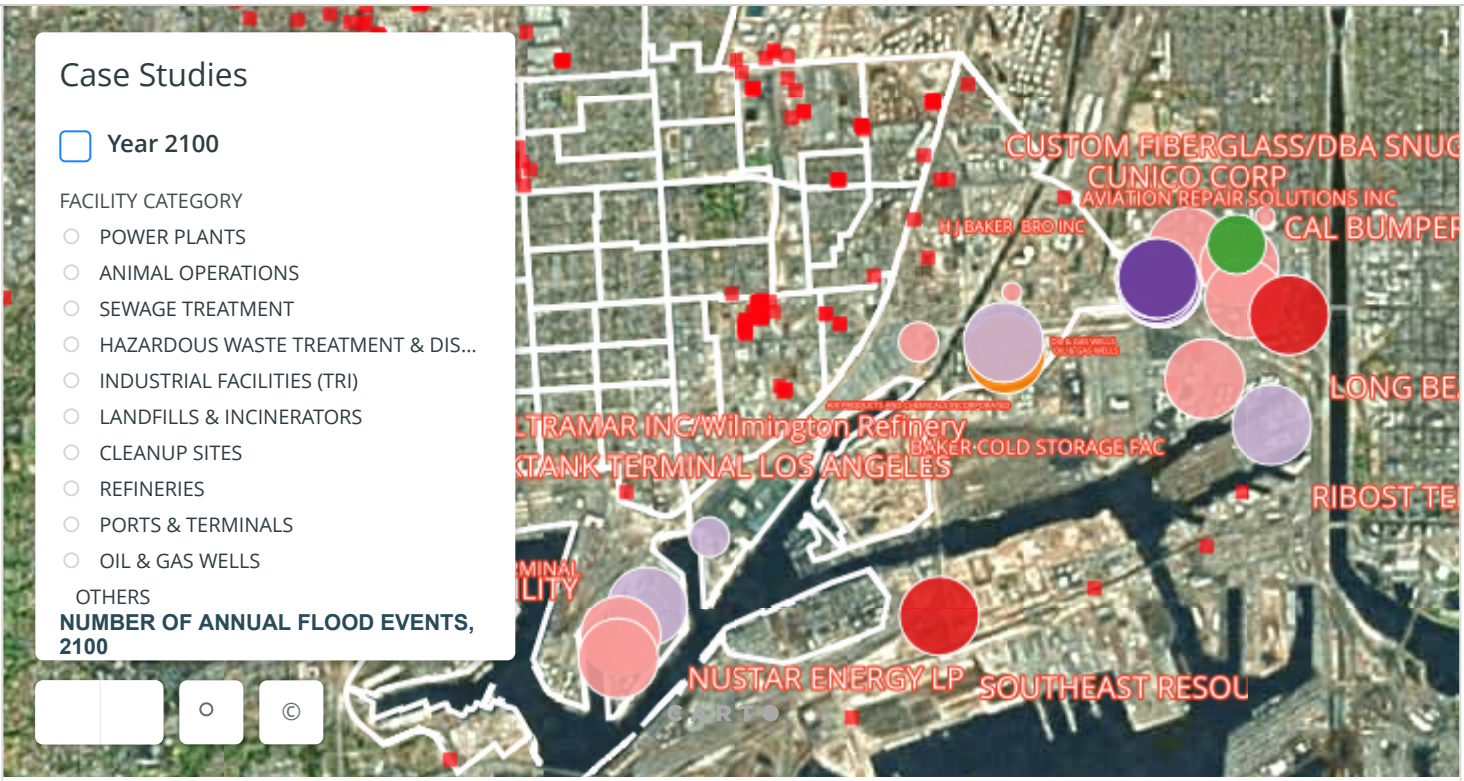
Wilmington

Early in the 20th century, three driving forces set into motion the growth and change that created the Los Angeles region of today: (1) the production and use of petroleum, (2) the import and use of water, and (3) a rapidly expanding transportation network. After the discovery of oil near today's Dodger Stadium at a depth of only 460 feet, discoveries of other oil fields quickly followed, including in the community of Wilmington, which hosts about half of the City of Los Angeles' active oil wells. Various methods of extraction are used across Los Angeles; however, the "steam injection" method, which extracts heavier and dirtier crude oil, is used solely in the Wilmington area.

These heavy oil production activities bring a major cost to Wilmington residents, 99% of whom are people of color, and many of whom live in poverty. The oil drilling, extraction, and development in Wilmington have led to higher rates of chronic diseases such as asthma, heart disease, and low birth weight, and residents living near oil wells routinely report dizziness, nosebleeds, and headaches. These same communities also often suffer from the cumulative effects of poverty, lack of access to adequate health care, and illnesses that can leave individuals more vulnerable to the toxic effects of pollution.

Wilmington also finds itself adjacent to the ports of Los Angeles and Long Beach. Beyond oil extraction, there is a vast network of facilities supporting the chain of oil production, transport, refining, and distribution, all of which contribute to the disproportionate adverse effects on the community of Wilmington.

Photo courtesy of [Physicians for Social Responsibility - Los Angeles]



Map by yangj90

TOXIC TIDES

Sea Level Rise, Hazardous Sites, and Environmental Justice in California

PROJECT BACKGROUND

Over three feet of sea level rise (SLR) are expected by the end of the century if little is done to slow climate change.

In California, the areas projected to experience flooding events by 2100 are home to **145,000 residents**, as well as at least **440 hazardous facilities** including power plants, refineries, industrial facilities, and hazardous waste sites. SLR poses risks for such facilities experiencing flooding events that can potentially **expose nearby residents to hazardous pollutants.**

Because many of these facilities are **disproportionately located in poor communities and communities of color**, climate resilience strategies must address the disproportionate impacts of SLR and associated flooding threats faced by environmental justice communities.

Although prior research in California has focused on the risks of SLR to property, little work has holistically examined its **environmental health and social equity implications statewide.** With an adequate understanding of the intersection of SLR, hazardous facilities, and environmental justice, **targeted action can prevent the most adverse impacts.**

KEY OUTCOMES & FINDINGS

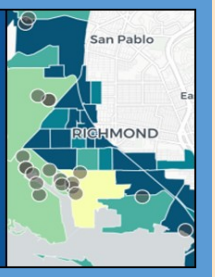
Created by Fatemah Manji from Noun Project

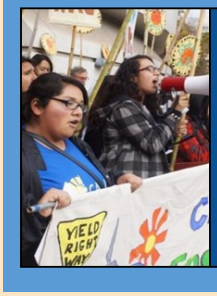
Disadvantaged communities[1] are **over 5 times more likely**[2] to live within 1km of one or more facilities at risk of flooding in 2050, and **over 6 times in 2100.**

PROJECT GOALS

Characterize the threats posed by sea level rise and the flooding of hazardous sites to socially disadvantaged populations

Create an online mapping tool that visually depicts toxic facilities at risk of flooding due to SLR and associated socioeconomic conditions





Share findings with advocates and decision-makers in order to protect vulnerable communities through current and emerging climate resilience policies

The Toxic Tides website includes a series of maps showing hazardous facilities projected to be at risk of flooding in the years 2050 and 2100, as well as demographic information of the communities nearby.

Case studies of environmental justice communities are also highlighted.

1. Communities with CalEnviroScreen 4.0 scores in the top 25th percentile as designated by the CalEPA
2. Compared to the general population

Our analysis also found that:

Out of a total of 10,544 hazardous facilities in low lying coastal areas, at least **440 are projected to be at risk of one or more flood events per year by 2100.**[1]

The majority of at-risk facilities are in 5 counties: **Alameda, Orange, San Mateo, Los Angeles, and Contra Costa.**

POLICY APPLICATIONS

This project seeks to promote resiliency of vulnerable communities that may be impacted by SLR through:

- Supporting **equitable implementation** of state agency climate resilience and adaptation programs already underway and coming down the pipeline;
- Shaping **local and regional coastal planning** efforts to address risks posed by SLR;
- Informing the state's approach to **defining "vulnerable communities"**, to guide emerging climate resilience legislation or executive orders;
- Advancing **community advocacy efforts** by depicting priority SLR risks and providing information about potential solutions and programs to address relevant risk.

COLLABORATIVE PARTNERSHIP MODEL

Toxic Tides is a collaborative effort among **community-based organizations** and **academic researchers.**

Community advocates participated in an advisory committee to provide **iterative guidance and feedback to researchers,** including overall study design, development of measures and indicators, data analysis, usability of the online mapping tool, and dissemination strategy.

Community-Based Partners:

- Asian Pacific Environmental Network
- Central Coast Alliance for a Sustainable Economy
- Physicians for Social Responsibility - Los Angeles
- Public Health Institute
- WE ACT for Environmental Justice

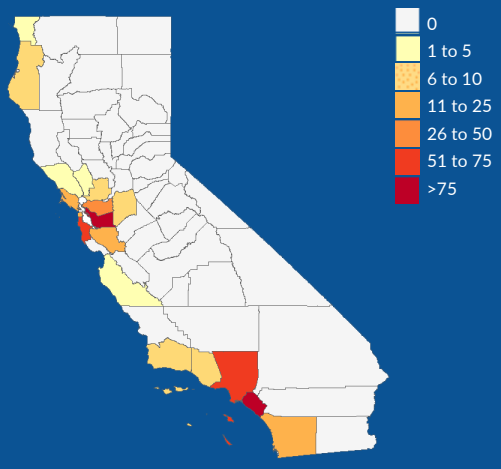
Research Team:

- UC Berkeley Sustainability and Health Equity Lab
- UC Los Angeles, Fielding School of Public Health
- Climate Central

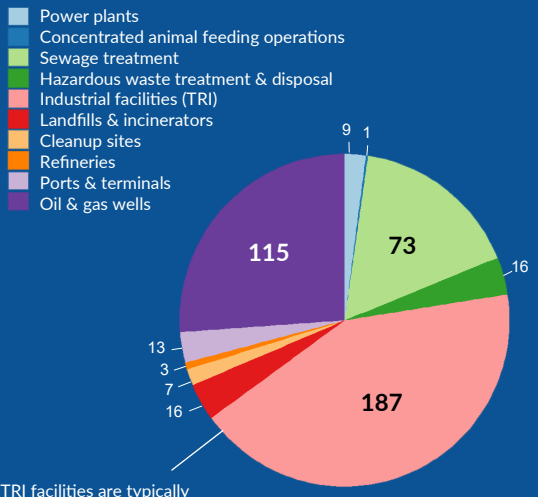
To learn more and explore the interactive maps and case studies, visit **sites.google.com/berkeley.edu/toxictides**

PROJECTED NUMBER OF FACILITIES AT RISK OF FLOODING DUE TO SLR IN 2100 UNDER HIGH EMISSIONS SCENARIO (RCP 8.5)

By County:

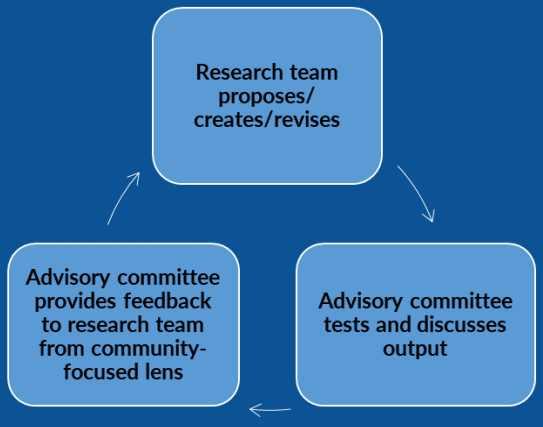


By Facility Type:



TRI facilities are typically involved in manufacturing, metal mining, electric power generation, chemical manufacturing and hazardous waste treatment. They report emissions to US EPA, and make, process or use large quantities of toxic substances.

Iterative Feedback Process:



1. Under a high greenhouse gas emissions scenario (RCP 8.5)

Maps & Data

This map series shows the risk of flood exposure at hazardous facilities under a high greenhouse gas emission scenario (RCP8.5) in California in the years 2050 and 2100. Facilities included in these maps are those located in counties with low-lying land. A facility is considered at risk of flooding if a quarter of its elevation (25th percentile) falls below the water level. Flood risk estimates are averages of multiple simulations of future sea levels.

Facility boundaries are approximated using tax parcels when available. When not available, facility boundaries are estimated using circular buffers around facility addressees. Buffers vary based on the typical size of facilities within each category.

Facilities with less than a 1% chance of being flooded (more rare than a 100-year flood) are not considered at risk.

The categories and number of facilities included in the analysis are listed in the table below. For mapping purposes, we made these categories mutually exclusive, but some facilities may belong to more than one category.

NOTE: Facility flood risk projections are based on sea level rise, tides, and storm surge and do not include groundwater contamination due to SLR. Lack of groundwater data coupled with imprecise estimates of facility boundaries may lead to potential underestimates of the number of at-risk facilities. The facilities considered in this analysis also do not represent an exhaustive list of all potentially hazardous sites.

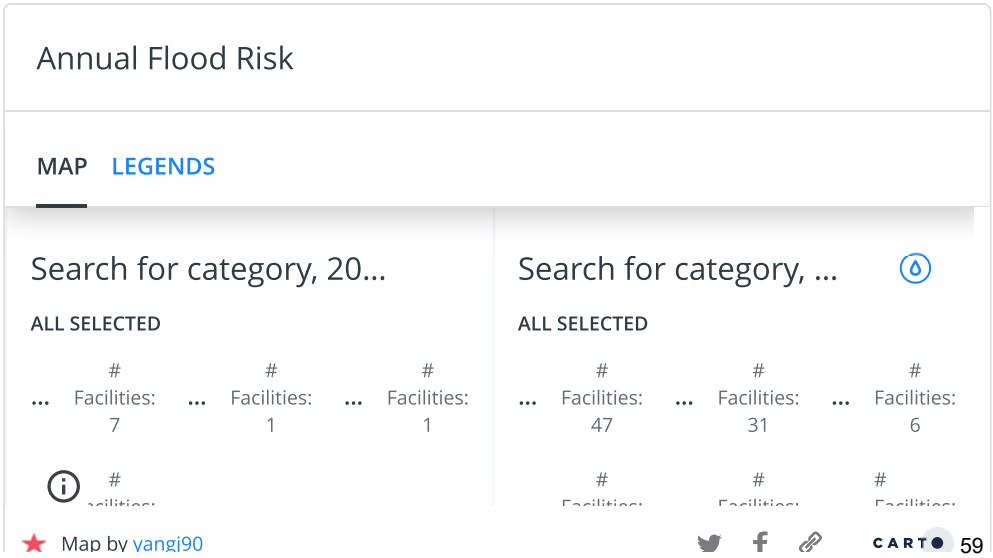
Exposed Facilities

Expected annual flood-risk events at individual facilities

Instructions: Marker size represents the expected number of times a facility will experience a flood event in the given year, and marker color represents facility categories. Use the left box to choose between target years of 2050 and 2100. Use the right box to present certain facility categories. The right box also shows the number of facilities by category within the current map extent. Click on the three dots next to the title in the right box to show the options for a target year. **Use category names in the spreadsheet above or in the left box (e.g. power plant). Do not use specific facility names when searching.**

Clicking on a facility provides more detailed information, including the number of people living within a 1 km buffer of the facility and a link to more details about the facility, when available.

To open the map in a new tab, click here.



Census block groups with at-risk facilities within 1 km buffer

Instructions: For each census block group, the map displays the number of facilities, all categories combined that have at least a 1% chance of flooding (100-year flood) in the given year, within a 1 km buffer from residential parcels in the block group. The impacted population is the sum of the population of impacted residential parcels in the given year. Population estimates are based on the 2017 American Community Survey (ACS) 5-year estimates.

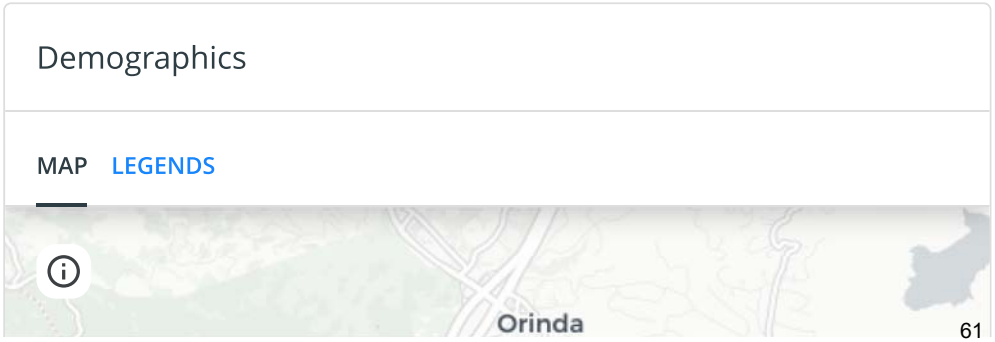
To open the map in a new tab, click here.

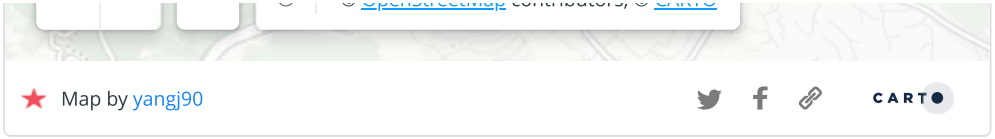
Demographics of census block groups with at least one at-risk facility within 1 km by the year 2100

Instructions: For each census block group, the map displays demographic information based on 2017 American Community Survey (ACS) 5-year estimates and the Statewide Database. Impacted population is the sum of the population of impacted parcels assuming no change in population growth by 2100. Average in the legend is the mean for demographic indicators for those block groups with at least one facility at risk in 2100.

Note that only one demographic variable can be displayed on the map at a time.

To open the map in a new tab, click here.





Map by yangj90

Demographic comparisons between block groups with and without at-risk facilities

Summary statistics

ECHO Enforcement and Compliance History Online

Detailed Facility Report

Facility Summary

LUNDAY-THAGARD CO
9301 SOUTH GARFIELD AVENUE, SOUTH GATE, CA 90280

FRS (Facility Registry Service) ID: 110001187144
EPA Region: 09
Latitude: 33.946295
Longitude: -118.16704
Locational Data Source: TRIS
Industries: Petroleum and Coal Products Manufacturing
Indian Country: N

Enforcement and Compliance Summary

Statute	CAA
Insp (5 Years)	4
Date of Last Inspection	11/24/2020
Current Compliance Status	**High Priority Violation**
Qtrs with NC (of 12)	12
Qtrs with Significant Violation	12
Informal Enforcement Actions (5 years)	--
Formal Enforcement Actions (5 years)	--
Penalties from Formal Enforcement Actions (5 years)	--
EPA Cases (5 years)	--
Penalties from EPA Cases (5 years)	--
Statute	CWA
Insp (5 Years)	--
Date of Last Inspection	--
Current Compliance Status	**No Violation Identified**
Qtrs with NC (of 12)	0
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	--
Formal Enforcement Actions (5 years)	--
Penalties from Formal Enforcement Actions (5 years)	--
EPA Cases (5 years)	--
Penalties from EPA Cases (5 years)	--

Statute	RCRA
Insp (5 Years)	4
Date of Last Inspection	06/25/2021
Current Compliance Status	**No Violation Identified**
Qtrs with NC (of 12)	1
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	4
Formal Enforcement Actions (5 years)	--
Penalties from Formal Enforcement Actions (5 years)	--
EPA Cases (5 years)	--
Penalties from EPA Cases (5 years)	--

Regulatory Information

Clean Air Act (CAA): Permanently Closed Major (CASCA0000603700043)
Clean Water Act (CWA): Minor, (CAP000078), Minor, Permit Expired (CAZ189100)
Resource Conservation and Recovery Act (RCRA): Active LQG (CAD008345464)
Safe Drinking Water Act (SDWA): No Information

Other Regulatory Reports

Air Emissions Inventory (EIS): 5797411
Greenhouse Gas Emissions (eGGRT): 1002286
Toxic Releases (TRI): 90280LNDYT9301S
Compliance and Emissions Data Reporting Interface (CEDRI): CEDRI122269

Known Data Problems

Facility/System Characteristics

Facility/System Characteristics

System	Statute	Identifier	Universe	Status	Areas	Permit Expiration Date	Indian Country	Latitude	Longitude
FRS		110001187144					N	33.946295	-118.16704
ICIS		3000030455					N	33.946295	-118.16704
ICIS		3000037327					N	33.946295	-118.16704
ICIS		30257					N	33.945056	-118.166071
ICIS-Air	CAA	CASCA0000603700043	Major Emissions	Permanently Closed			N	33.946306	-118.167028
CEDRI	CAA	CEDRI122269					N		
EIS	CAA	5797411					N	33.94421	-118.16613
GHGRP	CAA	1002286	Supplier, Direct Emitter	Subject	General Stationary Fuel Combustion, Petroleum Refining, Petroleum Product Supply		N		
RMP	CAA	100000212566		ACTIVE			N	33.946295	-118.16704
ICIS-NPDES	CWA	CAP000078	Minor: Unpermitted Facility				N	33.945056	-118.166071
ICIS-NPDES	CWA	CAZ189100	Minor: General Permit Covered Facility	Expired	Industrial Stormwater	06/30/2020	N	33.94606	-118.166
TRI	EP313	90280LNDYT9301S	Toxics Release Inventory	Last Reported for 2020			N	33.946295	-118.16704
RCRAInfo	RCRA	CAD008345464	LQG	Active (H)			N	33.946186	-118.165782
TSCA	TSCA	TSCA10040794					N	33.946295	-118.16704

Facility Address

System	Statute	Identifier	Facility Name	Facility Address	Facility County
FRS		110001187144	LUNDAY-THAGARD CO	9301 SOUTH GARFIELD AVENUE, SOUTH GATE, CA 90280	Los Angeles County
ICIS		3000030455	LUNDAY-THAGARD CO	9301 SOUTH GARFIELD AVENUE, SOUTH GATE, CA 90280	Los Angeles County
ICIS		3000037327	LUNDAY-THAGARD CO	9301 SOUTH GARFIELD AVENUE, SOUTH GATE, CA 90280	Los Angeles County
ICIS		30257	LUNDAY THAGARD OIL	9301 S GARFIELD, SOUTH GATE, CA 90280	Los Angeles County
ICIS-Air	CAA	CASCA0000603700043	LUNDAY-THAGARD COMPANY	9301 S GARFIELD, SOUTH GATE, CA 90280	Los Angeles County
CEDRI	CAA	CEDRI122269	LUNDAY-THAGARD OIL CO	9301 GARFIELD AVENUE, SOUTH GATE, CA 90280	Los Angeles County
EIS	CAA	5797411	LUNDAY-THAGARD CO DBA WORLD OIL REFINING	9301 GARFIELD AVE, SOUTH GATE, CA 90280	Los Angeles County
GHGRP	CAA	1002286	LUNDAY-THAGARD COMPANY	9301 SOUTH GARFIELD AVENUE, SOUTH GATE, CA 90280	Los Angeles County
RMP	CAA	100000212566	LUNDAY THAGARD COMPANY	9301 GARFIELD AVENUE, SOUTH GATE, CA 90280	Los Angeles County
ICIS-NPDES	CWA	CAP000078	SOUTH GATE	9302 GARFIELD AVE, SOUTH GATE, CA 90280	Los Angeles County
ICIS-NPDES	CWA	CAZ189100	LUNDAY THAGARD COMPANY DBA WORLD OIL REFINING	9301 GARFIELD, SOUTH GATE, CA 90280	Los Angeles County
TRI	EP313	90280LNDYT9301S	LUNDAY-THAGARD CO DBA WORLD OIL REFINING	9301 GARFIELD AVE, SOUTH GATE, CA 90280	Los Angeles County
RCRAInfo	RCRA	CAD008345464	LUNDAY-THAGARD COMPANY DBA WORLD OIL REFINING	9302 GARFIELD AVENUE, SOUTH GATE, CA 90280-0000	Los Angeles County
TSCA	TSCA	TSCA10040794	LUNDAY-THAGARD CO	9301 SOUTH GARFIELD AVENUE, SOUTH GATE, CA 90280	Los Angeles County

Facility SIC (Standard Industrial Classification) Codes

System	Identifier	SIC Code	SIC Description
TRI	90280LNDYT9301S	2661	Legacy Docket Conv
TRI	90280LNDYT9301S	2911	Petroleum Refining
TRI	90280LNDYT9301S	2952	Asphalt Felts And Coatings
ICIS-Air	CASCA0000603700043	2911	Petroleum Refining
ICIS-NPDES	CAZ189100	2911	Petroleum Refining
NPDES	CAZ189100	2911	Petroleum Refining

Facility NAICS (North American Industry Classification System) Codes

System	Identifier	NAICS Code	NAICS Description
RMP	100000212566	32411	Petroleum Refineries
GHGRP	1002286	324110	Petroleum Refineries
EIS	5797411	324122	Asphalt Shingle and Coating Materials Manufacturing
TRI	90280LNDYT9301S	324110	Petroleum Refineries
RCRAInfo	CAD008345464	324110	Petroleum Refineries
ICIS-Air	CASCA0000603700043	324110	Petroleum Refineries

Facility Industrial Effluent Guidelines

Identifier	Effluent Guideline (40 CFR Part)	Effluent Guideline Description
No data records returned		

Facility Tribe Information

Reservation Name	Tribe Name	EPA Tribal ID	Distance to Tribe (miles)
No data records returned			

Enforcement and Compliance

Compliance Monitoring History (5 years)

Statute	Source ID	System	Activity Type	Compliance Monitoring Type	Lead Agency	Date	Finding (if applicable)
CAA	CASCA0000603700043	ICIS-Air	Inspection/Evaluation	FCE On-Site	Local	11/24/2020	
CAA	*CASCA0000603700043*	*ICIS-Air*	*Inspection/Evaluation*	*PCE Off-Site*	*Local*	*11/02/2020*	
CAA	*CASCA0000603700043*	*ICIS-Air*	*Inspection/Evaluation*	*PCE On-Site*	*Local*	*09/22/2020*	
CAA	*CASCA0000603700043*	*ICIS-Air*	*Inspection/Evaluation*	*PCE Title V CCR*	*Local*	*08/05/2020*	*Reviewed: 01/21/2021 Facility Reported Deviations*
CAA	*CASCA0000603700043*	*ICIS-Air*	*Inspection/Evaluation*	*PCE Stack Test*	*Local*	*03/24/2020*	*Findings: Pass*
CAA	*CASCA0000603700043*	*ICIS-Air*	*Inspection/Evaluation*	*PCE Stack Test*	*Local*	*12/11/2019*	*Findings: Pass*
CAA	*CASCA0000603700043*	*ICIS-Air*	*Inspection/Evaluation*	*PCE Stack Test*	*Local*	*12/10/2019*	*Findings: Pass*
CAA	*CASCA0000603700043*	*ICIS-Air*	*Inspection/Evaluation*	*PCE Stack Test*	*Local*	*12/06/2019*	*Findings: Pass*
CAA	*CASCA0000603700043*	*ICIS-Air*	*Inspection/Evaluation*	*PCE Stack Test*	*Local*	*12/03/2019*	*Findings: Pass*
CAA	*CASCA0000603700043*	*ICIS-Air*	*Inspection/Evaluation*	*PCE Off-Site*	*Local*	*11/27/2019*	
CAA	*CASCA0000603700043*	*ICIS-Air*	*Inspection/Evaluation*	*PCE On-Site*	*Local*	*09/17/2019*	
CAA	*CASCA0000603700043*	*ICIS-Air*	*Inspection/Evaluation*	*PCE On-Site*	*Local*	*09/17/2019*	
CAA	CASCA0000603700043	ICIS-Air	Inspection/Evaluation	FCE On-Site	Local	09/17/2019	

Statute	Source ID	System	Activity Type	Compliance Monitoring Type	Lead Agency	Date	Finding (if applicable)
CAA	*CASCA0000603700043*	*ICIS-Air*	*Inspection/Evaluation*	*PCE Title V CCR*	*Local*	*08/23/2019*	*Reviewed: 11/22/2019 Facility Reported Deviations*
CAA	*CASCA0000603700043*	*ICIS-Air*	*Inspection/Evaluation*	*PCE On-Site*	*Local*	*08/21/2019*	
CAA	*CASCA0000603700043*	*ICIS-Air*	*Inspection/Evaluation*	*PCE On-Site*	*Local*	*08/15/2019*	
CAA	*CASCA0000603700043*	*ICIS-Air*	*Inspection/Evaluation*	*PCE Stack Test*	*Local*	*12/22/2018*	*Findings: Pending*
CAA	*CASCA0000603700043*	*ICIS-Air*	*Inspection/Evaluation*	*PCE On-Site*	*Local*	*12/19/2018*	
CAA	CASCA0000603700043	ICIS-Air	Inspection/Evaluation	FCE On-Site	Local	11/28/2018	
CAA	*CASCA0000603700043*	*ICIS-Air*	*Inspection/Evaluation*	*PCE Stack Test*	*Local*	*11/15/2018*	*Findings: Pending*
CAA	*CASCA0000603700043*	*ICIS-Air*	*Inspection/Evaluation*	*PCE Title V CCR*	*Local*	*08/22/2018*	*Reviewed: 09/28/2018 Facility Reported Deviations*
CAA	*CASCA0000603700043*	*ICIS-Air*	*Inspection/Evaluation*	*PCE On-Site*	*Local*	*06/21/2018*	
CAA	*CASCA0000603700043*	*ICIS-Air*	*Inspection/Evaluation*	*PCE Stack Test*	*Local*	*10/27/2017*	*Findings: Pass*
CAA	*CASCA0000603700043*	*ICIS-Air*	*Inspection/Evaluation*	*PCE Stack Test*	*Local*	*10/25/2017*	*Findings: Pass*
CAA	CASCA0000603700043	ICIS-Air	Inspection/Evaluation	FCE On-Site	Local	09/27/2017	
CAA	*CASCA0000603700043*	*ICIS-Air*	*Inspection/Evaluation*	*PCE On-Site*	*Local*	*07/27/2017*	
RCRA	CAD008345464	RCRAInfo		COMPLIANCE EVALUATION INSPECTION ON-SITE	State	06/25/2021	Violations Or Compliance Issues Were Found
RCRA	CAD008345464	RCRAInfo		COMPLIANCE EVALUATION INSPECTION ON-SITE	State	05/17/2021	No Violations Or Compliance Issues Were Found
RCRA	CAD008345464	RCRAInfo		COMPLIANCE EVALUATION INSPECTION ON-SITE	State	11/28/2017	No Violations Or Compliance Issues Were Found
RCRA	CAD008345464	RCRAInfo		COMPLIANCE EVALUATION INSPECTION ON-SITE	State	06/13/2017	Violations Or Compliance Issues Were Found

Entries in italics are not counted in EPA compliance monitoring strategies or annual results.

Compliance Summary Data

Statute	Source ID	Current SNC (Significant Noncompliance)/HPV (High Priority Violation)	Current As Of	Qtrs with NC (Noncompliance) (of 12)	Data Last Refreshed
CAA	CASCA0000603700043	Yes	01/01/2022	12	12/31/2021
CWA	CAP000078	No	09/30/2021	0	12/31/2021
CWA	CAZ189100	No	09/30/2021	0	12/31/2021
RCRA	CAD008345464	No	01/01/2022	1	12/31/2021

Three-Year Compliance History by Quarter

Statute	Program/Pollutant/Violation Type				QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12+
CAA (Source ID: CASCA0000603700043)					01/01-03/31/19	04/01-06/30/19	07/01-09/30/19	10/01-12/31/19	01/01-03/31/20	04/01-06/30/20	07/01-09/30/20	10/01-12/31/20	01/01-03/31/21	04/01-06/30/21	07/01-09/30/21	10/01-12/31/21
	Facility-Level Status				**High Priority Violation**	**High Priority Violation**	**High Priority Violation**	**High Priority Violation**	**High Priority Violation**	**High Priority Violation**	**High Priority Violation**	**High Priority Violation**	**High Priority Violation**	**High Priority Violation**	**High Priority Violation**	**High Priority Violation**
	HPV History				Unaddressed-Local	Unaddressed-Local	Unaddressed-Local	Unaddressed-Local	Unaddressed-Local	Unaddressed-Local	Unaddressed-Local	Unaddressed-Local	Unaddressed-Local	Unaddressed-Local	Unaddressed-Local	Unaddressed-Local
	Violation Type	**Agency**	**Programs**	**Pollutants**												
CAA	HPV	CA SCA	CAASIP, CAATVP	FACIL	10/12/2012	→	→	→	→	→	→	→	→	→	→	→

Statute	Program/Pollutant/Violation Type				QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12	QTR 13+
CWA (Source ID: CAP000078)					10/01-12/31/18	01/01-03/31/19	04/01-06/30/19	07/01-09/30/19	10/01-12/31/19	01/01-03/31/20	04/01-06/30/20	07/01-09/30/20	10/01-12/31/20	01/01-03/31/21	04/01-06/30/21	07/01-09/30/21	10/01-12/31/21
	Facility-Level Status				Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Quarterly Noncompliance Report History																
CWA (Source ID: CAZ189100)					10/01-12/31/18	01/01-03/31/19	04/01-06/30/19	07/01-09/30/19	10/01-12/31/19	01/01-03/31/20	04/01-06/30/20	07/01-09/30/20	10/01-12/31/20	01/01-03/31/21	04/01-06/30/21	07/01-09/30/21	10/01-12/31/21
	Facility-Level Status				**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**Undetermined**
	Quarterly Noncompliance Report History																

Statute	Program/Pollutant/Violation Type		QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12+
RCRA (Source ID: CAD008345464)			01/01-03/31/19	04/01-06/30/19	07/01-09/30/19	10/01-12/31/19	01/01-03/31/20	04/01-06/30/20	07/01-09/30/20	10/01-12/31/20	01/01-03/31/21	04/01-06/30/21	07/01-09/30/21	10/01-12/31/21
	Facility-Level Status		**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**Violation Identified**	**No Violation Identified**	**No Violation Identified**
	Violation	**Agency**												
RCRA	XXS: State Statute or Regulation	CA										06/25/2021-06/25/2021		
RCRA	XXS: State Statute or Regulation	CA										06/25/2021-06/25/2021		

Informal Enforcement Actions (5 Years)

Statute	System	Source ID	Type of Action	Lead Agency	Date
RCRA	RCRAInfo	CAD008345464	INSPECTION REPORT w/VIOLATIONS (MAILED DATE)	State	07/19/2021
RCRA	RCRAInfo	CAD008345464	WRITTEN INFORMAL	State	06/25/2021
RCRA	RCRAInfo	CAD008345464	INSPECTION REPORT w/VIOLATIONS (MAILED DATE)	State	08/03/2017
RCRA	RCRAInfo	CAD008345464	WRITTEN INFORMAL	State	06/14/2017

Entries in italics are not counted as "informal enforcement actions" in EPA policies pertaining to enforcement response tools.

Formal Enforcement Actions (5 Years)

Statute	System	Law/Section	Source ID	Action Type	Case No.	Lead Agency	Case Name	Issued/Filed Date	Settlements/Actions	Settlement/Action Date	Federal Penalty Assessed	State/Local Penalty Assessed	Penalty Amount Collected	SEP Cost	Comp Action Cost
No data records returned															

Environmental Conditions

Watershed(s)

12-Digit WBD (Watershed Boundary Dataset) HUC (RAD (Reach Address Database))	WBD (Watershed Boundary Dataset) Subwatershed Name (RAD (Reach Address Database))	State Water Body Name (ICIS (Integrated Compliance Information System))	Beach Closures Within Last Year	Beach Closures Within Last Two Years	Pollutants Potentially Related to Impairment	Watershed with ESA (Endangered Species Act)-listed Aquatic Species?
180701050303	Alhambra Wash-Rio Hondo		No	No		Yes

Assessed Waters From Latest State Submission (ATTAINS)

State	Report Cycle	Assessment Unit ID	Assessment Unit Name	Water Condition	Cause Groups Impaired	Drinking Water Use	Aquatic Life	Fish Consumption Use	Recreation Use	Other Use
CA	2018	CAL4051501020111218141642	John Ford Park Lake	Unknown			Insufficient Information	Insufficient Information		
CA	2018	CAR4051501019990202112624	Rio Hondo Reach 1 (Confl. LA River to Snt Ana Fwy)	Impaired - 303(d) Listed - With Restoration Plan	METALS (OTHER THAN MERCURY) | PATHOGENS | PH/ACIDITY/CAUSTIC CONDITIONS | TOTAL TOXICS | TRASH		Not Supporting		Not Supporting	

Air Quality Nonattainment Areas

Pollutant	Within Nonattainment Status Area?	Nonattainment Status Applicable Standard(s)	Within Maintenance Status Area?	Maintenance Status Applicable Standard(s)
Ozone	Yes	1-Hour Ozone (1979); 8-Hour Ozone (1997); 8-Hour Ozone (2008); 8-Hour Ozone (2015)	No	
Lead	Yes	Lead (2008)	No	
Particulate Matter	Yes	PM-2.5 (1997); PM-2.5 (2006); PM-2.5 (2012)	Yes	PM-10 (1987)
Carbon Monoxide	No		Yes	Carbon Monoxide (1971)
Sulfur Dioxide	No		No	

Pollutants

Toxics Release Inventory History of Reported Chemicals Released in Pounds per Year at Site

Air Pollutant Report TRI Pollution Prevention Report

TRI Facility ID	Year	Total Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	Underground Injections	Releases to Land	Total On-site Releases	Total Off-site Transfers
90280LNDYT9301S	2020	724		351			724	616
90280LNDYT9301S	2019	974		368			974	570
90280LNDYT9301S	2018	1,115		252			1,115	438
90280LNDYT9301S	2017	981		188			981	473
90280LNDYT9301S	2016	1,871		241			1,871	3,062

TRI Facility ID	Year	Total Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	Underground Injections	Releases to Land	Total On-site Releases	Total Off-site Transfers
90280LNDYT9301S	2015	1,054		291			1,054	440
90280LNDYT9301S	2014	769		248			769	772
90280LNDYT9301S	2013	891	0	778			891	1,158
90280LNDYT9301S	2012	680		328			680	1,046
90280LNDYT9301S	2011	272		420		0	272	548

Toxics Release Inventory Total Releases and Transfers in Pounds by Chemical and Year

Chemical Name	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
1,2,4-Trimethylbenzene										
Ammonia										
Benzene	129	142	170	122	315	206	218	442	205	222
Benzo[g,h,i]perylene	6	4	6	24	18	17	18	16	0	0
Chlorine										
Cyclohexane	223	266	315	280	277	252	206	258	167	57
Ethylbenzene	34	59	29	44	543	32	53	38	99	18
Freon 113 (CFC-113)										
Hydrogen sulfide	101	181	202	160	148	154	102	121	94	
Lead	175	23	152	99	844	125	75	3	11	6
Mercury	8	11	9	8	8	9	7	0	0	0
Naphthalene	72	119	82	140	544	77	202	134	151	82
Polycyclic aromatic compounds	11	48	21	15	122	116	56	47	40	26
Sulfuric acid (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size)										
Toluene	217	250	90	103	698	78	184	478	431	273
Xylene (mixed isomers)	112	138	119	143	1,055	102	195	234	335	66
n-Hexane	252	301	357	317	361	326	226	278	193	69

Community

EJSCREEN EJ Indexes

Eleven primary environmental justice (EJ) indexes of EJSCREEN, EPA's screening tool for EJ concerns. EPA uses these indexes to identify geographic areas that may warrant further consideration or analysis for potential EJ concerns. The index values below are for the Census block group in which the facility is located. Note that use of these indexes does not designate an area as an "EJ community" or "EJ facility." EJSCREEN provides screening level indicators, not a determination of the existence or absence of EJ concerns. For more information, see the EJSCREEN home page.

Census Block Group EJ Indexes (percentile)	
Particulate Matter (PM 2.5)	73.8
Ozone	70.3
NATA Diesel PM	76.6
NATA Air Toxics Cancer Risk	72
NATA Respiratory Hazard Index (HI)	72.7
Traffic Proximity	93.9
Lead Paint Indicator	72.6
National Priority List (NPL) Site Proximity	98.8
Risk Management Plan (RMP) Site Proximity	90.7
Hazardous Waste Proximity	90.7
Wastewater Discharge Proximity	98.9

Number of EJ Indexes Above 80th Percentile
5

View EJSCREEN Report

Demographic Profile of Surrounding Area (1 Mile)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 U.S. Census and 2014 - 2018 American Community Survey (ACS) 5-year Summary and are accurate to the extent that the facility latitude and longitude listed below are correct. EPA's spatial processing methodology considers the overlap between the selected radii and the census blocks (for U.S. Census demographics) and census block groups (for ACS demographics) in determining the demographics surrounding the facility. For more detail about this methodology, see the DFR Data Dictionary.

General Statistics	
Total Persons (U.S. Census)	21,964
Population Density	7,266/sq.mi.
Percent People of Color	91%
Households in Area	6,574
Housing Units in Area	6,172
Total Persons (ACS (American Community Survey))	23,926
Households on Public Assistance	305
Persons With Low Income	10,854
Percent With Low Income	46%

Geography	
Radius of Selected Area	1 mi.
Center Latitude	33.946295
Center Longitude	-118.16704
Land Area	95%
Water Area	5%

Income Breakdown - Households (%)	
Less than $15,000	535 (8.14%)
$15,000 - $25,000	634 (9.65%)
$25,000 - $50,000	2,002 (30.47%)
$50,000 - $75,000	1,260 (19.18%)
Greater than $75,000	2,140 (32.57%)

Age Breakdown - Persons (%)	
Children 5 years and younger	1,829 (8%)
Minors 17 years and younger	6,774 (31%)
Adults 18 years and older	15,190 (69%)
Seniors 65 years and older	1,732 (8%)

Race Breakdown - Persons (%)	
White	11,554 (53%)
African-American	476 (2%)
Hispanic-Origin	18,644 (85%)
Asian/Pacific Islander	656 (3%)
American Indian	203 (1%)
Other/Multiracial	9,076 (41%)

Education Level (Persons 25 & older) - Persons (%)	
Less than 9th Grade	3,323 (22.67%)
9th through 12th Grade	1,849 (12.62%)
High School Diploma	3,850 (26.27%)
Some College/2-year	3,770 (25.72%)
B.S./B.A. (Bachelor of Science/Bachelor of Arts) or More	1,859 (12.68%)

WORLD OIL
(https://worldoilcorp.com)

Recycling (https://worldoilcorp.com/divisions/)

How We Recycle (https://worldoilcorp.com/how-we-recycle/)

For Customers (https://worldoilcorp.com/for-customers/)

Reclaim, reprocess, recycle.

We believe recycling is one of the best ways to create a cleaner world and protect our natural resources. World Oil Recycling is California's leading recycler of used motor oil and antifreeze. With over 40 years of environmental service and as the largest environmental business of our kind in the western United States, we provide vital end-to-end recycling solutions—recovering, reclaiming, processing and disposing of hazardous and contaminated waste streams including waste oil, oily water and used antifreeze.

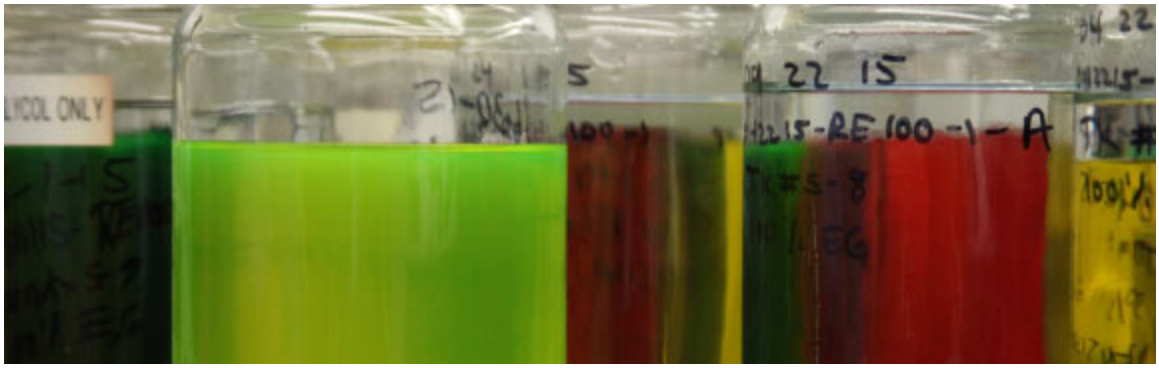
We are leading the way in conservation and sustainability by converting oil-based waste into diesel fuel and asphalt flux, and recycling used anti-freeze for conversion into new antifreeze. Our wastewater treatment standards meet and exceed the requirements set forth by the Los Angeles County Sanitation District and we were recognized as one of Compton's Best Green Businesses in 2014. And we are currently expanding our services beyond California, into AZ, NV and NM.

DeMenno/Kerdoon

DeMenno-Kerdoon is now World Oil Recycling

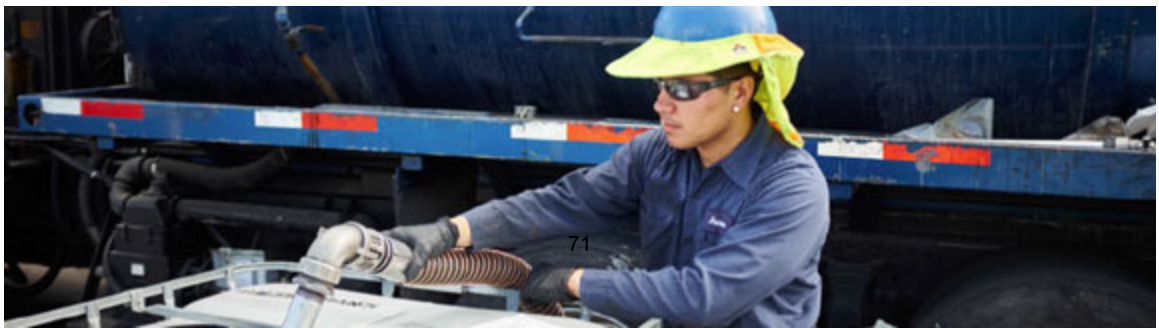
World Oil Antifreeze (https://worldoilcorp.com/WorldOil-Antifreeze/)

Trinity Antifreeze is now World Oil Antifreeze



How We Recycle (/how-we-recycle/)

We provide an end-to-end recycling solution for a variety of hazardous waste materials including used motor oil, oil filters, and antifreeze, oily-waste water, gasoline waste, and more. Learn more about how we recycle. > (/how-we-recycle/)



Start Recycling (/for-customers/)

Ready to start the recycling process or find your local certified used oil center? We're here to help. > (/for-customers/)

WORLD OIL ENVIRONMENTAL SERVICES®

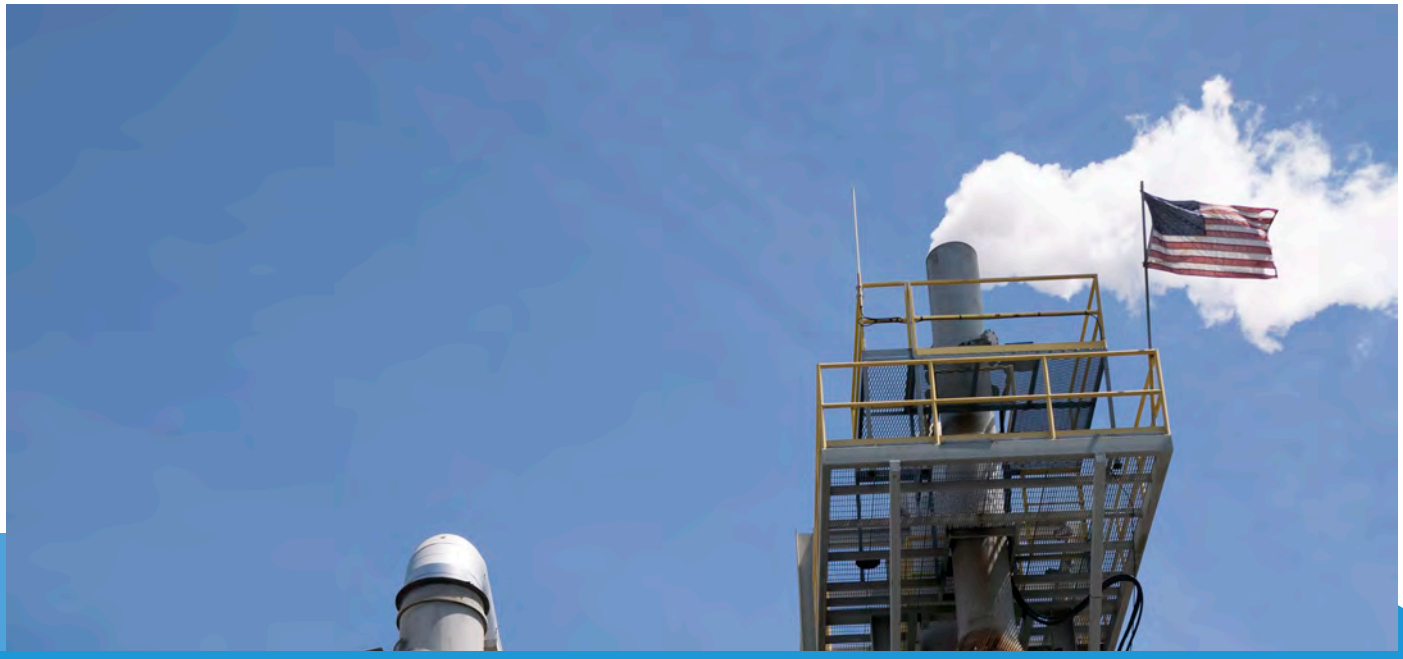
RECYCLING FOR A CLEANER ENVIRONMENT

A word from our CO-CEO's

WORLD OIL IS A HIGHLY DIVERSIFIED PETROLEUM CORPORATION

"Our father, Bernie Roth, built World Oil. He believed in doing right in everything that we do. Today, we are one of the largest, privately held companies in California. " Bob & Steve Roth

Commitment is our defining principle - to the environment, to our children's future, and to our customers. The ecological importance of the proper disposal of hazardous wastes cannot be overestimated. Although state and federal regulations have been established to control the disposal of these wastes, our earth's rivers, lakes, oceans and soils are still being contaminated every day. For over 75 years, World Oil Environmental Services has been providing companies with solutions for the proper recycling and disposal of hazardous waste materials. Working to serve our industry is at the heart of our commitment to our children and their children: clean air, clean waters, and clean soil.



"Our expertise and quality services make recycling and disposing waste or preventing storm water from contaminating our waters cost-effective as well as rewarding for our customers." - Jim Ennis, COO

The Solution You Need

World Oil Environmental Services has over seventy-five years of experience in the management and transportation of hazardous waste. We have been instrumental in the growth of our industry. Our sister company, World Oil Recycling, formerly known as DeMenno-Kerdoon, is the largest independent facility of its kind in the Western United States. A leader in both the transportion and recycling of hazardous wastes, we have decades of experience in the safe movement and processing of your hazardous wastes, offering you cradle to grave compliance.

With a network of waste oil and vacuum trucks stretching across the Southwestern United States, World Oil Environmental Services has an industry leading safety record. With over 20,000 customers, we offer your business continued compliance and uninterrupted operations.

1

FREE ON-SITE ESTIMATE

World Oil Environmental Services will bring our expertise to you.

2

WE'LL HANDLE THE PAPER WORK

FREE preparation of manifests, TSDF profiles, and land disposal restriction forms.

3

COMPETITIVE PRICING

Our affiliation with World Oil Recycling, formerly DeMenno-Kerdoon, along with other TSD facilities means World Oil Environmental Services clientele will always receive low prices.

4

CONVENIENCE

One call for all of your hazardous waste needs.

5

KNOW THAT YOUR OIL AND ANTIFREEZE ARE BEING DISPOSED OF PROPERLY

All work is performed in accordance with all applicable laws and regulations.

Why Us?

START AT THE BEGINNING...

Aligning your business with the right waste management company begins at your facility, with a review of your waste management practices. World Oil Environmental Services will come to your site to sample and profile each of your liquid waste streams, free of charge. Our detailed cost breakdown summarizes every aspect of World Oil Environmental Services from waste generation to transportation and disposal.

WORLD OIL OFFERS CRADLE TO GRAVE REGULATORY COMPLIANCE

With a network of waste oil and vacuum trucks across the Western US, and our recycling capabilities through our sister company, World Oil Recycling, World Oil Environmental Services has successfully transported and managed liquid automotive and industrial waste streams since 1936. No other company can make such a claim. No other company has more experience with more types of waste: used oil, used antifreeze, clarifier liquids, off-spec fuels, wastewaters with gasoline or diesel contamination, water soluble oils, cutting fluids, tank bottom wastes, cooling tower sludges, rinsate waters and groundwater waste streams.

YOU TAKE CARE OF BUSINESS - WE'LL TAKE CARE OF THE WASTE

Trust. Experience. Integrity. Call one of our representatives today to learn more about how your alliance with World Oil Environmental Services can translate into security for you and our environment. This remains our foremost promise since 1936.

We pick up at thousands of customers just like you.

World Oil Environmental Services will handle the transportation of your waste.

World Oil Recycling will process your used Anti-Freeze, Used Oil & Oily Water products.

World Oil Environmental Services provides a safe & cost effective solution.

LOCATIONS THROUGHOUT THE SOUTHWEST

We recycle over 3 million gallons of used antifreeze annually

60

WE RE-REFINE OVER 60 MILLION GALLONS OF USED OIL EVERY YEAR

Reclaim, Reprocess, Recycle

WE PROVIDE END-TO-END RECYCLING SOLUTIONS

We believe recycling is one of the best ways to create a cleaner world and protect our natural resources. World Oil Recycling is California's leading recycler of used motor oil and antifreeze. With over 40 years of environmental service and as the largest environmental business of our kind in the western United States, we provide vital end-to-end recycling solutions—recovering, reclaiming, processing and disposing of hazardous and contaminated waste streams including waste oil, oily water and used antifreeze.

We are leading the way in conservation and sustainability by converting oil-based waste into marine diesel fuel and asphalt flux, and recycling used anti-freeze for conversion into new antifreeze.

We eliminate your liability while creating a cleaner environment. Our laboratory maintains an on site CA State Water Resources Control Board accredidation program (ELAP), which follows a stringent QA/QC program. Our lab is also equipped with sophisticated equipment run by highly trained chemists, allowing us toexcel at meeting the demands of numerous regulatory agenies and bring recycled products to market. Just another reason why we were recognized as Compton's Best Green Businesses in 2014. We are also currently expanding our services beyond California, into Arizonia, Nevada and New Mexico.

Doing Right, In Everything that We Do®

World Oil Recycling One Stop Solution

Recycling Oil

We are the largest used oil re-refiner in the western United States. Our plant stays open 24/7 as millions of gallons of waste oil are processed each year. 24 hr. facility & customer service, either by appointment or just show up.

Our Oil Recycing Unit (ORU) uses industry leading processes to meet stringent requirements for recycled oil products.

Recycling Water

We are the only company with both the technology and the facilities to process 100% of your oily-water waste. We use state-of-the-art technology to recycle oily water to a quality which includes less than 75 parts per million of oil and grease.

Recycling Antifreeze

You need a safe and liablity free way of handling your used antifreeze. World Oil Recycling will take your used antifreeze and re-refine it into fresh antifreeze and ethylene glycol products that meet the stringent ASTM antifreeze specifications. Its the renewable alternative that protects the environment and produces a re-refined product that equal virgin antifreeze.

Recycling Fuel

Our RCRA Fuels Unit receives and safely stores waste fuels, before shipping them to permitted recyclers or incinerators.

World Oil Recycling

We maintain the highest standard of regulatory requirements, including those of the Los Angeles County Sanitation Department, The South Coast Air Quality Management Department, and Department of Toxic Substance Control.

Let us know what type of waste materials you would like us to recycle for you. If you have any questions about the waste profile, please contact our Customer Service Team at (310) 537-7100.

www.worldoilcorp.com

WE TURN OLD ANTIFREEZE INTO TOP QUALITY PRODUCTS

World Oil's line of antifreeze is the smart choice. Our clients include nationally known quick lube and tire retailers, independent shops, dealerships for non-warrenty vehicles, major fleet and civic clients.

We have been in the recycling spent antifreeze and other industrial glycols for over 20 years. Our system incorporates a multiphase recycling process utilizing pretreatment, multistate vacuum distillation, post polishing and batch testing that ensures that the quality of our ethylene glycol meets the ASTM E-1177 standard for antifreeze grade ethylene glycol.

Our Services

1 WASTE OIL, ANTIFREEZE & OIL FILTERS

With a fleet of over 300 assets serving the Western US every day, World Oil Environmental Services has established itself as the largest waste oil and antifreeze hauler in California. Oil and antifreeze can be picked up in any quantity, in either drums or bulk, to be recycled at World Oil Recycling.

2 OILY WATER / WATER SOLUBLE OIL

We transport oily water to our sister company's recycling facility, where the oily water is processed through a complete waste water treatment system, resulting in treated water that meets stringent effluent limits of LA County Sanitation District. Our team also specializes in clarifier, sump and water tank pumping.

3 FIELD SERVICES / CONTAINERIZED WASTE

Our Field Services Department offers lab packing, field chemistry, identification, and transportation of all RCRA and non-RCRA drummed, boxed or bulked wastes.

The Field Services Department has a qualified staff of well-trained project managers and field chemists to ensure service.

4 WORLD OIL ANTIFREEZE

World Oil produces a top quality line of recycled antifreeze products. Trinity products exceed the ASTM specifications for antifreeze grade, ASTM D3306 and ASTM D6210 performance specifications for light and heavy-duty applications.

Our antifreeze is not just the equal of virgin, but environmentally friendly.

LOCATIONS

CALIFORNIA

COMPTON, CERES, CHICO, DIXON, FONTANA, FORTUNA, PARLIER, SAN DIEGO, UNION CITY

NEW MEXICO

ALBUQUERQUE

NEVADA

LAS VEGAS, RENO

ARIZONA

PHOENIX

WORLD OIL
ENVIRONMENTAL SERVICES®

1300 South Santa Fe Avenue
Compton, CA 90221
Ph: 1-800-974-4495
Fax: 310-763-5922

WWW.WORLDOILCORP.COM

How We Recycle

Each year, millions of Californians change their motor oil and perform other automobile services that produce hazardous waste. World Oil Recycling provides end-to-end recycling solutions for byproducts including used motor oil, oil filters, and antifreeze, oily-waste water, gasoline waste, and more.

So what does that mean? Here's a little more information about our recycling processes for the materials we see the most of: used oil, oily water, antifreeze/glycol, and RCRA fuels.

Recycling Oil

We are the largest used oil re-refiner in the western United States, operating 24/7 and handling millions of gallons of waste oil each year. We never stop recycling.

While some treatment facilities improperly sell or dispose of their waste oil, at World Oil, we believe in doing things right. Our Oil Recycling Unit (ORU) uses state-of-the-art processes to meet stringent requirements for recycled oil product certification, including:

- Chemical and Physical Treatment
- Atmospheric Dehydration
- Fuel Stripping

- Vacuum Distillation
- Lube Treatments

World Oil Antifreeze (https://worldoilcorp.com/WorldOil-Antifreeze/)

Trinity Antifreeze is now World Oil Antifreeze (../WorldOil-Antifreeze/)

Start Recycling (/for-customers/)

Ready to start the recycling process or find your local certified used oil center? We're here to help. > (/for-customers/)

Recycling Water

We use state-of-the art technology to recycle oily water, bringing it down to less than 75 parts per million of oil and grease. The water-treatment process includes:

- Oil, Water and Solids Separation
- pH Neutralization
- Chemical Flocculation and Demulsification
- Dissolved Air Flotation
- Volatile Organic Removal

We maintain the highest standard of regulatory requirements, including Los Angeles County Sanitation Department, permitting. We stand behind our facility and our end product, so you never have to worry about liability. We maintain stringent Health, Safety, and Environment (HSE) policies at all of our facilities. All employees and contractors must follow these policies and take any precautions necessary to protect both themselves and their colleagues. Safety is our top priority.

Recycling Antifreeze

Cars use antifreeze. Used antifreeze is hazardous and is prohibited by law and regulation from being dumped or discharged into sewers, drains, or septic systems. Recycling antifreeze not only protects the environment from contamination, it saves precious resources while offering customers a cost-effective, renewable alternative.

We recycle antifreeze (glycol) waste into re-refined antifreeze and ethylene glycol that meets stringent requirements, as well as ASTM antifreeze specifications. Our state-of-the-art recycling facility features:

- Physical/Pre-Treatment
- Chemical Treatment
- Atmospheric Distillation
- Vacuum Distillation
- Carbon Adsorption

Our new World Oil Antifreeze line of products, formerly marketed under the Trinity® Brand, is a top customer choice. Our clients include nationally known quick lube and tire retailers, independent shops, dealerships for non-warranty vehicles, major fleet and civic clients. Our products meet all current ASTM standards for antifreeze grade ethylene glycol, light duty, and heavy duty antifreeze products.

We have been recycling spent antifreeze and other industrial glycols for over 20 years. Our system incorporates a multi-phase recycling process utilizing pretreatment, multi-stage vacuum distillation, post polishing, and batch testing to ensure that the quality of the recycled ethylene glycol meets the ASTM E-1177 standard for antifreeze grade ethylene glycol. This base product has been tested by major antifreeze and oil companies and has also been approved for use by a major Detroit OEM in their factory fill and OES blends. Our line of World Oil Antifreeze formulations are supplied to us by major antifreeze manufacturers for both heavy duty and light duty OEMs. They have also been stringently tested, meeting ASTM D3306, D6210, and other OEM standards. In addition to normal product development testing, World Oil Antifreeze products have been evaluated for chemical and performance compatibilities over a wide range of engine coolant technologies from across US, Asia, and Europe using ASTM D1384, D2809, and D4340 tests.

Recycling Fuel

When it comes to disposing of RCRA fuels, including solvents, paint-related materials, contaminated used oils, and other materials unsuitable for recycling, we take great care. Our RCRA Fuels Unit receives and safely stores waste RCRA fuels before shipping them to offsite, permitted recyclers or incinerators. It’s just one more way we’re working hard to make California cleaner today, and tomorrow.