

Appendix A – Detailed Action Descriptions

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Commercial & Industrial Sources Near Community (C&I)

C&I Strategies

1. Control Fugitive Dust
2. Utilize Permitting to Address Commercial and Industrial Sources Near Community
3. Reduce Exposure from Food Preparation
4. Large Industrial Sources
5. Commercial and Smaller Industrial Facilities

Detailed Action Descriptions

Strategy 1 – Control Fugitive Dust – Actions

Action #	C&I 1.1
Action name/brief description	<p>Dust White Paper (identify Best Management Practices (BMPs), evaluate Rule Development opportunities, and implement recommendations)</p> <p>Air District:</p> <ul style="list-style-type: none"> • Develop and Disseminate Dust White Paper (beginning in 2023) <ul style="list-style-type: none"> ◦ identify Best Management Practices (BMPs) ◦ evaluate Rule Development opportunities ◦ share with community and collect feedback on recommendations/next steps • Implement White Paper Recommendations <ul style="list-style-type: none"> ◦ Develop and adopt rule amendments identified ◦ Implement any other recommendations identified <p>CSC and/or community:</p> <ul style="list-style-type: none"> • Provide feedback via comment letter and/or participation in public workshops on the Dust White Paper • Provide feedback via comment letter and/or participation in public workshops on draft and proposed rule amendments
Type of action	Regulatory (Air District)
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Advisory Council Particulate Matter Reduction Strategy Report; PM _{2.5} Local Risk Methodology
Partners in action implementation	Local Government Agencies (e.g., planning bodies, Local Enforcement Agencies (LEAs)), rule development stakeholders (community, industry/facilities)
Key stakeholders to engage in action implementation	Community, especially in areas with greater fugitive dust exposure; Industry
Potential obstacles	Ensuring enforceability of BMPs; determining the appropriate level of community engagement on white paper and how to get feedback (as this is the first white paper produced by rule development); Industry resistance to additional burden/costs (potential pushback with respect to best practices and what is appropriate to implement); Differences of opinion on what best practices are (industry may already have self-identified BMPs); Air District staff resources

Action initiation timeframe	Near=<2 years
Action intervention point	Emissions and Exposure (after white paper recommendations are implemented)
Action impact timeframe	Near=<2 years; Mid=2-4 years
Measure/metric of action implementation	Was the White Paper finalized? (yes/no) Were any regulatory actions started due to the White Paper? (yes/no)
Can any emission/exposure reduction be estimated	Too prospective at this time

Action #	C&I 1.2
Action name/brief description	<p>Advocate for and/or Implement Local Best Practices (locally-required BMPs; outreach/education on dust control and BMPs) with Partners</p> <p>Air District:</p> <ul style="list-style-type: none"> Recommend local governments include BMPs for Fugitive Dust in their conditions of approval for their projects (with an accessible list of up-to-date BMPs available via the web; See an initial list of BMPs provided below): <ul style="list-style-type: none"> BMP #1: All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. BMP #2: All haul trucks transporting soil, sand, or other loose material off-site shall be covered. BMP #3: All visible mud or dirt trackout onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. BMP #4: All vehicle speeds on unpaved roads shall be limited to 15 mph. BMP #5: All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. BMP #6: All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph. BMP #7: All trucks and equipment, including their tires, shall be washed off prior to leaving the site. BMP #8: Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel. BMP #9: Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air

	<p>District's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.</p> <ul style="list-style-type: none"> ○ Additional BMP: Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent. ○ Additional BMP: Limit the simultaneous occurrence of excavation, grading, and ground-disturbing construction activities. ○ Additional BMP: Install wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity. ○ Additional BMP: Plant vegetative ground cover (e.g., fast-germinating native grass seed) in disturbed areas as soon as possible and watered appropriately until vegetation is established ○ Additional BMP: Minimize the amount of excavated material or waste materials stored at the site. ○ Additional BMP: Hydroseed or apply non-toxic soil stabilizers to construction areas, including previously graded areas, that are inactive for at least 10 calendar days. ○ Additional BMP: Require zero visible fugitive dust and use fence line air monitoring to demonstrate compliance with this requirement. ○ Additional BMP: Set requirements for when dust generating operations have to be shut down due to dust crossing the property boundary or if dust is contained within the property boundary but not controlled after a specified number of minutes. ○ Additional BMP: Prohibiting grading on days when a Spare the Air is in effect (https://www.sparetheair.org/) ○ Additional BMP: Prohibiting grading on days with an Air Quality Index forecast of greater than 100 for particulates for the PTCA area ● Ensure BMPs are easily accessible by Local Government agencies as well as project implementers <ul style="list-style-type: none"> ○ Work with local government partners to define what is easily accessible (e.g., website posting in an intuitive location) ○ Update initial list of BMPs as necessary, informed by work such as the Dust White Paper
Type of action	Regulatory (Local Government)
Lead action implementor	Local Government Planning Agencies, including: City of Richmond Planning Division, City of Richmond Building Division, Contra Costa County Department of Conservation and Development, City of San Pablo Planning & Zoning Division, City of San Pablo Building Services Division
Related existing Program, Policy, or Initiative	Advisory Council Particulate Matter effort - Particulate Matter Reduction Strategy Report; Air District Local Government Program
Partners in action implementation	Air District
Key stakeholders to engage in	Community; industry/construction development stakeholders

action implementation	
Potential obstacles	Need for enforcement resources for conditions of approval; political pushback on additional burden imposed for projects; Staff resources at local jurisdictions to champion the implementation of BMPs
Action initiation timeframe	Near=<2 years
Action intervention point	Emissions
Action impact timeframe	Near=<2 years
Measure/metric of action implementation	Number of standard conditions of approval updated to include fugitive dust provisions (e.g., counts from all three jurisdictions - unincorporated Contra Costa County, City of Richmond and City of San Pablo)
Can any emission/exposure reduction be estimated	Can estimate post-implementation, but too speculative pre-implementation because of variability of projects and BMPs

Action #	C&I 1.3
Action name/brief description	Gap Analysis RE Dust White Paper and BMPs for Community-Identified Sources Air District: <ul style="list-style-type: none"> Conduct a gap analysis, after implementing C&I 1.1 and 1.2, to determine if additional emissions and exposure reduction actions are needed for Community-Identified Sources (including large sources) <ul style="list-style-type: none"> Determine whether implementation of the white paper recommendations and/or BMPs was sufficient If not, work with CSC to address remaining concerns
Type of action	Further research
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Actions 1.1 and 1.2 for Control Fugitive Dust
Partners in action implementation	Community
Key stakeholders to engage in action implementation	Community; Industry
Potential obstacles	See C&I 1.1 and 1.2; Additionally, there may be challenges finding additional solutions that go beyond C&I 1.1 and 1.2, if these actions do not adequately decrease and/or address all fugitive dust concerns
Action initiation timeframe	Near=<2 years; Mid=2-4 years (note: timeframe is dependent on progress on C&I 1.1 and 1.2)
Action intervention point	Emissions
Action impact timeframe	Near=<2 years; Mid=2-4 years (note: timeframe is dependent on progress on C&I 1.1 and 1.2)

Measure/metric of action implementation	Gaps analysis conducted (yes/no) Facilities reviewed via further study (#)
Can any emission/exposure reduction be estimated	-

Strategy 2 – Utilize Permitting to Address Commercial and Industrial Sources Near Community – Actions

Action #	C&I 2.1
Action name/brief description	<p>Undertake an Education, Outreach, and Communications effort with respect to Air District permitting:</p> <p>Air District:</p> <ul style="list-style-type: none"> ● Conduct Education and Outreach around <ul style="list-style-type: none"> ○ Navigating the Air District website, which could cover topics such as <ul style="list-style-type: none"> ■ Permit applications received (https://www.baaqmd.gov/permits/public-notices/permit-applications-received) ■ Listserv sign-ups for notifications ■ Opportunities for community participation to meaningfully impact the permitting process (https://www.baaqmd.gov/permits/public-notices/public-comments-on-permit-applications) ■ Accessing information in permits, including <ul style="list-style-type: none"> ● Title V compliance schedules ● Monitoring requirements <ul style="list-style-type: none"> ○ use a fuel refining facility permit as an example when developing materials for this ○ Utilizing the Air District Permit Ombudsman ● Consider additional education and outreach tools, like <ul style="list-style-type: none"> ○ Developing a video or instruction for how to use these features ● Consider additional staffing in order to cover additional work for this effort. ● Cross-reference: Community Engagement Subcommittee <ul style="list-style-type: none"> ○ Consider need for translating permit notices into various languages ○ And consider creating focused sign-up opportunities for receiving notices about new permit applications - via listserv emails or text notification - that could be set for an area (e.g., the PTCA area) or facility type (e.g., for fuel refining activities)
Type of action	Education/Outreach
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Permitting

Partners in action implementation	n/a
Key stakeholders to engage in action implementation	CSC, community
Potential obstacles	Staff resources; Identifying the best mechanisms for education and outreach could take some iteration, which could be seen as an obstacle as well
Action initiation timeframe	Near =<2 years
Action intervention point	n/a
Action impact timeframe	Near=<2 years; Mid=2-4 years
Measure/metric of action implementation	Have education and outreach materials been developed? Have education and outreach materials been translated and distributed?
Can any emission/exposure reduction be estimated	-

Action #	C&I 2.2
Action name/brief description	<p>Maintain and strengthen collaborative efforts with other Air District Divisions and external partners</p> <p>Air District Engineering Division:</p> <ul style="list-style-type: none"> Continue with effort to develop protocols for working with enforcement, meteorology and measurements, and legal staff to ensure enforceability of permit conditions and continuous compliance with emissions limits Continue to coordinate with the Planning division to comment on CEQA projects early on, including administrative drafts <ul style="list-style-type: none"> Consider additional staffing in order to cover larger numbers of projects in greater detail Work with Community Engagement and District Counsel to develop equitable protocols for responding to requests to extend comment periods for permits. Strengthen relationship with the City and County and other entities that often act as CEQA lead agencies <p>Cross-cutting for Fuel Refining:</p> <ul style="list-style-type: none"> Specifically, for fuel refining work, the Permit Ombudsman, C&E Ombudsman and Meteorology and Measurements, should identify opportunities to strengthen collaboration Cross-references: FR 3.5 (NOVs), 3.14 (monitoring), FR 3.12 (CEQA)
Type of action	Permitting
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Permitting
Partners in action implementation	various Air District divisions (including enforcement, meteorology and measurements, legal, and planning)

Key stakeholders to engage in action implementation	City, County, other entities that often act as lead agencies CSC, community
Potential obstacles	Resources, in terms of staff time, can be an obstacle that limits collaboration. Establishing lasting relationships with CEQA lead agencies could be affected by any turnover of CEQA-related staffing either internally or externally over time
Action initiation timeframe	Near =<2 years
Action intervention point	n/a
Action impact timeframe	Near=<2 years
Measure/metric of action implementation	How many CEQA projects in the PTCA area have been commented on by Engineering and Planning? (#) Have equitable protocols for responding to requests to extend comment periods for permits been developed? (y/n)
Can any emission/exposure reduction be estimated	-

Action #	C&I 2.3
Action name/brief description	Conduct periodic reviews of emissions reduction progress for Title V facilities <ul style="list-style-type: none"> • Conduct a detailed analysis, including looking for trends across years <ul style="list-style-type: none"> ◦ work with CSC to define objectives of what analysis should accomplish • As applicable, produce a transparent overview of emissions reduction progress <ul style="list-style-type: none"> ◦ Include these overviews as part of PTCA CERP Annual Reports • Prioritize implementation of this action for Fuel refining facilities first Cross-reference: Resource PTCA Plan Implementation
Type of action	Permitting
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Permitting; Emissions reporting
Partners in action implementation	CSC
Key stakeholders to engage in action implementation	CSC
Potential obstacles	Staffing resources to conduct additional analyses will present an obstacle
Action initiation timeframe	Near=<2 years
Action intervention point	n/a

Action impact timeframe	Near=<2 years; Mid=2-4 years
Measure/metric of action implementation	How many Title V facilities received a review? (#)
Can any emission/exposure reduction be estimated	-

Action #	C&I 2.4
Action name/brief description	<p>Open permitting rules for rule development. Evaluate rule amendment opportunities</p> <ul style="list-style-type: none"> Evaluate rule amendments covering: <ul style="list-style-type: none"> Clean up of exemptions Rule 2-1: Consider improvements to overburdened community (OBC) maps, including expanded buffer zones to resolve any idiosyncrasies in the maps Rule 2-2: Consider updates to New Source review requirements with respect to PM_{2.5} NAAQS revisions Rule 2-5: modify Table 2-5-1 Toxic Air Contaminant Trigger Levels, which contains the list of TACs and health effects values <ul style="list-style-type: none"> to add newer OEHHA compounds and values and become consistent with the state When the rule development process is started, engage CSC and community to identify rule concepts Cross-reference: Implement PM_{2.5} Local Risk Methodology (FR 5.3) Cross-reference: FR 3.10 Title VI and Disparate Impact Analysis Cross-reference: Land Use Action 1.4 (LU 1.4): Site Development Standards and Conditions of Approval
Type of action	Regulatory (Air District)
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Permitting, Rules 2-1, 2-5, and Regulation 3
Partners in action implementation	Air District: various divisions
Key stakeholders to engage in action implementation	CSC, community
Potential obstacles	Staffing resources
Action initiation timeframe	Near=<2 years; Mid=2-4 years
Action intervention point	Emissions, Exposure
Action impact timeframe	Mid=2-4 years; Long > 4 years

Measure/metric of action implementation	<ul style="list-style-type: none"> • Were draft rule amendments developed and released for feedback? (y/n) • Were rule amendments adopted? (y/n)
Can any emission/exposure reduction be estimated	Too speculative

Strategy 3 – Reduce Exposure from Food Preparation – Actions

Action #	C&I 3.1
Action name/brief description	<p>Restaurants White Paper</p> <p>Develop a white paper that will consider any need for a PTCA inventory refinement (e.g., for emissions from charbroilers, cooking beef or other meats etc., evaluations of volumes cooked; impacts from wood-burning cooking), any unintended consequences from regulation (e.g., impacts on small businesses) and how best to engage with restaurants (especially small businesses). Initiate by the end of 2024.</p> <p>Specifically, the white paper will research control technologies: venting, and controls for emissions into ambient air; the indoor impacts from cooking (including with respect to the source of energy used – e.g., Natural Gas). The white paper could consider implementation in coordination with Environmental Health restaurant inspections. The use of incentives for driving change in this industry should also be seriously evaluated within the white paper.</p> <p>This action will involve engagement with restaurant and food preparation stakeholders and the public.¹</p>
Type of action	Further research; Regulatory; Incentives
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Air District Healthy Homes Program; Contra Costa County Electrification Ordinance; City of Richmond Electrification Ordinance; City of San Pablo Electrification Ordinance
Partners in action implementation	Community, Restaurants; East Bay Small Business Development Center (https://www.eastbaysbdc.org/), Chamber of Commerce, Richmond Main Street
Key stakeholders to engage in action implementation	Community, Restaurants; East Bay Small Business Development Center (https://www.eastbaysbdc.org/), Chamber of Commerce, Richmond Main Street
Potential obstacles	Air District staff time available to draft the white paper; Any data gaps in restaurant data needed to fulfill the goals of the white paper could delay implementation of findings from the white paper

¹ See Jamboard slides from 11/28/22 PTCA CSC Meeting (Slide 20) regarding ideas for engaging small businesses and the public in this white paper and the implementation of all actions under this Strategy: <https://jamboard.google.com/d/1zhAZH-dIHxNeqFDIzAo5MOI2Oj3e6wkcCBqoeJuMAM4/viewer?f=19>

Action initiation timeframe	Near=<2 years
Action intervention point	Emissions
Action impact timeframe	Mid=2-4 years
Measure/metric of action implementation	<ul style="list-style-type: none"> • Was a white paper produced? • Was a rule development effort or incentive program initiated?
Can any emission/exposure reduction be estimated	-

Action #	C&I 3.2
Action name/brief description	<p>Other Food Preparation: Evaluate the Need for Further Study and/or Additional Actions</p> <p>Evaluate the need for further study (e.g., using monitoring results from the CAMP; modeling findings) regarding potential additional actions that would cover the emissions and exposure from other food preparation activities, outside of standard restaurants. This could include, but is not limited to:</p> <ul style="list-style-type: none"> • Impacts from and solutions for other misc. sources such as: <ul style="list-style-type: none"> ◦ Coffee roasters; Banana ripening rooms; Bakeries; Breweries; Food Trucks and Food Sales Events (including clean energy alternatives for powering these operations)
Type of action	Further research
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	PTCA CAMP Results and Monitoring Outreach Team (MOT) work; Social Pinpoint findings
Partners in action implementation	CARB, Operators of other food preparation facilities (as listed above)
Key stakeholders to engage in action implementation	Other food preparation facilities, and Communities living nearby
Potential obstacles	Obstacles would include access to information and data for other food preparation facilities, which is likely needed to be able to assess if additional controls or actions are needed.
Action initiation timeframe	Near=<2 years
Action intervention point	Emissions
Action impact timeframe	Near=<2 years; Mid=2-4 years
Measure/metric of action implementation	<ul style="list-style-type: none"> • Were any food preparation activities identified via review of the CAMP results (to determine if further study is needed)? • Were additional actions undertaken to address any identified food preparation activities, including further study?

Can any emission/exposure reduction be estimated	-
Action #	C&I 3.3
Action name/brief description	<p>Evaluate potential mechanisms for achieving voluntary emissions reductions from food preparation facilities and operations (i.e., incentives and/or behavioral change campaigns) and implement promising mechanisms on a rolling basis</p> <p>This action entails evaluating the potential for incentives to reduce PM, such as small business incentives, as well as researching simpler ways that would help restaurants reduce their PM_{2.5} emissions (whether via outreach encouraging voluntary action or monetary incentives). This is intended to encourage more immediate reductions, before any potential rule requirements are developed and go into effect. This could also inform the white paper evaluation of incentives opportunities.</p> <p>For example, this action could evaluate and/or implement an outreach and education campaign to partner with restaurants, to become "air quality friendly" partners in reducing PM from cooking meat. This could involve a "certification" for restaurants as "air quality friendly" partners of Air District, once they have either achieved a certain reduction in PM, and/or a certain reduction in the amount of meat cooked (to be determined by community). This action would be similar to restaurant partnerships formed as part of the Billion Oyster Project on the East Coast, for example: https://www.billionoysterproject.org/restaurants</p> <p>It should be noted that further evaluation for incentives and/or outreach mechanisms are not dependent upon each other, and evaluation for both mechanisms does not need to be finished before starting implementation for one or the other. Early action is the key for this approach.</p>
Type of action	Further research; Incentives; Education/Outreach
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	CARB Statewide Strategy for Commercial Cooking Air District and CARB incentives programs
Partners in action implementation	CARB; Small businesses; Community living or working adjacent to these businesses; Small business associations; Contra Costa County Health Services
Key stakeholders to engage in action implementation	CARB; Small businesses; Community living or working adjacent to these businesses; Small business associations; Contra Costa County Health Services
Potential obstacles	Staff capacity to research into the potential for incentives and into simpler ways to reduce PM _{2.5} before a potential rule requirement. It could also be possible that there are not many options available for mechanisms to reduce emissions, aren't any relevant incentives, and/or that an outreach campaign would be ineffective. Administrative work associated with setting up a funding source would require resources, which may not be easily available. There also may be issues with availability of funds. Technical feasibility may be

	an obstacle with respect to identifying mechanisms that can achieve reductions.
Action initiation timeframe	Near=<2 years
Action intervention point	Emissions
Action impact timeframe	Near=<2 years; Mid=2-4 years
Measure/metric of action implementation	Was the research conducted for an incentive and/or outreach campaign to reduce PM from food preparation facilities and/or operations? (yes/no) Was an outreach and education campaign created? (yes/no) Were incentives opportunities identified? (yes/no)
Can any emission/exposure reduction be estimated	-

Strategy 4 – Large Industrial Sources - Actions

Action #	C&I 4.1
Action name/brief description	<p>Implement Rule 11-18 at Large Facilities (Non-Fuel Refining)</p> <p>This action will cover all non-fuel refining facilities subject to Rule 11-18 (See Fuel Refining Strategy 1 for strategies regarding Fuel Refining facilities subject to Rule 11-18). It seeks to reduce localized exposure from TAC emissions from large facilities in the PTCA area.</p> <p>Air District:</p> <ul style="list-style-type: none"> Implement 11-18 at all non-fuel-refining facilities subject to the rule <ul style="list-style-type: none"> ● For Phase 1 facilities (non-fuel refining), implement 11-18 in an expeditious manner <ul style="list-style-type: none"> ○ Complete and publish the Health Risk Assessment (HRA) <ul style="list-style-type: none"> ■ Finalize HRA expeditiously ○ If an RRP is required, <ul style="list-style-type: none"> ■ Evaluate the Risk Reduction Plan (RRP) expeditiously <ul style="list-style-type: none"> ● Perform all applicable global best practices analyses to ensure RRP is maximally stringent ■ Perform retrospective analysis on RRP to identify any gaps in risk reduction that would remain after Rule 11-18 implementation <ul style="list-style-type: none"> ● Consult with CSC on RRP targets in order to determine priority concerns with respect to remaining risk ● For any Phase 2 facilities (non-fuel refining), implement 11-18 in an expeditious manner <ul style="list-style-type: none"> ○ Via the same flow of steps outlined above for Phase 1 facilities ● Also, provide CSC and stakeholders listed above regular Rule 11-18 HRA and RRP implementation status reports <ul style="list-style-type: none"> ○ Cross-reference Fuel Refining Action 4.4: Rule 11-18 Implementation Status Report <p>CSC and community:</p>

	<ul style="list-style-type: none"> For any Phase 1 and Phase 2 facilities (non-fuel refining) consider the following: <ul style="list-style-type: none"> Comment on HRA during public comment period Comment on RRP during public comment period Consult with NGO support for a third-party perspective <p><u>Phase 1 and 2 Facilities – Non-Fuel Refining (as of 6.1.2023)</u></p> <p>Phase 1:</p> <ul style="list-style-type: none"> West Contra Costa Landfill (see C&I Action 4.4) <p>Phase 2:</p> <ul style="list-style-type: none"> Levin Richmond Terminal Corporation (see C&I Action 4.2) New NGC, Inc. (Gold Bond Building Products, LLC) West County Wastewater District City of Richmond Wastewater Treatment Plant East Bay MUD State of California (Richmond Parkway Laboratory) BNSF Railway Company Wareham Property Group – EPA Lab
Type of action	Regulatory (Air District) Implementation
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Rule 11-18
Partners in action implementation	Phase 1 and 2 facilities (that are non-fuel refining)
Key stakeholders to engage in action implementation	CSC and community
Potential obstacles	Staffing for the implementation of Rule 11-18 can be an obstacle, as the rule implementation timelines are impacted by resource limitations. Additionally, any facility subject to Rule 11-18 may respond to the HRA and RRP steps in 11-18 implementation in a way that extends timelines for implementation to the maximum extent possible. Further, there might be obstacles with respect to engaging NGO partners for support on HRA and RRP reviews, should an NGO not have capacity at any given time to provide said support.
Action initiation timeframe	Near=<2 years; Mid=2-4 years
Action intervention point	Emissions, Exposure
Action impact timeframe	Long > 4 years
Measure/metric of action implementation	<ul style="list-style-type: none"> Was an HRA produced (for a given facility)? If an RRP was required: <ul style="list-style-type: none"> Was an RRP produced (for a given facility)? Was an RRP implemented (for a given facility)?
Can any emission/exposure reduction be estimated	Too speculative until RRP's are available

Action #	C&I 4.2
Action name/brief description	<p>Levin Terminal: Implement Rule 11-18 and Conduct Gap Analysis</p> <p>This action will seek to reduce both exposure to toxics and particulate matter emissions that result in community exposure from Levin Terminal.</p> <p>Air District:</p> <ul style="list-style-type: none"> ● Implement Rule 11-18 at Levin Terminal (See Action 4.1) <p>and</p> <ul style="list-style-type: none"> ● Evaluate implementation of Settlement Agreement between City of Richmond and Levin Terminal, addressing the City Ordinance and requirements for the period of time leading up to the 2026 phase out of coal and petroleum coke ("petcoke") storage and handling ● Working with the City of Richmond, ensure compliance with conditions and terms included in the Settlement Agreement ● Further, identify any gaps in the Settlement Agreement, or potential for expedition of conditions and terms. Specifically: <ul style="list-style-type: none"> ○ Amendments to Ordinance: <ul style="list-style-type: none"> ■ Air District and the CSC and/or broader community meet with the City of Richmond to explore potential for expediting the amortization by 1-3 years. ○ Facilitation of Transition to Other Commodities: <ul style="list-style-type: none"> ■ Track and weigh-in on the transition to alternate uses and other commodities (for post-2026), and comment as applicable and necessary to protect public health and reduce emissions. Including but not limited to: <ul style="list-style-type: none"> ● Any CEQA analysis undertaken (cross-reference C&I 2.2) ○ Additional Dust Control Measures: <ul style="list-style-type: none"> ■ Evaluate mechanisms to impose additional dust control measures, including: <ul style="list-style-type: none"> ● Working with the City of Richmond to either require and/or incentivize additional Dust Control Measures, such as those identified in the C&I Fugitive Dust Strategy. ● Utilizing the Dust White Paper from the C&I Fugitive Dust Strategy to identify regulatory and/or incentive mechanisms that could be applied at the Air District level. ● Air District: Include in Annual C&E Report (see C&E 1.3: Update CSC regularly (with annual community-friendly reports)) a Status and Overview of Levin Terminal Issues <ul style="list-style-type: none"> ○ additionally, <ul style="list-style-type: none"> ■ provide information in the annual report on any actions taken, processes put in place, measures implemented to address emissions and/or exposure ■ upload NOV information to NOV query tool as soon as available ■ and, as requested by the CSC, report out more frequently

	<ul style="list-style-type: none"> • Air District or CSC: Share Annual C&E report and, as applicable, any interim reports, with any nearby community associations (e.g., neighborhood councils) • Air District: Cross-reference Fuel Refining Action 3.8: Legal Approaches <ul style="list-style-type: none"> ◦ include review of compliance history for facilities identified in 'C&I Strategy 4 Large Industrial Facilities', as part of collaborative development
Type of action	Further research; Incentives; Regulatory
Lead action implementor	Air District; City of Richmond
Related existing Program, Policy, or Initiative	City of Richmond and Levin Terminal Settlement Agreement; Air District CEQA Thresholds; Air District CEQA commenting practice
Partners in action implementation	City of Richmond; CSC; Levin Terminal
Key stakeholders to engage in action implementation	City of Richmond; CSC and community; Levin Terminal
Potential obstacles	Resources; City of Richmond capacity to revisit Settlement Agreement and/or pursue additional actions to this end; Facility willingness to add additional controls/best practices to their operations
Action initiation timeframe	Near=<2 years
Action intervention point	Emissions, Exposure
Action impact timeframe	Near=<2 years; Mid=2-4 years
Measure/metric of action implementation	<ul style="list-style-type: none"> • Was an HRA produced (for a given facility)? • If an RRP was required: <ul style="list-style-type: none"> ◦ Was an RRP produced (for a given facility)? ◦ Was an RRP implemented (for a given facility)? • Was a gap analysis conducted with respect to the settlement agreement and additional PM reduction opportunities? (yes/no?)
Can any emission/exposure reduction be estimated	-

Action #	C&I 4.3
Action name/brief description	<p>New NGC (Gold Bond, Inc.): Implement Rule 11-18 and Conduct Gap Analysis</p> <p>This action will seek to reduce both exposure to toxics and reduce particulate matter exposure and visible emissions from New NGC.</p> <p>Air District:</p> <ul style="list-style-type: none"> • Implement Rule 11-18 at New NGC, Inc (See Action 4.1) <p>and</p> <p>Air District and/or CSC:</p>

	<ul style="list-style-type: none"> • Air District: Track success of relevant C&I strategies expected to address particulate matter issues at New NGC. <ul style="list-style-type: none"> ○ Specifically, <ul style="list-style-type: none"> ▪ C&I Strategy 1: Control Fugitive Dust, ▪ C&E 1.2: Conduct targeted investigations of facilities of community concern ○ Additionally, if any gaps are identified where existing strategies/actions do not sufficiently address concerns with New NGC, determine additional actions needed • Air District: Include in Annual C&E Report (see C&E 1.3: Update CSC regularly (with annual community-friendly reports)) a Status and Overview of New NGC Issues <ul style="list-style-type: none"> ○ additionally, <ul style="list-style-type: none"> ▪ provide information in the annual report on any actions taken, processes put in place, measures implemented to address emissions and/or exposure ▪ upload NOV information to NOV query tool as soon as available ○ and, as requested by the CSC, report out more frequently • Air District or CSC: Share Annual C&E report and, as applicable, any interim reports, with any nearby community associations (e.g., neighborhood councils) • Air District: Cross-reference Fuel Refining Action 3.8: Legal Approaches <ul style="list-style-type: none"> ○ include review of compliance history for facilities identified in 'C&I Strategy 4 Large Industrial Facilities', as part of collaborative development
Type of action	Further Study; Regulatory; Enforcement
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Air District Compliance and Enforcement; Dust White Paper; PM _{2.5} Local Risk Methodology
Partners in action implementation	Community, CSC, New NGC
Key stakeholders to engage in action implementation	Community, CSC, New NGC
Potential obstacles	<p>Current penalty practices may not be sufficient motivation for facilities known to be repeat violators. New NGC has already received Notices of Violation for excessive visible emissions and public nuisance. While the Air District has been working with the facility to solve these issues, if the pattern does not change and these violations continue, Air District may need to revisit their approach.</p> <p>Further, as a result of the white paper evaluation under C&I Strategy 1: Control Fugitive Dust, it may be determined that a regulatory mechanism to require additional Fugitive Dust Control measures is not the most effective tool to use. There also may be challenges with enforceability of certain requirements, including issues with measuring fugitive dust emissions and/or documenting exceedances. For these reasons, there may be obstacles with</p>

	respect to better controlling or containing New NGC's emissions from offloading and stockpiles.
Action initiation timeframe	Near=<2 years
Action intervention point	Emissions, Exposure
Action impact timeframe	Near=<2 years; Mid=2-4 years
Measure/metric of action implementation	<ul style="list-style-type: none"> • Was an HRA produced (for a given facility)? • If an RRP was required: <ul style="list-style-type: none"> ◦ Was an RRP produced (for a given facility)? ◦ Was an RRP implemented (for a given facility)? • Were additional enforcement mechanisms implemented? (yes/no) • Were additional Fugitive Dust controls implemented? (yes/no) • Has the number of Notices of Violations decreased? (yes/no) • Was an annual report produced and shared? (yes/no)
Can any emission/exposure reduction be estimated	-

Action #	C&I 4.4
Action name/brief description	<p>West Contra Costa County (WCCC) Landfill</p> <p>This strategy will seek to decrease particulate matter from the WCCC Landfill site, as well as address the source of the facility's complaints and violations.</p> <p>Air District:</p> <ul style="list-style-type: none"> • Implement Rule 11-18 at West Contra Costa County (WCCC) Landfill (See Action 4.1) <p>and</p> <p>Air District and/or CSC:</p> <ul style="list-style-type: none"> • Air District: Track success of other relevant C&I strategies expected to address particulate matter issues at WCCC Landfill. <ul style="list-style-type: none"> ◦ Specifically, <ul style="list-style-type: none"> ▪ C&I Strategy 1: Control Fugitive Dust, ▪ C&E 1.2: Conduct targeted investigations of facilities of community concern ◦ Additionally, if any gaps are identified where existing strategies/actions do not sufficiently address concerns with WCCC Landfill, determine additional actions needed • Air District: Include in Annual C&E Report (see C&E 1.3: Update CSC regularly (with annual community-friendly reports)) a Status and Overview of WCCC Landfill Issues <ul style="list-style-type: none"> ◦ additionally, <ul style="list-style-type: none"> ▪ provide information in the annual report on any actions taken, processes put in place, measures implemented to address emissions and/or exposure ▪ upload NOV information to NOV query tool as soon as available ◦ and, as requested by the CSC, report out more frequently

	<ul style="list-style-type: none"> • Air District or CSC: Share Annual C&E report and, as applicable, any interim reports, with any nearby community associations (e.g., neighborhood councils) • Air District: Cross-reference Fuel Refining Action 3.8: Legal Approaches <ul style="list-style-type: none"> ◦ include review of compliance history for facilities identified in 'C&I Strategy 4 Large Industrial Facilities', as part of collaborative development • Air District: Track Raven SR Bioenergy Project for potential impacts, including the following topics of concern: toxics, odors <ul style="list-style-type: none"> ◦ Track CEQA commitments: implementation of AQ-related mitigations included in the Mitigated Negative Declaration
Type of action	Further Study; Regulatory; Enforcement
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Air District Compliance and Enforcement; Dust White Paper; PM _{2.5} Local Risk Methodology
Partners in action implementation	Community, CSC, WCCC Landfill
Key stakeholders to engage in action implementation	Community, CSC, WCCC Landfill
Potential obstacles	<p>Current penalty practices may not be sufficient motivation for facilities known to be repeat violators. Since the WCCC has already received Notices of Violation for excessive visible emissions and public nuisance, if there haven't been any changes since these violations, Air District may need to revisit their approach.</p> <p>As a result of the white paper evaluation under C&I Strategy 1: Control Fugitive Dust, it may be determined that a regulatory mechanism to require additional Fugitive Dust Control measures is not the most effective tool to use. There also may be challenges with enforceability of certain requirements, including issues with measuring fugitive dust emissions and/or documenting exceedances. For these reasons, there may be obstacles.</p>
Action initiation timeframe	Near=<2 years
Action intervention point	Emissions, Exposure
Action impact timeframe	Near=<2 years; Mid=2-4 years
Measure/metric of action implementation	<ul style="list-style-type: none"> • Was an HRA produced (for a given facility)? • If an RRP was required: <ul style="list-style-type: none"> ◦ Was an RRP produced (for a given facility)? ◦ Was an RRP implemented (for a given facility)? • Was a gap analysis conducted with respect to the settlement agreement and additional PM reduction opportunities? (yes/no?) • Were additional enforcement mechanisms implemented? (yes/no) • Were additional Fugitive Dust controls implemented? (yes/no) • Has the number of Notices of Violations decreased? (yes/no)

	<ul style="list-style-type: none"> Was an annual report produced and shared? (yes/no)
Can any emission/exposure reduction be estimated	-
Action #	C&I 4.5
Action name/brief description	<p>Metal Recycling (Sims, Pick n Pull): Source Evaluation</p> <p>Air District and/or CSC:</p> <ul style="list-style-type: none"> Air District: Develop Metals White paper evaluating problems and solutions to address community concerns and environmental impacts associated with metals facilities (beginning in 2023) <ul style="list-style-type: none"> align with WCOAP Strategy # 68: "amendments to further reduce emissions from metal recycling and foundry operations..." Air District: Improve emissions inventory data for Sims Metals <ul style="list-style-type: none"> estimate fugitive PM and TAC emissions e.g., deploy fallout plates Air District: Track success of relevant C&I strategies expected to address particulate matter issues at metal recycling facilities in Richmond (Sims Metal and Pick n Pull). <ul style="list-style-type: none"> Specifically, <ul style="list-style-type: none"> C&I Strategy 1: Control Fugitive Dust, C&E 1.2: Conduct targeted investigations of facilities of community concern Additionally, if any gaps are identified where existing strategies/actions do not sufficiently address concerns with Sims Metal and/or Pick n Pull, determine additional actions needed Air District: Include in Annual C&E Report (See C&E 1.3: Update CSC regularly (with annual community-friendly reports)) a Status and Overview of Metal Recycling facility Issues <ul style="list-style-type: none"> additionally, <ul style="list-style-type: none"> provide information in the annual report on any actions taken, processes put in place, measures implemented to address emissions and/or exposure upload NOV information to NOV query tool as soon as available and, as requested by the CSC, report out more frequently Air District or CSC: Share Annual C&E report and, as applicable, any interim reports, with any nearby community associations (e.g., neighborhood councils) Air District: Cross-reference Fuel Refining Action 3.8: Legal Approaches <ul style="list-style-type: none"> include review of compliance history for facilities identified in 'C&I Strategy 4 Large Industrial Facilities', as part of collaborative development
Type of action	Further Study; Regulatory; Enforcement
Lead action implementor	Air District

Related existing Program, Policy, or Initiative	Rule Development Source Evaluations, C&E, PM _{2.5} Local Risk Methodology
Partners in action implementation	CSC
Key stakeholders to engage in action implementation	CSC, community, Sims Metals, Pick n Pull
Potential obstacles	Resources to conduct and complete actions (e.g., white paper); challenges in estimating fugitive emissions
Action initiation timeframe	Near=<2 years
Action intervention point	Emissions, Exposure
Action impact timeframe	Near=<2 years; Mid=2-4 years
Measure/metric of action implementation	Was a white paper drafted? (yes/no) Was a white paper released for public input? (yes/no) Was a white paper finalized? (yes/no) Were emissions estimates updated? (yes/no) Were additional enforcement mechanisms implemented? (yes/no) Were additional Fugitive Dust controls implemented? (yes/no) Has the number of Notices of Violations decreased? (yes/no) Was an annual report produced and shared? (yes/no)
Can any emission/exposure reduction be estimated	Too speculative at this time

Action #	C&I 4.6
Action name/brief description	<p>Other Large Industrial Facilities: Gap Analysis</p> <p>Air District and/or CSC:</p> <ul style="list-style-type: none"> Air District: Track success of relevant Commercial & Industrial strategies and actions expected to address toxic air contaminant and/or particulate matter issues at other large industrial facilities of concern (in addition to the facilities identified in C&I Actions 4.2-4.5) in Richmond. <ul style="list-style-type: none"> These relevant actions include <ul style="list-style-type: none"> C&I Strategy 1: Control Fugitive Dust Compliance & Enforcement Strategy If any gaps are identified where existing strategies/actions do not sufficiently address concerns with a given facility, determine additional actions needed Air District: Include in Annual C&E Report (see C&E 1.3: Update CSC regularly (with annual community-friendly reports)) a Status and Overview of facility issues <ul style="list-style-type: none"> additionally, <ul style="list-style-type: none"> provide information in the annual report on any actions taken, processes put in place, measures implemented to address emissions and/or exposure

	<ul style="list-style-type: none"> ▪ upload NOV information to NOV query tool as soon as available ○ and, as requested by the CSC, report out more frequently • For additional facilities, specifically: <ul style="list-style-type: none"> ○ <i>Veolia: include, as well, a review of</i> <ul style="list-style-type: none"> ▪ <i>the effectiveness of facility capital improvements made to reduce odors</i> ▪ <i>the plant equipment and operations for compliance following the completion of improvements made</i> ▪ <i>in partnership with the City, persistence of any odor issues and impact on the community</i> ○ <i>Bio-Rad Laboratories: include, as well, a review of</i> <ul style="list-style-type: none"> ▪ <i>odor issues (vapors from the ground)</i> ▪ <i>remediation efforts/needs</i> ○ <i>Any other industrial or larger commercial facilities of community concern, including facilities that fall into the following categories:</i> <ul style="list-style-type: none"> ▪ <i>bulk material handling</i> • Air District or CSC: Share Annual C&E report and, as applicable, any interim reports, with any nearby community associations (e.g., neighborhood councils) • Air District: Cross-reference Fuel Refining Action 3.8: Legal Approaches <ul style="list-style-type: none"> ○ include review of compliance history for facilities identified in 'C&I Strategy 4 Large Industrial Facilities', as part of collaborative development
Type of action	Further Study; Regulatory; Enforcement
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Rule Development Source Evaluations, C&E, PM _{2.5} Local Risk Methodology
Partners in action implementation	CSC
Key stakeholders to engage in action implementation	CSC, community, Sims Metals, Pick n Pull
Potential obstacles	Resources to conduct and complete actions
Action initiation timeframe	Near=<2 years
Action intervention point	Emissions, Exposure
Action impact timeframe	Near=<2 years; Mid=2-4 years
Measure/metric of action implementation	<ul style="list-style-type: none"> • For any additional facilities identified, were the actions applied? (y/n) • Were updates on Veolia and BioRad incorporated into the annual C&E report? (y/n)
Can any emission/exposure reduction be estimated	Too speculative at this time

Strategy 5 – Smaller Commercial and Industrial Sources – Actions

Action #	C&I 5.1
Action name/brief description	<p>Backup Generators (BUGs): Reduce localized exposure from BUGs</p> <p>Air District:</p> <ul style="list-style-type: none"> ● Conduct source evaluation for BUGs, by the end of 2026 - via white paper and/or rulemaking, including: <ul style="list-style-type: none"> ○ <u>Review of BUGs, BUG usage, and impacts</u> <ul style="list-style-type: none"> ■ review of validity of use of BUGs during emergencies, looking for opportunity to reduce emissions from BUG use, including <ul style="list-style-type: none"> ● trends related to PSPSs ● higher-usage individual BUGs (e.g., above some threshold of hours logged) ■ scrutinize facilities above a certain BUG-usage threshold ○ <u>Review of controls and alternative technologies</u> <ul style="list-style-type: none"> ■ Tier 4 for smaller engines (i.e., engines <1000 horsepower) ■ Non-diesel backup power ■ Zero emission backup power and energy storage ○ <u>Potential amendments to permitting rules for new/modified BUGs</u> <ul style="list-style-type: none"> ■ Update BACT or pursue Rule 2-5 amendments ○ <u>Potential amendments/new rules for existing BUGs</u> <ul style="list-style-type: none"> ■ Rule amendments to <ul style="list-style-type: none"> ● strengthen emissions limits ● further control when appropriate to use BUGs ■ stronger requirements for sources near sensitive receptors, such as schools <ul style="list-style-type: none"> ● pull from South Coast AQMD amendments to Rule 1401.1 for opportunities to strengthen Bay Area rules <ul style="list-style-type: none"> ○ expand ban on reliability-related testing for emergency diesel engines during hours when children are present, beyond solely K-12 schools (e.g., to include preschools and/or TK) ○ cover emergency engines located within 500 feet of a preschool or other sensitive receptor ■ stronger requirements for sources at facilities with significant cumulative impacts <ul style="list-style-type: none"> ● define cumulative impact facilities (e.g., facilities with total emissions above a certain level and/or facilities with a variety of sources creating impacts) ○ <u>Incentive programs</u> <ul style="list-style-type: none"> ■ Align and build upon WOCAP strategy #14 regarding an action for the Air District to provide “subsidized loans for local small businesses to install energy storage

	<p>systems (e.g., batteries, fuel cells) to replace stationary sources of pollution (e.g., back-up generators)"</p> <ul style="list-style-type: none"> ■ Existing funding programs that could be targeted at the PTCA area ■ Creation of an AB617 Community Identified Incentives Program² <ul style="list-style-type: none"> ○ <u>Outreach and education programs</u> <ul style="list-style-type: none"> ■ Including targeted outreach to larger users/facilities about cleaner technologies <ul style="list-style-type: none"> ● emphasize zero emission technology options with the lowest lifecycle GHG impacts (e.g., batteries or green hydrogen-powered fuel cells) ● include information about incentives opportunities ○ <u>Requirements via Authority of Local Jurisdictions</u> <ul style="list-style-type: none"> ■ Evaluate Local Requirements (see bullet below "Pursue Local Requirements") <p>Air District and Local Entities:</p> <ul style="list-style-type: none"> ● Pursue Local Requirements: Either via the white paper process or sooner, identify potential for incentivizing or requiring cleaner sources of backup power at the local jurisdictional level <ul style="list-style-type: none"> ○ Evaluate mechanisms for local jurisdictions to require cleaner sources of backup power ahead of regional regulatory requirements (i.e., Air District requirements) <ul style="list-style-type: none"> ■ partner with local entities that would be responsible for implementation ■ implement as soon as feasible; if not implemented prior to white paper drafting, address as recommendations in white paper ○ Local Requirements to evaluate: <ul style="list-style-type: none"> ■ Use of zoning codes (e.g., utilizing by right uses and the variance process), ordinances, and/or other city practices to use authority to control exposure from certain sources/practices ■ Development of conditions of approval for new permits -- conditions of approval, ordinances, or other city practices to control exposure (especially at facilities with greater cumulative impacts) <ul style="list-style-type: none"> ● Specifically for facilities with significant cumulative impacts (cross-cutting with magnet sources like marine and rail) ● Look for opportunities to strengthen requirements (E.g., zero emission or non-diesel)
Type of action	Further research; Regulatory; Incentives; Education/Outreach
Lead action implementor	Air District and Local Regulatory Partners

² CAP program in Feather River
<https://www.fragmd.org/files/65408ead8/Final+Ch+6+Project+Plan+Stationary+Engines.pdf>

Related existing Program, Policy, or Initiative	Air District Permitting; Incentives Programs, including Feather River Community Identified Incentive Program; Air District Diesel Free (by '33) Initiative
Partners in action implementation	CSC, Local Regulatory Partners
Key stakeholders to engage in action implementation	CSC, community, small businesses with BUGs, clean technology manufacturers, nonprofits providing services that connect cleaner technologies with community/customers
Potential obstacles	Resources and timelines may present obstacles. Local government entities may not have the capacity to quickly incorporate requirements for cleaner backup power. They may need significant assistance from Air District technical experts to develop details for these types of requirements. Further, the Air District will need to work with the CSC to determine prioritization of white paper and regulatory efforts from the PTCA CERP. If the white paper/regulatory effort for BUGs does not come to the top of the list, it may take longer for staffing resources to become available to undertake this effort.
Action initiation timeframe	Near=<2 years
Action intervention point	Emissions
Action impact timeframe	Mid=2-4 years; Long > 4 years
Measure/metric of action implementation	Was a source evaluation (e.g., white paper) completed?
Can any emission/exposure reduction be estimated	Too speculative at this stage

Action #	C&I 5.2
Action name/brief description	<p>Auto Body Shops: Address Concerns with Auto Body Shops</p> <ul style="list-style-type: none"> Conduct source evaluation for Autobody shops and produce White Paper <ul style="list-style-type: none"> Initiate by end of 2024 and align with West Oakland strategy #71, focused on autobody and other coating operations Consider education and outreach approach, including evaluating the need to tailor an approach to account for these sources tending to be small local businesses Cross-reference: C&I Action 2.4 regarding amendments to Rule 2-5, via addition of new TACs to the Table 2-5-1 Toxic Air Contaminant Trigger Levels in Rule 2-5 (including changes relevant to autobody shops) Cross-cutting: follow up as needed per results of any C&E strategy actions or monitoring findings <ul style="list-style-type: none"> including looking at locations in PTCA area with larger concentrations of auto body shops Evaluate an Education and Outreach effort, including <ul style="list-style-type: none"> developing an outreach tool (e.g., a flier) to promote public health benefits of water-based options

	<ul style="list-style-type: none"> consider protocol for C&E to distribute materials during inspections
Type of action	Regulatory; Enforcement; Further research; Education/Outreach
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Air District Rule 8-45
Partners in action implementation	PTCA CSC; WOCAP Implementation CSC
Key stakeholders to engage in action implementation	PTCA CSC, WOCAP Implementation Leads (WOEIP), Autobody Facilities, PTCA community
Potential obstacles	Resource limitations may present an obstacle with respect to timeliness of implementation of this action (and thus the implementation timeframe). Costs of water-based options for facilities to utilize to reduce emissions are another obstacle to consider.
Action initiation timeframe	Near=<2 years
Action intervention point	Emissions
Action impact timeframe	Mid=2-4 years; Long > 4 years
Measure/metric of action implementation	Was a source evaluation (e.g., white paper) completed?
Can any emission/exposure reduction be estimated	-

Action #	C&I 5.3
Action name/brief description	<p>Other Smaller Businesses (Dry Cleaners, others): Follow up, as needed, for smaller businesses identified as concerns via Implementation of the PTCA CERP, via any Monitoring work, and/or via Compliance and Enforcement strategy actions (e.g., CAMP results review; patterns of noncompliance; complaints and community concerns). This responsive follow-up action is meant to cover all business types: permitted, non-permitted, regulated, and non-regulated operations.</p> <p>Follow up as appropriate, including potentially</p> <ul style="list-style-type: none"> working with the CSC to consider adding any identified small business facilities to list under Compliance & Enforcement Action 1.2 evaluate any local-scale air monitoring results or source-oriented monitoring that are relevant for PTCA sources Cross-reference: Compliance & Enforcement Action 1.2
Type of action	Enforcement; Further research
Lead action implementor	Air District

Related existing Program, Policy, or Initiative	Community-scale air monitoring; C&E Strategy; Dust White Paper
Partners in action implementation	
Key stakeholders to engage in action implementation	CSC, community, identified facilities
Potential obstacles	
Action initiation timeframe	Near=<2 years
Action intervention point	Emissions
Action impact timeframe	Mid=2-4 years; Long > 4 years
Measure/metric of action implementation	<ul style="list-style-type: none"> • Were any facilities identified for follow-up? • If yes, was the follow-up conducted?
Can any emission/exposure reduction be estimated	-

Action #	C&I 5.4
Action name/brief description	Enhanced Small Business Outreach Air District: <ul style="list-style-type: none"> • Evaluate enhanced outreach and compliance assistance opportunities that could be implemented and shared via the National Small Business Environmental Assistance Program <ul style="list-style-type: none"> ○ identify any best practices from around the state or nation ○ discuss with CSC any ideas to enhance Education and Outreach around small business regulatory requirements and voluntary reduction opportunities, with respect to the PTCA area
Type of action	Education/Outreach
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	National Small Business Environmental Assistance Program; Section 507 of the Clean Air Act; U.S. EPA's Office of Small Business
Partners in action implementation	CSC
Key stakeholders to engage in action implementation	CSC; CAPCOA
Potential obstacles	Resources and prioritization may present an obstacle to timely implementation of this action, as larger concerns may be prioritized first
Action initiation timeframe	Near=<2 years

Action intervention point	Emissions
Action impact timeframe	Mid=2-4 years; Long > 4 years
Measure/metric of action implementation	Was an evaluation conducted?
Can any emission/exposure reduction be estimated	-

Fuel Refining, Support Facilities, Storage, and Distribution

Fuel Refining (FR) Strategies

1. Move Towards a Just Transition
2. Reduce Persistent Flaring and Improve Incident Response
3. Hold Chevron and Other Emitters Accountable for Reducing Pollution and Negative Public Health Impacts from their Operations
4. Reduce Exposure and Public Health Impacts from Toxic Air Contaminants Emitted by the Fuel Refining Sector
5. Reduce Exposure and Public Health Impacts from Particulate Matter and Other Criteria Air Pollutants Emitted by the Fuel Refining Sector

Detailed Action Descriptions

Strategy 1 – Move Towards a Just Transition – Actions

Action #	FR 1.1
Action name/brief description	<p>Educate the CSC and Air District on how Just Transition would apply to the Zero Emission Future and a managed phase-down of fossil fuels in the PTCA area. The CSC will establish a Just Transition Subcommittee (JTS) as part of Path to Clean Air Plan Implementation by Q2 2024.</p> <p>The Just Transition Subcommittee will:</p> <ul style="list-style-type: none"> • Discuss membership, roles and responsibilities, meeting frequency, and format <ul style="list-style-type: none"> ◦ Work with Air District to identify funds to support the JTS from CARB, Air District, and other funders as available • Coordinate educational sessions with Air District support that address the following areas: <ul style="list-style-type: none"> ◦ A deeper understanding of what happens when a refinery shuts down in an industry town ◦ Ensuring that another hazardous facility is not introduced ◦ Identification of alternatives for shifting towards a green enterprise zone ◦ Alignment with the IPCC 1.5 degree target ◦ A managed phase-down of oil refining in California • Research communities that are applying Just Transition (JT) Principles and Frameworks to their processes, alliances engaging in Just Transition, and Labor's ongoing Just Transition work

	<ul style="list-style-type: none"> • Compile online educational resources into a shareable folder including: <ul style="list-style-type: none"> ◦ Research ◦ Articles ◦ Case Studies ◦ Contacts ◦ EJ/JT websites ◦ Videos + social media links • Serve as a CSC liaison to government and nongovernmental agencies to become actively engaged in Just Transition Work, including: <ul style="list-style-type: none"> ◦ Air District ◦ The cities of Richmond and San Pablo and County of Contra Costa ◦ The Contra Costa County Conservation & Development Sustainability Committee ◦ Office of Environmental Health Hazard Assessment (OEHHA) ◦ CARB ◦ Any other governmental, regulatory agencies, community-based organizations, non-governmental organizations, etc. • Collaborate with Air District to identify ongoing support needs, including: <ul style="list-style-type: none"> ◦ Consideration of the appointment of a Just Transition Project Consultant to support the JTS's future visions and plan ◦ Identify funding needs and resources ◦ Identification of workforce development funding from the federal, state, county, and city levels to invest in green jobs and training ◦ Support for the City of Richmond Resolution 88-21 Green-Blue New Deal and Just Transition to 21st Century Jobs Plan • Create a Just Transition Vision Plan that outlines the key elements of a transition away from fossil fuels. A Vision Plan should incorporate critical criteria to plan and assess for a Just Transition, such as: <ul style="list-style-type: none"> ◦ Demographics ◦ Judicial ◦ Legislative ◦ Economic ◦ Corporate ◦ Communications and Culture • Explore how a Title VI lens could be used to identify opportunities to limit impacts from fuel refining sector emissions in a manner aligned with the JT Vision Plan and principles by: <ul style="list-style-type: none"> ◦ Conducting research on opportunities and challenges to applying Title VI within a JT framework ◦ Seeking legal guidance on best approach, pros/cons
Type of action	Education/Outreach; Further research
Lead action implementor	CSC Just Transition Subcommittee

Related existing Program, Policy, or Initiative	Contra Costa Conservation & Development Sustainability Committee, City of Richmond Resolution 88-21 Green-Blue New Deal and Just Transition to 21st Century Jobs Plan; federal Green-Blue New Deal; IPCC 1.5 degree target
Partners in action implementation	Air District
Key stakeholders to engage in action implementation	Community, including industry workers (e.g., USW Local 5); Air District; The cities of Richmond and San Pablo and County of Contra Costa; The Contra Costa Conservation & Development Sustainability Committee; Office of Environmental Health Hazard Assessment (OEHHA); CARB; Any other governmental, regulatory agencies, community-based organizations, non-governmental organizations, etc.
Potential obstacles	Resources; barriers to political support; limitations of regulatory authority; the complexity of a Just Transition and the variety of aspects and stakeholders that must be considered
Action initiation timeframe	Near=<2 years
Action intervention point	-
Action impact timeframe	Near=<2 years; Mid=2-4 years
Measure/metric of action implementation	Was a JTS formed? (y/n) Was a shareable online folder of educational resources created? (y/n) Was a vision plan produced and/or considered? (y/n) Was research conducted on how a Title VI lens could be applied? (y/n)
Can any emission/exposure reduction be estimated	-

Action #	FR 1.2
Action name/brief description	<p>Incorporate Just Transition Principles and Criteria in the prioritization and implementation of the PTCA Plan and explore incorporating these in governmental policymaking and rulemaking.</p> <p>The Just Transition Subcommittee (JTS) will</p> <ul style="list-style-type: none"> Finalize a set of Just Transition Principles and Criteria <ul style="list-style-type: none"> JTS will create and disseminate the principles and criteria The initial set of 6 criteria is included above in the Just Transition Preamble The principles and criteria will be reviewed and updated as needed The criteria will: <ul style="list-style-type: none"> Be voted on by the CSC Be considered in Air District's legal approaches for the fuel refining and non-fuel refining sector (as specified in FR Action 3.8) Track and evaluate the application of Just Transition Principles and Criteria Research the legal and feasible means to require that JT principles and criteria are applied in current and future governmental policies
Type of action	Further Study

Lead action implementor	JTS and Air District
Related existing Program, Policy, or Initiative	-
Partners in action implementation	CSC
Key stakeholders to engage in action implementation	CSC; community
Potential obstacles	Resources; barriers to political support; limitations of regulatory authority; the complexity of a Just Transition and the variety of aspects and stakeholders that must be considered
Action initiation timeframe	Near=<2 years
Action intervention point	-
Action impact timeframe	Near=<2 years; Mid=2-4 years; Long > 4 years
Measure/metric of action implementation	Were the JT Principles and Criteria reviewed and voted on? (y/n) Was the incorporation of JT Principles and Criteria into rule development projects evaluated? (# of meetings/conversations)
Can any emission/exposure reduction be estimated	-

Strategy 2 – Reduce Persistent Flaring and Improve Incident Response – Actions

Action #	FR 2.1
Action name/brief description	<p>Air District and the CSC will work with the City of Richmond to strengthen the Industrial Safety Ordinance (ISO).</p> <ul style="list-style-type: none"> ● Strengthening the ISO will include better <ul style="list-style-type: none"> ○ enforcement and enforceability ○ reporting of data by industry subject to the ISO ○ collaboration and sharing of data among the City and Air District, to benefit enforcement and aid in proper communications with the public ● Air District will provide support by <ul style="list-style-type: none"> ○ working with the City to better characterize the likely health risk from inhalation of emissions from flaring events, with risk data associated with the type of material being flared and the volume ○ conducting complementary inspections, as appropriate ○ continuing to work with City of Richmond and County Health to <ul style="list-style-type: none"> ■ ensure alignment with the Air District Rules, including flaring rules Rule 12-11 and 12-12 ■ collaboratively share data, as applicable

	<ul style="list-style-type: none"> • The City of Richmond will <ul style="list-style-type: none"> ◦ update, adopt, and enforce the City's ISO <ul style="list-style-type: none"> ■ reflecting lessons learned from the safety audit for Chevron, as well as from recent ISO violations ◦ create a permanent and properly resourced enforcement mechanism ◦ work with the City of Richmond, Contra Costa County and Air District to coordinate on enforcement of matters related to the ISO and allocate necessary resources • The City of Richmond will evaluate the ISO yearly for continual improvement and report to CSC annually with a summary of any potential PTCA Plan updates with input from Air District where appropriate
Type of action	Regulatory; Enforcement
Lead action implementor	City of Richmond
Related existing Program, Policy, or Initiative	City of Richmond ISO; Contra Costa County ISO
Partners in action implementation	Air District; County Health
Key stakeholders to engage in action implementation	CSC, community
Potential obstacles	Resources for establishing a process to update the City ISO; Resources for enforcing the ISO
Action initiation timeframe	Near=<2 years
Action intervention point	n/a
Action impact timeframe	Mid=2-4 years
Measure/metric of action implementation	Was the ISO updated? (yes/no) Was an enforcement mechanism for the ISO clearly established? (y/n)
Can any emission/exposure reduction be estimated	-

Action #	FR 2.2
Action name/brief description	The Air District will coordinate with the CSC to improve and expand communications about all flaring events for the fuel refining sector in the PTCA area and also for major incidents at both fuel-refining and non-fuel-refining sources. Communications mechanisms will be developed in collaboration with a CSC Communications Subcommittee and include (A) a new webpage and (B) standardized internal and external communication protocols.

	<p>The CSC will form a Communications Subcommittee to help design, implement, and monitor the improved communications mechanisms. This subcommittee's work may include:</p> <ul style="list-style-type: none"> • Meetings with the Air District Communications Division, Community Engagement Division, and Information Technology (IT) Section • Reviewing other communication alert systems to identify best practices, including, but not limited to: <ul style="list-style-type: none"> ◦ Martinez Alerts³ ◦ Flare Event Notification System (FENS) implemented by South Coast Air Quality Management (SCAQMD)⁴ • Analyzing major incident responses to identify potential communications improvements, including <ul style="list-style-type: none"> ◦ a review of incidents from recent years ◦ a review after each major future incident • Collaborating with Air District to implement other Fuel Refining incident response/communications-based Actions: FR 2.3, 2.4, 2.5 (i.e., improvements to the County CWS via the Board of Supervisors ISO/CWS Ad Hoc and to Air District communications via the Board of Directors Incident Response Ad Hoc) • Collaborating with Air District to evaluate the improved communications mechanisms <ul style="list-style-type: none"> ◦ Assessing results from FR Actions 2.3, 2.4, 2.5, 2.2A, and/or 2.2B ◦ Identifying any remaining communications gaps, from the community perspective and proposing solutions <p>2.2(A): Air District will create a new landing page on its website and add a quick access button on its homepage. The landing page will be informed by a proposed CSC Communications Subcommittee and be specifically devoted to public outreach about all flaring events and other major incidents in the PTCA area. Air District will:</p> <ul style="list-style-type: none"> • Partner with Contra Costa County to obtain notifications on all flaring events and/or directly pull information from the County Warning System (CWS) • Coordinate with the CSC and CSC Communications Subcommittee on development of additional website content. Discuss and evaluate the following: <ul style="list-style-type: none"> • Posting information to the webpage for flaring and incidents (including information identified as necessary to fill gaps from other communications alert systems (like CWS)). This may include, but is not limited to: <ul style="list-style-type: none"> ◦ Alert Level: (e.g., Level 1) ◦ Date & Time ◦ For flaring specifically: <ul style="list-style-type: none"> ■ Type of Flare: (e.g., Hydrogen or Process) ■ Event: Planned or Unplanned
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³ <https://www.cityofmartinez.org/Home/Components/News/News/208/15>

⁴ <http://www.aqmd.gov/docs/default-source/news-archive/2019/south-coast-aqmd-launches-fens.pdf>

	<ul style="list-style-type: none"> ■ YTD Count for this type of flaring: (e.g., 20) ● Customizable opt-in push notifications for the landing page ● Translating posts to English, Spanish, and other major languages spoken in PTCA area including Arabic, Laotian, Tagalog, Chinese in alignment with the Air District Language Access Policy ● Incorporating trauma-informed language and principles into posts ● Including a button for filing a complaint ● Including a link to sign up for County Community Warning System (CWS) alerts ● Including a link to an FAQ document with basic information about flaring ● Posting a link with a comprehensive final report for each flaring event and major incident, including: <ul style="list-style-type: none"> ○ All information initially posted ○ Root cause information ○ Source of the flaring or incident: (e.g., FCC unit) ○ Type of Emissions: (e.g., NO_x, SO_x, PM_{2.5}, TACs (such as benzene)) ● Posting an annual report on all flaring incidents and remedies ● Partnering with Contra Costa County to create an outreach campaign to inform the public about the new website page <p>2.2(B): Air District will develop standardized internal and external communication protocols regarding all flaring events and major incidents.</p> <ul style="list-style-type: none"> ● Air District will establish effective internal collaboration protocols between divisions, including, but not limited to, the following: <ul style="list-style-type: none"> ○ Communications ○ Community Engagement ○ Compliance & Enforcement ○ Meteorology & Measurements ○ Engineering ● Air District will establish effective collaboration protocols between the Air District and external entities such as: <ul style="list-style-type: none"> ○ County of Contra Costa (CCHS HazMat) ○ Chevron ○ Other industry from which receipt of information during major incidents is critical ○ Cross-reference FR 2.4 on coordination ● A standardized protocol for outgoing communications will be developed in collaboration with the CSC Communications Subcommittee. Development will evaluate instituting: <ul style="list-style-type: none"> ○ A mechanism for sharing flaring information onto the Air District website within binding timelines ○ Advanced notification of all planned flaring events via the Air District website ○ Community-education and awareness notifications to the public on follow-up steps in the aftermath of major refinery incidents including, but not limited to: <ul style="list-style-type: none"> ■ Press Releases and/or social media posts including applicable information on NOVs, penalties, legal proceedings and outcomes ■ Information about any planned Community Forums
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	Cross-references: Resource PTCA Plan Implementation
Type of action	Communications; Education/Outreach
Lead action implementor	Air District, CSC
Related existing Program, Policy, or Initiative	County Warning System (CWS); Air District BOD Incident Response Ad Hoc; Air District Incident Response Notification System (emergency text alerts)
Partners in action implementation	CSC; Air District; community; Local Government (i.e., County, CCHS)
Key stakeholders to engage in action implementation	CSC; community
Potential obstacles	Air District staff resources may be a challenge, based on the extent to which custom communications are needed (versus improving and utilizing existing communications systems in place, e.g., CWS). For the mid to most complex solutions, there may be a need to scope, fund, & possibly procure a vendor. In order to proactively account for potential resource constraints, the approach is outlined to first look at communications processes already in the process of being improved: CWS improvements via the County ISO/CWS Ad Hoc and Air District improvements via the BOD Incident Response Ad Hoc. For remaining gaps not addressed via the ISO/CWS Ad Hoc or Air District Incident Response Ad Hoc, the CSC Communications Subcommittee can work with Air District to determine any customization of communications that would need to be addressed via information posted on the new web landing page.
Action initiation timeframe	Near=<2 years
Action intervention point	n/a
Action impact timeframe	Near=<2 years; Mid=2-4 years
Measure/metric of action implementation	Was a Communications Subcommittee established? (y/n) Was a website page created? (y/n) Were standardized internal and external communication protocols implemented (y/n)?
Can any emission/exposure reduction be estimated	-

Action #	FR 2.3
Action name/brief description	<p>Air District and CSC will collaborate with Contra Costa County to recommend improvements for their Community Warning System</p> <ul style="list-style-type: none"> • CSC and Air District will advocate to establish a mechanism to ensure the CSC's voice is heard by the County's ISO/CWS Ad Hoc committee • CSC and Air District will present to the County's ISO/CWS Ad Hoc committee. The presentation will cover our recommendations for improved and expanded CWS alerts on all flaring including: <ul style="list-style-type: none"> ○ Alert Level: (e.g., Level 1) ○ Type of Flare: (e.g., Hydrogen or Process)

	<ul style="list-style-type: none"> ○ Event: Planned or Unplanned ○ Date & Time ○ YTD Count for this type of flaring: (e.g., 20) ○ A beta-test and pilot program approach ● Additional partners may include the City of Richmond, Contra Costa County Health Services Department, Office of the Sheriff's Office of Emergency Services, as well as representatives from the Unincorporated Areas in Contra Costa County
Type of action	Communications; Education/Outreach
Lead action implementor	Air District, CSC
Related existing Program, Policy, or Initiative	County Alert System
Partners in action implementation	Contra Costa County; County Board of Supervisors; CSC; Air District; community; Local Government entities listed (i.e., City of Richmond, CCHS)
Key stakeholders to engage in action implementation	CSC; community
Potential obstacles	
Action initiation timeframe	Near=<2 years
Action intervention point	n/a
Action impact timeframe	Near=<2 years; Mid=2-4 years
Measure/metric of action implementation	Were recommendations made to the ISO/CWS Ad Hoc Committee? (y/n) Were recommendations incorporated into the CWS by the Board of Supervisors? (y/n)
Can any emission/exposure reduction be estimated	-

Action #	2.4
Action name/brief description	<p>Air District will improve its incident response program to get more transparent and user-friendly information to a wider audience faster during and after major incidents.</p> <p>The Board of Directors' Incident Response Ad Hoc Committee will be making recommendations on specific work, but it is expected to include:</p> <ul style="list-style-type: none"> ● Strengthening coordination within the Air District and with other incident response agencies ● Improving the analysis and reporting of existing incident-related monitoring data during and after incidents to share more user-friendly information with the public ● Developing a protocol including a decision-making framework, criteria, and documentation for deploying currently available monitoring tools to collect more air data during major incidents <p>Cross references: Other Incident response-related actions: FR 2.2,</p>

	FR 2.3, FR 2.5, Resource PTCA Plan Implementation
Type of action	Communications; Education/Outreach; Air monitoring; Data analysis and reporting
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Incident response
Partners in action implementation	CSC, Board of Directors, county and city health agencies and first responders, CARB, CalOES, U.S. EPA
Key stakeholders to engage in action implementation	CSC, community, CCHS, CalOES, CARB, U.S. EPA
Potential obstacles	Staffing resources at the Air District and at partner agencies; limitations to what can be measured and reported on the timeframe of short incidents
Action initiation timeframe	Near=<2 years
Action intervention point	-
Action impact timeframe	Near=<2 years; Mid=2-4 years; Long > 4 years (Some work is ongoing with near-term changes, and other work to be completed in the mid to long term timeframes)
Measure/metric of action implementation	Is the District's reporting of understandable and useful information (including information about air impacts, during and after an incident improved)? (yes/no)
Can any emission/exposure reduction be estimated	-

Action #	FR 2.5
Action name/brief description	<p>CSC will make recommendations on the improved communications protocols to the Air District Board of Directors (BOD) Incident Response Ad Hoc</p> <ul style="list-style-type: none"> CSC provides feedback on improvements/gaps the Air District implements at the direction of the Board of Directors (BOD) Incident Response Ad Hoc <ul style="list-style-type: none"> for both fuel refining incidents and non-fuel refining incidents including suggesting what additional air monitoring during incidents would be useful (with support provided by Air District staff on determining these suggestions) <p>Cross-references: FR 2.2, FR 2.4</p>
Type of action	Communications; Education/Outreach
Lead action implementor	CSC
Related existing Program, Policy, or Initiative	Air District Communications protocols for Incident Response

Partners in action implementation	Air District; community
Key stakeholders to engage in action implementation	Board of Directors (BOD) Incident Response Ad Hoc; CSC; community;
Potential obstacles	
Action initiation timeframe	Near=<2 years
Action intervention point	n/a
Action impact timeframe	Near=<2 years
Measure/metric of action implementation	Was feedback presented to the Air District BOD Incident Response Ad Hoc Committee? (y/n) Were recommendations incorporated by the Air District BOD Incident Response Ad Hoc Committee? (y/n)
Can any emission/exposure reduction be estimated	-

Action #	FR 2.6
Action name/brief description	<p>Air District will initiate a rule development effort, further evaluating potential updates to flaring rules (Rule 12-11 and Rule 12-12), by the end of 2024. Rule development efforts will aim to incorporate health impacts analyses, enhance rule enforceability, and establish new and/or more stringent limits. Health and Safety Code requirements will be satisfied as well.</p> <p>Evaluate:</p> <ul style="list-style-type: none"> ● Incorporating information on health impacts from flaring: <ul style="list-style-type: none"> ○ such as findings from Flaring Health Impacts Analysis: Air District review of Flaring Emissions and Impacts Estimations, including reviewing current methods for calculating emissions and ground-level impacts from flaring and ensuring the most current and best available methods are being used. This will include an improved analysis of risks from air toxics from flaring ● Incorporating any relevant aspects from enhanced ISO evaluation (cross-reference FR 2.1) ● Potential for periodic audits that could include appropriate elements from the following list: <ul style="list-style-type: none"> ○ Draft Flare Audits List: <ul style="list-style-type: none"> ■ Obtain and review refinery Piping and Instrumentation Diagrams (P&ID) <ul style="list-style-type: none"> ● Ensure diagrams match reality at the refinery (this may require contracting with a third party with expertise in this area) ■ Evaluate any changes to the facility <ul style="list-style-type: none"> ● Require permit updates ● Cite for any changes that do not meet New Source Review requirements

	<ul style="list-style-type: none"> ■ Require a comprehensive site audit after each turnaround to ensure any changes comply with permitting requirements (New Source Review). Audits will more than likely need to be conducted by third parties hired by the refinery. ■ Estimate required compressor capability and Refinery Fuel Gas (RFG) storage capacity needed to avoid flaring <ul style="list-style-type: none"> ● Determine for each flaring event the amount of storage needed to avoid the flaring event ● Set a target for achieving the ability to store all gasses that would have been sent to flare, with minimal exceptions ● Enhancing enforceability of Flare Minimization Plans <ul style="list-style-type: none"> ○ work with USW Health and Safety reps to develop ideas ● Requirements for facilities to report additional information within set timelines, such as any applicable information identified as necessary for improved and expanded communications (cross-reference FR Action 2.2) ● Redefining a "Flaring Event", per Rule 12-12 <ul style="list-style-type: none"> ○ Current: 500,000 standard cubic feet ○ Revise: Lower minimum level to include smaller flaring events <ul style="list-style-type: none"> ■ Determine the de minimis volume, informed by a review of the worst-case scenario (e.g., minimal combustion efficiency (~90% or less), maximum total sulfur content and highest exposure potential) flaring health impacts analysis produced by Air District's AIM Division ○ Revise: Include all flaring for the duration a flaring event (including all flares even if the volume is less than the De minimis amount from above) ● Redefining "emergency" (Section 12-12-201) to be more consistent with federal government and to limit exemptions ● Categorizing flaring into buckets and developing enforcement triggers for each bucket (look to SCAQMD as an example). Buckets can be established based on: <ul style="list-style-type: none"> ○ cause of flare activity ○ source of flare activity ● Including provisions for "drawn out" flaring – for flare gas volume over time irrespective of which flares were involved – and to limit "flare switching" (sending flare gas to another flare to stay below the threshold) or "stutter" flaring where the flaring may have stopped but started again within a short time frame. ● Requiring professional third-party analysis of "major flaring events" (Large events: e.g., 3) <ul style="list-style-type: none"> ○ Review and consider SCAQMD third-party analysis requirements ○ Determine whether third party should review, or conduct, the root cause analyses ● Shortening submittal timelines for causal analysis reports required by Section 12-12-406 'Determination and Reporting of Cause'
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	<ul style="list-style-type: none"> Requiring flare minimization plans to include flare targets and evaluating a penalty structure for flaring that exceeds any target <ul style="list-style-type: none"> Review SCAQMD Rule 1118, Section (d)(3)(B) mitigations as a potential model for disincentivizing routine and excessive flaring (including reviewing any Prop 26 preemption implications) <ul style="list-style-type: none"> SCAQMD Rule, for excesses above applicable thresholds: \$25,000 per ton of excess SO₂; if excess is greater than 10%, \$50,000/ton; if excess is greater than 20%, \$100,000/ton Consider incorporating a similar structure for PM emissions Cross-reference: Legal Approaches Action (FR 3.8)
Type of action	Regulatory (Air District)
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Rules 12-11 and 12-12
Partners in action implementation	CSC
Key stakeholders to engage in action implementation	CSC; Community
Potential obstacles	
Action initiation timeframe	Near=<2 years; Mid=2-4 years
Action intervention point	Emissions; Exposure
Action impact timeframe	Mid=2-4 years; Long > 4 years
Measure/metric of action implementation	<p>Were rule concepts produced for public input? (y/n)</p> <p>Were draft rule amendments produced? (y/n)</p> <p>Were rule amendments proposed to the BoD? (y/n)</p> <p>Were rule amendments adopted? (y/n)</p>
Can any emission/exposure reduction be estimated	Too speculative

Strategy 3 – Hold Chevron and Other Emitters Accountable for Reducing Pollution and Negative Public Health Impacts from their Operations – Actions

Action #	FR 3.1
Action name/brief description	<p>Air District will develop and implement a standardized Chevron inspection protocol in partnership with the CSC.</p> <p>The protocol will include:</p> <ul style="list-style-type: none"> enforcement response deadlines prioritization of inspections and investigations based on CSC and community input. The input will include a review of:

	<ul style="list-style-type: none"> ○ NOVs, air quality complaints, fines, fees, all other outcomes ● prioritized consultation with USW Local 5 Health and Safety Representatives and Operators for Chevron investigations (in addition to Environmental staff and office-based staff) <ul style="list-style-type: none"> ○ Work with USW Local 5 Health and Safety Representatives to find a process of reporting and investigating that is conducive to their workflow ● evidence-based decision-making involving environmental impacts, public and worker health impacts, and other risk factors ● additional scrutiny over self-reported information from Chevron by consulting USW Local 5 workers <p>Cross-references to related actions: C&E 1.2, FR 2.2, FR 2.4, FR 2.6</p>
Type of action	Enforcement
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	-
Partners in action implementation	USW Local 5 Health + Safety Representatives
Key stakeholders to engage in action implementation	-
Potential obstacles	
Action initiation timeframe	Near=<2 years
Action intervention point	-
Action impact timeframe	Near=<2 years; Mid=2-4 years
Measure/metric of action implementation	Was an inspection protocol developed that addresses the goals of the action description (y/n)?
Can any emission/exposure reduction be estimated	-

Action #	FR 3.2
Action name/brief description	<p>Increase the frequency of Air District inspections, audits, and investigations at Chevron and Chemtrade</p> <ul style="list-style-type: none"> ● Determine an appropriate increase in frequency for inspections and audits, with respect to those conducted in 2023, to ensure compliance and accountability <ul style="list-style-type: none"> ○ With input from the CSC (cross-reference FR 3.1) ● Adequately resource investigations of Chevron + Chemtrade to clear backlog and stay current on them going forward ● Conduct comprehensive flare audits periodically (cross-reference Flaring Action 2.6)

	<ul style="list-style-type: none"> Report quarterly outcomes of inspections and investigations to the City of Richmond, Contra Costa County Board of Supervisors and CSC (e.g., via a memo) <p>Cross-reference: Resource PTCA Plan Implementation Strategy, including adequate coverage for off hours</p>
Type of action	Enforcement
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Title V
Partners in action implementation	-
Key stakeholders to engage in action implementation	CSC; community; City of Richmond, Contra Costa County Board of Supervisors
Potential obstacles	staffing resources
Action initiation timeframe	Near=<2 years
Action intervention point	n/a
Action impact timeframe	Near=<2 years; Mid=2-4 years
Measure/metric of action implementation	<p>How many additional inspections were conducted at Chevron (#; % increase from 2023)</p> <p>How many additional inspections were conducted at Chemtrade (#; % increase from 2023)</p>
Can any emission/exposure reduction be estimated	Too speculative

Action #	FR 3.3
Action name/brief description	<p>Build a stronger collaborative relationship with operators and USW health and safety representatives</p> <ul style="list-style-type: none"> Create an annual outreach campaign to inform USW Local 5 health and safety representatives and operators about mechanisms for communicating and collaborating with the Air District, including sharing information about <ul style="list-style-type: none"> relevant Air District staff contacts use of the Complaints system, and protections for complainants Establish a liaison role, with a dedicated representative from both the Air District and from within the USW Health and Safety representatives <ul style="list-style-type: none"> Conduct a monthly meeting to review health and safety concerns When necessary, Air District will facilitate consultation from outside agencies and community partners All inspections, investigations, and audits will include: <ul style="list-style-type: none"> The presence of USW Health and Safety representatives and/or USW liaison

	<ul style="list-style-type: none"> ○ An interview with workers, USW Health and Safety representatives, and/or the USW liaison before and/or after inspections
Type of action	Enforcement; Education/Outreach
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	USW Health and Safety Program
Partners in action implementation	USW
Key stakeholders to engage in action implementation	CSC; USW
Potential obstacles	-
Action initiation timeframe	Near=<2 years
Action intervention point	n/a
Action impact timeframe	Near=<2 years
Measure/metric of action implementation	Was an outreach campaign conducted in order to reach the USW Local 5 Health and Safety workers (y/n)?
Can any emission/exposure reduction be estimated	-

Action #	FR 3.4
Action name/brief description	<p>Transparent, Regular, and Inclusive Updates on Compliance and Enforcement Activity at Chevron</p> <ul style="list-style-type: none"> ● Produce quarterly reports on Chevron Compliance and Enforcement activity, including: <ul style="list-style-type: none"> ○ inspections conducted, NOVs issued and status of enforcement and remedies, including timing of enforcement response ○ Cross-reference FR 3.7 (quarterly updates to CSC about penalties assessed against fuel refining sector facilities) ○ Compile these quarterly reports into the annual reporting on C&E activities specified in C&E 1.3 ○ Include NOV data on the website via the searchable NOV query tool (C&E 1.3) ● Provide reports to: <ul style="list-style-type: none"> ○ The PTCA CSC ○ Air District Executive Officer, Deputy Executive Officer of Equity and Community Programs, and Environmental Justice Officer ○ Air District Community Advisory Council ○ The City council and County for the PTCA area ○ NGOs identified by the CSC or that request to receive the updates

Type of action	Enforcement, Education/Outreach
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	-
Partners in action implementation	CSC
Key stakeholders to engage in action implementation	CSC, Air District Executive Officer, Deputy Executive Officer of Equity and Community Programs, and Environmental Justice Officer, Air District Community Advisory Council, The City council and County for the PTCA area, NGOs identified by the CSC or that request to receive the updates
Potential obstacles	Any potential obstacles to implementation of action, and plan for overcoming that obstacle
Action initiation timeframe	Near=<2 years
Action intervention point	n/a
Action impact timeframe	Near=<2 years
Measure/metric of action implementation	Were quarterly reports produced and shared (y/n)?
Can any emission/exposure reduction be estimated	-

Action #	FR 3.5
Action name/brief description	<p>Air District will expedite the Notice of Violations resolution process in the fuel refining sector:</p> <ul style="list-style-type: none"> • Resolve all outstanding NOVs • Continue to prioritize Chevron Refinery when resolving backlog of NOVs • Cross-references: <ul style="list-style-type: none"> ○ Resource PTCA Plan Implementation ○ C&E 1.3 - NOV Query Tool ○ FR 3.4 - Quarterly Updates ○ C&I 2.2 - to maintain and strengthen collaborative efforts with other Air District Divisions and external partners
Type of action	Legal; Enforcement
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Air District Strategic Planning Process
Partners in action implementation	-
Key stakeholders to engage in	CSC; community; Air District divisions (including Engineering, M&M, AIM)

action implementation	
Potential obstacles	budget; competing resource needs
Action initiation timeframe	Near=<1 year
Action intervention point	n/a
Action impact timeframe	Near=<2 years; Mid=2-4 years
Measure/metric of action implementation	Number of NOV's in fuel refining sector resolved (#)
Can any emission/exposure reduction be estimated	-

Action #	FR 3.6
Action name/brief description	<p>Air District will coordinate on enforcement with federal, state (USEPA, CARB, and the Attorney General's Office), and local enforcement partners (District Attorneys, City and County Counsel) on fuel refining violations, enforcement, and other legal issues, as appropriate</p> <ul style="list-style-type: none"> • Create an annual forum through the Interagency Refinery Task Force and CalEPA's (multi-agency) Environmental Justice Task Force to agendaize enforcement issues pertaining to the fuel refining sector with a focus on: <ul style="list-style-type: none"> ◦ environmental elements, including air, water, waste, and chemicals (i.e., multimedia enforcement) ◦ public health and safety ◦ just transition principles ◦ Title VI violations ◦ Indigenous Rights Violations • Work with appropriate legal partners (e.g., state and/or federal government prosecutors, or contracted outside counsel) to identify and prosecute the most serious violations from the fuel refining sector, especially those carrying public health harm and repeat offenses. <ul style="list-style-type: none"> ◦ Outside counsel selection must consider appropriate expertise and background of attorneys/firms (e.g., environmental justice background such as from Earth Justice, CBE, and/or SF Baykeeper) ◦ Consult CSC to identify the "most serious violations" that carry public health harm and/or are repeat offenses, with respect to the application of this action in the PTCA area ◦ Prosecution may include seeking abatement orders, consent judgments, etc. ◦ Cross-reference FR 3.8 Legal Approaches, specifically with respect to Objectives listed ◦ Cross-reference: FR 3.9 Community Benefits Policy (CBP) ◦ Create a Just Transition policy containing legal provisions which utilize all possible options to prevent the corporation/facility from discharging any legal obligations in the event of bankruptcy, insolvency, or closure

	<ul style="list-style-type: none"> Establish a formal relationship with City and County attorneys involved in legal actions regarding the fuel refining sector: <ul style="list-style-type: none"> Hold meetings when appropriate with Air District, City, and County legal staff to coordinate all legal actions re: the fuel refining sector Meetings will include Richmond Council Members, Richmond Mayor, Richmond City Attorney, County Board of Supervisor Representative Hold collaborative and consultation meetings with CSC and partners to ensure legal interventions prioritize public health, safety, and just transition principles including: <ul style="list-style-type: none"> USW Local Health and Safety representatives and bargaining committee Richmond Council Members, Mayor, and City Attorney County Board of Supervisor Representative and County Attorney Earthjustice, CBE, SF Bay Keeper and other relevant NGOs and others CBOS Indigenous Tribal Spokespeople + Sogorea Te' Land Trust Local Health Care Providers Cross-reference: FR 3.8 Consult with CSC and community stakeholders to better understand: <ul style="list-style-type: none"> Community priorities Community impacts from violations Community impacts from enforcement settlement negotiations Provide an annual status report on all legal investigations, actions, and outcomes CSC will: <ul style="list-style-type: none"> Gather and synthesize community input to inform Air District legal enforcement practices with respect to the Fuel Refining sector Cross-reference FR 3.8 Update the PTCA Plan annually to incorporate and reflect any lessons learned from legal investigations, actions, and outcomes
Type of action	Legal; Enforcement
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	N/A
Partners in action implementation	USW Local 5 Health and Safety representatives and bargaining committee; City of Richmond City Council members, Mayor, and or City Attorney, County Supervisors; Air District Legal Division, state and/or federal government prosecutors, or contracted outside counsel, CSC; Interagency Refinery Task Force, CalEPA's (multi-agency) Environmental Justice Task Force; federal, state (USEPA, CARB, and the Attorney General's Office) and local enforcement partners (District Attorneys, City and County Counsel)

Key stakeholders to engage in action implementation	Air District, CSC, community/PTCA residents; Agency partners (e.g., CalEPA, USEPA, CARB, and the Attorney General's Office, District Attorneys, City and County Counsels)
Potential obstacles	Coordination difficulties; Lack of interest/cooperation from proposed partners; Increased timeline for prosecution with additional agency involvement; General timeframe of litigation matters (i.e., years); Consensus on what is considered a "most serious violation"; Outside counsel expenses; Staff capacity issues.
Action initiation timeframe	Near =<2 years
Action intervention point	n/a
Action impact timeframe	Near=<2 years; Mid=2-4 year
Measure/metric of action implementation	Was there a creation of a forum through the Interagency Refinery Task Force and when appropriate CalEPA's (multi-agency) Environmental Justice Task Force to agendize enforcement issues pertaining to the fuel refining sector? (yes/no?) Has there been an increase in coordination among appropriate legal partners (e.g., state and/or federal government prosecutors, or contracted outside counsel) to implement enforcement efforts, including to identify and prosecute the most serious violations from the fuel refining sector? (yes/no?)
Can any emission/exposure reduction be estimated	-

Action #	FR 3.7
Action name/brief description	<p>Air District will provide quarterly and annual updates to CSC about penalties assessed against fuel refining sector facilities and all other sources in the PTCA area.</p> <ul style="list-style-type: none"> • Quarterly, submit an update to the CSC • Annually, as part of the PTCA Plan annual report, provide summaries on legal outcomes that occurred in the fuel refining sector • Regularly brief the CSC <ul style="list-style-type: none"> ◦ Meet annually with the CSC to share major settlement updates, resolutions, or projects funded by the Community Benefit Policy (cross-reference: FR 3.9) ◦ Meet with the CSC when the Air District has significant settlement or resolution milestones to share or when it is mutually decided that a meeting is needed ◦ During these briefings the Air District will share a description of how the Air District incorporated legal enforcement approaches in the PTCA Plan into the Air District's enforcement process, while still protecting confidentiality (cross-reference: FR 3.8) • Work with CSC to determine the best format for providing information in a transparent manner including: <ul style="list-style-type: none"> ◦ All legal outcomes including penalties assessed, court proceedings, abatements, variance applications, etc.

	<ul style="list-style-type: none"> o The origin of the violations that were resolved (e.g., public complaints, mandated reporting by the facility, Air District inspections, and information received from other agencies) o The amount of time it took to resolve fuel refining sector violations o Description of how the Air District incorporated legal enforcement approaches in the Plan into the Air District's enforcement process, while still protecting confidentiality (cross-reference: FR 3.8) <p>CSC will:</p> <ul style="list-style-type: none"> • Review quarterly reports and amend the PTCA Plan annually <p>Cross-references: FR 3.4; FR 3.8</p>
Type of action	Legal; Enforcement
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	-
Partners in action implementation	CSC
Key stakeholders to engage in action implementation	Air District Legal Division, CSC, Community
Potential obstacles	Confidentiality limitations; Staff resources and capacity concerns; Information is "backwards looking" not a proactive approach; Information may not provide all the details of how the penalty assessment was arrived at.
Action initiation timeframe	Near =<2 years
Action intervention point	N/A
Action impact timeframe	Near=<2 years
Measure/metric of action implementation	How many quarterly reports were shared in the past year (#) Was information on legal outcomes in the PTCA area provided in the Annual Report? (yes/no) Was an annual meeting held? (y/n)
Can any emission/exposure reduction be estimated	-

Action #	FR 3.8
Action name/brief description	<p>Air District will collaboratively develop, with the CSC, and pilot legal enforcement approaches for fuel refining facilities within one year of final approval of the PTCA Plan. Then this will be expanded to cover all PTCA sources.</p> <p>As part of development, CSC will provide insight on legal approaches from the perspective of front-line community members' experiences. Collaborative discussion will cover:</p>

	<ul style="list-style-type: none"> • Incorporating the following specific Just Transition Principles set forth in FR Strategy 1 (Cross-Reference) <ul style="list-style-type: none"> ◦ Principle 3: Improve enforcement of existing regulations ◦ Principle 5: Embrace community-driven planning and decision-making ◦ Principle 6: Stress the need for broad social healing and restoration • Establishing appropriate penalty valuation approaches, including significantly increasing penalties for repeat, serious, and/or continued violations that impact public health, safety, and/or disproportionately impacted communities • Incorporating public health data into penalty valuations <ul style="list-style-type: none"> ◦ Working with Contra Costa Health and the CSC, as needed, to gather information from community members regarding the health impacts of flaring and other harmful emissions incidents to increase penalty amounts (i.e., penalties are increased when the emission results in bodily injury or death) <p>Objectives of the enforcement approaches include:</p> <ul style="list-style-type: none"> • Maximizing penalties (including increased penalties when the emission results in bodily injury or death) • Deterring future non-compliance • Removing profit and avoided costs gained from noncompliance • Assessing penalties based on all the relevant circumstances, including any of the following: <ul style="list-style-type: none"> • the severity of the violation • public health harm • negligent, knowing, or intentional behavior • non-compliance history • lack of cooperation of violator <p>Once the fuel refining-specific pilot has been implemented, this collaborative approach will then be expanded to cover all other sources of concern in the PTCA area, to strategically address facilities with non-compliances that affect air quality, community health, safety, and quality of life.</p>
Type of action	Legal; Enforcement
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	AB 1465
Partners in action implementation	Air District Legal Division
Key stakeholders to engage in action implementation	CSC; community
Potential obstacles	There are limits to how much penalties can be maximized within the current legal framework. The Health and Safety Codes (H&S Codes) limit the maximum penalties that can be assessed. Supporting legislation that increases penalty ceilings should also be considered. Penalty policy/matrix may inform violators of the penalty amounts the Air District will assess and build that amount into their cost of doing business. As a result, the penalty

	may have no deterrent effect. A penalty policy/matrix will create uniformity as to the penalty demanded but not necessarily the penalty accepted based on the facts and circumstances of the case. Facilities may challenge the legality of a penalty matrix which focuses solely on refineries. Penalty assessments may not be high enough to deter. A multi-pronged approach is required. Development of the penalty policy/matrix may take several months or longer.
Action initiation timeframe	Near=<2 years
Action intervention point	-
Action impact timeframe	Near=<2 years; Mid=2-4 years
Measure/metric of action implementation	Did the Air District meet with the CSC to discuss legal approaches? (# of meetings) Were fuel refining-specific approaches developed within 1 year? (y/n) Were the approaches expanded to cover all sources (beyond just fuel refining)? (y/n)
Can any emission/exposure reduction be estimated	-

Action #	FR 3.9
Action name/brief description	<p>First, Air District will partner with the CSC to develop, within 1 year of PTCA Plan adoption, a Community Benefits Policy (CBP) that invests up to 100% of penalty monies from the fuel refining sector back into the PTCA area. Then, Air District will partner with the CSC to expand the Fuel Refining Community Benefits Policy (CBP) to cover the full PTCA area.</p> <ul style="list-style-type: none"> • CSC will establish a CBP Subcommittee • Air District will work with CSC and CBP Subcommittee to facilitate public engagement during development of Air District policies regarding a CBP: <ul style="list-style-type: none"> ◦ The CSC or its CBP Subcommittee will help the Air District gather community input ◦ The CSC or its CBP Subcommittee and Air District will meet with Indigenous Tribal Leaders and/or Sogorea Te' Land Trust ◦ The CSC or its CBP Subcommittee will communicate with CAC to learn about its position on the CBP. <p>Air District and the CBP Subcommittee will develop a specific CBP for the distribution of funds in the PTCA that includes:</p> <ul style="list-style-type: none"> • Criteria for investment, tied to air quality and climate protection, including criteria incorporating Just Transition principles (Cross-reference FR Strategy 1) • A community-driven mechanism to incorporate the community voice, including the CSC in an advisory role, with respect to: <ul style="list-style-type: none"> ◦ Mechanisms to invest in community to improve air quality and public health, including: <ul style="list-style-type: none"> ■ Public Transportation ■ Residential Ventilation & Air Filtration ■ Urban Greening

	<ul style="list-style-type: none"> ■ Public Health Programs & Research <ul style="list-style-type: none"> ○ Investment Mechanisms should also draw from community investment projects included throughout the PTCA Plan, including, but not limited to, Public Health Action 1.4 - Asthma management (Cross-reference) ● The CBP will speak to the following stages of implementation: <ul style="list-style-type: none"> ○ Length of fuel refining focused CBP ○ Fuel refining focused CBP success evaluation (criteria, timelines, and longevity) ○ Expansion from fuel-refining CBP into a PTCA-wide CBP (Step 2 below), which would include decisions about resource needs and governance ● The CBP will establish a long-term mechanism to allow the CSC and/or CBP Subcommittee to provide consultation on CBP implementation with respect to local input ● The Fuel Refining CBP will be launched within 30 days of a policy (including CBP implementation mechanisms) being approved by the Air District Board of Directors ● The Fuel Refining Community Benefits Policy will be expanded into a PTCA-wide community benefits policy. <p>CBP Subcommittee and Air District will:</p> <ul style="list-style-type: none"> ● incorporate successes and lessons learned from the PTCA Fuel Refining CBP. ● draft a proposal for a PTCA-wide CBP and share it through a transparent and inclusive public review process. ● CBP Subcommittee will provide guidance on public engagement for the review.
Type of action	Legal; Financial
Lead action implementor	Air District Board of Directors
Related existing Program, Policy, or Initiative	Air District Press release: Contra Costa County and the Bay Area Air Quality Management District push for at least 40 percent of Tesoro settlement funds to stay local. Proposals include funding countywide health initiatives.
Partners in action implementation	Air District Board of Directors, Air District Legal and Financial Divisions, CSC CBP Subcommittee,
Key stakeholders to engage in action implementation	CSC, CAC, and Community
Potential obstacles	Developing and implementing the policy could take several months; Determining which group(s) will oversee the budget/determine where money will be invested once the fund is created; Coordination, communication and cooperation amongst stakeholders; Divergent views amongst community members on how money should be used; Ensuring that programs/investments will continue/can be sustained by the community into the future if there is a reduction in penalty monies as a result of fewer violations at the facility; Promoting/Sustaining community involvement in the process.
Action initiation timeframe	Near=<2 years
Action intervention point	-

Action impact timeframe	Mid=2-4 years; Long > 4 years
Measure/metric of action implementation	<p>Was a CBP Subcommittee created? (yes/no)</p> <p>Was the fuel refining CBP developed and taken to the Board of Directors? (yes/no?)</p> <p>Was the fuel refining CBP approved by the Board? (yes/no?)</p> <p>Was a clear protocol/guidance for the management and oversight of the CBP created? (yes/no?)</p> <p>Does the management and oversight of the CBP include and consider community input/concerns? (yes/no?)</p> <p>Was the fuel refining CBP expanded to cover the full PTCA area? (y/n)</p> <p>Is there consensus among the stakeholders/partners as to how the funds should be used in the community? (yes/no?)</p>
Can any emission/exposure reduction be estimated	Too speculative

Action #	FR 3.10
Action name/brief description	<p>Air District will develop a program by 2026 to apply a Title VI/Gov. Code section 11135 lens including, but not limited to, a process for applying civil rights/disparate impact analyses for Air District refinery-related permitting activities in the PTCA area.</p> <ul style="list-style-type: none"> ● Air District EJ Officer and Community Engagement will collaborate with the CSC and community, Air District Engineering and Planning, in developing the program. <ul style="list-style-type: none"> ○ Development must include, but not be limited to, the following: <ul style="list-style-type: none"> ■ An evaluation of Just Transition principles ■ An evaluation of when in the project review (e.g., CEQA analysis) and permitting process it would be most effective to apply the elements of such a program. <ul style="list-style-type: none"> ● E.g., Implement in the early stages in the CEQA process ■ Develop guidance for program implementation, including <ul style="list-style-type: none"> ● Triggers for implementing the analysis ● Thresholds to incorporate results of the analyses into non-discretionary decision-making ■ Cross-reference: Resource PTCA Plan Implementation ■ Cross-reference: Strategy 1 – Move Towards a Just Transition ○ A disparate impact analysis may include, but is not limited to: <ul style="list-style-type: none"> ■ Further evaluation of demographic data indicating vulnerabilities in the affected population; ■ An evaluation of existing environmental data, including air monitoring, air modeling, or, as appropriate, data from other media; ■ An evaluation of the facility's compliance record; ■ An evaluation of existing public health data about the affected community;

	<ul style="list-style-type: none"> ■ An evaluation of harm done to indigenous tribes and/or Sogorea Te' Land Trust ■ An evaluation of the permitting action's potential health and non-health adverse effects (e.g., noise, odor, and traffic), such as a health impact assessment; ■ An evaluation of the cumulative impact of the permitting action under consideration, together with impacts from other regulated and non-regulated sources of pollution in the community; ■ An evaluation of the potential effects of the permitting action under consideration on the health of a population and the distribution of those effects within the population ■ An evaluation of potential methods for minimizing or mitigating adverse effects on the community; and ■ An evaluation of less discriminatory alternatives to the proposed action.
Type of action	Regulatory; Further research
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Title VI, Gov. Code section 11135
Partners in action implementation	CSC
Key stakeholders to engage in action implementation	CSC, community, EPA, CARB, interested NGOs, academia and research institutes, Contra Costa County; medical experts; Air District Advisory Council
Potential obstacles	<p>The timeframe for this action is aggressive, so implementing it within the specified timeframe may be a challenge. If the timeframe becomes infeasible, this action would require more time to implement. Additional internal resources will be critical to this program, and without them the current level of resources will be an obstacle to implementation. In terms of implementing the action, this will also require a good deal of discussion with, and input from, the CSC and community, so there will need to be resources there in terms of people and time available.</p> <p>In terms of some of the potential aspects of a disparate impact analysis, such as the health impact assessment, partnerships and/or collaboration with academia or other entities with appropriate expertise could help address any obstacles with respect to Air District staffing, resources, and expertise.</p>
Action initiation timeframe	Near=<2 years
Action intervention point	n/a
Action impact timeframe	Mid=2-4 years; Long > 4 years
Measure/metric of action implementation	Was a collaborative workgroup convened to develop the program (y/n)? Was a program proposed (y/n)?

Can any emission/exposure reduction be estimated	Too speculative
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Action #	FR 3.11
Action name/brief description	<p>Air District will expand the distance and circumstances covered by Air District notifications for fuel refining permit actions</p> <ul style="list-style-type: none"> • Update current policy to provide notification to the entire PTCA area about fuel refining permit actions that would affect the PTCA area • Discuss with CSC on the following: <ul style="list-style-type: none"> ◦ Best Method of notification (e.g., via web posting, e-mail listserv announcements, physical mailing) ◦ Changes to triggers for notification (e.g., a distance radius greater than 1000 ft, other circumstances) ◦ What fuel refining facilities should be subject to this increased radius or other conditions ◦ Varying thresholds for notification based on level of impact (e.g., for emissions from a tall stack, account for potential impacts covering a relatively wider area) ◦ Time frames for permitting actions that account for time needed for any additional mailings and responses to any comments received • Evaluate charging permit fees to recover added cost for additional mailing, including <ul style="list-style-type: none"> ◦ Amending permitting or fee rules as needed to charge for additional costs ◦ Cross-reference: C&I Strategy 2.4: Open Permitting Rules for Rule Development • Cross-reference Chapter 9 <ul style="list-style-type: none"> ◦ As needed, utilize Community Engagement Subcommittee to inform discussion (e.g., to get feedback on the best forms of notification to use; languages to provide notification in) • Cross-reference: Resource PTCA Plan Implementation - may need additional staffing to cover work for this expansion
Type of action	Education/Outreach; Permitting
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Rule 2-5
Partners in action implementation	CSC; Air District Engineering
Key stakeholders to engage in action implementation	CSC, community; regulated facilities
Potential obstacles	Time frames for permitting actions may need to be expanded to account for this, because additional time to increase notifications could be an obstacle to meeting regulatory deadlines for processing permits. Fees for added cost

	for additional mailing could require rule development in order to recover cost, which is a larger resource need with respect to staffing.
Action initiation timeframe	Near=<2 years; Mid=2-4 years
Action intervention point	n/a
Action impact timeframe	Near=<2 years; Mid=2-4 years
Measure/metric of action implementation	Was the CSC consulted on how best to expand notification practices (y/n)? Were the factors used for notification expanded beyond current practices (y/n)?
Can any emission/exposure reduction be estimated	-

Action #	FR 3.12
Action name/brief description	<p>Follow the Air District's new EJ Chapter in its California Environmental Quality Act (CEQA) Guidance⁵, which includes:</p> <ul style="list-style-type: none"> When the Air District is the Lead Agency, <ul style="list-style-type: none"> Limit use of ministerial CEQA exemptions in the fuel refining sector, consistent with state CEQA Statute and Guidelines and Air District EJ Chapter Conduct enhanced public notification of any and all proposed fuel refining CEQA exemptions (even informal ones) in the PTCA area, informed by CSC input Use agency discretion to protect public health (e.g., setting baseline conditions to favor robust analysis/mitigation measures) Develop timelines and protocols for public-facing, language-accessible, and appropriately scheduled workshops/opportunities for public input early in the CEQA process for significant fuel refining activities, well before issuing draft permits Provide information on how community participation can meaningfully impact the CEQA process When another entity is the Lead Agency, the Air District shall use its role as Responsible Agency to advocate for implementation of the above list, including working with the Lead Agency
Type of action	Permitting
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	CEQA
Partners in action implementation	Other CEQA Lead Agencies

⁵ <https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-guidelines-2022/ceqa-guidelines-chapter-2-environmental-justicefinal-pdf.pdf?la=en>

Key stakeholders to engage in action implementation	Other CEQA Lead Agencies, community interested participating in CEQA process
Potential obstacles	The Air District is not always a Lead Agency, and therefore that can present an obstacle to implementing the guidance from the EJ CEQA chapter. Utilizing the Air District's role as Responsible Agency is intended to help with this, but the Air District's authority is more limited in those circumstances. This will also require additional staffing resources in order to cover a larger number of CEQA projects and to coordinate with external agencies acting at Lead Agency
Action initiation timeframe	Near =<2 years
Action intervention point	n/a
Action impact timeframe	Near=<2 years; Mid=2-4 years
Measure/metric of action implementation	<ul style="list-style-type: none"> • Did the Air District implement the Guidance for a CEQA project? (y/n; # of projects) • Did an external Lead Agency implement the Guidance? (y/n; # of projects)
Can any emission/exposure reduction be estimated	-

Action #	FR 3.13
Action name/brief description	<p>Improve refinery fenceline and community air monitoring programs</p> <ul style="list-style-type: none"> • The Meteorology and Measurement Division (M&M) will coordinate with CSC to develop and implement a plan to improve fenceline and Ground Level Monitoring that the refinery is required to conduct. <ul style="list-style-type: none"> ○ Evaluate improvements such as those from SB674, which include new requirements for additional monitoring, data reporting, quality assurance systems, and transparency. <ul style="list-style-type: none"> ▪ This may include requirements for alerts to the public when monitored values are above health thresholds (Cross-reference FR 2.2) ▪ Additional pollutants to be considered include those identified by OEHHHA in their 2019 report on refinery emissions, and other refinery-emitted pollutants identified by the PTCA technical assessment. ○ It also includes specific requirements for the refinery around notifications and investigating, reporting, and addressing the root cause of higher pollutant levels. ○ In addition to changes from SB 674, this strategy includes the Air District conducting additional data review and analysis, as well as follow-up of the resulting findings. ○ This effort will be coordinated with the PTCA CSC and includes changes to rules and guidelines (Rules 9-1, 9-2, 12-15) and permits. ○ The CSC and Air District will work with Chevron and the City of Richmond to develop a Memorandum of Understanding

	<p>(MOU) for improved access to the raw and summarized air quality data and metadata from the three Community Monitoring Stations Chevron operates in accordance with their agreement with the City of Richmond.</p> <ul style="list-style-type: none"> • M&M will work with the PTCA CSC to implement enhancements of District long-term air monitoring for the Major Stationary Source Community Air Monitoring Program (Schedule X), including discussing locations, specific pollutants to be measured, and how the data will be made available to the public with context. • M&M will continue to work with bill authors for SB 674 (if it is going to become a 2-year bill, as it did not pass in 2023) to help the codified language meet the intended goals of improved fence-line and community air monitoring. <p>Cross-reference: Resource PTCA Plan Implementation</p>
Type of action	Emissions and Air Monitoring
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	SB674
Partners in action implementation	CSC, City of Richmond
Key stakeholders to engage in action implementation	CSC, City of Richmond, Community, other refinery communities
Potential obstacles	Staffing resources, logistical constraints on feasible monitoring due to topography, limited technology for accurate monitoring to detect some pollutants in real time.
Action initiation timeframe	Near=<2 years
Action intervention point	Concentration and Exposure
Action impact timeframe	Long > 4 years (expected implementation deadline of January 1, 2028. Some tasks to be completed sooner per the approved plan developed as a part of this strategy)
Measure/metric of action implementation	<p>Was a plan for improving refinery monitoring developed with the CSC (yes/no?)</p> <p>Were the interim milestones identified in the monitoring improvement plan completed in a timely fashion (yes/no?)</p> <p>Were the new requirements for refinery monitoring programs operational by the deadline (yes/no?)</p>
Can any emission/exposure reduction be estimated	-

Action #	FR 3.14
Action name/brief description	<p>Improve source emissions monitoring and reporting for sources at the Chevron Refinery and fuel refining-related facilities</p> <p>Air District will:</p>

	<ul style="list-style-type: none"> Expand and/or clarify emissions monitoring, recordkeeping, or reporting requirements for sources in fuel refining-related facilities' operating permits to assure compliance with existing emission limits or other operational requirements. <ul style="list-style-type: none"> The Meteorology and Measurement and Engineering Divisions will evaluate this for new, revised, and renewed permits. Changes should include, but are not limited to, the frequency and pollutants measured by source tests or Continuous Emission Monitoring Systems (CEMS), evaluating advancement in emissions measurement technologies such as CEMS or other types of monitoring, required quality management systems to document the data uncertainty, standardizing data reporting, and increasing transparency. Improve emissions monitoring, recordkeeping and reporting requirements in District regulations governing sources at refineries and auxiliary facilities, including the applicable parts of the Manual of Procedures. <ul style="list-style-type: none"> Meteorology and Measurement will work with Rule Development and other divisions to develop a list of rules that have opportunities for strengthening requirements for emissions monitoring, recordkeeping, and reporting, or other practical enforceability issues, and to assure that the requirements included in revised rules are as robust and up to date as possible, increasing the effectiveness of the rule. These improvements will incorporate lessons learned from recent enforcement actions, to help prevent recurrence. Cross-reference: Resource PTCA Plan Implementation
Type of action	Emissions and Air Monitoring; Regulatory; Permitting
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Emissions monitoring, Manual of Procedures, Permitting
Partners in action implementation	CSC
Key stakeholders to engage in action implementation	CSC, community, regulated facilities
Potential obstacles	Staffing resources, technical challenges around defining standard data formats and data management systems for such a wide variety of data types and circumstances
Action initiation timeframe	Long > 4 years
Action intervention point	Emissions
Action impact timeframe	Long > 4 years
Measure/metric of action implementation	Lists of permit or rule changes for monitoring, recordkeeping, or reporting requirements. Were lessons learned from enforcement actions incorporated into future permit/rule revisions (yes/no?)

Can any emission/exposure reduction be estimated	-
Action #	FR 3.15
Action name/brief description	<p>Refinery-related measurement data accessibility improvements</p> <ul style="list-style-type: none"> • The Air District and the CSC Implementation team will develop and implement a plan, including timelines, to make refinery-related air and emissions data more accessible • The Air District will conduct analyses of various refinery related and PTCA area air and emissions data and communicate insights from this work on an ongoing basis. Analyses will evaluate <ul style="list-style-type: none"> ○ Long-term and seasonal trends in measured CAPs and TACs ○ Short-duration episodes of higher levels of CAPs and TACs ○ Patterns of CAPs and TACs throughout the PTCA area • This work will include data from Air District ongoing air and emissions monitoring programs or short-term monitoring projects, refinery-conducted monitoring including fenceline systems, and from community-led monitoring projects or other publicly available air sensor networks. This work will also coordinate with other Air District air quality information, for example the emissions inventory and air quality modeling work. • Outcomes of the pilot project will include <ul style="list-style-type: none"> ○ A web page or resources that describes how to access different datasets ○ Reports, fact sheets, or other updates that communicate the information and insights that result from summarizing and analyzing the air quality and emissions monitoring data will be provided annually for ongoing data collection, and also after special monitoring studies. ○ Improved communication approaches for air quality impacts that aren't directly comparable to a health-based standard (e.g., high hours of PM_{2.5} compared to 24-hour levels.) ○ Hold a public meeting to introduce new monitoring data and insights resources to the community and provide opportunities for ongoing sharing of improvement suggestions. <p>Cross-reference: Resource PTCA Plan Implementation</p>
Type of action	Air and Emissions Monitoring; Data Transparency
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Air District long-term air monitoring, short-term community-focused air monitoring, emissions measurements and oversight, and technical support to overburdened communities for air monitoring and data.
Partners in action implementation	Community organizations conducting air monitoring
Key stakeholders to engage in action implementation	Work with the CSC Implementation Team to refine plans for data accessibility to ensure it meets the PTCA community's information needs. This could include scoping how datasets and air quality findings are communicated and displayed, and a process for ongoing and routine feedback from the community as the plans are implemented, or as the community's needs for

	air quality information evolve. Engagement could also include other refinery corridor community groups.
Potential obstacles	Time to build new data systems for datasets that vary widely in format and meaning. Time to collate and verify various datasets to be able to say something about known data quality.
Action initiation timeframe	Near=<2 years
Action intervention point	-
Action impact timeframe	Ongoing though near-, mid-, and long-term. Develop the initial plan for the refinery-related data accessibility pilot project by mid-2024.
Measure/metric of action implementation	Timely completion of the deliverables according to the scope and timeline described in the Refinery Data Accessibility Project workplan
Can any emission/exposure reduction be estimated	-

Strategy 4 – Reduce Exposure and Public Health Impacts from Toxic Air Contaminants Emitted by the Fuel Refining Sector – Actions:

Action #	FR 4.1
Action name/brief description	<p>Amend Rule 11-18 to improve stringency, efficiency, transparency, and public engagement</p> <p>Air District will:</p> <ul style="list-style-type: none"> Collaborate with CSC on the following processes: <ul style="list-style-type: none"> amendment concepts draft language proposed language proposed timelines stakeholder engagement <p>Rule development for amendments will evaluate the following (via one or more rounds of rule development, initiated in 2023):</p> <ul style="list-style-type: none"> Expedited timelines in the rule, such as <ul style="list-style-type: none"> combining facility and public review periods into a single period for Phase 1 Facilities reducing time allocated to complete a Risk Reduction Plan (RRP) after a Health Risk Assessment (HRA) is finalized Additional mechanisms to increase implementation efficiency, including <ul style="list-style-type: none"> prioritizing rule implementation at priority facilities (e.g., AB617 communities and Overburdened Communities) for facilities below a certain prioritization score (e.g., below a prioritization score of 1000), requiring facilities submit their own HRAs in order to more quickly move into Air District review of the HRA Improved health protection and assurance of continuous improvement by

	<ul style="list-style-type: none"> ○ Incorporating population-based risk into action requirements (or an additional risk-based factor) <ul style="list-style-type: none"> ▪ to account for risk for the nearby population, beyond just risk to the Maximally Exposed Individual (MEI) ○ Establishing a mandatory risk reduction level independent of TBARCT (Toxics Best Available Retrofit Control Technology) installation status ○ Assessing the cancer risk threshold ○ Assessing the Toxic Air Contaminants-based (TAC-based) chronic hazard index • Periodic re-evaluations of TBARCT, such as <ul style="list-style-type: none"> ○ Re-evaluations of TBARCT status every 10 years, for facilities with health risk greater than the RAL • Removing exemptions for emergency use-diesel engines and for Gasoline Dispensing Facilities (GDFs) • Incorporating the shortest implementation timeline(s) feasible for the rule amendments <p>Cross-references:</p> <ul style="list-style-type: none"> • Public Health Strategy 6, with respect to potentially incorporating any future findings from improvements in health risk data, analyses, and research • Resource PTCA Plan Implementation
Type of action	Regulatory (Air District)
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Rule 11-18 Implementation; SCAQMD Rule 1401 (New Source Review of Toxic Air Contaminants) and Rule 1402 (Control of Toxic Air Contaminants from Existing Sources)
Partners in action implementation	CSC, community, Air District Engineering
Key stakeholders to engage in action implementation	CSC, community, regulated entities, CAC
Potential obstacles	<p>The rule amendment items will be focused on expediting the implementation of the rule, streamlining the implementation process of the rule, and strengthening the rule to require further health risk reduction. Because of the length of the list of potential amendment concepts to be evaluated, a rule development approach may need to be broken up into more than one round of rule development efforts. This could allow for certain amendments to be brought to the Board of Directors sooner, and a second round of amendments (that may take longer to develop) to be brought forward later.</p> <p>It may be challenging to balance amendment items that will expedite the rule implementation and increase transparency for the community of the rule implementation, as additional public engagement can take time and has the potential to result in longer rule implementation timelines. Stakeholder engagement with the affected facilities, CSC, and the community will be crucial in ensuring the amendment items are viable to all the stakeholders. In addition, staffing for implementation of Rule 11-18 can be another obstacle.</p>
Action initiation timeframe	Near=<2 years

Action intervention point	emissions, exposure
Action impact timeframe	Mid=2-4 years; Long > 4 years
Measure/metric of action implementation	Were rule concepts produced for public input? (y/n) Were draft rule amendments produced? (y/n) Were rule amendments proposed to the Air District Board of Directors? (y/n) Were rule amendments adopted? (y/n)
Can any emission/exposure reduction be estimated	Too speculative to estimate emissions reductions at this time

Action #	4.2
Action name/brief description	<p>Prioritize implementation of Rule 11-18 for Chevron, including the following elements:</p> <p>Health Risk Assessment Air District will:</p> <ul style="list-style-type: none"> ● Complete and publish the Health Risk Assessment (HRA) for Chevron <ul style="list-style-type: none"> ○ Prioritize the completion and publication of the final HRA expeditiously <ul style="list-style-type: none"> ■ including regular updates on progress (cross-reference FR 4.4) ○ Engage with the CSC on the HRA <ul style="list-style-type: none"> ■ Notify CSC and CSC-identified external stakeholders upon HRA completion and availability for review ■ Upon request by the CSC, present HRA to the CSC ○ Engage with CSC-identified stakeholders on the HRA <ul style="list-style-type: none"> ■ Air District: Provide the HRA Executive Summary to CSC identified stakeholders, including but not limited to the Cities of Richmond and San Pablo and Contra Costa County Board of Supervisors, as well as a CSC-designated Environmental Justice NGOs ■ Upon request, Air District and CSC will work together to present the HRA at meetings of Cities of Richmond and San Pablo and Contra Costa County Board of Supervisors <p>CSC will:</p> <ul style="list-style-type: none"> ● Provide feedback on the HRA during the public comment period ● Advocate to CSC-identified stakeholders about the importance of engaging in the HRA review process ● Engage Environmental Justice NGO about HRA and ways to advocate for community <p>Risk Reduction Plan Air District will:</p> <ul style="list-style-type: none"> ● Evaluate the Risk Reduction Plan (RRP) required from Chevron expeditiously <ul style="list-style-type: none"> ○ Perform all applicable global best practices analyses to ensure Chevron's RRP properly complies with Rule 11-18 risk reduction requirements

	<ul style="list-style-type: none"> ■ including a review of best available controls (see Table FR 4.5: Chevron Source Categories, including best available controls for each category) ○ Limit any proposed facility extensions on RRP timelines ○ Engage with the CSC and CSC-identified stakeholders on RRP contents <ul style="list-style-type: none"> ■ Notify CSC and CSC-identified external stakeholders upon RRP availability for review ■ Upon request, present RRP to CSC <ul style="list-style-type: none"> ● Provide an RRP Executive Summary to CSC identified stakeholders, including but not limited to the Cities of Richmond and San Pablo and Contra Costa County Board of Supervisors, as well as a CSC- designated Environmental Justice NGOs ● Upon request, Air District and CSC will work together to present the RRP at meetings of Cities of Richmond and San Pablo and Contra Costa County Board of Supervisors ■ Following completion of the comment period, present Stakeholder findings including concerns and questions to the full CSC <p>CSC will:</p> <ul style="list-style-type: none"> ● Write and vote on a recommendation letter on the RRP to be presented during Air District's public comment period ● Advocate to CSC-identified stakeholders about the importance of engaging in the RRP review process ● Engage Environmental Justice NGO about RRP and ways to advocate for community <p>Retrospective Analysis</p> <p>Air District will:</p> <ul style="list-style-type: none"> ● Implement Action FR 4.5 - Evaluate and Implement Targeted Single-Source Category Controls to further reduce public health impact from TACs <p>Additional Efforts</p> <p>Air District will:</p> <ul style="list-style-type: none"> ● Implement changes from Rule 11-18 post-amendment, to incorporate any updated requirements that Chevron becomes subject to <ul style="list-style-type: none"> ○ Cross-reference: FR Action 4.1 ● Report on Implementation progress <ul style="list-style-type: none"> ○ Cross-reference FR Action 4.4: Regular reports on progress of Rule 11-18 Implementation in PTCA area <p>Cross-reference: Resource PTCA Plan Implementation Strategy</p>
Type of action	Regulatory (Air District) Implementation
Lead action implementor	Air District (including Air District Engineering); CSC
Related existing Program, Policy, or Initiative	Rule 11-18

Partners in action implementation	CSC, community, NGOs
Key stakeholders to engage in action implementation	Community, especially those that live in neighborhoods most impacted by TAC exposures from Chevron; Chevron
Potential obstacles	Staffing to implement Rule 11-18 can be an obstacle, as the rule implementation timelines are impacted by resource limitations. Additionally, Chevron may respond to the HRA and RRP steps in 11-18 implementation in a way that extends timelines for implementation to the maximum extent possible. Further, there might be obstacles with respect to engaging NGO partners for support on HRA and RRP reviews, should an NGO not have capacity at any given time to provide said support.
Action initiation timeframe	Near =<2 years (except see FR Action 4.5 timeline for RRP retrospective)
Action intervention point	Emissions, Exposure
Action impact timeframe	Long > 4 years
Measure/metric of action implementation	Was an HRA finalized? (yes/no) Was an RRP finalized? (yes/no) Direct emissions reductions Direct risk reductions
Can any emission/exposure reduction be estimated	Too speculative until RRP is available

Action #	4.3
Action name/brief description	<p>Implement Rule 11-18 at Chemtrade, including the following elements:</p> <p>Health Risk Assessment Air District will:</p> <ul style="list-style-type: none"> ● Complete and publish the Health Risk Assessment (HRA) for Chemtrade <ul style="list-style-type: none"> ○ Prioritize the completion and publication of the final HRA expeditiously <ul style="list-style-type: none"> ■ including regular updates on progress (cross-reference FR 4.4) ○ Engage with the CSC on the HRA <ul style="list-style-type: none"> ■ Notify CSC and CSC-identified external stakeholders upon HRA completion and availability for review ■ Upon request by the CSC, present HRA to the CSC ○ Engage with CSC-identified stakeholders on the HRA <ul style="list-style-type: none"> ■ Air District: Provide the HRA Executive Summary to CSC identified stakeholders, including but not limited to the Cities of Richmond and San Pablo and Contra Costa County Board of Supervisors, as well as a CSC-designated Environmental Justice NGOs ■ Upon request, Air District and CSC will work together to present the HRA at meetings of Cities of Richmond and

	<p style="text-align: center;">San Pablo and Contra Costa County Board of Supervisors</p> <p>CSC will:</p> <ul style="list-style-type: none"> • Provide feedback on the HRA during the public comment period • Advocate to CSC-identified stakeholders about the importance of engaging in the HRA review process • Engage Environmental Justice NGO about HRA and ways to advocate for community <p>Risk Reduction Plan (should a Plan be required per the HRA)</p> <p>Air District will:</p> <ul style="list-style-type: none"> • Evaluate the Risk Reduction Plan (RRP) required from Chemtrade expeditiously <ul style="list-style-type: none"> ○ Perform all applicable global best practices analyses to ensure Chemtrade's RRP properly complies with Rule 11-18 risk reduction requirements <ul style="list-style-type: none"> ■ including a review of best available controls ○ Limit any proposed facility extensions on RRP timelines ○ Engage with the CSC and CSC-identified stakeholders on RRP contents <ul style="list-style-type: none"> ■ Notify CSC and CSC-identified external stakeholders upon RRP availability for review ■ Upon request, present RRP to CSC <ul style="list-style-type: none"> • Provide an RRP Executive Summary to CSC identified stakeholders, including but not limited to the Cities of Richmond and San Pablo and Contra Costa County Board of Supervisors, as well as a CSC- designated Environmental Justice NGOs • Upon request, Air District and CSC will work together to present the RRP at meetings of Cities of Richmond and San Pablo and Contra Costa County Board of Supervisors ■ Following completion of the comment period, present Stakeholder findings including concerns and questions to the full CSC <p>CSC will:</p> <ul style="list-style-type: none"> • Write and vote on a recommendation letter on the RRP to be presented during Air District's public comment period • Advocate to CSC-identified stakeholders about the importance of engaging in the RRP review process • Engage Environmental Justice NGO about RRP and ways to advocate for community <p>Retrospective Analysis</p> <p>Air District will:</p> <ul style="list-style-type: none"> • Implement Action FR 4.5 - Evaluate and Implement Targeted Single-Source Category Controls to further reduce public health impact from TACs <p>Additional Efforts</p> <p>Air District will:</p>
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	<ul style="list-style-type: none"> Implement changes from Rule 11-18 post-amendment, to incorporate any updated requirements that Chemtrade becomes subject to <ul style="list-style-type: none"> Cross-reference: Action FR 4.1 Report on Implementation progress <ul style="list-style-type: none"> Cross-reference Action FR 4.4: Regular reports on progress of Rule 11-18 Implementation in PTCA area <p>Cross-reference: Resource PTCA Plan Implementation Strategy</p>
Type of action	Regulatory (Air District) Implementation
Lead action implementor	Air District (including Air District Engineering); CSC
Related existing Program, Policy, or Initiative	Rule 11-18
Partners in action implementation	CSC, community, NGOs
Key stakeholders to engage in action implementation	Community, especially those that live in neighborhoods most impacted by TACs exposures from Chemtrade; Chemtrade
Potential obstacles	Staffing to implement Rule 11-18 can be an obstacle, as the rule implementation timelines are impacted by resource limitations. Additionally, Chemtrade may respond to the HRA and RRP steps in 11-18 implementation in a way that extends timelines for implementation to the maximum extent possible. Further, there might be obstacles with respect to engaging NGO partners for support on HRA and RRP reviews, should an NGO not have capacity at any given time to provide said support.
Action initiation timeframe	Near =<2 years (except see Action 1.5 timeline for RRP retrospective)
Action intervention point	Emissions, Exposure
Action impact timeframe	Long > 4 years
Measure/metric of action implementation	Was an HRA finalized? (yes/no) Was an RRP finalized? (yes/no)
Can any emission/exposure reduction be estimated	Too speculative until RRP is available

Action #	4.4
Action name/brief description	<p>Implement Rule 11-18 at all other fuel-refining and fuel-refining related facilities* subject to the rule and Provide Regular Updates on Rule 11-18 Implementation</p> <p>*(note: see Commercial and Industrial Sources Near Community Strategy 2 for Rule 11-18-related actions covering non-fuel-refining facilities)</p> <p>Air District:</p> <ul style="list-style-type: none"> For any additional Phase 1 and Phase 2 facilities that fall under the category of Fuel Refining, outside of Chevron and Chemtrade, implement 11-18 in the same manner outlined in Actions FR 4.2 and FR 4.3

	<ul style="list-style-type: none"> • Provide regular reports on progress of Rule 11-18 implementation in PTCA area beginning January 2024 <ul style="list-style-type: none"> ◦ Align with 9/2/2023 Settlement Agreement with CBE⁶, under which there are specifics regarding 'Regular Meetings of the Parties Regarding Implementation of Regulation 11-18 and Responsiveness to Community Regarding Facilities Subject to Regulation 11-18' ◦ Invite PTCA CSC to these meetings <p>CSC and community:</p> <ul style="list-style-type: none"> • For any additional Phase 1 and Phase 2 facilities that fall under the category of Fuel Refining, outside of Chevron and Chemtrade, engage in 11-18 implementation as outlined in Actions FR 4.2 and 4.3 <p>Phase 1 and 2 Facilities - Fuel Refining (Current as of 6.1.2023; note: with additional analysis, the list is subject to change)</p> <ul style="list-style-type: none"> • Phase 1 (facilities with an unadjusted cancer risk prioritization score of 250 or higher and sites with an unadjusted chronic hazard index of 10 or higher): <ul style="list-style-type: none"> ◦ Chevron (see Action FR 4.2) ◦ Chemtrade (see Action FR 4.3) • Phase 2 (facilities with an unadjusted cancer risk prioritization score of 10-250 or higher and sites with an unadjusted chronic hazard index of 1 or higher): <ul style="list-style-type: none"> ◦ Chevron Richmond Technology Center ◦ Richmond Products Terminal (Kinder Morgan)
Type of action	Regulatory (Air District) Implementation
Lead action implementor	Air District; CSC
Related existing Program, Policy, or Initiative	Rule 11-18
Partners in action implementation	CSC, community, NGOs
Key stakeholders to engage in action implementation	Community members, especially those that live in neighborhoods most impacted by TACs exposures from these facilities; Regulated facilities
Potential obstacles	Staffing to implement Rule 11-18 can be an obstacle, as the rule implementation timelines are impacted by resource limitations. Additionally, any facility subject to Rule 11-18 may respond to the HRA and RRP steps in 11-18 implementation in a way that extends timelines for implementation to the maximum extent possible. Further, there might be obstacles with respect to engaging NGO partners for support on HRA and RRP reviews, should an NGO not have capacity at any given time to provide said support.
Action initiation timeframe	Mid=2-4 years; Long > 4 years
Action intervention point	Emissions, Exposure

⁶ https://www.baaqmd.gov/~media/files/communications-and-outreach/publications/news-releases/2023/2023_022_cbsettlement_090423-pdf.pdf?la=en&rev=ac0ee6906bbb451b916dafeb56b9997b

Action impact timeframe	Long > 4 years
Measure/metric of action implementation	Was an HRA completed at a given facility? (y/n) If required, was an RRP finalized for a given facility? (y/n)
Can any emission/exposure reduction be estimated	Too speculative until RRP is available

Action #	4.5
Action name/brief description	<p>Evaluate and Implement Targeted Single-Source Category Controls to further reduce public health impacts from TACs</p> <p>Air District will:</p> <ol style="list-style-type: none"> 1. Evaluate <ul style="list-style-type: none"> • Following completion of an RRP for a Fuel Refining (or fuel-refining related) facility under Rule 11-18, conduct a retrospective analysis on the facility's risk <ul style="list-style-type: none"> ○ Identify health burden estimated to remain post 11-18 implementation ○ Conduct targeted evaluations for source-specific controls to further reduce public health impact from TACs <ul style="list-style-type: none"> ▪ For Chevron, this is including but not limited to the following: <ul style="list-style-type: none"> ▪ <u>List FR 4.5: Chevron Source Categories and best available controls for each category:</u> <ul style="list-style-type: none"> • <i>Source: Tanks</i> <ul style="list-style-type: none"> ○ Best available controls: <ul style="list-style-type: none"> ▪ Doming ▪ Improvements to inspection and maintenance programs, and increased stringency for vapor recovery standards. <ul style="list-style-type: none"> • Enhanced monitoring for detecting leaks (see FR 3.14) ▪ Best combustion practices (in place) ▪ Additional controls that could be explored*: <ul style="list-style-type: none"> • post-combustion controls • limits on toxic metals in fuel gas • <i>Source: Boilers/Process Heaters</i> <ul style="list-style-type: none"> ○ Best available controls: <ul style="list-style-type: none"> ▪ Best combustion practices (in place) ▪ Additional controls that could be explored*: <ul style="list-style-type: none"> • post-combustion controls

	<ul style="list-style-type: none"> • limits on toxic metals in fuel gas • <i>Source: Cogeneration (Turbines and Heat Recovery Steam Generators (HRSGs))</i> <ul style="list-style-type: none"> ○ Best available controls: <ul style="list-style-type: none"> ▪ Best Combustion Practices (in place) ▪ Additional controls that could be explored: <ul style="list-style-type: none"> • post-combustion controls • limits on toxic metals in fuel gas • <i>Source: Sulfur Recovery Unit (SRU)</i> <ul style="list-style-type: none"> ○ Best available controls: <ul style="list-style-type: none"> ▪ Tail gas treatment system (in place) • <i>Source: Fugitives</i> <ul style="list-style-type: none"> ○ Best available controls: <ul style="list-style-type: none"> ▪ LDAR (leak detection and repair) programs (in place) <ul style="list-style-type: none"> • gas and light liquids • heavy liquids ▪ Improvements to LDAR programs <ul style="list-style-type: none"> • for heavy liquids (Rule 8-18 amendments) • Enhanced monitoring for detecting leaks (see FR 3.14) • <i>Source: Fluidized Catalytic Cracking Unit (FCCU)</i> <ul style="list-style-type: none"> ○ Best available controls: <ul style="list-style-type: none"> ▪ Wet Gas Scrubber ▪ Levels of control consistent with wet gas scrubber performance, as required by Rule 6-5 ○ Assess added reductions that could be achieved via source-specific rules, to close any gaps ○ Incorporate Community Input <ul style="list-style-type: none"> ▪ Air District: <ul style="list-style-type: none"> • Present the completed retrospective analysis to CSC and all interested external stakeholders including but not limited to the Cities of Richmond and San Pablo and Contra Costa County Board of Supervisors as well as a CSC designated Environmental Justice NGO for feedback ▪ CSC: <ul style="list-style-type: none"> • Vote on RRP targets to determine priority concerns on remaining risks and give Air District direction on implementation of Step 2 of Action FR 4.5
2. Implement	

	<ul style="list-style-type: none"> Based on results of step 1, pursue rule development to require source-specific controls for individual source categories For sources where TBARCT is not in place and is not implemented via 11-18, pursue requirements for source-specific controls in order to implement the best available controls: <ul style="list-style-type: none"> For Chevron, List FR 4.5 (above) includes Chevron Source Categories and best available controls for each category For sources with the best available controls in place, assess pollutant-specific toxics impacts and explore alternative options for control <ul style="list-style-type: none"> *See List FR 4.5 contents about additional controls that could be explored. It is important to note additional controls included in the above list may have significant issues with respect to feasibility, either because they have not been achieved in practice for the associated source type and/or because they have not been seen applied in the context of a refinery facility. Alternatives could include specific control technologies, if found feasible, and/or TAC-specific limits <p>Cross-reference: Resource PTCA Plan Implementation</p>
Type of action	Regulatory (Air District); Further research
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Rule 11-18
Partners in action implementation	CSC and CSC-identified external stakeholders; affected fuel refining facilities; Air District Engineering; Air District Rule Development
Key stakeholders to engage in action implementation	CSC, CSC-identified external stakeholders, community, technical experts
Potential obstacles	As noted in the action, in the instance that alternative controls must be explored, there are significant caveats to be aware of with respect to feasibility.
Action initiation timeframe	Long > 4 years
Action intervention point	Emissions, exposure
Action impact timeframe	Long > 4 years
Measure/metric of action implementation	Was remaining burden analyzed based on post-11-18 implementation (y/n) Were sources identified for source-specific application of best available controls (y/n) Was a rule development process undertaken for a source (y/n, # of source categories)
Can any emission/exposure reduction be estimated	Too speculative

Strategy 5 - Reduce Exposure and Public Health Impacts from Particulate Matter and Other Criteria Air Pollutants Emitted by the Fuel Refining Sector – Actions:

Action #	FR 5.1
Action name/brief description	Implement Rule 6-5. Air District to engage in negotiations to resolve litigation and implement Rule 6-5 such that compliance occurs by the originally adopted timeline specified in the Rule.
Type of action	Regulatory (Air District) Implementation
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Advisory Council Particulate Matter Reduction Strategy Report
Partners in action implementation	Chevron; Air District Engineering, Air District Legal
Key stakeholders to engage in action implementation	Community
Potential obstacles	Rule 6-5 amendments adopted in 2021 are currently under litigation. The outcome of the litigation is unclear at this time as the litigation is ongoing. Depending on the outcome of the litigation there may be impacts associated with the implementation of the rule. Obstacles are speculative in nature at this stage, as the details regarding the progress of the litigation cannot be provided as that may have an impact on the outcome of the litigation.
Action initiation timeframe	Near =<2 years
Action intervention point	Emissions
Action impact timeframe	Mid=2-4 years
Measure/metric of action implementation	Direct emission reductions
Can any emission/exposure reduction be estimated	Yes, to be determined later

Action #	FR 5.2
Action name/brief description	<p>Finalize PM_{2.5} Local Risk Methodology for rule development and accountability</p> <p>Air District will:</p> <ul style="list-style-type: none"> • Complete the white paper, "Modeling Health Risks from Local Sources of Fine Particulate Matter (PM_{2.5})," which documents a proposed risk methodology in detail (also referred to as the "PM_{2.5} Local Risk Methodology"). • Present white paper findings to CSC by the end of January 2024. <p>CSC will:</p>

	<ul style="list-style-type: none"> Write and vote on a recommendation letter on the PM_{2.5} Local Risk Methodology and the importance of accounting for long-term health impacts from PM_{2.5} exposure in Air District work, including permitting and rule development, to be presented during Air District's public comment period <p>Cross-reference: Public Health Strategy 6</p>
Type of action	Further research
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Advisory Council Particulate Matter Reduction Strategy Report
Partners in action implementation	-
Key stakeholders to engage in action implementation	Community, technical experts, advisory council
Potential obstacles	The Advisory Council will have many new members and potentially new topics after June 2023. However, the Advisory Council may be able to form an ad hoc for this topic to provide continuity.
Action initiation timeframe	Near =<2 years
Action intervention point	-
Action impact timeframe	Near =<2 years
Measure/metric of action implementation	Was the white paper finalized (yes/no)
Can any emission/exposure reduction be estimated	-

Action #	FR 5.3
Action name/brief description	<p>Develop and implement health-based rules for PM, upon finalizing a methodology to account for health risk from PM. Evaluate with respect to fuel refining sources, non-fuel refining sources, and other significant sources. Initiate by the end of 2025.</p> <p>Air District will:</p> <ul style="list-style-type: none"> Collaborate with CSC on the following processes: <ul style="list-style-type: none"> rule development amendment concepts draft language proposed language proposed timelines stakeholder engagement Evaluate mechanisms for incorporating health-based metrics from PM_{2.5} exposure into regulatory requirements <ul style="list-style-type: none"> e.g., utilizing the PM_{2.5} Local Risk Methodology

	<ul style="list-style-type: none"> Amend the following rules or create a new rule to reduce PM health risk <ul style="list-style-type: none"> Permitting Rules, including Rule 2-1 & Rule 2-5 Rule 11-18 Cross-reference Public Health Strategy 6, which covers efforts to quantify the health risk from PM to integrate CAPs such as PM into health-based rules <p>CSC will:</p> <ul style="list-style-type: none"> Write and vote on a recommendation letter on any new and amended rules to be presented during Air District's public comment period <p>Cross-references: FR 5.2 to finalize PM_{2.5} Local Risk Methodology</p>
Type of action	Regulatory (Air District)
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Advisory Council Particulate Matter Reduction Strategy Report; PM _{2.5} Local Risk Methodology
Partners in action implementation	Advisory Council
Key stakeholders to engage in action implementation	Community, technical experts, advisory council
Potential obstacles	May require extensive work. It may have impacts on a wide variety of sources required to obtain air quality permits.
Action initiation timeframe	Med: 2-4 years; Long > 4 years
Action intervention point	-
Action impact timeframe	Long > 4 years
Measure/metric of action implementation	Was a regulation drafted? (yes/no) Was a regulation proposed and adopted? (yes/no)
Can any emission/exposure reduction be estimated	Too speculative

Action #	FR 5.4
Action name/brief description	<p>Include work to improve quantification of PM and VOC emissions from cooling towers in Fuel Refining Strategy 3 Action 13</p> <p>Air District will:</p> <ul style="list-style-type: none"> Improve quantification of PM and VOC emissions from cooling towers, as part of Fuel Refining Strategy 3 Action 13: Improve refinery fence-line and community air monitoring programs Adjust exposure modeling for Chevron based on findings, within 3-6 months of producing adjusted emission estimates <p>Cross-reference: FR 3.14: Improve source emissions monitoring and reporting for sources at the Chevron Refinery and fuel refining-related facilities</p>
Type of action	Further research

Lead action implementor	Air District
Related existing Program, Policy, or Initiative	-
Partners in action implementation	-
Key stakeholders to engage in action implementation	CSC
Potential obstacles	Resources; technical constraints
Action initiation timeframe	Near=<2 years Near=<2 years
Action intervention point	n/a
Action impact timeframe	Near=<2 years; Mid=2-4 years
Measure/metric of action implementation	Were improvements made to PM quantification for cooling towers? (yes/no) Were improvements made to VOC quantification for cooling towers? (yes/no)
Can any emission/exposure reduction be estimated	-

Action #	FR 5.5
Action name/brief description	Initiate rule development for NO _x emissions from combustion sources at petroleum refineries by the end of 2024 Air District will: <ul style="list-style-type: none"> Collaborate with CSC on the following processes: <ul style="list-style-type: none"> rule development concepts draft language proposed language expedited timelines stakeholder engagement Evaluate regulatory requirements from South Coast AQMD's BARCT Rule 1109 for combustion sources at petroleum refineries Evaluate the most expeditious implementation timeframes feasible
Type of action	Further research; Regulatory (Air District)
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	SCAQMD Rule 1109
Partners in action implementation	CSC
Key stakeholders to engage in action implementation	CSC; Community; SCAQMD; regulated entities

Potential obstacles	There are a large number of individual sources, which can present challenges with respect to cost effectiveness determinations. Implementation timelines will need to be taken into account. South Coast has a staggered implementation timeline spanning up to 10 years, so timelines will be a factor in prioritization considerations. Further potential considerations include potential construction timelines, permitting processes, material availability, etc.
Action initiation timeframe	Near =<2 years
Action intervention point	Emissions
Action impact timeframe	Mid=2-4 years; Long>4 years
Measure/metric of action implementation	Was a rule development effort initiated? (yes/no) Was an update given to the CSC? (yes/no)
Can any emission/exposure reduction be estimated	-

Action #	FR 5.6
Action name/brief description	<p>Initiate rule development to evaluate controls to reduce SO₂ emissions and secondary PM generated by Chevron and related industries in the PTCA area.</p> <p>Air District will:</p> <ul style="list-style-type: none"> ● Evaluate SO₂ Emissions and secondary PM formation from sources in the fuel refining sector and determine if additional SO₂ reduction is feasible. <ul style="list-style-type: none"> ○ e.g., FCCU, Sulfur Recovery Units, Sulfuric Acid Plant, Storage Tanks ● Report findings to CSC and stakeholders by TBD <ul style="list-style-type: none"> ○ CSC will determine next steps to pursue based on findings and make recommendations to the Air District to further protect health ● Evaluate rule development opportunities, including an updated review of BARCT <ul style="list-style-type: none"> ○ Collaborate with CSC on the following processes: <ul style="list-style-type: none"> ■ rule development concepts ■ draft language ■ proposed language ■ expedited timelines ■ stakeholder engagement ● Evaluate the most expeditious implementation timeframes feasible
Type of action	Further research; Regulatory
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	-

Partners in action implementation	-
Key stakeholders to engage in action implementation	CSC; community
Potential obstacles	Staffing resources, subject to prioritization of implementation
Action initiation timeframe	Near =<2 years
Action intervention point	Emissions
Action impact timeframe	Mid=2-4 years; Long>4 years
Measure/metric of action implementation	Was rule development initiated? (yes/no) Was an update given to the CSC? (yes/no)
Can any emission/exposure reduction be estimated	-

Marine and Rail (M&R)

M&R Strategies

1. Reduce Cancer and Chronic Health Risk from Rail Operations and Facilities
2. Reduce Cancer and Chronic Health Risk from Ocean Going Vessels (OGVs)
3. Reduce Cancer and Chronic Health Risk from Commercial Harbor Craft (CHC)
4. Reduce Cancer and Chronic Health Risk from Cargo Handling Equipment
5. Reduce Cancer and Chronic Health Risk from Cumulative Impact Facilities and Operations

Detailed Action Descriptions

Strategy 1 – Reduce Cancer and Chronic Health Risk from Rail Operations and Facilities – Actions

Action #	M&R 1.1
Action name/brief description	<p>Regulate Emissions Reductions from Rail</p> <p>CARB:</p> <ul style="list-style-type: none"> • Implement the In-Use Locomotive Regulation adopted in 2023. <p>Air District and/or the CSC:</p> <ul style="list-style-type: none"> • Air District: Assign a staff member to track Rail-related regulations and report to CSC on any issues where community input or review could have an impact on outcomes. • Air District and/or the CSC: Support implementation of CARB's In-Use Regulation: <ul style="list-style-type: none"> ○ Review Technology Feasibility Reports and comment as needed ○ Review and comment on any other reports, as needed <ul style="list-style-type: none"> ■ For example, any PTCA-relevant submittals to CARB to utilize the Alternative Fleet Compliance Option or the

	<p>Short-term Compliance Option⁷</p> <ul style="list-style-type: none"> • Air District: Track EPA's response process for 'Petitions to Address Harmful Emissions from Locomotives' <ul style="list-style-type: none"> ◦ As needed, engage in the process and advocate for EPA and/or CARB to establish stricter requirements for new locomotives and more stringent re-manufacturing requirements (e.g., Tier 5).
Type of action	Regulatory
Lead action implementor	CARB and EPA, with support from Air District and the CSC.
Related existing Program, Policy, or Initiative	CARB In-Use Locomotive Regulation. EPA Response to Petitions to Address Harmful Emissions from Locomotives.
Partners in action implementation	Air District, the CSC, CARB, and the EPA. Also regulated entities subject to the regulations/requirements.
Key stakeholders to engage in action implementation	The CSC. Specific community groups/neighborhoods closest to and/or most impacted by rail emissions. Regulated entities.
Potential obstacles	<p>The main potential obstacle is ample staff capacity at Air District to track and comment on regulations. There are currently limited staff hours dedicated to tracking marine and rail regulations.</p> <p>Another potential obstacle is engaging the community for input, which is discussed in greater detail in the Education and Outreach Action below. Even with lines of communication established, there need to be resources provided to properly engage community (CSC members and other groups), such as stipends, as well as staff resources to inform and educate the community as needed.</p>
Action initiation timeframe	Near=<2 years
Action intervention point	Emissions
Action impact timeframe	Long > 4 years
Measure/metric of action implementation	Direct emission reductions (#)
Can any emission/exposure reduction be estimated	<p>Yes, later.</p> <p>CARB will estimate a 5th year (and possibly 10th year) target for the emissions reductions from implementing this regulation. CARB will then report on implementation and emissions benefits in their annual reporting. This is too speculative for EPA action.</p>
Action #	M&R 1.2
Action name/brief description	Enforce Emissions Reductions for CARB In-Use Locomotive Regulation

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https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/locomotive22/15daynotice.pdf?utm_medium=email&utm_source=govdelivery

	<p>CARB:</p> <ul style="list-style-type: none"> • CARB: Create annual summaries of local compliance (specific to the PTCA area) with CARB Marine and Rail Regulations* in effect, including publishing analysis of: <p><i>*Regulations including In-Use Locomotive Regulation; At Berth Regulation; CHC Regulation; CHE Regulation</i></p> <ul style="list-style-type: none"> ◦ Data on local (PTCA) enforcement actions (including penalties), presented in terms that are usable and easily understood by community, pulling from resources including EDVS: https://ww2.arb.ca.gov/enforcement-2021-case-settlements and compliance: https://webmaps.arb.ca.gov/edvs/ ◦ Any implementation issues that come up (e.g., technology not available on anticipated timeline, supply chain issues) ◦ Align with the annual report in Action 1.5 below. <p>Air District and CSC:</p> <ul style="list-style-type: none"> • Disseminate and review CARB compliance reports (through the project website or otherwise) <ul style="list-style-type: none"> ◦ Make reports publicly available by posting to PTCA website ◦ Identify areas in need of improvement and share with CARB • Gather and share community input on local enforcement needs. • Advocate for additional enforcement sweeps in the PTCA area. • Advocate for legislature to maximize efficacy of use of penalties for violations. • Advocate to CARB that they prioritize the Marine and Rail hubs with the highest cumulative impacts and exposure to communities <ul style="list-style-type: none"> ◦ Define these hubs in partnership with Air District, CARB, and the Community, and share these with the PTCA area. ◦ See Cumulative Impact Facilities and Operations Strategy
Type of action	Enforcement
Lead action implementor	CARB
Related existing Program, Policy, or Initiative	CARB Enforcement Program
Partners in action implementation	CARB, Air District, and the CSC
Key stakeholders to engage in action implementation	CARB, Air District, the CSC, and the public
Potential obstacles	Capacity of CARB and Air District staff to collect and disseminate information, as well as conduct the enforcement itself.
Action initiation timeframe	Near=<2 years
Action intervention point	Emissions
Action impact timeframe	Long > 4 years

Measure/metric of action implementation	Was the regulation enforced (yes/no)
Can any emission/exposure reduction be estimated	-

Action #	M&R 1.3
Action name/brief description	<p>Incentivize ("Find and Fund") Emissions Reductions Air District:</p> <ul style="list-style-type: none"> Identify state, federal, and locally-funded incentive opportunities for early or extra emissions reductions (i.e., surplus, beyond regulations): <ul style="list-style-type: none"> Maximize local benefits (in terms of emissions and/or exposure); Identify beneficial project types e.g., prioritize transitioning switchers to zero emission Explore higher funding levels for local projects; Investigate potential for new funding sources; See existing programs, policies, and initiatives for a list of relevant grants programs to refer to. Identify small business-focused grants opportunities (e.g., mom and pop fishing operations) and maximize funding available. Create easier funding opportunities <ul style="list-style-type: none"> Evaluate streamlining mechanisms for Air District administered-grants; increase opportunities for eligibility. Evaluate the potential to reduce emissions from sources via creation of an independent third-party Offset Program for Criteria Air Pollutants (CAPs), with third party verification similar to those for Greenhouse Gas Emissions (GHGs). <ul style="list-style-type: none"> The Offset Program will need to demonstrate offset emissions are real, permanent, quantifiable, verifiable, enforceable, and additional to any reductions already required or likely to occur for other reasons. In addition, it will be preferable to select projects to fund with emissions offsets that benefit the local community, the city, county, or the Bay Area region—in that order. The cost-effectiveness of the Offset Program will need to be carefully considered to determine if such a program is feasible and will produce the expected emission reductions. If the Offset Program is deemed effective, feasible and likely to produce expected outcomes, identify local projects that could be implemented or supported via emissions offset funds (e.g., fund fleets in Richmond that need more funding to be feasible). Determine the oldest and/or dirtiest marine and rail sources and focus outreach of available incentives on the highest polluting marine and rail sources and increase opportunities for eligibility. <p>Air District staff and/or the CSC:</p>

	<ul style="list-style-type: none"> Air District staff work with the CSC on disbursement of any remediation funds paid by OGV terminals/operators. <p>CARB:</p> <ul style="list-style-type: none"> Update funding guidelines promptly after adopting new regulations
Type of action	Incentives
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	<p><u>Local and State Funding:</u></p> <p>Air District incentives webpages:</p> <ul style="list-style-type: none"> Marine vessels and equipment: https://www.baaqmd.gov/funding-and-incentives/businesses-and-fleets/marine-vessels-and-equipment Locomotives: https://www.baaqmd.gov/funding-and-incentives/businesses-and-fleets/locomotive <p>Information on State programs:</p> <ul style="list-style-type: none"> Carl Moyer: https://ww2.arb.ca.gov/our-work/programs/carl-moyer-memorial-air-quality-standards-attainment-program Proposition 1B: https://ww2.arb.ca.gov/our-work/programs/proposition-1b-goods-movement-emission-reduction-program Volkswagen Environmental Mitigation Trust for California: https://ww2.arb.ca.gov/our-work/programs/volkswagen-environmental-mitigation-trust-california Community Air Protection Incentive Program (state): https://ww2.arb.ca.gov/our-work/programs/community-air-protection-incentives At Berth Remediation Fund: via implementation of the At Berth Regulation <p><u>Federal Funding:</u></p> <p>EPA:</p> <ul style="list-style-type: none"> EPA Environmental Justice Grants: https://www.epa.gov/environmentaljustice/environmental-justice-grants-funding-and-technical-assistance EPA Greenhouse Gas Reduction Fund from the Inflation Reduction Act (specifically for Ports): https://www.epa.gov/inflation-reduction-act/greenhouse-gas-reduction-fund EPA Diesel Emissions Reduction Act (DERA): https://www.epa.gov/dera/national <p>US DOT:</p> <ul style="list-style-type: none"> https://www.transportation.gov/bipartisan-infrastructure-law/key-notices-funding-opportunity Maritime Administration: https://www.maritime.dot.gov/how-apply-fy23-pidp-grant-webcast
Partners in action implementation	CARB, CSC, City of Richmond, EPA
Key stakeholders to engage in action implementation	Marine and Rail equipment owner-operators, Operators of Marine and Rail hubs, Community
Potential obstacles	Timelines, cost, interest from owner operators, state of zero emission technology and operator perception. Regulatory deadlines reduce opportunities for surplus emissions.

Action initiation timeframe	Near=<2 years; Mid=2-4 years
Action intervention point	Emissions
Action impact timeframe	Long > 4 years (4-10 years)
Measure/metric of action implementation	Direct emission reductions (#)
Can any emission/exposure reduction be estimated	Yes, later. Based on projects funded.

Action #	M&R 1.4
Action name/brief description	<p>Conduct Further Study</p> <p>Air District:</p> <ul style="list-style-type: none"> • Track: <ul style="list-style-type: none"> ○ Any new programs and/or regulations related to marine and rail at the state and federal levels, and identify the need for any additional strategies or actions; ○ The development of Zero Emission (ZE) freight locomotives; ○ The Capital Corridor/Link 21 plans for electrification of the San Jose to Sacramento passenger service. • Investigate feasibility and approach for a Bay Area Indirect Source (Magnet Source) Rule <ul style="list-style-type: none"> ○ See M&R Action 5.1 ○ See Mobile Action 1.4 • Data/Research: Work with the CSC to determine data and research projects for the PTCA, including the following potential projects. <ul style="list-style-type: none"> ○ Partner with CCHS Department, and local health clinics, to better understand lung cancer incidence and other health impacts related to marine and rail operations; ○ Research strategies to address concerns about soil and water contamination from vessels (and partner with DTSC and/or the AG, as appropriate); ○ Conduct a research project, with help from Air District AIM and/or M&M Divisions, and/or CARB, to determine data on current vessel speeds and the potential benefits from reducing the speeds from 15 knots to 12 or 10 knots (the two current target speeds for the coastal VSR programs): <ul style="list-style-type: none"> i. Using this data, explore a voluntary vessel speed reduction program to reduce emissions, in cooperation with the Bar Pilots, the US Coast Guard and the Harbor Safety Committee; ii. Related to Action 2.6 below. ○ Look into the potential for Rail “slow zones” similar to the Rail slow zone in Emeryville, CA. • Study the feasibility of a ZE or near-ZE rail zone in the PTCA area, e.g.: <ul style="list-style-type: none"> ○ Helper ZE locomotives or hybrid engines at BNSF, UP, Richmond Pacific and/or passenger rail;

	<ul style="list-style-type: none"> ○ BNSF: Potential ZE locomotives and/or charger in Richmond, for diesel locomotives that operate between the Port of Oakland and Port of Richmond. <p>CARB and Air District:</p> <ul style="list-style-type: none"> ● Gather additional information on local operations of marine and rail equipment, to increase detail in understanding of emissions and exposure impacts in the PTCA community. <ul style="list-style-type: none"> ○ Including an evaluation of emissions from recreational boats and the impact they have on public health <p>OEHHA and Air District:</p> <ul style="list-style-type: none"> ● Align with OEHHA statewide goal to assess cumulative impacts <ul style="list-style-type: none"> ○ OEHHA, in coordination with CARB and Air District and local public health agencies (such as the CCC Health Department): Continue work on community health concerns related to cumulative impacts: <ol style="list-style-type: none"> i. OEHHA: advance OEHHA's ongoing scientific risk assessments in order to better understand and estimate cumulative air quality exposures experienced by communities, specifically with respect to those experienced in the PTCA area; ii. Air District: discuss with OEHHA their needs for air pollution data that would support OEHHA's work.
Type of action	Further research
Lead action implementor	Air District, OEHHA, CARB
Related existing Program, Policy, or Initiative	South Coast AQMD Indirect Source Rules
Partners in action implementation	CARB, OEHHA, local marine and rail operators, Contra Costa County Health Services Department, South Coast AQMD, DTSC, the AG office, Bar Pilots, the US Coast Guard, the Harbor Safety Committee
Key stakeholders to engage in action implementation	Local marine and rail operators, Contra Costa County Health Services Department, community members living near marine and rail operations
Potential obstacles	Potential difficulty coordinating with local marine and rail operators. This could be overcome by working with local jurisdictions, or other partners, who already have relationships established with these operators. Capacity could be an issue for organizing community working groups, but included in the plan are recommendations for more staff support at Air District and CARB for plan implementation. Identifying roles and responsibilities to accomplish this work, including a champion/lead. for the work, and appropriate staff support, is a potential obstacle as well.
Action initiation timeframe	Near=<2 years
Action intervention point	Emissions, exposure, and health effects
Action impact timeframe	Long > 4 years

Measure/metric of action implementation	New studies produced by 2034? (#)
Can any emission/exposure reduction be estimated	-

Action #	M&R 1.5
Action name/brief description	<p>Conduct Education and Outreach Efforts</p> <p>Air District/CARB:</p> <ul style="list-style-type: none"> • Air District and CARB: Conduct outreach to marine and rail operators about opportunities to align their business plans with the PTCA CERP Strategies, Goals and Targets: <ul style="list-style-type: none"> ◦ Bring operators to the table as a stakeholder, foster an open dialogue to explore any plans or willingness to upgrade equipment and decrease emissions and/or exposure; ◦ Bring consumers to the table too; show consumer demand for industry to switch to zero emission technology and/or the cleanest equipment available; ◦ Also see the Cumulative Impact Facilities and Operations Strategy; • Air District and CARB: Work with community to get the word out about health impacts from Marine and Rail sources and mitigation opportunities <ul style="list-style-type: none"> ◦ Provide clear emissions, exposure and health risk data regarding the percentage of total pollution impact from marine and rail activities in our AB617 communities. (E.g., How do they compare to major industrial stationary sources and other mobile sources; what percentage of our total pollution problem in AB617 communities do they represent by source) ◦ Summarize marine and rail health impacts to provide as a community resource ◦ Explore community partnerships for outreach <ul style="list-style-type: none"> i. e.g., community podcasts • CARB: Related to M&R 1.2, produce annual report (written document) that includes a 'state of marine and rail' for PTCA area: local implementation of In-Use Locomotive regulations, equipment, financial mechanisms (such as the In Use Rail spending account), and compliance and enforcement summaries produced as part of M&R 1.2. <ul style="list-style-type: none"> ◦ Air District: Identify community members concerned about M&R issues, who want to provide input at key points in time and/or be notified about opportunities for input; ◦ Air District: Create working groups where CARB can come to talk about M&R regulations, and review the annual report, so the CSC can get a deep understanding of the regulation, and receive the informational resources needed to support identification of gaps from community perspective; ◦ Air District: For additional outreach to this end, consider a mailer, using CARB's infographics produced for annual

	<p>summaries (both an initial mailer for education, and follow-up mailers for updates).</p> <ul style="list-style-type: none"> Also See Cross-Cutting Strategies
Type of action	Education/Outreach
Lead action implementor	Air District, CARB
Related existing Program, Policy, or Initiative	Any existing Air District communications strategies involving AB617 communities; Richmond Health Risk Assessment (CARB, 2007-2008)
Partners in action implementation	Community
Key stakeholders to engage in action implementation	The CSC, Community, Industry
Potential obstacles	<p>Recommendations for additional staff to help with capacity are included in this plan.</p> <p>With respect to regulatory input (for the Regulate Emissions Reductions strategies in M&R), there may be an obstacle with respect to properly engaging communities beyond the CSC. Identifying the most impacted groups/communities is a necessary task for engagement. Establishing lines of communication with impacted groups to engage them may also be an obstacle to be overcome.</p> <p>With respect to leadership on education materials and outreach efforts, Air District can look at M&R issues at the local scale for the PTCA area.</p>
Action initiation timeframe	Near=<2 years; initiate education and outreach as quickly as possible
Action intervention point	Health effects
Action impact timeframe	Long > 4 years
Measure/metric of action implementation	Outreach events held per year (#)
Can any emission/exposure reduction be estimated	-

Strategy 2 – Reduce Cancer and Chronic Health Risk from Ocean Going Vessel Operations – Actions

Action #	M&R 2.1
Action name/brief description	<p>Regulate Emissions Reductions for OGVs At Berth via CARB's At Berth Regulation</p> <p>CARB:</p> <ul style="list-style-type: none"> Continue assessing technology to control at-berth emissions from bulk and general cargo vessels By 2030, develop new amendments to the At Berth Regulation to control emissions from bulk and general cargo vessels as warranted

	<p>by improvements in feasible control technology, or require alternative compliance that achieves equivalent emissions reductions in lieu of at berth controls (aligned with WOCAP Strategy #60)</p> <ul style="list-style-type: none"> As part of CARB review of all Innovative Concept Plans submitted for the PTCA area, consult with Air District staff to ensure projects included under the Plans are achieving real (early and/or extra) emissions reductions equivalent to the levels required to be achieved <ul style="list-style-type: none"> Air District: Aid CARB by providing expert review for any projects involving sources regulated by the Air District (e.g., the FCCU at Chevron, included as part of the Chevron Richmond Long Wharf Innovative Concept Application⁸) <p>Air District staff and/or the CSC:</p> <ul style="list-style-type: none"> Support implementation of CARB's At Berth Regulation <ol style="list-style-type: none"> Air District staff, with the help of Steering Committee/community members, review Interim Evaluation Report and comment as needed Air District staff, with the help of Steering Committee/community members, review and comment on any other reports related to At Berth regulations, including: <ol style="list-style-type: none"> Any updates to Port or Terminal Plans (e.g., updates to the Chevron Long Wharf Plan and Innovative Concept Plan) Any assessments of At Berth control technologies, particularly for bulk vessels.
Type of action	Regulatory
Lead action implementor	CARB, with support from Air District and the CSC.
Related existing Program, Policy, or Initiative	CARB At Berth Regulation.
Partners in action implementation	Air District, the CSC, and CARB. Also regulated entities subject to the regulations/requirements.
Key stakeholders to engage in action implementation	The CSC. Specific community groups/neighborhoods closest to and/or most impacted by OGV emissions.
Potential obstacles	Technical and physical limitations for bulk vessel terminals in the PTCA area can make implementing cleaner technologies (shore power or capture and control) challenging or infeasible; that would not, however, prevent complying via an alternative compliance path offered in the regulation or via various flexibilities built into the regulation
Action initiation timeframe	Near=<2 years
Action intervention point	Emissions
Action impact timeframe	Long > 4 years

⁸ <https://ww2.arb.ca.gov/sites/default/files/2022-05/Chevron%20Innovative%20Concept%20Application.pdf>

Measure/metric of action implementation	Direct emission reductions (#)
Can any emission/exposure reduction be estimated	Yes, later.
Action #	M&R 2.2
Reference to Other M&R Action	Enforce Emissions Reductions for OGVs See M&R 1.2
Action #	M&R 2.3
Reference to Other M&R Action	Incentivize ("Find and Fund") Emissions Reductions See M&R 1.3
Action #	M&R 2.4
Reference to Other M&R Action	Conduct Further Study See M&R 1.4
Action #	M&R 2.5
Reference to Other M&R Action	Conduct Education and Outreach Efforts See M&R 1.5
Action #	M&R 2.6
Action name/brief description	<p>Regulate Emissions Reductions for OGVs In Transit</p> <p>CARB:</p> <ul style="list-style-type: none"> Develop a regulation to control emissions from Ocean-going Vessels while in transit, at anchor, and maneuvering <ul style="list-style-type: none"> Prioritize public health benefits that can be achieved by addressing the portion of transit that produces emissions that result in local exposure and public health impacts e.g., address pollution from OGVs traveling past the PTCA community to and from San Pablo Bay, the Carquinez Strait and beyond Cross-reference M&R Action 1.4 <p>Air District staff and/or the CSC:</p> <ul style="list-style-type: none"> Track regulatory development by CARB and provide feedback and/or comment as needed <ul style="list-style-type: none"> Air District staff, with the help of Steering Committee/community members, review any updates released by CARB with respect to developing an In Transit regulation As needed, Air District staff, with the help of Steering Committee/community members, review and comment on any reports or materials released for comment
Type of action	Regulatory
Lead action implementor	CARB

Related existing Program, Policy, or Initiative	CARB AT Berth Regulation
Partners in action implementation	CARB, Air District, and the CSC
Key stakeholders to engage in action implementation	The CSC; Regulated Entities
Potential obstacles	<p>Resource limitations may present an obstacle with respect to resources available at CARB and at the Air District. CARB may be delayed in developing a regulation if there are not enough resources and/or there are competing priorities for staff time, etc. The Air District may have limited resources to engage in the regulatory development process.</p> <p>Further, technical and/or conceptual obstacles might be an issue for CARB with respect to developing a regulatory mechanism to limit emissions from OGVs. However, CARB will undergo a process to identify and evaluate any of these obstacles, as part of its regulatory development process.</p>
Action initiation timeframe	Near=<2 years; Mid=2-4 years
Action intervention point	Emissions
Action impact timeframe	Long > 4 years
Measure/metric of action implementation	Was a regulation adopted (yes/no)
Can any emission/exposure reduction be estimated	-

Strategy 3 – Reduce Cancer and Chronic Health Risk from Commercial Harbor Craft – Actions

Action #	M&R 3.1
Action name/brief description	<p>Regulate Emissions Reductions from Commercial Harbor Craft (CHC)</p> <p>CARB:</p> <ul style="list-style-type: none"> As identified in recently adopted CHC Amendments, CARB will conduct a Technology and Implementation Review every two years beginning in 2024 <ul style="list-style-type: none"> Track advancement in zero - emission technology and report on implementation progress of Tier 4 and diesel particulate filter (DPF) technology in the marine sector <p>Air District:</p> <ul style="list-style-type: none"> Support implementation of CARB's CHC Regulation: <ol style="list-style-type: none"> Air District staff, with the help of Steering Committee/community members, review Technology and Implementation Reviews that are released and provide feedback as needed

	2. Air District staff, with the help of Steering Committee/community members; review and comment on any other reports, as needed
Type of action	Regulatory
Lead action implementor	CARB, with support from Air District and the CSC.
Related existing Program, Policy, or Initiative	CARB Commercial Harbor Craft Regulation.
Partners in action implementation	Air District, the CSC, and CARB. Also regulated entities subject to the regulations/requirements.
Key stakeholders to engage in action implementation	The CSC. Specific community groups/neighborhoods closest to and/or most impacted by commercial harbor craft activity.
Potential obstacles	<p>The main potential obstacle is ample staff capacity at Air District to track and comment on regulations. Though, there is a current staff dedicated to tracking Marine and Rail regulations.</p> <p>Another potential obstacle is engaging the community for input, which is discussed in greater detail in the Education and Outreach Action below. Even with lines of communication established, there need to be resources provided to properly engage community (CSC members and other groups), such as stipends, as well as staff resources to inform and educate the community as needed.</p>
Action initiation timeframe	Near=<2 years
Action intervention point	Emissions
Action impact timeframe	Long > 4 years
Measure/metric of action implementation	Direct emission reductions (#)
Can any emission/exposure reduction be estimated	Yes, later.

Action #	M&R 3.2
Reference to Other M&R Action	Enforce Emissions Reductions for CHC See M&R 1.2

Action #	M&R 3.3
Reference to Other M&R Action	Incentivize ("Find and Fund") Emissions Reductions See M&R 1.3

Action #	M&R 3.4
Reference to Other M&R Action	Conduct Further Study See M&R 1.4

Action #	M&R 3.5
Reference to Other M&R Action	Conduct Education and Outreach Efforts See M&R 1.5

Strategy 4 – Reduce Cancer and Chronic Health Risk from Cargo Handling Equipment – Actions

Action #	M&R 4.1
Action name/brief description	Regulate Emissions Reductions from Cargo Handling Equipment CARB: <ul style="list-style-type: none"> Regulate Emissions Reductions via proposal and adoption of Amendments to CARB's Mobile Cargo Handling Equipment Regulation, by 2025 Air District and/or CSC: <ol style="list-style-type: none"> Air District and/or CSC: Participate in process for developing the regulation, to help ensure PTCA community needs are incorporated <ul style="list-style-type: none"> Review amendments throughout development process and comment as needed Air District staff, with the help of CSC members, review and comment on any other reports, as needed
Type of action	Regulatory
Lead action implementor	CARB and EPA, with support from Air District and the CSC.
Related existing Program, Policy, or Initiative	CARB In-Use Locomotive Regulation. EPA Response to Petitions to Address Harmful Emissions from Locomotives.
Partners in action implementation	Air District, the CSC, CARB, and the EPA. Also regulated entities subject to the regulations/requirements.
Key stakeholders to engage in action implementation	The CSC. Specific community groups/neighborhoods closest to and/or most impacted by rail emissions.
Potential obstacles	CARB currently plans on adoption of the Cargo Handling Equipment Amendment by 2025. There could be a potential obstacle in the timeline for implementation of this Amendment, but since this Amendment is already planned by CARB, that risk seems minimal at this time.
Action initiation timeframe	Near=<2 years
Action intervention point	Emissions
Action impact timeframe	Long > 4 years
Measure/metric of action implementation	Direct emission reductions (#)
Can any emission/exposure	Yes, later.

reduction be estimated	
Action #	M&R 4.2
Reference to Other M&R Action	Enforce Emissions Reductions for CHE See M&R 1.2
Action #	M&R 4.3
Reference to Other M&R Action	Incentivize ("Find and Fund") Emissions Reductions See M&R 1.3
Action #	M&R 4.4
Reference to Other M&R Action	Conduct Further Study See M&R 1.4
Action #	M&R 4.5
Reference to Other M&R Action	Conduct Education and Outreach Efforts See M&R 1.5

Strategy 5 – Reduce Cancer and Chronic Health Risk from Cumulative Impact Facilities and Operations – Actions

Action #	M&R 5.1
Action name/brief description	Regulate Emissions Reductions from Cumulative Impact Facilities and Operations <ul style="list-style-type: none"> 1. Implement Rule 11-18 at any Marine and Rail facilities subject to the rule, including <ul style="list-style-type: none"> o BNSF Railway Company o Cross-reference: C&I 4.2 - Levin Terminal: Implement Rule 11-18 and Conduct Gap Analysis o Cross-reference: Fuel Refining 1.2 - Implement Rule 11-18 at Chevron (which covers Chevron Long Wharf operations) 2. Investigate feasibility and approach for a Bay Area Indirect Source (Magnet Source) Rule (cross-cutting with Truck-attracting Businesses Action included in Mobile) <ul style="list-style-type: none"> o See Mobile Action 1.4 3. Continue to track South Coast AQMD's Indirect Source Regulations and various local ordinances, looking for opportunities to develop Bay Area specific models and regulations, and report on this outcome to the CSC.
Type of action	Regulatory
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	South Coast AQMD's Indirect Source Regulations (multiple, by industry)
Partners in action implementation	CARB; Legislature; Local government; Industry
Key stakeholders to engage in	CARB; Legislature; Local government; Industry; Community

action implementation	
Potential obstacles	Political support and/or authority
Action initiation timeframe	Near=<2 years
Action intervention point	Emissions
Action impact timeframe	Mid=2-4 years; Long > 4 years
Measure/metric of action implementation	Has Air District investigated the feasibility and approach for a Bay Area Indirect Source Rule? (yes/no) Has a Bay Area Indirect Source Rule been passed? (yes/no) Has Rule 11-18 been implemented at any marine and rail facilities listed above? (indicate implementation milestone reached)
Can any emission/exposure reduction be estimated	Not at this time. Speculative, unless a Rule is developed and passed (at which point emissions reductions could be forecasted). This wouldn't be estimable until years down the line.

Action #	M&R 5.2
Reference to Other M&R Action	Enforce Emissions Reductions See M&R 1.2 for defining what hubs need enforcement prioritized

Action #	M&R 5.3
Reference to Other M&R Action	Incentivize ("Find and Fund") Emissions Reductions See M&R 1.3 for opportunities to explore the feasibility and availability of incentives as a mechanism for change

Action #	M&R 5.4
Reference to Other M&R Action	Conduct Further Study See M&R 1.4

Action #	M&R 5.5
Reference to Other M&R Action	Conduct Education and Outreach Efforts See M&R 1.5

Action #	M&R 5.6
Action name/brief description	Identify opportunities to reduce emissions from on-site mobile and stationary equipment at railyards and ports Air District + CSC: <ul style="list-style-type: none"> Evaluate potential for stronger Cargo Handling Equipment requirements specific to facilities with significant cumulative impacts; Research and develop recommendations as needed. <ul style="list-style-type: none"> Weigh in on development of CARB's Cargo Handling Equipment amendments (also see CHE Strategy, Regulate Emissions Reductions). Identify opportunities to upgrade to the cleanest stationary sources at these sites (e.g., switching to cleaner backup power).
Type of action	Further research

Lead action implementor	Air District
Related existing Program, Policy, or Initiative	CARB's CHE Regulation; South Coast ISR Program
Partners in action implementation	CSC, CARB, Operators/Facilities
Key stakeholders to engage in action implementation	CSC, CARB
Potential obstacles	Delays in CARB's work on their Cargo Handling Equipment amendments; Air District staff capacity to conduct evaluation; Willingness of industry and facilities to partner and reduce cumulative impacts.
Action initiation timeframe	Near=<2 years
Action intervention point	Emissions
Action impact timeframe	Mid=2-4 years; Long > 4 years
Measure/metric of action implementation	Did Air District evaluate the potential for stronger CHE requirements, and were those amendments incorporated into the regulation? (yes/no)
Can any emission/exposure reduction be estimated	-

Public Health

Public Health (H) Strategies

1. Increase Health Resilience and Improve Social Determinants of Health
2. Reduce Air Pollution at Home
3. Promote Healthy Food Access
4. Promote Resilience Centers
5. Pollution & Public Health Education, Outreach, Accountability, and Health Data Tracking
6. More complete health risk data and HRAs, including pollutant interactions

Detailed Action Descriptions

Strategy 1 – Increase Health Resilience and Improve Social Determinants of Health – Actions

Action #	H 1.1
Action name/brief description	<p>Promote and advocate for a guaranteed income demonstration for PTCA residents</p> <p>Guaranteed Income (GI) is a regular cash payment made to members of a community with no requirements. This is not meant to replace existing benefit programs but to be in addition to these programs. Various GI pilots across the USA have different qualifying criteria and target populations (income, student status, the unhoused, mothers, foster youth aging out of the foster system).</p>

etc.). Financial security is one of the most impactful social determinants of health. Income determines where a person lives and their access to opportunities such as schools, jobs, healthy food, and medical care. For children and adults, financial security can reduce stress, anxiety, depression, and suicide. Poverty and income volatility are linked to poor health outcomes. Therefore, guaranteed income programs are now considered effective public health interventions that address poverty's role as a social determinant of health. This action can address poverty in the CERP Community by promoting efforts to create a GI program in Contra Costa County.

There was a scoping working group researching community interest in a GI program in Contra Costa County. The group recently completed the research phase and was composed of non-profit organizations, the Contra Costa Health Services (CCHS), Contra Costa EHSD, Family, Child, Maternal Health (FMCH), and Community Financial Resources (CFR) - a nonprofit economic justice organization based in the Bay Area. CFR was the lead organization and funded the scoping effort. The research/scoping entailed community engagement and workshops to define what GI means in the community, to help identify future potential target populations and obtain community buy-in. No target population has been identified yet. A report with the findings and recommendations from the research/scoping will be released in October of 2023 by CFR. The coming planning year will lead to a blueprint/report, and then the next phase of the project will be handed to a "holding organization."

There is no guarantee that a GI pilot will include people from the PTCA area. CCHS and other county governance bodies cannot target or exclude a particular geography. However, when a target population is identified for a future GI pilot, PTCA residents will likely be included because there are many populations in the PTCA area that would benefit from GI.

No funding source for a future GI program has been identified, but funds from the American Rescue Plan Act (ARPA), which provides COVID-19 Pandemic Response & Relief, are being considered. Another potential source is Measure X funding from Contra Costa County. Small pilots are already happening using ARPA funds in Contra Costa County that are helping to inform this effort.

Community Financial Resources (CFR) and the to-be-identified "holding organization" group:

- This action asks that CFR and the yet-to-be-identified "holding organization" keep working to support the GI pilot where possible. This pilot will likely be at the county level and provide guaranteed income payments to identified populations, hopefully including those in the PTCA community.

CCHS:

- CCHS can support the promotion of the findings of the report, which can be used to advocate for this specific intervention. The report is due to be released in October of 2023 from the organization Community Financial Resources.

CSC and Air District:

	<ul style="list-style-type: none"> The CSC should support this action wherever possible. Air District staff should track this effort and Prioritize GI program participants for Air District programs like BAHHI that do home retrofits and weatherization. Advocate for PTCA residents to be included in any GI pilots. <p>Background: Current GI efforts in the PTCA area:</p> <ul style="list-style-type: none"> The City of Richmond has designated money for GI and previously conducted a feasibility study. Richmond Rapid Response is doing community processes in Richmond with two pilots. Ryse Youth Center will do a GI program for young people. First Five Contra Costa is doing a feasibility study for employee pay for ECE childcare workers. Doing the study with UC Berkeley and will then put together an advisory board for a pilot.
Type of action	Education/Outreach; Other: Advocacy
Lead action implementor	CCHS, Community Financial Resources (CFR), Community members or representatives need to be involved to inform the working group.
Related existing Program, Policy, or Initiative	There is no GI program in the PTCA area. There is one in Oakland, California, as of 2023, that showed positive results. A two-year GI program was also completed in Stockton, California, starting in 2019 and ending in 2021. The Stockton GI program, called SEED (Stockton Economic Empowerment Demonstration), resulted in an increase in full-time employment for participants as well as increased housing security and mental health.
Partners in action implementation	CSC
Key stakeholders to engage in action implementation	PTCA area members and CSC members can help advocate for GI
Potential obstacles	<p>There are a few GI-type initiatives being discussed in Contra Costa County, but they may not include the entire PTCA area in the western part of the County.</p> <p>This GI effort will need to create waivers from Employment and Human Services (EHSD), the County's social services agency, so recipients can continue to receive their benefits from other programs.</p>
Action initiation timeframe	Depends on program development Near=<2 years; Mid=2-4 years; Long > 4 years
Action intervention point	Addressing social determinants of health & underlying pre-exposure vulnerabilities
Action impact timeframe	Depends on program development Near=<2 years; Mid=2-4 years; Long > 4 years
Measure/metric of action implementation	See Strategy Metric(s)
Can any emission/exposure	-

reduction be estimated	
Action #	H 1.2
Action name/brief description	<p>Support State reparations efforts as they relate to Black residents in the PTCA area and in Contra Costa County</p> <p>The connection between racial discrimination and air pollution burden has been well documented. This action asks for local jurisdictions to communicate and coordinate to prepare to implement State reparations recommendations for their residents, especially the ones who have endured historical discrimination <i>and</i> current disproportionate air pollution burdens.</p> <p>The City of Richmond, the City of San Pablo, and Contra Costa County:</p> <ul style="list-style-type: none"> • This action recommends that the City of Richmond, the City of San Pablo, and Contra Costa County set up a collective reparations working group to discuss how recommendations can be operationalized. Working together could spread the resources and time required for this effort. Smaller jurisdictions like San Pablo would not have the capacity to take action alone. • Contra Costa County's Office of Racial Equity and Social Justice (ORESJ) would be a likely candidate to partner on this action.
Type of action	Regulatory; Other: Political Action
Lead action implementor	The CSC
Related existing Program, Policy, or Initiative	<p>The State of California Taskforce has issued a final report that is now available as of July 2023.</p> <p>Other government bodies have reparations commissions that investigate the feasibility of reparations programs that provide cash payments, debt forgiveness, free healthcare, interest-free loans, etc.</p> <p>Precedence:</p> <ul style="list-style-type: none"> • San Francisco, CA, has an African American Reparations Advisory Committee. • The State of California established a state reparations task force in 2020 and released its first report in 2022. A final report will be issued in 2023. • St. Paul, Minnesota's reparations effort includes a reparations committee that will take effect on February 13, 2023. <p>All of the aforementioned efforts detail how these governments perpetuated institutional racism in connection to slavery and/or state-sanctioned discrimination. Discrimination can be defined as political disenfranchisement, disproportionate environmental burden, systematic incarceration, and unjust treatment in the criminal justice system, and exclusion in labor, housing, healthcare, education, and arts and culture.</p>
Partners in action implementation	Community members or representatives need to be involved to inform the working group.
Key stakeholders to engage in action implementation	Local PTCA jurisdictions (cities and county).

Potential obstacles	Reparations can be polemic; however, they are crucial to further racial equity and dismantling racialized environmental injustices. The City of San Francisco's reparations advisory committee set forth more than eleven reparation recommendations, one of which includes a \$5M payment to residents and former residents who meet a number of criteria to prove they've lived in the City of San Francisco during a certain period of time. This amount of money can potentially be far more than the City's annual budget and has raised questions about feasibility. Financial reparations amounts should consider payment feasibility and can be informed by the State-wide effort happening in 2023.
Action initiation timeframe	Near=<3
Action intervention point	Addressing social determinants of health & underlying pre-exposure vulnerabilities
Action impact timeframe	Near=<3
Measure/metric of action implementation	Was a working group formed? (yes/no?)
Can any emission/exposure reduction be estimated	-

Action #	H 1.3
Action name/brief description	<p>Ask CCHS to expand CalAIM programming for MediCal-eligible in the PTCA area and in Contra Costa County</p> <p>In the PTCA area, Black residents have the worst health outcomes for the majority of air pollution-related diseases and health outcomes (see the Community Description Chapter). Therefore, CCHS is asked to expand case management and services by expanding the CalAIM programs they offer.* CalAIM programs are offered to MediCal-eligible individuals and families, many of which are Black families. This could utilize the "Whole Person Care" approach to help eliminate health disparities among Black residents in the PTCA area and throughout the County.</p> <p>CSC:</p> <ul style="list-style-type: none"> Advocate that CCHS expand participation to all CalAIM services instead of only select CalAIM programs. <p>CCHS:</p> <ul style="list-style-type: none"> Identify which CalAIM programs to include in the expansion pilot. CalAIM programs may have prescriptive selection criteria from the State, which means CCHS may not be able to target based on race, but other state programs may allow for this. Further investigation is needed. Background: Recently, more State health programs have been moving into CalAIM, so there will be more expansion in CalAIM programming in the coming years.

	<ul style="list-style-type: none"> Asthma Programming: the county is signed up for CalAIM for asthma, which is based on referrals from providers. <p>A list of CCHS's offered CalAIM programs can be found here: https://cchealth.org/healthplan/pdf/provider/CS-Criteria.pdf</p>
Type of action	Further research
Lead action implementor	CCHS
Related existing Program, Policy, or Initiative	CalAIM
Partners in action implementation	Community members and the CSC
Key stakeholders to engage in action implementation	Stakeholders should include nonprofits that serve Black residents, Black residents themselves, the medical staff that treats Black residents, and the public health staff that implements CalAIM.
Potential obstacles	Some CCHS programs, like the Black Infant Health (BIH), cannot be expanded due to funding restrictions from the State. BIH is expanding in very specific ways dictated by the State of California.
Action initiation timeframe	Depends on CCHS's capacity Near=<2 years; Mid=2-4 years; Long > 4 years
Action intervention point	Addressing social determinants of health & underlying pre-exposure vulnerabilities
Action impact timeframe	Depends on CCHS's capacity Near=<2 years; Mid=2-4 years; Long > 4 years
Measure/metric of action implementation	See Strategy Metric(s) above Were case management and targeted services expanded through CalAIM to MediCal-eligible families to reach additional BIPOC families or individuals? Did enrollment of and services provided to Black participants increase?
Can any emission/exposure reduction be estimated	-

Action #	H 1.4
Action name/brief description	<p>Build relationships with the West Contra Costa Unified School District (WCCUSD) to help bolster their asthma management programming</p> <p>In addition to children's in-home medical care, West Contra Costa Unified School District (WCCUSD) is an important ally in asthma management. For children under 17, the PTCA area has a high prevalence of asthma burden, including its comorbidities, such as frequent emergency department visits (see Figure 27 in the Community Description chapter), missed school attendance, and resultant caregiver work absences. Secondary prevention to improve longer-term asthma management can reduce asthma exacerbations. Most diagnosed children with asthma are school age. More</p>

	<p>resources and staffing support for WCCUSD's individual schools to monitor asthma enables children with asthma to stay in school and keep their caregivers at work at the same time.</p> <p>WCCUSD:</p> <ul style="list-style-type: none"> • Work to implement asthma best practices listed below in the "Related existing Program, Policy, or Initiative" section. <p>CSC & CCHS:</p> <ul style="list-style-type: none"> • Work with WCCUSD to implement asthma management best practices (see below in "Related existing Program, Policy, or Initiative") to prevent asthma attacks, reduce/eliminate asthma triggers, and maintain up-to-date Asthma Action Plans on file for students. • Find funding to help the WCC school district with grant applications for asthma programming, resources, or educational opportunities.
Type of action	Education/Outreach; Other: Programmatic
Lead action implementor	WCCUSD, specifically any health and wellness advisory council composed of teachers, parents, administrators, and the district nurse(s).
Related existing Program, Policy, or Initiative	<p>Best practices and resources for WCCUSD</p> <ul style="list-style-type: none"> • <u>The Environmental Protection Agency's Indoor Air Quality (IAQ) Tools for Schools Action Kit</u> is a great resource and a voluntary program for improving air quality. The IAQ Tools are straightforward policies to improve air quality in classrooms in general and specifically for asthma. "IAQ Tools for Schools Action Kit shows schools how to carry out a practical plan to improve indoor air problems at little or no cost using straightforward activities and in-house staff. The Action Kit provides best practices, industry guidelines, sample policies, and a sample IAQ management plan." • <u>The Regional Asthma Management and Prevention (RAMP)</u> is an organization with useful resources. One is its Air Cleaners for Asthma Programs, which provides guidance on what air filters/purifiers are appropriate for asthma. Another is its Asthma Environmental Intervention Guide, which supports school staff in implementing practices to reduce exposure to environmental asthma triggers. • <u>California School Board Association</u> has model policies for school boards to adopt on school asthma management. • <u>The Environmental Law Institute</u> came out with a report called Ventilation in Schools: A Review of State Policy Strategies. This report "discusses key policy strategies for states to consider and describes how current laws and regulations address school ventilation requirements for general operations [...]. The report also describes selected state policies providing financial and technical assistance for school ventilation."
Partners in action implementation	CSC, WCCUSD schools and district staff, Air District, CCHS
Key stakeholders to engage in action implementation	WCCUSD students WCCUSD families
Potential obstacles	Some of the policies recommended here for WCCUSD facilities and classrooms could be time and resource intensive to implement.

Action initiation timeframe	=<2 years
Action intervention point	Addressing social determinants of health & underlying pre-exposure vulnerabilities
Action impact timeframe	3-6 years
Measure/metric of action implementation	See above - "Strategy Metric(s)"
Can any emission/exposure reduction be estimated	-

Strategy 2 – Reduce Air Pollution at Home – Actions

Action #	H 2.1
Action name/brief description	<p>Support better access to home retrofits programs in the PTCA area</p> <p>This Action seeks to increase the participation of low-income PTCA area households in available home retrofit programs. Home retrofits, including weatherization and air filtration installation, make housing units safer by sealing against external air pollution, filtering indoor air, and therefore reducing asthma triggers. Retrofits also increase energy efficiency by reducing operational costs, particularly in older buildings.</p> <p>Air District, working with the cities of Richmond and San Pablo, the County, the CSC, the community, and other advocates, to lead an effort to:</p> <ul style="list-style-type: none"> • Identify existing home retrofit programs available to residents in the PTCA (see "Related existing Program, Policy, or Initiative") • Identify and make recommendations to close program gaps that make it difficult for low-income households to participate in available home retrofit programs • Support existing programs, for example by providing resources to conduct outreach programs to low-income PTCA area households <p>Note: Collective action will likely be the most effective approach. For example, the City of San Pablo has been trying to figure out how certain retrofit programs offered by the county can better serve their community (such as the weatherization program) because it is a part of their Housing Element Policy. However, it has been extremely difficult for them to figure out how these programs are implemented and how San Pablo can capitalize on their services.</p>
Type of action	Regulatory; Incentives
Lead action implementor	Air District, Contra Costa County Health Services (CCHS)
Related existing Program, Policy, or Initiative	<p>Retrofit programs that seek to protect health and/or reduce energy costs that already exist and that this Action seeks to support include:</p> <ul style="list-style-type: none"> • Air District's Bay Area Healthy Homes Initiative (BAHHI) seeks to improve health outcomes for Contra Costa and Alameda County residents living in the areas most impacted by air pollution from vehicular emissions. Program components include asthma education,

	<p>in-home asthma trigger assessments, energy efficiency assessments, home retrofits, and indoor air monitoring.</p> <ul style="list-style-type: none"> • The Regional Asthma Management Program's (RAMP) mission is to reduce the burden of asthma with both prevention and management programs. For example, this work includes working to support stable and healthy housing and to improve enforcement tools available to hold landlords accountable for maintaining safe and healthy housing, with a focus on addressing slumlords and repeat code violators. • California Healthy Housing Coalition (CHHC), formed in 2010, CHHC is a multi-sector coalition that works to improve unhealthy housing conditions, including indoor air. • Alameda County Public Health Department's Asthma Start program provides in-home case management services for families of children with asthma. The program provides home assessment and remediation services that expand upon existing asthma home visit efforts. Services also include education about asthma, home inspections to identify causes of asthma attacks, collaboration with schools, assistance with housing, health insurance, and working with landlords on behalf of clients. • California First Program offers PACE (Property Assessed Clean Energy) loans to homeowners to fund home energy upgrades, including improvements to heating and cooling systems (HVAC) and cooling. Loan amounts are tied to the available equity in the home and the homeowner's ability to pay back the loan. • The California Department of Community Services & Development's Low Income Home Energy Assistance Program (LIHEAP) provides federally funded assistance to reduce the costs associated with home energy bills, energy crises, weatherization, and minor energy-related home repairs. The LIHEAP Low-Income Weatherization Program (LIWP) provides free energy efficiency upgrades to low-income households to lower their monthly utility bills while also improving the health and safety of the household's occupants. In Contra Costa County, LIHEAP targets people with asthma and can serve approximately 400 households a year. • California Public Utilities Commission/PG&E Energy Savings Assistance (ESA) program also provides home energy audits and can provide financial support for weatherization.
Partners in action implementation	Contra Costa County Health Services, Air District, City governments (Richmond and San Pablo), California State Department of Community Services and Development, California Public Utilities Commission/PG&E Energy Savings Assistance (ESA) program, Bay Area Regional Energy Network (BayREN), and Marin Clean Energy (MCE).
Key stakeholders to engage in action implementation	Include neighborhood councils, Landlord Associations, Contra Costa Public Health Department, Compliance and Regulations Departments from local jurisdictions, BayREN, and MCE
Potential obstacles	Various programs for homeowners and renters exist, as documented above. Navigating and qualifying for these programs may be difficult, however. Renters fear building updates will lead to displacement and higher rents. Also, building retrofits that require inspections may identify unpermitted building changes that threaten renters' housing stability.

Action initiation timeframe	Mid=2-4 years
Action intervention point	Exposure and/or dosage
Action impact timeframe	> 4 years
Measure/metric of action implementation	Was the Action implemented (yes/no?)
Can any emission/exposure reduction be estimated	-

Action #	H 2.2
Action name/brief description	<p>Support transition to electric appliances for PTCA residents</p> <p>By incentivizing the switch from natural gas to electric appliances, this action seeks to reduce both emissions and exposure to emissions.</p> <p>Air District, working with local jurisdictions, the CSC, the community, and other advocates, to lead an effort to:</p> <ul style="list-style-type: none"> • Identify existing incentive programs available to residents in the CERP. • Identify and make recommendations to close program gaps that make it difficult for low-income households to switch to electric appliances. For example, work with Marin Community Energy (MCE), which serves the PTCA area, to expand MCE's existing energy equity programs. • Provide data that shows the health, energy, economic, and other benefits of switching electric appliances to local jurisdictions (cities of Richmond and San Pablo and Contra Costa County). • Make recommendations to local land-use authorities regarding regulatory changes, such as adopting reach building codes that require more rental properties to include electric appliances. • Track State level legal challenges to these types of ordinances and initiatives. <p>The City of San Pablo is working on adopting an all-electric regulation for new residential within the building code, but the State of California has challenged the proposed ordinance update.</p>
Type of action	Further research; Incentives
Lead action implementor	Air District, cities of Richmond and San Pablo, and Contra Costa County
Related existing Program, Policy, or Initiative	Air District will require zero-NO _x water and space heating upon appliance burnout starting in 2027 and 2029, respectively. California plans to phase out gas appliances and water heaters starting in 2030. In advance of these regulatory changes, various incentive programs are available now to assist homeowners and building owners with the switch to electric appliances, such as through the following programs:

	<ul style="list-style-type: none"> Internal Revenue Service (IRS) Residential Energy Efficiency Tax Credit: a tax credit for energy audits and select energy efficiency and weatherization measures. Inflation Reduction Act (IRA): High-Efficiency Electric Home Rebate Program (HEEHRA): point-of-sale rebates through qualified electricians for electrification measures. Marin Clean Energy (MCE) serves the PTCA area and has energy equity programs and a community power coalition. MCE works with the Green and Healthy Homes Initiative as well as other partners. BayREN provides rebates for energy efficiency and fuel-switching projects. Many of these rebates are “stackable” and can be combined with state or federal rebates or tax credits. <p>For more information and existing programs to improve energy efficiency, including case studies for individual properties, see Bay Ren https://www.bayren.org/</p>
Partners in action implementation	Richmond City Council, San Pablo City Council, Contra Costa County, the CSC, community members
Key stakeholders to engage in action implementation	Neighborhood Councils, Landlords Association(s), Contra Costa Public Health Department, MCE, BayREN
Potential obstacles	<p>Various incentives (rebates and tax credits) exist to help homeowners and multi-unit housing owners make clean-energy upgrades. However, these programs may not include the deep discounts that low-income homeowners may need to participate.</p> <p>The upfront financial cost for housing/building renovations may include additional infrastructure costs for older buildings that are not anticipated, such as updating the electrical panel, removing gas appliance infrastructure, or other infrastructure to bring buildings up to code.</p> <p>Various cities around the State are adopting or trying to adopt required all-electric regulations for new residential, but the State of California is challenging these proposed ordinance updates.</p>
Action initiation timeframe	Mid=2-4 years
Action intervention point	Exposure and/or dosage
Action impact timeframe	Mid=2-4 years
Measure/metric of action implementation	Was the Action implemented (yes/no?)
Can any emission/exposure reduction be estimated	-
Action #	H 2.3
Action name/brief description	Assess whether rental standards can require indoor air filtration and cooling in the PTCA CERP Community

	<p>Air District will summarize research that supports policy and best practices recommendations for local jurisdictions to protect residents in rental housing from air pollution and heat events. Contra Costa County and the cities of Richmond and San Pablo will work to implement the findings. This action may include the following activities.</p> <p>Air District, working with local jurisdictions, the CSC, the community, and other advocates to lead an effort to:</p> <ul style="list-style-type: none"> • Identify policy and programming gaps that leave rental households vulnerable to indoor air pollution and heat events. • Identify data that supports the health, energy, economic, and other benefits of air filtration and cooling. • Make recommendations to jurisdictions regarding upgrading code requirements for rental properties to include air filtration and cooling requirements. • Identify any existing funding assistance for PTCA area members. <p>The County and the cities of Richmond and San Pablo to work with Air District, the CSC, the community, and other advocates to find ways to implement measures that work to protect residents in rental housing from indoor air pollution and heat events. This may take the form of reach codes or other regulatory or incentive-based measures in both existing and new rental housing.</p>
Type of action	Further research; Regulatory
Lead action implementor	Air District, Cities of Richmond and San Pablo, and County of Contra Costa
Related existing Program, Policy, or Initiative	<p>For information and existing programs to improve energy efficiency, see BayREN https://www.bayren.org/, including case studies for individual properties.</p> <p>California Building codes: https://www.dgs.ca.gov/BSC/Codes.</p> <p>UCLA Luskin Center for Innovation Policy Brief “Protecting Californians with Heat-Resilient Homes: https://innovation.luskin.ucla.edu/wp-content/uploads/2022/07/Protecting-Californians-with-Heat-Resilient-Homes.pdf.</p>
Partners in action implementation	The CSC, people who live in the PTCA community, experts in indoor air quality and rental housing
Key stakeholders to engage in action implementation	CSC, community members, health and housing advocates
Potential obstacles	Gathering the community and political support to make changes at the local government level to require updates to existing or new rental housing is difficult and time-consuming. Identifying methods to pay for updates to indoor air filtration and cooling that do not include passing all costs on to renters is also difficult. Renters fear building updates due to fear of displacement and higher rents. Also, building retrofits that require inspections may identify unpermitted building changes that threaten renters' housing stability. These factors present obstacles to protecting renters from air pollution while indoors and from heat events.
Action initiation timeframe	Mid=2-4 years

Action intervention point	Exposure and/or dosage
Action impact timeframe	Mid=2-4 years
Measure/metric of action implementation	Was the Action implemented (yes/no?)
Can any emission/exposure reduction be estimated	-

Action #	H 2.4
Action name/brief description	<p>Assess and address gaps in the programming that protects the unhoused from air pollution in the PTCA area</p> <p>Individuals experiencing homelessness are often unsheltered and reside near mobile sources of pollution, such as under freeways and on the shoulders of railways, and near stationary sources of air pollution, such as industrial sites that are removed from residential neighborhoods. Therefore, the unhoused are the population most exposed to air pollution in the PTCA community. Programs and services addressing homelessness also help to address racial and social inequities because unhoused persons in Contra Costa County and the City of Richmond are disproportionately Black, Indigenous, undocumented immigrants, people with disabilities, and people with criminal histories.</p> <p>Acknowledging that sustainable permanent and subsidized housing is the end goal, this action seeks to understand service gaps in existing programs to protect the unhoused from air pollution and other comorbidities. This action could include the following efforts:</p> <p>Contra Costa Public Health Services' Health, Housing & Homeless (H3) Services, Richmond, and San Pablo could participate in efforts to:</p> <ul style="list-style-type: none"> • Increase interim, transitional, and affordable housing capacity with infrastructure designed to provide air filtration, cooling, warming, and resource/service navigation assistance. • The State's Homekey program addresses homelessness by increasing the supply of permanent affordable housing across. Homekey provides local public entities with large capital grants to "purchase existing buildings and convert them into housing for people experiencing or at risk of homelessness." • Partner with existing community-based organizations to transform their community congregation sites into Resilience Hubs that are accessible to the unhoused. See action #4.1. • Improve community education and assistance by providing training on air quality issues and health impacts with Coordinated Outreach Referral, Engagement (CORE) outreach workers. Share resources (like N95 masks) and air alert notifications about the need to be indoors. The Contra Costa County Office of Emergency Services and Environmental Health would also be key to implementing this recommendation.

	<ul style="list-style-type: none"> • Increase the utilization of clean air centers and resilience hubs, and other indoor community facilities by providing storage lockers for property (to allow unhoused individuals to secure their possessions), pet care, and pet accommodations. <p>SOS Richmond can:</p> <ul style="list-style-type: none"> • Deploy rapid temporary interim housing transitional villages with 50+ beds that are run by unhoused staff (empowerment-based approach) to respond to an air quality emergency like a flaring or wildfires. • Provide pop-up encampment services such as water delivery, sanitation, and hygiene (WASH) responses for trash removal, toilets, showers, laundry, drinking water, and other amenities to keep encampments safe. outreach to the unhoused, and job training for unhoused people. • Facilitate outreach to the unhoused, and create job opportunities. <p>Air District:</p> <ul style="list-style-type: none"> • Work with Contra Costa Public Health Department's H3 staff to develop guidance for local jurisdictions and CBOs that help protect unhoused communities from air pollution, especially during Spare the Air days, heat waves, wildfires, and flaring episodes. Developing this guidance in partnership with unhoused individuals, service providers, activists, CBOs, and academics. • Provide supplies and information to service providers to distribute to unhoused communities, such as N95 masks, information about air quality alerts, and clean air centers. • Work with local jurisdictions, the CSC, community members, and other agencies to establish resilience hubs/clean air centers as needed in the PTCA community. • Advocate and support the development of more affordable/subsidized transitional housing for the unhoused that includes air filtration.
Type of action	Further research
Lead action implementor	CCHS Health: Housing & Homeless (H3) Services, SOS Richmond, Air District, Office of Emergency Services and Environmental Health
Related existing Program, Policy, or Initiative	<p>Through CARB's AB 836 Clean Air Center program, Contra Costa's Health, Housing & Homeless (H3) Services has requested 12 portable air filtration systems for use in shelters across the County. Through the same grant, the Pinole Library was approved for HVAC retrofit, completion expected by the end of 2023; the City of Richmond requested 10 air filtration units, and the City of El Cerrito requested 21 filtration units.</p> <p>During the last wildfire event, the H3 CORE team did street-level outreach to encampments and other unhoused persons, providing survival supplies like N95 masks, transportation, and other support services. Healthcare for the Homeless is a partner within Contra Costa Health's Public Health division, and this team provided backpack medicine, masks, and other related health services.</p> <p>Also see CARB's AB 836 Wildfire Clean Air Center program, San Joaquin Valley Air Pollution Control District Clean Air Centers Pilot Program</p>

Partners in action implementation	CARB, Richmond Homeless Task Force
Key stakeholders to engage in action implementation	CSC, community members, advocates for the unhoused, West Contra Costa's unhoused population and households
Potential obstacles	The patchwork of services, and gaps in services for the unhoused is well documented. California's housing affordability crisis is decades in the making, reflecting 20th-century public policies that created housing shortages and institutionalized racism. These factors present obstacles to protecting this vulnerable population from air pollution that far exceed the scope of this Action and the PTCA Plan
Action initiation timeframe	Mid=2-4 years
Action intervention point	Exposure and/or dosage
Action impact timeframe	Mid=2-4 years
Measure/metric of action implementation	Was the Action implemented (yes/no?)
Can any emission/exposure reduction be estimated	-

Action #	H 2.5
Action name/brief description	<p>Reduce Exposure to Wood Burning</p> <p>Residential wood fires generate 7.6% of the PM_{2.5} emissions from criteria pollutants and 8.5% of the formaldehyde emissions in the PTCA community.</p> <p>This action seeks to reduce exposure to wood burning through these steps:</p> <ul style="list-style-type: none"> • Offer incentives to replace wood-burning fireplaces or wood-burning fireplace inserts with electric heat pumps. • Evaluate opportunities to improve Air District's Open Burning Regulation (Reg. 5) and/or Air District's Wood Burning Devices Regulation (Rule 6-3). Initiate by the end of 2024. <p>Air District has experience administering incentive programs to replace existing wood-burning heating equipment with cleaner-burning equipment. Air District's Strategic Incentives Division will be administering an incentive program called the Clean Heating Efficiently with Electric Technology Program, or CleanHEET Program. CleanHEET will provide up to \$2 million throughout the Bay Area for the changeout of freestanding wood stoves or wood-burning fireplace inserts with electric heat pumps. A future incentive program will benefit from CSC and other community outreach efforts and partnerships to encourage participation within the CERP.</p> <p>In addition to the incentive program, this action includes a step to reduce wood-burning emissions and exposure by evaluating approaches to</p>

	strengthen Air District Reg 5 and Reg 6-3. This aligns with the WOCAP Further Study Measure Strategies for addressing wood smoke impacts (WOCAP FSM #1 and #5). Regulation 5 generally prohibits open burning but allows for exemptions such as agricultural burning, disposal of hazardous materials, fire training, and range, forest, and wildlife management. Regulation 6-3 makes it illegal to use any wood-burning devices when a Spare the Air Alert is in effect. Reg 6-3 also bans excessive smoke, and the burning of garbage, plastics, and other toxic materials.
Type of action	Incentives; Regulatory
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	<ul style="list-style-type: none"> • Air District's past experience with related incentive programs includes the Wood Smoke Reduction Incentive Program (WSRIP). The WSRIP funded the replacement of existing fireplaces and wood-burning stoves with natural gas- or propane-fueled heating stove or fireplace inserts, decommissioning of an existing wood-burning stove or fireplace and installing an electric heat pump system, or decommissioning of an existing wood-burning stove or fireplace without installing a replacement heating device. • CARB's Woodsmoke Reduction Program • Community Air Protection Incentives - Chapter 6: Stationary Source and Community-Identified Projects within the CAP Guidelines (including wood-burning related projects from communities in Calaveras County, El Dorado County, and San Joaquin Valley APCD)⁹ • Action 2.5's evaluation of amendments to Reg. 5 and Reg. 6-3 to reduce wood burning emissions and exposure aligns with the West Oakland Community Action Plan (WOCAP) Strategy FSM #5 to investigate the feasibility of amending Regulation 5 and/or Rule 6-3 to prohibit recreational fires, and also have some overlap with FSM #1.
Partners in action implementation	Local jurisdictions, the CSC, community members, CARB
Key stakeholders to engage in action implementation	Neighborhood Councils, Landlords Association(s)
Potential obstacles	For many of these wood-burning sources, the purpose is largely aesthetic. People like looking at fires. So many people may not be interested in a heat pump replacement without greater motivation such as from incentives or education and outreach on the health impacts of woodsmoke.
Action initiation timeframe	Near=<2 years
Action intervention point	Exposure and/or dosage
Action impact timeframe	Mid=2-4 years; Long > 4 years

⁹ <https://ww2.arb.ca.gov/our-work/programs/community-air-protection-incentives/stationary-source-and-community-identified>

Measure/metric of action implementation	Was the Action implemented (yes/no?) Number of wood-burning heating equipment units replaced with heat pumps through incentive programs.
Can any emission/exposure reduction be estimated	-

Action #	H 2.6
Action name/brief description	<p>Create incentives for electric lawn and gardening equipment</p> <p>This action seeks to create incentive programs that will provide funds for residents and other entities to purchase zero-emission lawn and gardening equipment. Air District's Strategic Incentives Division would administer this incentive program.</p> <p>Air District has run similar programs in the past; see the "Related existing Program, Policy, or Initiative" section below for more details.</p> <p>As described below, Air District and other air quality agencies in California have experience with lawn and gardening replacement programs that Air District can draw from. In addition, an incentive program for electric lawn and gardening equipment is viable through the Carl Moyer Program and the Community Air Protection Incentives. This action will benefit from CSC and other community outreach efforts and partnerships to encourage participation within the PTCA area.</p>
Type of action	Incentives
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	<p>The San Joaquin Valley Air Pollution Control District (SJVAPCD) has already created a CARB Community Identified Project plan for electric home lawn and gardening equipment and Air District's Strategic Incentives Division can replicate this incentives program.</p> <p>Beginning July 18, 2023: CARB, in partnership with CALSTART, will offer voucher incentive funding to small businesses and sole proprietors to upgrade professional landscaping equipment to zero-emission alternatives through the California Off-Road Equipment (CORE) Program.</p> <p>Air District currently offers a program that can fund large commercial lawn mowers with over 25 horsepower evaluated through the Carl Moyer Program. However, most projects do not qualify due to the low operational usage of the mower.</p> <p>Air District offered a public sector lawn and garden equipment exchange program between 2015 and 2018. Air District awarded nearly one million in funding to public agencies, such as schools, city public works, and parks departments in Contra Costa and Alameda counties, to replace older operable lawn and garden equipment with new battery-powered zero-emission electric equipment.</p> <p>Air District offered a residential lawn and garden equipment exchange program in 2014. The Lawn Mower Exchange Program offered Bay Area residents a \$145 rebate on the purchase of new cordless zero-emission electric lawn mowers in exchange for turning in their operable gasoline-powered lawn mowers for scrapping.</p>

Partners in action implementation	Air District, CARB, and the CSC
Key stakeholders to engage in action implementation	Air District, CARB, the CSC, Neighborhood Councils, Landlords Association(s), Homeowners, and the public
Potential obstacles	Some funding has limitations (such as the Carl Moyer Program described in the "Related existing Program, Policy, or Initiative" section) that make it difficult for applicants to apply for and/or qualify for funding.
Action initiation timeframe	Near=<2 years
Action intervention point	Exposure and/or dosage
Action impact timeframe	Mid=2-4 years
Measure/metric of action implementation	Was the action implemented? (yes/no) Number of residential replacements or purchases of new electric lawn and garden equipment through Air District incentive programs.
Can any emission/exposure reduction be estimated	-

Strategy 3 – Promote Healthy Food Access – Actions

Action #	H 3.1
Action name/brief description	<p>Expand CCHS programming to increase healthy food in retail settings in West Contra Costa County</p> <p>CCHS is developing a program in the eastern part of Contra Costa County to provide refrigerating/freezer purchasing and maintenance grants to small "corner stores." This program will help corner stores sell fresh foods that require refrigeration. This program aims to support a local procurement opportunity to economically support farmers, and other produce growers in the community.</p> <p>However, CCHS does not intend to expand to West Contra Costa County now or for the next two years. Their program's second phase will explore the possibility of expansion to West Contra Costa County, where the PTCA community is. Expanding West Contra Costa County will hinge on securing additional program funding. One potential funding source is The Healthy Refrigeration Grant Program from the California Department of Food and Agriculture Office of Farm to Fork. The goal of this program is to fund "[...]energy efficient refrigeration units in corner stores, small businesses, and food donation programs in low-income or low-access areas throughout the state [...]."</p>
Type of action	Other: Programmatic
Lead action implementor	CCHS

Related existing Program, Policy, or Initiative	CCHS is currently working on a pilot outside of the PTCA area. The pilot involves six retailers in the Bay Point community in Eastern Contra Costa County. The pilot plans to hold store tours, food demonstrations, and cooking classes. A model for the CCHS program is the Saba Grocers Initiative .
Partners in action implementation	Local retailers
Key stakeholders to engage in action implementation	Neighborhood groups and community members Neighborhood retail business owners
Potential obstacles	Securing funding for an expanded program in West Contra Costa could be challenging. If retail store owners are from other countries with diverse primary spoken languages, programming must be culturally and linguistically relevant.
Action initiation timeframe	Mid-term <4 years
Action intervention point	Health effects
Action impact timeframe	Long > 4 years
Measure/metric of action implementation	See above - "Strategy Metric(s)" <ul style="list-style-type: none"> A measure of impact: How many more retail stores provide fresh produce within the CERP Community since the action was implemented?
Can any emission/exposure reduction be estimated	-

Action #	H 3.2
Action name/brief description	<p>Ask EHSD to Study the current state of CalFresh - California state's Supplemental Nutrition Assistance Program (SNAP) - enrollment within the CERP Community and identify solutions to current barriers to enrollment</p> <p>In this action the CSC will encourage the Employment & Human Services Department (EHSD) to study ways to improve CalFresh and SNAP access county-wide since EHSD is responsible for signing people up for these programs. The resulting study results and information will then be used to improve access in the PTCA area.</p> <p>EHSD can address food insecurity by educating the public, promoting Electronic Benefits Transfer (EBT), and hopefully increasing the enrollment rate for CalFresh and SNAP within the county and the PTCA community. A study can explore the current barriers to enrollment, for example, the inadequate number of stores accepting EBT and strategies for increased CalFresh enrollment in the PTCA area.</p> <ul style="list-style-type: none"> What percent of eligible residents within the PTCA area are enrolled in CalFresh?

	<ul style="list-style-type: none"> Assess the number of EBT-accepting locales in the CERP Community. Determine what percent of food retail stores accept CalFresh, if that number can be increased, and if feasible, to diversify the types of stores accepting CalFresh. For example, if applicable, expand from grocers to restaurants. Identify the current barriers to CalFresh enrollment and identify strategies to tackle those barriers. Identify Community-Based Organizations (CBOs) in the CERP Community to partner with to increase CalFresh participation. Find funding for increased ongoing outreach to assist in community education about CalFresh benefits and programming to support the enrollment process.
Type of action	Further research
Lead action implementor	Employment and Human Services Division (EHSD), Contra Costa County Health Services (CCHS) Social Services Department
Related existing Program, Policy, or Initiative	U.S. Department of Agriculture's SNAP (CalFresh in California)
Partners in action implementation	City of San Pablo and Richmond Urban Tilth or other CBO
Key stakeholders to engage in action implementation	Community-based groups/organizations working with residents experiencing food insecurity CCHS - Contra Costa County Health Services Public Health Departments for the Cities of Richmond and San Pablo
Potential obstacles	Existing CalFresh education work and goals are tied to funding, primarily from the California Department of Public Health (CDPH). This action should investigate if other funding sources are needed to support additional CCHS programming to do outreach and education or other activities that will increase enrollment.
Action initiation timeframe	Defined timeframe to initiate the action, e.g., Near=<2 years;
Action intervention point	Addressing social determinants of health & underlying pre-exposure vulnerabilities
Action impact timeframe	Mid=2-4 years
Measure/metric of action implementation	See above - "Strategy Metric(s)"
Can any emission/exposure reduction be estimated	-

Action #	H 3.3
Action name/brief description	<p>Obtain funding to increase the number of healthy food retail businesses in the PTCA community</p> <p>This action asks that local jurisdictions develop incentives for new businesses that provide healthy foods, specifically grocery stores, in predominantly BIPOC and low-income neighborhoods of the PTCA area. Many census</p>

	<p>tracts in the PTCA area have a population with low food access -- defined as living more than one-half mile from the nearest supermarket, supercenter, or large grocery store -- <i>and</i> limited transportation options -- further decreasing their ability to reach a grocery store.</p> <p>We ask that local jurisdictions:</p> <ul style="list-style-type: none"> • Advocate for and research funding streams to create affordable and culturally relevant local food sources such as farmers' markets that take CalFRESH or EBT, community-supported agriculture (CSA), new supermarkets, supercenters, or large grocery stores. • Provide incentives for food retailers to open businesses in the PTCA area. • Use tax credits and exemptions to encourage the development of grocery stores and improvements at existing stores. <ol style="list-style-type: none"> 1. "For example, Prince George's County, Maryland, offers a property tax credit for up to 10 years for grocery store development and improvement in designated food deserts. To qualify as a "grocery store" for the credit, at least 20% of a store's gross receipts must be derived from selling fresh produce, meats, and dairy products. The credit applies to offset 75% of any property tax increase resulting from an increase in assessed property value due to the expansion, renovation, or new construction of a grocery store, or reuse of vacant commercial space for a grocery store." <ul style="list-style-type: none"> • Exempting grocery stores and other retail food businesses from licensing and/or permitting fees
Type of action	Incentives
Lead action implementor	Local jurisdictions in PTCA community (City of Richmond, City of San Pablo, and Contra Costa County)
Related existing Program, Policy, or Initiative	New York City has a program called "Food Retail Expansion to Support Health (FRESH)" that provides zoning and financial incentives for the establishment and retention of food retail stores.
Partners in action implementation	Contra Costa County Board of Supervisors City Councils of San Pablo and Richmond San Pablo Economic Development Corporation (SPEDC) Richmond Economic Development Commission
Key stakeholders to engage in action implementation	Neighborhood councils CBOs Residents
Potential obstacles	<p>Food retail businesses are often portrayed as unprofitable. However, there are models of economic feasibility for food retail.</p> <p>Limited sites for new food retail businesses may be an issue.</p> <p>Social determinants of health also play a role. As noted in a 2016 article in Progressive Planning, "While a new store will increase geographic proximity, it does nothing to address the structural drivers of food insecurity, like poverty, low wages, food pricing, segregated land-uses, and inadequate and inequitable transportation options." One study we found argued that more food retail and food access does not always increase healthy food consumption.</p>

	A complementary solution (see the next Action - H2.4) could be zoning and permitting initiatives.
Action initiation timeframe	Near =< 2 years
Action intervention point	Addressing social determinants of health & underlying pre-exposure vulnerabilities
Action impact timeframe	Long > 4 years
Measure/metric of action implementation	See above - "Strategy Metric(s)"
Can any emission/exposure reduction be estimated	-

Action #	H 3.4
Action name/brief description	<p>Develop a Healthy Food Retail Model Ordinance for potential adoption by local jurisdictions in the PTCA area</p> <p>For this strategy, we define unhealthy foods as including highly-processed items such as fast foods - A type of food that is quickly made and of low nutritional value - and snack foods, which tend to be lacking nutrients (vitamins, minerals, and antioxidants) and high in empty calories due to the content of refined flours, sodium, and sugar. We ask that local jurisdictions and CCHS adopt a Healthy Food Retail Ordinance for potential adoption by local jurisdictions in the PTCA area.</p> <p>An ordinance could include the following:</p> <ul style="list-style-type: none"> • Consider increasing or protecting zoning that allows urban agriculture in the PTCA community. Starting on page 70, the State Office of Planning and Research's Model Environmental Justice Policies for General Plans report provides information on supporting local food production from California general plans that have been formally adopted by cities and counties. • Limit unhealthy food at check-outs and offer healthy food at check-out, especially in areas with low food access and high food insecurity. • Require that new corner stores applying for business permits/licenses have a certain percentage of selling space for staple foods and fresh produce.
Type of action	Regulatory
Lead action implementor	CCHS and local jurisdictions in PTCA community (City of Richmond, City of San Pablo, and Contra Costa County)
Related existing Program, Policy, or Initiative	CCHS is studying the possibility of proposing an ordinance that would require healthier options at checkout (for example, fewer high-sugar items. This ordinance would include stores in unincorporated areas in Contra Costa County above a specific size. CCHS is researching Oakland, Berkeley, and Richmond's efforts in this area. CCHS plans to go to the Family and Human Services Committee of the Board of Supervisors to request permission to pursue this ordinance in 2023. This ordinance could become a model for other jurisdictions in the PTCA area and throughout the County.

Partners in action implementation	CCHS, and potentially CBOs and Others
Key stakeholders to engage in action implementation	Neighborhood groups; Neighborhood retail business owners; CBOs
Potential obstacles	Zoning changes need political support and might only be possible with a community champion or a current program that supports it. A note on using business permitting requirements to set minimum standards for offerings in retail settings - this only addresses new retail and may have a low level of compliance among retailers if not coupled with an enforcement program.
Action initiation timeframe	Mid <= 4 years
Action intervention point	Addressing social determinants of health & underlying pre-exposure vulnerabilities
Action impact timeframe	Mid <= 4 years
Measure/metric of action implementation	See above - "Strategy Metric(s)"
Can any emission/exposure reduction be estimated	-

Strategy 4 – Promote Resilience Centers – Actions

Action #	H 4.1
Action name/brief description	<p>Advocate for funding for resilience centers</p> <p>While Air District has a Clean Air Centers program, the PTCA area would be best served by the more expansive services of Resilience Centers. Resilience Centers are, "neighborhood centers that can be designed to coordinate culturally sensitive, multilingual services to best meet the needs of diverse groups of community members." These centers can provide a safe place for temporary shelter and relief during days of extreme heat or operate as centers for distributing necessities such as food and multilingual information during and after disasters such as wildfires or prolonged electrical outages. Year-round, they can offer space and programming for community-building efforts that increase resilience when emergencies occur, can address health disparities that disasters may highlight, and can build social cohesion. Resilience centers are usually established through collaborations between municipal authorities and non-profit entities and usually operate within dependable, community-operated establishments such as a place of worship, community hall, and youth or senior center.</p> <p>There is funding available for Resilience Centers. California Senate Bill 155 (2021) specified that \$75 million in the 2023–2024 fiscal year is available for neighborhood-level Resilience Centers through the Strategic Growth Council's Community Resilience Centers (CRC) Program. Contra Costa County and the Cities of Richmond and San Pablo:</p>

	<ul style="list-style-type: none"> This action asks local jurisdictions to apply for funding and partner with local community-based organizations to develop Resilience Centers. As of 2023, there is a Resilience Center/Hub at RYSE Commons, a youth community center in Richmond, California. RYSE plans to install solar and battery infrastructure at its center. If grid power goes out, people will be able to charge their communication and medical devices and refrigerate medicines or food. Other neighborhoods in the PTCA area would benefit from Resilience Centers as well. Assess how resilience centers can be made accessible for the unhoused. Increase the utilization of resilience hubs by unhoused people by providing storage lockers for possessions, pet care, pet accommodations to allow unhoused individuals to shelter with their pets, and parking spaces. Sustainably fund 24/7 staffing not limited to maintenance and resource navigation at the Resilience Hubs and Clean Air centers. Provide employment programs not limited to employment opportunities for the unhoused within the above facilities. <p>CCHS:</p> <ul style="list-style-type: none"> CCHS can play a supportive role regarding health-related services but would not lead this effort.
Type of action	Incentives; Other: Advocacy
Lead action implementor	PTCA CSC, Contra Costa County, local Community-Based Organizations, and the Cities of Richmond and San Pablo
Related existing Program, Policy, or Initiative	Air District's Clean Air Centers Pilot provides grants for the provision and installation of industrial-grade portable air filters.
Partners in action implementation	Contra Costa Health Services - Public Health Department Contra Costa Health Services - Health, Housing, and Homeless Services (H3) Contra Costa Office of Emergency Management)
Key stakeholders to engage in action implementation	Neighborhood Councils Contra Costa Public Health Department West Contra Costa Unified School District Sheriffs' Office re: Emergency Response mandate Community organizations
Potential obstacles	<p>It is the experience of some CCHS staff that non-school based clean air center locations are underutilized. This is because community members may prefer to remain in their own homes during an extreme air event. Care must be taken to understand this trend and ensure that Resilience Centers are not similarly underutilized. Many homeless residents have expressed a preference for hotel vouchers.</p> <p>Many funding sources do not provide operational funds. For example, the Air District Clean Air Centers program Grant received by Contra Costa County did not come with money to staff clean air centers or provide additional services, like food in an emergency. Centers must be staffed over weekends and holidays, which could be expensive and unsustainable depending on funding terms. Additionally, the Air District Clean Air Centers Program is a pilot, and unless there is demand and CARB provides further funding, there will not be future funding under AB 836.</p>
Action initiation timeframe	Near=<2 years

Action intervention point	Exposure and/or dosage
Action impact timeframe	Near=<2 years and Mid=2-4 years
Measure/metric of action implementation	See above - "Strategy Metric(s)"
Can any emission/exposure reduction be estimated	-

Action #	H 4.2
Action name/brief description	<p>Ensure resources for high-efficiency air filtration unit distribution and installation programs and support for partnerships to benefit vulnerable populations and places</p> <p>Multiple Air District initiatives in the Clean Air Filtration Program provide air filtration technology, including stand-alone air filters or HVAC system updates for facilities within the PTCA area. However, a list of eligible facilities serving sensitive receptors and vulnerable populations and places, such as health centers, senior centers, schools, and facilities for the unhoused in the PTCA community, is needed to identify and proactively approach missing potential recipients. Assistance with grant applications should be offered from Air District if the eligible organization does not have the capacity to apply. The Air District Clean Air Filtration Program focuses on public social assets within the community where the most vulnerable subpopulations congregate, e.g., all schools, libraries, senior and youth centers, and shelters for the unhoused. These are not private residences but public or municipal facilities.</p> <p>However, if the CSC wishes to reach residential households, there is precedence for such programs. Other AB 617 communities in California developed residential air filter distribution programs using funding from CARB's Community Air Protection Incentives program. San Joaquin Valley has one such program called the Clean Air Rooms Program.</p> <p>Another funding source may be a potential result of the Community Benefits Policy (CBP), which is described in Action 3.9 under the Fuel Refining Strategies section. This action suggests that Air District fines provide funds to health-promoting initiatives in the PTCA area.</p>
Type of action	Incentives
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Air District's Clean Air Filtration Program, CARB's Community Air Protection Incentives (potential funding source)
Partners in action implementation	Clean Air Filtration Program grantees and collaborators - community-based organizations, etc.
Key stakeholders to engage in	Municipal staff, school districts, and community-based organizations that run libraries, senior and youth centers, run schools, and shelters for the unhoused, etc.

action implementation	
Potential obstacles	Outreach to potential grantees can be done, but this does not guarantee that the organization will desire or have the capacity to participate.
Action initiation timeframe	Near=<2 years
Action intervention point	Exposure and/or dosage
Action impact timeframe	Mid=2-4 years
Measure/metric of action implementation	See above - "Strategy Metric(s)"
Can any emission/exposure reduction be estimated	-

Strategy 5 – Pollution & Public Health Education, Outreach, Accountability, and Health Data Tracking – Actions

Action #	H 5.1
Action name/brief description	<p>Work with Contra Costa Health Services to create a dashboard for health data and air pollution education materials with particular emphasis on AB 617 communities</p> <p>CCHS has committed to creating a dashboard website for health data and information for the entire county. This action asks CCHS to include in that website dashboard digestible information on air pollution, including educational information, pollution-related public health outcomes, air pollution improvement goals, PTCA implementation reporting, and links to active PTCA webpages. This dashboard would also be a natural place to include links to the air alert system, including information on alert sign-up and feedback mechanisms to promote its use.</p> <p>This dashboard can potentially increase community engagement with air pollution issues, outcomes, and opportunities to become involved in solutions. All county residents should be able to see, in one place, which communities have the greatest pollution burdens and most significant health problems. This dashboard will have to ensure that correlation and causation are not confused when looking at health outcomes and air pollution sources. Note that Rodeo and Martinez have refineries and suffer similar health impacts to people as we experience in Richmond, North Richmond, and San Pablo, so a dashboard will benefit all County residents.</p> <p>CCHS is already planning to build a dashboard for all health issues and information affecting Contra Costa County. Their dashboard will include many factors that affect people's health, like the Social Determinants of Health, gun violence, and other environmental factors beyond air pollution.</p> <p>CCHS:</p>

	<ul style="list-style-type: none"> Work with Air District to create a dashboard website that includes simplified and accessible educational information on air pollution; and related health metrics, goals, initiatives, and achievements. <p>Air District and CCHS:</p> <ul style="list-style-type: none"> CCHS and Air District will engage in implementation discussions for this action to coordinate content hosted, releases, and timelines. It is suggested that there be one annual release with added functionality and primary information updates, as well as more frequent advertisement of events, etc. In terms of content for the dashboard, CCHS will provide health data products. Air District will provide air pollution information and educational products, as needed, to be shared with CCHS for posting and dissemination. Where possible, use existing materials about air pollution and its health impacts.
Type of action	Education/Outreach
Lead action implementor	Contra Costa Health Services
Related existing Program, Policy, or Initiative	None. Although there is no current CCHS dashboard, there are existing websites that can serve as good examples for certain elements of the dashboard. One is called California Health Maps and is hosted by the GreenInfo Network. This site is an interactive mapping health tool that “allows users to interactively map health data for California at different geographic levels: census tract aggregation zones, medical service study areas (MSSAs), census-designated places, congressional districts, state senate districts, state assembly districts, and counties. You can map cancer incidence for 12 of the most common invasive cancer sites and filter by sex and race/ethnicity.” Importantly, this tool shows data by race.
Partners in action implementation	Air District
Key stakeholders to engage in action implementation	Desired outcome is both a phone app version and a full-screen (laptop/desktop) version. Stakeholders are a small set of people representative of the community, including young and older users, high school graduates, and college graduates who can help with user experience testing.
Potential obstacles	Funding, design quality, user experience testing. To start, use current information and add more annually as appropriate. It might take significant time and resources to get to an optimally integrated public-facing system.
Action initiation timeframe	Near=<2 years
Action intervention point	N/A
Action impact timeframe	Near=<2 years
Measure/metric of action implementation	See above - “Strategy Metric(s)”
Can any emission/exposure reduction be estimated	-

Action #	H 5.2
Action name/brief description	<p>Work with health workers to deliver educational information on air pollution health impacts and mitigation opportunities</p> <p>Depending on if CCHS has funding, this action asks that it educate health workers so they can deliver information to their patients and clients on air pollution's health impacts, and mitigation opportunities. This will likely involve working with other service providers through partnerships with community-based organizations and case management programs.</p> <p>Air District:</p> <ul style="list-style-type: none"> • Prepare information packages and messaging guidance for health workers. Provide a briefing for health workers on the information. <p>CCHS:</p> <ul style="list-style-type: none"> • CCHS disseminates the information packages Air District creates to health workers, such as workers in WIC offices, Promotoras*, or staff at CalAIM offices, to amplify air quality and health-related messages and information through direct interactions with community members, social media, and Health Officer appearances in local media. This should be done through case management programs and partnerships and interconnection to other services with community-based organizations. Health workers connect clients to various services and resources. We ask that they offer, for example, information about home retrofitting, flare alerts system, resilience hubs, and general information about the health dangers of poor air quality. • CCHS can also amplify air quality and health-related messages and information through social media and Health Officer appearances in local media. <p>*Promotoras are community members trained as public health educators in Latino/a/x communities.</p>
Type of action	Education/Outreach
Lead action implementor	CCHS and Air District
Related existing Program, Policy, or Initiative	This can add to current County and non-profit programming.
Partners in action implementation	CCHS and CBOs
Key stakeholders to engage in action implementation	Air District and CCHS
Potential obstacles	<p>In the plan's implementation phase, the scope of work, and cost estimate will need to be defined.</p> <p>This is not currently part of a health department program but could be if there is funding for it.</p>
Action initiation timeframe	Near=<2 years (depends on funding)

Action intervention point	Exposure & Dosage
Action impact timeframe	Mid=2-4 years (depends on funding)
Measure/metric of action implementation	See above - "Strategy Metric(s)"
Can any emission/exposure reduction be estimated	-

Action #	H 5.3
Action name/brief description	<p>Implement the findings of the CARB-funded study to improve their clients' tracking in AB 617 Communities</p> <p>In consultation with other AB 617 communities, this CARB-funded research project will "[...] develop a set of health indicators and a process for tracking health conditions related to air pollution exposures for AB 617 communities and other heavily burdened areas. While CARB currently assesses projected health benefits of air pollution control rules, regulations, and programs, there is not a system in place to track actual health conditions linked to air pollution emissions and exposures in a community." This project was awarded money in the funding year 2021-2022 and is anticipated to be completed in 24 months from the start date. The research team is composed of various professors and researchers. More information can be found in this presentation: https://ww2.arb.ca.gov/sites/default/files/2022-08/21RD005%20Kick-off%20PI%20Final%20English.pdf</p> <p>CCHS and Air District:</p> <ul style="list-style-type: none"> As applicable to the work of CCHS and Air District, adopt the study's findings and track health metrics and outcomes in the PTCA area that are related to, but not necessarily caused by, air pollution exposures. <p>CARB:</p> <ul style="list-style-type: none"> If questions arise about the research outcomes, CCHS and Air District will ask CARB to connect them to the researchers for consultations.
Type of action	Further research
Lead action implementor	CCHS and Air District
Related existing Program, Policy, or Initiative	None
Partners in action implementation	CARB
Key stakeholders to engage in action implementation	Other parties that might be able to use the study's findings are WCCUSD, clinics, CCHS, others TBD

Potential obstacles	The State will have to fund any improvements in health tracking data. Neither our school district nor our municipalities have the resources to implement a new program
Action initiation timeframe	Near=<2 years
Action intervention point	N/A
Action impact timeframe	Mid=2-4 years;
Measure/metric of action implementation	Were study results adopted by CCHS, Air District, and other relevant parties?
Can any emission/exposure reduction be estimated	-

Strategy 6 – More complete health risk data and HRAs, including pollutant interactions – Actions

Action #	H 6.1
Action name/brief description	<p>Advocate for expanded basic research on the health impacts of PM_{2.5} exposure and add basic research on NO_x, SO_x, and the most damaging Toxic Air Contaminants (TACs)</p> <p>This action asks for advocacy to expand basic research on air pollutants' health impacts. Currently, the health risks of pollutants are assessed individually, and the research in the last twenty years has not adequately determined cumulative health impacts. We define cumulative impacts here as the combined and incremental effects of exposure to multiple pollutants. We define health risk factors here as pollutant exposures that increase the likelihood of a person developing a disease or health condition.</p> <p>Recent research has focused on PM_{2.5} impacts rather than the mix of pollutants people are exposed to. Further, these recent studies are alarming as they find associations between PM_{2.5} and a wide range of chronic health conditions, including cognitive development in children.</p> <p>There is a need to expand basic research on the health impacts of PM_{2.5} exposure and add basic research on NO_x, SO_x, and TACs with the greatest health impacts in various combinations. CAPs with clear health impacts such as PM_{2.5}, NO_x, and SO_x have no official health risk factors per ton. TACs generally have risk factors for cancer and chronic health as well as for acute exposure, but not all TACs have complete sets. As an example, three important health-damaging TACs that are common in our community (acrolein, xylene & toluene) have no cancer health risks even though they are strongly associated with breast cancer. Many TACs have health risk factors that have not been formally reviewed or changed for over 50 years. This research will improve our TAC health risk factors for both cancer and chronic health. Studies should also investigate the cumulative impacts of the CAPs to help create health risk factors.</p>

	<p>These studies will give a better understanding of the risks of real-world conditions in highly polluted communities and could result in changes to the way that HRAs are conducted in AB 617 communities. Additionally, wildfires are more common now and can generate very high loads of additional PM₁₀ and PM_{2.5} and NO_x and VOCs. Analyses should investigate communities that have both a high baseline of pollution and additional weeks of wildfire smoke multiple times per year.</p> <p>This action could leverage the US EPA HERA Research Program Outputs, including research funding for cumulative impacts and mixtures.² The Health Effects Institute (HEI) also funds studies of the health effects of air pollution, and multipollutant mixtures are on their research agenda.³</p> <p>CARB:</p> <ul style="list-style-type: none"> • CARB will notify Air District and the CSC when there are open calls for suggesting new research topics and can help the CSC with understanding the research concept solicitation process. • CARB will provide updates, as requested by the CSC, on future research projects that address cumulative impacts or are specific to the Path to Clean Air communities. • Note that CARB's proposed triennial Strategic Research Plan for fiscal years 2021-2024 has research listed in the pipeline for cumulative impacts on page 4. <p>CSC and Air District:</p> <ul style="list-style-type: none"> • When CARB puts out their annual call for research topics, Air District supports the CSC to submit a proposal for a research topic by commenting on the CARB Research Program at: https://ww2.arb.ca.gov/our-work/programs/research-planning. The proposal will suggest new research topic(s) mentioned in this action.
Type of action	Further research
Lead action implementor	Air District and CSC
Related existing Program, Policy, or Initiative	The US EPA and HEI fund these studies. CARB also funds similar research. See also the related but different research project: Improved Assessment and Tracking of Health Impacts for California Communities Most Burdened by Pollution. This program is about better tracking chronic health conditions in communities.
Partners in action implementation	US EPA, Air District, OEHHA, CARB, CSC
Key stakeholders to engage in action implementation	This is a technical project that must be performed by regulatory entities (e.g., US EPA, Cal EPA) and research institutions. However, community stakeholders should be engaged in decision-making and be kept abreast of developments.
Potential obstacles	This is a long-term strategy for tracking the latest science on health risks and impacts of multiple pollutants.
Action initiation timeframe	Unknown
Action intervention point	N/A
Action impact timeframe	Unknown

Measure/metric of action implementation	Was funding increased significantly Was research broadened to include studies of the most damaging TACs and NO _x and SO _x ? Was research broadened to include a wide range of chronic health impacts
Can any emission/exposure reduction be estimated	-

Action #	H 6.2
Action name/brief description	<p>Develop policies for addressing cumulative health risks from Criteria Air Pollutants (CAPs) and Toxic Air Contaminants (TACs), which may include refinements or updates to health risk analysis.</p> <p>This action seeks to better understand cumulative exposures from CAPs and TACs because there is no current methodology for understanding their cumulative impacts. This action encourages the development of new policies that consider cumulative impacts in land use and environmental permitting, enforcement, and prioritization of new and strengthened regulations.</p> <p>This action addresses two specific technical problems. First, how to quantify CAP health impacts, and second, how to talk about situations where we have health impacts from TACs and CAPs that use different measuring systems. Studying the potential interactions (action 6.1) and spikes in pollution will also further the science behind measuring health impacts from CAPs (especially PM, NO_x, and VOCs). This work can create a more comprehensive and accurate understanding of health risks and can inform the prioritization of emission reduction strategies.</p> <p>OEHHA and/or other researchers:</p> <ul style="list-style-type: none"> Investigate the potential for integrating health risks associated with CAPs and TACs, including baseline pollution and spikes caused by operational problems and wildfires. This may involve creating better quality and more comprehensive health risk factors, guidelines, and support materials for HRAs. The goal is to improve the understanding and measurement of health risks associated with air pollution, particularly by exploring potential negative interactions between different pollutants and considering the impacts of wildfires. <p>CARB:</p> <ul style="list-style-type: none"> CARB will host a Bay Area-specific capacity-building workshop on the topic of health risk assessment methodology. The session can discuss mechanisms to improve methodologies/guidelines. CARB will solicit feedback/comments on a proposed agenda for the meeting with the PTCA CSC prior to announcing the meeting. <p>Air District:</p> <ul style="list-style-type: none"> The Air District's proposed PM Methodology for measuring health impacts from PM_{2.5} may serve as a template for work with NO_x and SO_x in particular. VOCs are a special category, as many are TACs that have health risk factors already. If new research is produced that gives health impact functions for cumulative community-level CAPs and TACs, and EPA updates the

	<p>BenMAP model or creates something similar, then Air District could develop a methodology and include updated health risks in their CEQA guidelines for CEQA EIR analysis.</p> <ul style="list-style-type: none"> • The goal is to be able to produce assessments that integrate the impacts of stationary source pollution with marine and rail, mobile, and wildfire pollution for health-damaging TACs and CAPs. • For more information, see the summary under "Potential obstacles."
Type of action	Further research
Lead action implementor	OEHHA/CARB
Related existing Program, Policy, or Initiative	The Air District proposed methodology for modeling health risks from local sources of PM _{2.5} may be an important step in addressing this action.
Partners in action implementation	OEHHA/CARB/Air District
Key stakeholders to engage in action implementation	This is a technical project that must be performed by research institutions and professionals. However, community stakeholders should be engaged in decision-making and be kept abreast of developments.
Potential obstacles	<p>There are a number of technical obstacles/challenges applicable to this action. Many of them are long-standing open problems. A good introduction and overview can be found in the US EPA's 2023 Framework for Cumulative Risk Assessment (https://www.epa.gov/risk/framework-cumulative-risk-assessment).</p> <p>Air District's next Advisory Council will be convening to discuss "cumulative impacts" more broadly, extending to include not only multiple pollutant exposures but also non-chemical stressors like poverty and racism. One of the goals will likely be to develop new policies that consider cumulative impacts in land use and environmental permitting, enforcement, and prioritization of new and strengthened regulations. A challenge and opportunity for this action (and strategy) will be to synchronize with that upcoming policy-oriented work.</p>
Action initiation timeframe	Unknown
Action intervention point	N/A
Action impact timeframe	Mid=2-7 years
Measure/metric of action implementation	See above - "Strategy Metric(s)"
Can any emission/exposure reduction be estimated	-

Action #	H 6.3
Action name/brief description	Improve Health Risk Assessments (HRAs) completeness, quality, and ease of use in permitting decisions

This action aims to enhance the completeness, quality, and ease of use of HRAs in permitting decisions. HRAs are done as part of Environmental Impact Reports (EIRs) and are important documents with diverse uses. HRAs provide both a baseline and a projected assessment of a project's environmental impact. However, HRA calculations and emissions profiles are cumbersome, complex and can be simplified to improve ease of use for the layperson. In the PTCA area, a summary of total toxicity-weighted emissions may be used to prioritize and select a group of air toxics that impact the community. Air District screening tools can be shared and the PTCA area can provide feedback on additional tools, as well as opportunities to increase awareness and ease of access to such tools.

This action encourages CARB to investigate the feasibility and, if actionable, design a simple spreadsheet screening tool that would quickly and roughly calculate the impact of a project on the top pollutants that impact public health. This action also encourages Air District to continue producing and updating existing screening tools and modeling guidance in collaboration with CARB as warranted.

Such a screening tool would benefit from the integration of CAP, and TAC impacts to ensure comprehensive emissions reporting and health impacts and address potential under-reporting issues such as those caused by flaring and other difficult-to-forecast irregular operational emissions. This screening tool's calculations can inform permitting decisions by clarifying the public health impacts and the required mitigations early in the process. The time saved from using a screening tool could help local governments and community stakeholders engage more meaningfully in discussions about project approvals or denials.

CARB:

- Since improving HRAs should be done state-wide (not only in the Bay Area) this action asks CARB to create the aforementioned spreadsheet screening tool(s). This is a major ease-of-use improvement to everyday CEQA practices and would benefit the entire State.

Air District:

- Maintain up-to-date CEQA HRA guidance and screening tools to improve HRA ease of use - they provide assistance in determining if there is a likely cumulative health risk impact due to existing and known stationary and mobile sources. The current HRA guidance, updated in 2022, can be found in Appendix E of Air District's CEQA guidelines. This appendix provides guidance for conducting individual projects and cumulative cancer risk and hazards analysis as part of their environmental review.
- To help local governments develop screening tools to help them determine when modeling is necessary and when it is not necessary or helpful to support CEQA determinations for permitting and land use decisions. The modeling analysis for HRAs can be time-consuming and needs to be reviewed. This requires analysis and justification to demonstrate that the measures, when applied, reduce the risks.

	<ul style="list-style-type: none"> Note: any HRA guidance Air District creates, or shares will be regional, and the stakeholders would be broader than the PTCA area.
Type of action	Regulatory
Lead action implementor	CARB
Related existing Program, Policy, or Initiative	<p>The Air District has published an environmental justice chapter in its 2022 California Environmental Quality Act, or CEQA, Air Quality Guidelines. This chapter provides context for how to apply CEQA analysis, including HRAs, with an environmental justice lens and is the first of its kind to be published in California. CEQA is a state law that generally requires government agencies to inform decision-makers and the public about the potential environmental impacts of residential, commercial, industrial, and other projects and to reduce those environmental impacts to the extent feasible. The environmental justice chapter in our 2022 CEQA Guidelines recognizes the policy imperative to help address long-standing and emerging inequities in the siting, design, and development of potential sources of pollution. Apart from mitigating the impacts of pollution, this guidance will promote meaningful participation of community members in all phases of the environmental and land use decision-making process.</p>
Partners in action implementation	<p>Local CEQA practitioners and land use lead agencies, local decision-makers, Air District, and community members.</p> <p>This is a technical project that must be performed by professionals. However, community stakeholders should be engaged in decision-making and be kept abreast of developments.</p>
Key stakeholders to engage in action implementation	Planning Directors, Planning Commissioners, City Councils, EIR Consultants, and Air District staff
Potential obstacles	<p>Obtaining complete and current emissions for all sources (proposed project, existing and future land uses) for use in HRAs is not always straightforward. Additionally, the findings from HRAs are not always easily understood by planners, developers, the public, and, importantly, decision-makers and elected officials. This is particularly challenging when the impact of a proposed project needs to be considered in light of existing air pollution burdens.</p> <p>Air District has guidance for CEQA lead agencies on how to conduct HRAs. (https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa-guidelines-2022/appendix-e-recommended-methods-for-screening-and-modeling-local-risks-and-hazards_final-pdf.pdf?la=en). Additional support may be needed on how lead agencies can better summarize and visualize findings with the appropriate context and caveats to inform decision-making.</p> <p>A spreadsheet tool(s) may not be easily created or supported even though it can be of high value.</p>
Action initiation timeframe	Near=<2 years
Action intervention point	N/A

Action impact timeframe	Unknown
Measure/metric of action implementation	Use by PTCA jurisdictions' Planning Departments and by Air District for all governments in their jurisdiction. See above - "Strategy Metric(s)"
Can any emission/exposure reduction be estimated	-

Vehicles and Trucks, Streets and Freeways, Logistics and Warehouses ("Mobile")

Mobile Strategies

1. Truck-Attracting Businesses
2. Prioritize Traffic Calming
3. Multi-Jurisdictional Truck Management Plan
4. Equitable Street Sweeping
5. Supporting Transition to Clean Fleets
6. Public Transit, Bike, and Pedestrian Infrastructure

Detailed Action Descriptions

Strategy 1 – Truck-Attracting Businesses – Actions

Action #	Mobile 1.1
Action name/brief description	<p>Model and Map Freight Activity: Model and map daily freight trip activity for commercial and industrialized businesses in the PTCA area.</p> <p>Businesses that attract and produce, via deliveries and shipments, many truck trips per day are known as "magnet sources" of air pollution. The strategy aims to model daily freight trip generation (FTG) for commercial and industrial businesses to inform land use and transportation planning to reduce emissions and exposure.</p> <p>The FTG estimates are computed from 2-digit NAICS codes and the number of employees per business. FTG model details are available online. Using FTG modeling, we can estimate daily trips per business and map trips by census tract, census block, land use zone, and industry sector. PTCA Plan FTG findings will help us develop data-driven transportation and land use management strategies that can reduce air pollution emissions and exposure from freight activity, especially for residents adjacent to industrial and commercial areas.</p>
Type of action	Further research
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Air District Local Government Support Program, WOCAP, East Oakland CERP in development, CARB's Advanced Clean Fleets Regulation, Richmond Parkway Transportation Plan

Partners in action implementation	City of Richmond, Contra Costa County, Caltrans
Key stakeholders to engage in action implementation	PTCA community members
Potential obstacles	None predicted
Action initiation timeframe	Near=<2 years
Action intervention point	Exposure
Action impact timeframe	Near=<2 years
Measure/metric of action implementation	Estimate of the emissions/exposure from existing freight
Can any emission/exposure reduction be estimated	Yes, later

Action #	Mobile 1.2
Action name/brief description	<p>Model Policy/Ordinance for Low to Zero Emission Operations: Develop and disseminate a model policy/ordinance for reviewing and approving truck-attracting businesses, incorporating all current best practices to achieve low to zero emission operations.¹⁰ See the Land Use Strategy for more information on potential policy directions.</p> <p>Air District:</p> <ul style="list-style-type: none"> Analyze existing best practices for limiting air quality impacts from truck-attracting businesses (e.g., Richmond Model Ordinance for Warehouses) Refer developers to Air District incentives staff. Work with the land-use agency and advocate for the land-use permit to include zero-emission trucks <p>Air District / Local Government:</p> <ul style="list-style-type: none"> Complete a pilot project and collect information with lessons learned Draft a model policy/ordinance incorporating all feasible best practices, in partnership with PTCA community local government Finalize, publish, and disseminate model ordinance
Type of action	Regulatory; Further research

¹⁰ Low/zero emission operations are defined to include both on and off-road mobile sources that can and should be electrified to achieve low/zero emissions at a facility. This can include trucks, delivery vehicles, construction vehicles, forklifts, and TRUs.

Lead action implementor	Air District (in coordination with CARB and local government)
Related existing Program, Policy, or Initiative	Richmond Model Ordinance for Warehouses, Contra Costa County General Plan Update, Fontana Ordinances, PTCA Plan Land Use Strategy, San Diego CERPs - Barrio Logan, Port of San Diego, Contra Costa County Electric Vehicle (EV) Readiness Blueprint https://ccta.net/projects/contra-costa-electric-vehicle-ev-readiness-blueprint/
Partners in action implementation	City of Richmond, City of San Pablo, Contra Costa County; North Richmond Municipal Advisory Council; CSC, community
Key stakeholders to engage in action implementation	Contra Costa County Department of Conservation and Development, North Richmond Municipal Advisory Council, CARB, CALGreen, US Green Building Council, California Business Properties Association, California Industry Association, California Building Standard Commission, Auto Manufacturers
Potential obstacles	Local jurisdictions may not support this approach because electrification requirements may be viewed as unfriendly to development; Air District resource constraints (e.g., staff time to develop model policy)
Action initiation timeframe	Near <2 years
Action intervention point	Emissions
Action impact timeframe	Near<2 years
Measure/metric of action implementation	Was a model policy/ordinance developed? (y/n) Was a model policy/ordinance adopted by a local jurisdiction? (y/n)
Can any emission/exposure reduction be estimated	-

Action #	Mobile 1.3
Action name/brief description	<p>Truck-attracting Businesses: In coordination with CARB, local, and regional agencies, review policies and assess opportunities to require and/or encourage truck-attracting businesses to incorporate zero emission operations. This would include electrifying loading docks, trucks, TRUs, and incorporating EV capable/ready infrastructure for all vehicle classes visiting the facility. See the Plan Land Use Strategy for more information on potential policy directions.</p> <p>Local government:</p> <ul style="list-style-type: none"> Review policies and assess opportunities to require businesses with delivery fleets and/or heavy-duty truck traffic to electrify loading docks and heavy-duty truck parking spaces. <ul style="list-style-type: none"> For example, by requiring EV electrical infrastructure at the permitting stage of new and/or upgrading of existing commercial buildings the transition to EV fleets

	<p>will be accelerated. The action intervention point will be when building permits are issued that require EV electrification infrastructure.</p> <ul style="list-style-type: none"> Identify opportunities to complement upcoming state requirements for electrification by requiring the electrification of infrastructure and/or fleets in advance of CARB regulations. <p>Air District:</p> <ul style="list-style-type: none"> Provide incentives and technical assistance for implementation
Type of action	Regulatory; Further research
Lead action implementor	Air District to coordinate with local jurisdictions.
Related existing Program, Policy, or Initiative	CARB's Advanced Clean Truck Regulation; Advanced Clean Fleets Regulation; CARB Funding for Municipal Green Zones, Air District Incentive Programs, Contra Costa County Warehouse Best Practices
Partners in action implementation	CARB, City of San Pablo, City of Richmond, Contra Costa County
Key stakeholders to engage in action implementation	Contra Costa County Department of Conservation and Development, North Richmond Municipal Advisory Council, Contra Costa County, City of Richmond, City of San Pablo, CARB, CALGreen, US Green Building Council, California Business Properties Association, California Industry Association, California Building Standard Commission, Auto Manufacturers
Potential obstacles	Local jurisdictions may elect to adopt current California Building Code regulations which may or may not require installation of sufficient ZEV electrification infrastructure; Air District will need to provide incentives and regulations to ensure there is adequate support for truck-attracting businesses to modernize their vehicles and facilities; Local politics may prevent adoption of policies and EV electrification requirements; development community may object to the costs of electrical upgrade building permits; developers may object to installing EV electrification infrastructure given that prospective tenants' needs are not yet determined, or existing tenants' needs may not require the level of improvements required by the jurisdiction; installation of EV electrification infrastructure may be a cost burden to developers and tenants, though local, state and federal programs may be available to provide grant funding for such activities; limitation of PG&E to quickly deploy resources to add load capacity where power will be needed
Action initiation timeframe	Near <2 years
Action intervention point	Emissions
Action impact timeframe	Near <2 years
Measure/metric of action implementation	Was a policy review completed and opportunities identified for stricter emission requirements? (y/n)
Can any emission/exposure	Yes, later. Emission reduction amounts will be based on several variables which limit predictability such as: future development of vacant land,

reduction be estimated	redevelopment of existing properties, upgrades/expansion of existing businesses, commercial availability of Class 8 ZEVs, and jurisdictional adoption of ZEV electrification infrastructure requirements.
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Action #	Mobile 1.4
Action name/brief description	<p>Magnet Source Rule: Air District will study feasibility and approach for a Bay Area Indirect Source (Magnet Source) Rule</p> <p>Air District:</p> <ul style="list-style-type: none"> Continue to track South Coast AQMD's Indirect Source Regulations and various local ordinances, looking for opportunities to develop Bay Area specific models and regulations <p>Cross-reference: This action is referenced in M&R Action 1.4</p>
Type of action	Regulatory; Further research
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	SCAQMD Indirect Source Regulations
Partners in action implementation	Community; CSC
Key stakeholders to engage in action implementation	Community; CSC; industry; SCAQMD; CARB, local jurisdictions
Potential obstacles	Lack of political support for a magnet source rule
Action initiation timeframe	Near <2 years
Action intervention point	Emissions
Action impact timeframe	Long >4 years
Measure/metric of action implementation	<p>Has Air District investigated the feasibility and approach for a Bay Area Indirect Source Rule? (yes/no)</p> <p>Has a Bay Area Indirect Source Rule been passed? (yes/no)</p>
Can any emission/exposure reduction be estimated	-

Strategy 2 – Prioritize Traffic Calming and Other Safety Improvements on Local Streets and Freeways - Actions

Action #	Mobile 2.1
Action name/brief description	Criteria for Traffic, Safety, and Air Quality Projects: Develop and propose criteria for safety improvements and air quality projects. Criteria would be used to identify traffic and/or safety-related projects with air quality co-benefits

	<ul style="list-style-type: none"> Air District develop criteria that could be used to evaluate air quality impacts associated with traffic, safety, and infrastructure projects, such as traffic emissions, air pollution, and location of sensitive receptors. Work with partners to propose criteria to prioritize projects with air quality co-benefits.
Type of action	Further research; Education/Outreach
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Air District Local Government Support Program, Richmond Local Road Safety Plan (LRSP), County Vision Zero Plan, Richmond Parkway Transportation Plan
Partners in action implementation	Local jurisdictional staff, CMA/County Transportation Authority, Contra Costa County Health Department, State, MTC, public works departments
Key stakeholders to engage in action implementation	Stakeholders who live, work, and play in the identified communities.
Potential obstacles	Data availability, limitations, and maintenance.
Action initiation timeframe	Mid=2-4 years
Action intervention point	emissions
Action impact timeframe	Long > 4 years
Measure/metric of action implementation	Have criteria linking safety improvements, inefficient transportation infrastructure, and air quality projects been developed? (Yes/No - provide details in narrative update)
Can any emission/exposure reduction be estimated	-

Action #	Mobile 2.2
Action name/brief description	Identify Areas at Intersection of Safety and Air Quality: Use data to identify areas with high air pollution exposure, unmaintained transportation infrastructure, and areas in need of increased road safety to prioritize traffic calming projects. This could include bike lanes and road diets.
Type of action	Further research
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Air District Local Government Support Program, Richmond Local Road Safety Plan (LRSP), County Vision Zero Plan, Richmond Parkway Transportation Plan
Partners in action implementation	Local jurisdictions, MTC, state, CMA/County Transportation Authority, Contra Costa County Health Department

Key stakeholders to engage in action implementation	Stakeholders who live, work, and play in the identified communities.
Potential obstacles	Data availability, limitations, and maintenance.
Action initiation timeframe	Mid=2-4 years
Action intervention point	emissions
Action impact timeframe	Long > 4 years
Measure/metric of action implementation	Was a project proposed and implemented using data to identify areas with high air pollution exposure, inefficient transportation infrastructure, and in need of increased road safety, to prioritize traffic calming projects?
Can any emission/exposure reduction be estimated	-

Action #	Mobile 2.3
Action name/brief description	<p>Funding: Seek public funding sources (e.g., state and federal grants) for road infrastructure improvements.</p> <p>Air District incentives staff will work with jurisdictions and CARB to create a list of incentive programs to assist with infrastructure programs that encourage EV readiness, traffic calming, pollutant reductions, and improved transportation infrastructure.</p>
Type of action	Incentives
Lead action implementor	CCTA
Related existing Program, Policy or Initiative	Air District incentive programs, CARB incentive programs, federal, state, and regional transportation funding programs (i.e., Regional Measure 3, Safe Routes to Transit, Caltrans Sustainable Communities Grant)
Partners in action implementation	Air District incentives staff, local jurisdictional staff, CMA/County Transportation Authority, Contra Costa County Health Department, state
Key stakeholders to engage in action implementation	Stakeholders who live, work, and play in the identified communities.
Potential obstacles	Data availability and ongoing data maintenance for updates
Action initiation timeframe	Mid=2-4 years
Action intervention point	emissions
Action impact timeframe	Long > 4 years

Measure/metric of action implementation	List of funding sources and proposed dollar amount identified for traffic improvements
Can any emission/exposure reduction be estimated	-

Action	Mobile 2.4
Action name/brief description	Best Management Plans for Construction Projects: Encourage transportation construction projects employ best management practices that reduce emissions, such as use of low to zero emission equipment and dust control measures.
Type of action	Education/Outreach; Enforcement
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Air District Local Government Support Program, Air District incentives, CARB incentives Air District Regulation 6 Rule 6 Prohibition of Trackout; Air District Fugitive Dust Efforts, including Fugitive Dust White Paper (Cross-reference C&I Strategy 2)
Partners in action implementation	Local jurisdictional staff, CMA/County Transportation Authority, Contra Costa County Health Department, State
Key stakeholders to engage in action implementation	Stakeholders who live, work, and play in the identified communities.
Potential obstacles	Data availability, limitations, and maintenance.
Action initiation timeframe	Mid=2-4 years
Action intervention point	emissions
Action impact timeframe	Long > 4 years
Measure/metric of action implementation	Have Air District Planning staff kept best management practices (BMPs) for construction current and disseminated to the public on a regular basis? (yes/no)
Can any emission/exposure reduction be estimated	Too speculative

Strategy 3 – Multi-Jurisdictional Truck Management Plan – Actions

Action # 1	Mobile 3.1
Action name/brief description	Initial Truck Management Plan (TMP) Assessment: Prepare an initial feasibility assessment and needs analysis for the TMP. This will include input from communities impacted by truck parking, truck movement and safety, truck signs and communication, current truck routes, and truck route enforcement. Air District: <ul style="list-style-type: none"> Research and determine scopes of studies like the West Oakland Truck Management Plan

	<ul style="list-style-type: none"> • Complete an assessment to determine feasibility of developing a TMP for the PTCA area • Develop a needs analysis to identify what problems the TMP should address <ul style="list-style-type: none"> ◦ engage community and prioritize public input to identify priorities • Determine next steps for potentially developing a TMP based on results of feasibility and needs assessment <ul style="list-style-type: none"> ◦ See Mobile 3.2
Type of action	Further research; Education/Outreach
Lead action implementor	WCCTAC, Air District, Contra Costa County
Related existing Program, Policy, or Initiative	West Oakland Truck Management Plan; Northern Alameda County Truck Access Management Plan; Seattle Freight Master Plan; 2021 LA County Goods Movement Strategic Plan ; Portland 2040 Freight Plan
Partners in action implementation	Local jurisdictions, neighborhood councils near truck-attracting businesses, business community, goods services, truck operators, delivery services, and any other industry impacted by truck routes, MTC, transportation advocates, WCCTAC, Caltrans, City of Richmond, City of San Pablo
Key stakeholders to engage in action implementation	Local jurisdictions, neighborhood councils near truck-attracting businesses, business community, goods services, truck operators, delivery services, and any other industry impacted by truck routes
Potential obstacles	Truck management plans are complex processes and will require significant resources from the local jurisdictions. Without political will, it will be difficult to start the process.
Action initiation timeframe	Near=<2 years
Action intervention point	Emissions
Action impact timeframe	Long > 4 years
Measure/metric of action implementation	Was an initial feasibility assessment commissioned for a TMP? <ul style="list-style-type: none"> • Yes - list findings. • No - discuss next steps
Can any emission/exposure reduction be estimated	-

Action # 2	Mobile 3.2
Action name/brief description	Create a Truck Management Plan: After completion of the initial assessment, create a robust, community-informed TMP, alongside WCCTAC, that considers: establishing new truck-prohibited streets and new truck routes across jurisdictions; assesses an off-hours deliveries program to reduce overall truck congestion; designates urban freight parking and time

	zones, and establishes clean last-mile delivery options; enhances citywide truck signage for wayfinding; and educates business owners and residents about the air quality and health benefits of routing and parking laws.
Type of action	Incentives; Further research; Education/Outreach; Regulatory; Enforcement
Lead action implementor	WCCTAC, Air District
Related existing Program, Policy, or Initiative	West Oakland Truck Management Plan ; Northern Alameda County Truck Access Management Plan; Seattle Freight Master Plan ; Oakland Zero Emissions Vehicle Action Plan ; 2021 LA County Goods Movement Strategic Plan ; Portland 2040 Freight Plan
Partners in action implementation	Local jurisdictions, neighborhood councils near truck-attracting businesses, business community, goods services, truck operators, delivery services, and any other industry impacted by truck routes, Caltrans
Key stakeholders to engage in action implementation	Local jurisdictions, neighborhood councils near truck-attracting businesses, business community, goods services, truck operators, delivery services, and any other industry impacted by truck routes
Potential obstacles	Truck management plans are complex processes and will require significant resources from the local jurisdictions. If there is no strong desire and political will, it may be tough to start a process. The hopeful convener of this project, WCCTAC, too, has a lot on their agenda, but there may be interest in taking this on in future years. Further, starting the process will be easier than completing and implementing. Buy-in and shared responsibility from several parties will be needed for the long-haul.
Action initiation timeframe	Long > 4 years
Action intervention point	Emissions
Action impact timeframe	Long > 4 years
Measure/metric of action implementation	Has a process for a TMP been created with WCCTAC? (yes/no) <ul style="list-style-type: none"> • Yes - discuss progress, next steps, and outcomes • No - discuss next steps
Can any emission/exposure reduction be estimated	Yes, later

Strategy 4 – Equitable Street Sweeping – Actions

Action #	Mobile 4.1
Action name/brief description	Street Sweeping Study. Work with local jurisdictions and Air District staff on a study to identify which PTCA areas would benefit most from street sweeping initiatives, while ensuring equitable outcomes for communities that have historically suffered from divestment.

	<p>Air District/ Local Government:</p> <ul style="list-style-type: none"> Based on the Plan technical assessment findings for road dust, community experience, and proximity to road dust sources, study and propose neighborhoods that will benefit from enhanced street sweeping. Estimate the expected reduction in road dust from enhanced street sweeping. As identified by the City of Oakland Progressive Parking Initiative, low income communities of color have suffered from disproportionate parking policing. Air District and local governments need to recognize this history and take into consideration the potential negative impacts from enhanced street sweeping programs. Consider ways that parking ticket fees, if part of the program, could be reinvested in the affected neighborhoods. Create a prioritized list of neighborhoods that would benefit from enhanced street sweeping.
Type of action	Further research; Education/Outreach
Lead action implementor	Air District, Contra Costa County
Related existing Program, Policy, or Initiative	City of Oakland Progressive Parking Initiative WOCAP Strategy #59 West Oakland Environmental Indicators Project (WOEIP) Supplemental Environmental Program (SEP) Grant funded study on Street Sweeping Effectiveness and Road Dust (study at conceptual stage in 2023)
Partners in action implementation	City of Richmond, City of San Pablo, Contra Costa County Transportation Authority, WCCTAC
Key stakeholders to engage in action implementation	Low-income, communities of color; transit-dependent communities of color; vehicle owners; parking and enforcing jurisdictions; staff; city council members of local jurisdictions
Potential obstacles	<p>Local jurisdictions responsible for street sweeping juggle competing interests and budget constraints. Before making recommendations to local jurisdictions on how to revamp street sweeping programs to better protect communities from excess road dust, Air District should collaborate with partners and stakeholders to create a white paper that addresses the following topics:</p> <ul style="list-style-type: none"> A summary of available monitoring data on the impact of road dust in the Plan communities and potential changes in exposure due to increased street sweeping The benefits and costs of increased street sweeping in Plan communities, including fiscal considerations and impacts of changes in parking fine collections, if any Which neighborhoods within the Plan are most likely to benefit from increased street sweeping How to encourage residents to frequently move their cars so that street sweeping can occur Discussion of negative unintended consequences, and ways to mitigate adverse impacts on vulnerable communities Uncertainties about the impact or emissions of road dust may remain after existing information and data is evaluated, which

	might make specific outcomes from various policy choices less clear
Action initiation timeframe	Near, <2 years
Action intervention point	Emissions, ambient concentration, exposure, dosage
Action impact timeframe	Mid=2-4 years
Measure/metric of action implementation	Have local jurisdictions and Air District completed a study or white paper on equitable street sweeping? <ul style="list-style-type: none"> • Yes - discuss progress, next steps, and outcomes • No - discuss next steps
Can any emission/exposure reduction be estimated	-

Action #	Mobile 4.2
Action name/brief description	<p>Implement Enhanced Street Sweeping. With support from the CSC and Air District, local governments implement enhanced street sweeping programs in the Plan neighborhoods that will benefit most.</p> <p>Air District and Local Government:</p> <ul style="list-style-type: none"> • Based on the outcomes of Mobile 4.1, identify and dedicate funds to neighborhood equitable street sweeping. • Develop an outreach campaign for neighborhoods selected for equitable street sweeping. • Air District and CSC to work with the governing body to adopt a model ordinance like the WOCAP Street Sweeping initiative, dedicate funds, and take other actions as needed to implement equitable street sweeping.
Type of action	Incentives; Enforcement; Further research; Education/Outreach
Lead action implementor	City of Richmond, City of San Pablo, Contra Costa County
Related existing Program, Policy, or Initiative	City of Oakland Progressive Parking Initiative WOCAP Street Sweeping Strategy, along with accompanying technical assessment
Partners in action implementation	City of Richmond, City of San Pablo, Contra Costa County Transportation Authority, Air District
Key stakeholders to engage in action implementation	Low-income, communities of color; Transit-dependent communities of color; Vehicle owners; Parking and enforcing jurisdictions and staff; Neighborhood councils; City council members of local jurisdictions; WCCTAC
Potential obstacles	To implement equitable street sweeping, local jurisdictions will need to identify and dedicate funds, conduct outreach to affected neighborhoods, update parking restriction signage, and be prepared for increased parking ticketing, public complaints, and other potential negative outcomes. Due to the history of over-policing in disadvantaged communities, government agencies must be especially sensitive to

	community concerns regarding additional parking enforcement that may be needed to implement more frequent street sweeping. A program to reinvest parking violation fees into the affected communities may help to gather community support. A robust marketing campaign that emphasizes the health benefits to community members may also help alleviate obstacles. Further, cars that are over-parked could prevent street sweeping, which would in turn prevent the removal of road dust in the community.
Action initiation timeframe	Long > 4 years
Action intervention point	Exposure, dosage, health effects
Action impact timeframe	Long > 4 years
Measure/metric of action implementation	Have equitable street sweeping programs been implemented? (yes/no)
Can any emission/exposure reduction be estimated	Yes, later

Action #	Mobile 4.3
Action name/brief description	<p>Street Sweeping Program Feedback. After implementing equitable street sweeping, convene a working group to evaluate successes, challenges, and opportunities.</p> <p>Air District and local governments to:</p> <ul style="list-style-type: none"> • Document results of equitable street sweeping, including community feedback, air quality improvements, or any negative outcomes. • Identify if any neighborhoods selected for equitable street sweeping are not benefiting, no longer need the additional service, or have rejected the additional service • Re-distribute resources as needed to address any changes in neighborhood prioritization for enhanced street sweeping program • Develop and implement an outreach campaign to neighborhoods selected for equitable street sweeping • Implement equitable street sweeping in any newly prioritized neighborhoods.
Type of action	Further research; Education/Outreach; Enforcement
Lead action implementor	Air District, City of Richmond, City of San Pablo, Contra Costa County Transportation Authority
Related existing Program, Policy, or Initiative	City of Oakland Progressive Parking Initiative

Partners in action implementation	City of Richmond, City of San Pablo, Contra Costa County Transportation Authority
Key stakeholders to engage in action implementation	Low-income, communities of color; Transit-dependent communities of color; Vehicle owners; Parking and enforcing jurisdictions and staff; City council members of local jurisdictions; WCCTAC
Potential obstacles	See Mobile 4.2 potential obstacles
Action initiation timeframe	Long > 4 years
Action intervention point	Ambient concentration, exposure, dosage
Action impact timeframe	Long > 4 years
Measure/metric of action implementation	If identified, has equitable street sweeping been implemented in any newly prioritized neighborhoods(yes/no)?
Can any emission/exposure reduction be estimated	-

Strategy 5 – Supporting Transition to Clean Fleets – Actions

Action #	Mobile 5.1
Action name/brief description	Clean Fleet Enforcement. Investigate how municipal governments can coordinate with CARB on clean fleet enforcement.
Type of action	Further research; Enforcement
Lead action implementor	CARB
Related existing Program, Policy, or Initiative	CARB regulations and enforcement
Partners in action implementation	Air District, local governments, heavy-duty truck owners and operators
Key stakeholders to engage in action implementation	Stakeholders who live, work, and play in the identified communities.
Potential obstacles	Limited resources for enforcement
Action initiation timeframe	Short <2 years
Action intervention point	Emissions
Action impact timeframe	Long > 4 years

Measure/metric of action implementation	CARB enforcement reporting
Can any emission/exposure reduction be estimated	-

Action #	Mobile 5.2
Action name/brief description	<p>Heavy-Duty Vehicle Support. Support heavy-duty vehicle transition to cleaner fleets through incentives, education, and outreach. Includes school buses.</p> <p>The Air District offers financial incentives to replace medium and heavy-duty on-road trucks, school buses, TRUs, and other off-road mobile equipment to the cleanest available technology, and to support alternative fueling infrastructure, including green hydrogen, and battery-charging.</p>
Type of action	Incentives; Education/Outreach
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Air District and CARB incentive programs; California Energy Commission (CEC) and California Transportation Commission (CTC) incentive programs; Federal funding via Environmental Protection Agency (EPA); Dept. of Transportation (DOT); Inflation Reduction Act Programs
Partners in action implementation	School districts, heavy-duty vehicle owners and operators, business and landowners and operators
Key stakeholders to engage in action implementation	Stakeholders who live, work, and play in the identified communities.
Potential obstacles	limited incentive resources, potential grantees' ability to provide matching funds for incentives
Action initiation timeframe	2 – 5 years
Action intervention point	Emissions
Action impact timeframe	2-10 years
Measure/metric of action implementation	Incentive funds awarded and emission reduction estimates
Can any emission/exposure reduction be estimated	Yes, later based on projects funded

Action #	Mobile 5.3
Action name/brief description	<p>Light-Duty Vehicle Support. Support light-duty vehicle transition to cleaner fleets through incentives, education, and outreach</p> <p>As time and resources are available, support plans that allow transition of public and private light-duty fleets to ZEVs.</p> <p>Pending CARB approval in 2024, an incentive program managed by the Air District will pay Bay Area residents \$1,200 to turn in their operable, registered 1998 or older vehicle for scrapping. Consider evaluating options to modify the program to attract more participants.</p> <p>In addition, the Clean Cars for All Program through Air District replaces 2005 and older vehicles.</p>
Type of action	Incentives; Education/Outreach
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	Air District and CARB incentive programs
Partners in action implementation	Light-duty vehicle owners and operators
Key stakeholders to engage in action implementation	Stakeholders who live, work, and play in the identified communities.
Potential obstacles	Limited incentive resources, potential grantees' ability access incentives that require them to contribute to the purchase price of new ZEVs
Action initiation timeframe	Near=<2 years
Action intervention point	Emissions
Action impact timeframe	Long > 4 years
Measure/metric of action implementation	Incentive funds awarded and emission reduction estimates
Can any emission/exposure reduction be estimated	Yes

Strategy 6 – Public Transit, Bike, and Pedestrian Infrastructure – Actions

Action #	Mobile 6.1
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Action name/brief description	<p>Zero Emission Bus Fleets by 2040. Complete transition to all-electric hybrid and/or hydrogen bus fleet on all routes within the PTCA area by 2040.</p> <p>Requirement for clean buses in the Plan.</p> <p>All transit agencies (WestCAT, AC Transit, Golden Gate Transit, Vine, SolTrans) deploy the cleanest available bus technology (hydrogen, electric, hybrid) on routes that travel through the Study Area where not already available. ZEV School Buses are a priority too.</p> <p>Air District could modify programs in support of this action.</p>
Type of action	Incentives
Lead action implementor	AC Transit, WestCAT, Vine, Sol Trans, Golden Gate Transit
Related existing Program, Policy, or Initiative	<p>There are local examples of electrifying and greening buses across the state. This also aligns with goals to deploy cleaner school buses and phase out diesel. A requirement to run clean buses on specific routes is likely a new intervention.</p> <p>AC Transit Commits to All-Zero Emission Bus Fleet by 2040 https://www.actransit.org/zeb</p> <p>ZEB Rollout Plan AC Transit (updated) https://www.actransit.org/sites/default/files/2022-06/0162-22%20ZEB%20Transition%20Plan_052022_FNL.pdf</p> <p>SFMTA Commits to All-Electric Bus Fleet by 2035 https://www.sfmta.com/projects/battery-electric-bus-program</p> <p>Dept of Energy Electric School Bus Program https://www.energy.ca.gov/programs-and-topics/programs/school-bus-replacement-program</p> <p>Caltrans Sustainable Communities Grant https://dot.ca.gov/programs/transportation-planning/division-of-transportation-planning/regional-and-community-planning/sustainable-transportation-planning-grants</p> <p>TFCA County Program Manager Funds https://www.baaqmd.gov/?sc_itemid=67E238F0-8D56-4194-AB38-9DC6DC7B73DD</p> <p>CARB Clean Mobility Funding Program Grants CARB Clean Mobility Funding Opportunities - Institute for Local Government (ca-ilg.org)</p> <p>Innovative Clean Transit (ICT) Regulation https://ww2.arb.ca.gov/our-work/programs/innovative-clean-transit</p> <p>AC Transit Receives \$25.5 million Low-No Grant from Federal Transportation Administration (FTA) AC TRANSIT RECEIVES COVETED 2023 BUS AND LOW-AND NO-EMISSION GRANT AWARD Alameda-Contra Costa Transit District</p>

	Zero-Emission Bus Implementation Guidebook for California Transit Agencies https://doi.org/10.7922/G2TD9VPM
Partners in action implementation	Air District, Contra Costa Transportation Authority, Alameda County Transportation Commission,
Key stakeholders to engage in action implementation	<p>Stakeholders to be engaged in the implementation of the action should include those that are most burdened, most likely to benefit, and who may be subject to unintended consequences</p> <p>People who are transit dependent, people who live on or close to existing routes that are serviced with older, polluting buses.</p>
Potential obstacles	<p>Transit agency funding - As identified in another action, several agencies are facing extreme financial burdens due to slow ridership recovery and depleting pandemic relief funding. A combination of short-term state investment and a long term, more sustainable, funding mechanism will be essential to implementing this action.</p> <p>Lack of enforcement/oversight - Unclear if Air District, CARB, or another jurisdiction will have adequate resources and even the authority to regulate agencies that do not implement and continue to deploy buses that run less clean technology. Thankfully, more transit agencies now have equity goals that are aligning with cleaner bus fleets.</p>
Action initiation timeframe	2-4 years
Action intervention point	Emissions
Action impact timeframe	Long > 5 years
Measure/metric of action implementation	# of new clean buses deployed in PTCA area
Can any emission/exposure reduction be estimated	-

Action #	Mobile 6.2
Action name/brief description	<p>Bike and Scooter Share Stations. Advocate for affordable bike and scooter-share stations in the most impacted communities within the PTCA area.</p> <p>Comprehensive and Equitable Micro-mobility</p> <ul style="list-style-type: none"> - Advocate for bike and scooter share systems that serve the most impacted areas of the PTCA area and enhance access to essential services and opportunities.
Type of action	Education/Outreach

Lead action implementor	City of Richmond
Related existing Program, Policy, or Initiative	Mobility Hubs at Affordable Housing Sites Pilot (MTC) Clean Mobility Options Voucher Program (CARB/CEC) Transformative Climate Communities (SGC)
Partners in action implementation	The bike and scooter share operators
Key stakeholders to engage in action implementation	Rich City Rides, Moving Forward, TransForm, Bike East Bay, CalBike, Richmond Community Foundation, Marin Community Energy, Bike shops and manufacturers, schools
Potential obstacles	<p>The big challenge seems to involve a lack of capacity from the city of Richmond to operate a municipal bike share service. After Gotcha/BOLT bikes stopped providing services, there has been a discussion of bringing this work under the guidance of the City, but it is unclear where this conversation stands. Once the City identifies a path forward for this, they should engage other stakeholders to co-create a system that centers equitable outcomes and reaches people who suffer the worst exposure from vehicle emissions.</p> <p>The other challenge involves scooters. While the whole Plan would benefit greatly from a dockless, shared scooter system, the jurisdictions do not seem to prioritize working with scooter companies to bring real first/last mile solutions to their constituents. In San Pablo, for instance, transit lines are pretty diffuse, leaving scooters even more sparse and vulnerable along commercial corridors than other vehicle types.</p>
Action initiation timeframe	Near<2 years
Action intervention point	Emissions
Action impact timeframe	Mid=2-4 years
Measure/metric of action implementation	List of most impacted areas in Plan communities, and # of new bike and scooter-share stations added, if applicable
Can any emission/exposure reduction be estimated	-

Action #	Mobile 6.3
Action name/brief description	Expanding Micro-Transit. Expand micro-transit ¹¹ and advocate for a permanent program building on the existing Richmond Moves initiative .
Type of action	Incentives; Other: Advocacy

¹¹ Microtransit is a form of on-demand transportation that utilizes minibus vehicles on highly flexible schedules and routes

Lead action implementor	City of Richmond
Related existing Program, Policy, or Initiative	Los Angeles Metro Micro
Partners in action implementation	Richmond Moves (VIA) , California Climate Investments (CARB/California Energy Commission)
Key stakeholders to engage in action implementation	East Bay Transit Riders Union, Groups representing seniors, people living with disabilities
Potential obstacles	Further research is needed, but funding from the state and other sources may pose difficulties to expanding operations. Low ridership that may undermine the viability of the service, need to be overcome with better community outreach and showcasing the benefits of shared first/last mile solutions to a broader set of residents.
Action initiation timeframe	Near=<2 years
Action intervention point	Emissions
Action impact timeframe	Long > 4 years
Measure/metric of action implementation	Has a permanent micro-transit program been expanded in the PTCA area? <ul style="list-style-type: none"> • Yes - name of program and description • No - next steps for advocacy
Can any emission/exposure reduction be estimated	-

Action #	Mobile 6.4
Action name/brief description	Funding Transit Operations. Advocate for additional state funding for public transit operations
Type of action	Incentives; Further research
Lead action implementor	Governor's Office
Related existing Program, Policy, or Initiative	
Partners in action implementation	Survive and Thrive Coalition , Bay Area Legislative Caucus, Budget Committee Chairs
Key stakeholders to engage in action implementation	MTC, All local transit agencies, California Transit Association

Potential obstacles	Additional funding may not be available in a timely manner for new and/or improved public transit operations. Further, low ridership trends may further exacerbate the gap for transit funding
Action initiation timeframe	Near=<2 years
Action intervention point	Emissions
Action impact timeframe	Long > 4 years
Measure/metric of action implementation	List of funding sources and approximate dollar amount available for public transit operations
Can any emission/exposure reduction be estimated	-

Compliance and Enforcement (C&E)

C&E Strategy - Detailed Action Descriptions

Strategy 1 Actions

Action #	C&E 1.1
Action name/brief description	<p>Develop an outreach campaign to promote the Air District Air Quality Complaint Program and pilot an enforcement tip hotline for industry workers.</p> <p>Air District will develop an education and outreach campaign to inform the PTCA community about the Air District Complaints System. The campaign will target the PTCA area, and focus on:</p> <ul style="list-style-type: none"> • How it works: Air District protocols for responding to complaints, how quickly a response will be initiated, how the Air District responds, and what happens after hours • How to use: submitting complaints, types of complaints the Air District wants to hear about (e.g., odors, fugitive dust). • Why to use: the value of submitting complaints and the importance of reporting to identify air quality concerns of the community. Emphasize that <ul style="list-style-type: none"> • It is important to report complaints, as it can help protect the health of families and the community • Complaints are taken seriously by the Air District and are always followed up on • Complaints create an opportunity to exchange information between the public and the Air District • Air District will get feedback on the campaign from <ul style="list-style-type: none"> • CSC Community Engagement Subcommittee • Appropriate Air District staff: Community Engagement Office, Webteam, Communications Office, and Compliance and Enforcement Division

	<ul style="list-style-type: none"> • Mechanisms for increasing awareness may include <ul style="list-style-type: none"> • distribution of existing educational materials • flyers • social media messages • elements developed via the Website strategy • billboards <p>Additionally, Air District and CSC will evaluate community-identified improvements to the current Complaint System, including but not limited to:</p> <ul style="list-style-type: none"> • Issues identified via the implementation of the education and outreach campaign • Increased language accessibility for the website and phone systems <ul style="list-style-type: none"> ◦ Evaluate (with Air District webteam and dispatch) a process for receiving written complaints in different languages and getting them translated from and to other languages. <p>Finally, the Compliance and Enforcement Division will explore creating an enforcement tip hotline for workers at regulated businesses and industries to anonymously report unlawful or concerning activities.</p> <ul style="list-style-type: none"> • Air District work with CSC to develop a pilot <ul style="list-style-type: none"> ◦ Determine specific needs for collecting tips from workers ◦ Create a plan to effectively promote the tip hotline to workers in industries with high levels of non-compliance or health and safety risk. ◦ Assess success and utility of pilot program and determine whether it should be made permanent
Type of action	Education/Outreach
Lead action implementor	<p>Air District's Community Engagement, Communications, Web Team and Compliance and Enforcement Divisions will lead development of outreach materials and evaluation of community members feedback on the complaint system.</p> <p>The CSC will be responsible for outreach to the community.</p>
Related existing Program, Policy, or Initiative	Air District Complaints Program; existing Air District educational materials (e.g., YouTube instructional videos on the complaints system ^{12, 13})
Partners in action implementation	The CSC may want to consult with other local organizations and Bay Area EJ advocates to get feedback on the complaint system process.
Key stakeholders to engage in action implementation	-
Potential obstacles	With respect to education and outreach, it is important for C&E staff to be well trained so there is effective communication. This can help avoid potential frustration during the complaint response process. Making sure complainants fill out complete and detailed reports, and that there are clear expectations on what the follow up will look like are critical.

¹² <https://www.youtube.com/watch?v=QCzvEASObY&list=PLk3WcTniWgg2XNDUSYKZ-LEODWYRo5cEI>

¹³ https://www.youtube.com/watch?v=Q0GsCUK_29o&list=PLk3WcTniWgg2XNDUSYKZ-LEODWYRo5cEI&index=2

	As mentioned in the feasibility criteria, the proliferation of new complaints could put a strain on C&E field staff, which are already spread thin. There may be limits to what changes can be made to the complaint system because of budget and other resource constraints, as well as technical limitations of how the system works.
Action initiation timeframe	Near=<2 years
Action intervention point	-
Action impact timeframe	Near=<2 years
Measure/metric of action implementation	Number of flyers distributed, (or billboards, social media posts, etc.). Number of complaint system enhancements implemented.
Can any emission/exposure reduction be estimated	-

Action #	C&E 1.2
Action name/brief description	<p>The Air District will conduct targeted investigations of facilities of community concern</p> <p>The Air District will work with the CSC to establish a process to identify and list facilities of community concern. The list will be informed by:</p> <ul style="list-style-type: none"> • facility inspections • complaint systems • reports of unpermitted facilities • Community Air Pollution and Asset Mapping Project • Community Air Monitoring Project results • the facilities included in C&I Strategy 4: Large Industrial Facilities • information collected from the public by the CSC <p>The timeline will be discussed in the implementation process, as part of prioritization. Fuel refining facilities added to this list may have more specific actions to account for as well (Cross-reference: Fuel Refining Action 3.2)</p> <p>Resolve the issues at facilities on the community concern list by:</p> <ul style="list-style-type: none"> • Conducting targeted investigations • Developing additional targeted strategies <p>Air District and CSC will evaluate and update the "facilities of community concern list" annually</p>
Type of action	Enforcement
Lead action implementor	Air District (including Air District Compliance and Enforcement Division)
Related existing Program, Policy, or Initiative	N/A

Partners in action implementation	CSC
Key stakeholders to engage in action implementation	N/A
Potential obstacles	As mentioned in the Resource PTCA Plan Implementation strategy, this could put a strain on C&E field staff. This is in part because each facility and issue are different and the solutions to bringing facilities into compliance would need some tailoring, to develop the most direct pathway to resolving the root causes of the problems at these facilities
Action initiation timeframe	Near=<2 years
Action intervention point	-
Action impact timeframe	Mid=2-4 years
Measure/metric of action implementation	Number of inspection hours dedicated to "facilities of community concern list."
Can any emission/exposure reduction be estimated	-

Action #	C&E 1.3
Action name/brief description	<p>Update CSC regularly, with respect to compliance status of facilities identified as a result of community concerns or those with issues that impact health, safety, and quality of life.</p> <p>The Air District will provide a community-friendly update on Compliance and Enforcement activities in the PTCA area as part of required annual Plan reporting. This will include:</p> <ul style="list-style-type: none"> • A written report with <ul style="list-style-type: none"> ○ Data on Notices of Violation ○ YTD Complaints ○ Information on repeat patterns of non-compliance ○ Fuel refining sector data (as outlined in FR 3.4) ○ Data specific to facilities from the community concerns list (see C&E Action 1.2 and C&I Strategy 4: Large Industrial Facilities) • An in-person presentation to the CSC with <ul style="list-style-type: none"> ○ Progress updates on the "facilities of community concern list", including for facilities identified in C&I Strategy 4 Large Industrial Sources ○ Opportunities for the CSC to evaluate and update the list ○ Discussion of updating Plan strategy actions as needed <p>The Air District will promote the searchable tool on its website that provides data on Notices of Violation (e.g., an NOV query tool) and present it to the CSC Communication Subcommittee for feedback. This tool can be used to:</p>

	<ul style="list-style-type: none"> Analyze current compliance and enforcement data from permitted facilities Cross-reference: FR 3.4
Type of action	Enforcement
Lead action implementor	Air District's Compliance and Enforcement Division and Community Engagement Office
Related existing Program, Policy, or Initiative	NOV Web Tool: https://www.baaqmd.gov/rules-and-compliance/compliance-assistance/notices-of-violations/novs-issued
Partners in action implementation	CSC
Key stakeholders to engage in action implementation	-
Potential obstacles	Resources will have an impact on timeline
Action initiation timeframe	Near=<2 years
Action intervention point	-
Action impact timeframe	Mid=2-4 years
Measure/metric of action implementation	Was a written report produced (y/n) Was an in-person presentation given (y/n)
Can any emission/exposure reduction be estimated	-

Land Use (LU)

Land Use Strategy – Detailed Action Descriptions

Strategy 1 Actions

Action #	LU 1.1
Action name/brief description	<p>Support Envision CCC 2040 and Other General Plan and Zoning Updates when they align with the PTCA CERP and Promote Best Practices</p> <p>This action asks that the CSC and Air District track the writing and implementation of plans from local governments - the City of Richmond, the City of San Pablo, and Contra Costa County - that affect the PTCA community. Ensure that plans in these jurisdictions reflect and further the goals and values of the PTCA Plan whenever possible.</p> <p>Air District and/or CSC: Support the Envision Contra Costa County (Envision CCC) 2040 Plan, including any specific elements, goals, policies, and actions, as they align with the PTCA Plan. In addition, support additional efforts for General Plan Designation changes and zoning efforts, as they align with the PTCA Plan. Specifically, support the implementation of:</p>

- The conversion of the majority of land designated as Heavy-Industrial to Light-Industrial in North Richmond;
- The North Richmond Planned Unit District (P-1) zoning amendment (to update the original P-1 approved decades ago);
- The Goals, Policies, and Actions in the [Health and Safety Element](#) in Envision CCC 2040, including, but not limited to:
 - Goal HS-1: Air quality that supports community and environmental health,
 - Goal HS-2: Healthy air quality for all communities so no community bears the disproportionate burden of environmental hazards and health risks, and
 - Goal HS-3: Communities that reduce existing and anticipated greenhouse gas (GHG) emissions
 - Policy HS-P1.7: Require new or expanded commercial and industrial projects exceeding 75,000 square feet of gross floor area, such as big-box stores, warehouses, distribution centers, and similar uses, to be near-zero-emissions operations, including the facilities themselves and the associated fleets. Require all necessary measures, as listed in this Element, to achieve near-zero emissions.
- The Goals, Policies, and Actions in the [Stronger Communities Element](#) in Envision CCC 2040, including, but not limited to:
 - Goal SC-1: Equitable distribution of social and economic resources among all communities in the County so that Impacted Communities are not disproportionately burdened by environmental pollution or other hazards,
 - Goal SC-2: Safe, welcoming neighborhoods that support physical activity and a healthy environment for all residents,
 - Goal SC-3: Convenient access to comprehensive, co-located health services so all residents can find the physical and behavioral health care services they need,
 - Goal SC-4: Support and expand small-scale food production and urban agriculture in the County's urban areas, including growing, processing, and distributing fresh food,
 - Goal SC-5: Convenient access to fresh, healthy, and affordable food in Impacted Communities.

Large warehouses and logistics centers generate numerous truck trips (and therefore emissions), impacting neighboring residents. These businesses are considered an "indirect" or "magnet" source of air pollution because the truck going to and from the business produces the pollution, not the business itself. Air District has limited authority to regulate these indirect sources. In some cases, moratoriums may be necessary in order to pause development and investigate strategies to reduce the impact on local communities. Strategies include designing or redesigning truck routes, restricting the size of warehouses, or rezoning some neighborhoods. In North Richmond, there are many large warehouses near residential areas with primarily BIPOC and low-income residents. Air District and CSC should support the continued implementation of best practices from Contra Costa County, both within the County, and also promote the adoption of best practices in the Cities of Richmond and San Pablo. Specifically:

	<ul style="list-style-type: none"> • Where appropriate, consider moratoriums on large warehouses in areas where people live, work, and play. Consider transition timelines for zero-emission technology when implementing a moratorium; • Support and track Contra Costa County's temporary moratorium on warehouses in North Richmond, Ordinance No. 2021-43. <p>Contra Costa County, City of Richmond, City of San Pablo: These jurisdictions should ensure that any updated or new plans, especially those with State required updates such as general plans, should align with the goals and strategies in the PTCA Plan and create land use patterns that promote transit-oriented and health-promoting development, and that locate communities land uses away from emission and sources of pollution exposure away from existing community land uses.</p> <p>Best practices could include adopting the transit-oriented communities policy that MTC passed in 2022. This maximizes opportunities for funding through One Bay Area Grant 3 (OBAG).¹⁴</p> <p>Plans could include but are not limited to:</p> <ul style="list-style-type: none"> • Contra Costa County: Specific Plans: https://www.contracosta.ca.gov/4747/Specific-Plans • City of San Pablo: General Plan 2030: https://www.sanpabloca.gov/867/General-Plan-2030 • City of San Pablo: Climate Action Plan 2012: https://www.sanpabloca.gov/DocumentCenter/View/2438/San-Pablo---Climate-Action-Plan_final?bidId= • City of San Pablo: Bicycle and Pedestrian Master Plan: https://www.sanpabloca.gov/1491/Bicycle-and-Pedestrian-Master-Plan • City of Richmond: General Plan: https://www.ci.richmond.ca.us/2608/General-Plan-2030 • San Pablo's Housing Element: https://www.sanpabloca.gov/DocumentCenter/View/4936/Complete-San-Pablo-Adopted-HE_4_6_15?bidId= • Richmond's Housing Element: https://www.ci.richmond.ca.us/DocumentCenter/View/65522/Revised-Adopted-HEU_May2023?bidId= • Contra Costa County Housing Element: https://www.contracosta.ca.gov/DocumentCenter/View/30916/Chapter-6-Housing-Element?bidId= <p>This action relates to Mobile Action #1.2 and #1.4 to develop and disseminate a model policy/ordinance for reviewing and approving truck-attracting businesses, incorporating all current best practices to achieve low to zero-emission operations.</p>
Type of action	Regulatory; Other: Advocacy
Lead action implementor	CSC, Air District, Contra Costa County, City of Richmond, City of San Pablo

¹⁴ <https://mtc.ca.gov/funding/federal-funding/federal-highway-administration-grants/one-bay-area-grant-obag-3>

Related existing Program, Policy, or Initiative	<p>Envision Contra Costa County 2040: https://envisioncontracosta2040.org/</p> <p>San Pablo General Plan Section 7.6 Air Quality and Climate Change https://www.sanpabloca.gov/867/General-Plan-2030</p> <p>Richmond General Plan: Ch. 8 Energy and Climate Change Element, Ch. 11 Community Health & Wellness https://www.ci.richmond.ca.us/2608/General-Plan-2030</p>
Partners in action implementation	Community members, Community Based Organizations (CBOs)
Key stakeholders to engage in action implementation	Community members within these jurisdictions that are impacted by land use patterns and/or zoning that locates communities near sources of pollution, and thus are the most burdened by these sources. Include community groups that specialize in engaging the community members and lead efforts towards developing healthier communities.
Potential obstacles	There could be pushback within the jurisdictions, due to lack of capacity and/or competing priorities, for example, if there is not a strong champion identified and/or if there is opposition from industry regarding land use changes.
Action initiation timeframe	Depends on each jurisdiction (cities & county may differ) Near=<2 years; Mid=2-4 years; Long > 4 years
Action intervention point	Exposure
Action impact timeframe	Long > 4 years
Measure/metric of action implementation	See above - "Strategy Metric(s)"
Can any emission/exposure reduction be estimated	No

Action #	LU 1.2
Action name/brief description	<p>Community-Informed Amortization</p> <p>Develop a community-informed amortization approach and explore the use of zoning authority and incentives to relocate legal nonconforming polluting businesses away from residential areas in the PTCA area.</p> <p><i>Amortization</i>, in this context, is a process by which public agencies use their zoning authority to enforce existing land use policies with respect to non-conforming uses. When new zoning or land use regulation is adopted, existing uses (businesses) may no longer comply, making them "non-conforming." Polluting or nuisance non-conforming uses can be required to conform to the current zoning regulations and requirements (or move operations) by the end of a certain period of time. This period is called an amortization period and is typically based on the useful life of the building, or the investment made in the non-conforming use. In some cases, such as ours in this CERP, amortization is done to protect public health.</p>

	<p>Before amortizing, agencies can offer incentives, such as small business loans and subsidies, to encourage polluting land uses to reduce pollution impacts or move away from residentially zoned areas. Discussions around updating business practices to use cleaner technology, such as “best available control technology,” should also be explored. Types of businesses that can be considered for amortization include truck-attracting businesses, logistics centers and warehouses, truck and auto repair services, fuel refining facilities, and heavy manufacturing, among others.</p> <p>Many businesses in the CERP Community might be ideal candidates for removal based on their health impact but still conform with current land use. The effort can begin by focusing on existing non-conforming businesses established illegally - businesses that never received the necessary permits. It is much easier to get these illegal uses out. Then, legal non-conforming businesses can be addressed. These businesses received permits when zoning allowed such, but regulations have since changed.</p> <p>It is recommended that Air District assist with a study to identify which types of greener, non-polluting businesses can replace amortized ones. This type of study could hopefully estimate job loss (from amortized businesses) and job replacement (from incoming greener businesses) by industry type.</p> <p>Precedence:</p> <ol style="list-style-type: none"> 1. The WOCAP has amortization-like strategies (#4 - #6) on pages 6-21 that ask the City of Oakland and the Port of Oakland “to amend existing ordinances, resolutions, or administrative policies to accelerate the relocation of truck yards and truck repair, service, and fueling businesses in the PTCA area boundaries that do not conform with the current zoning designations. In addition, the City will seek to utilize incentives and subsidies to relocate businesses that do not conform with the zoning designations.”¹⁵ 2. In 2006 National City in California adopted an amortization ordinance (see additional factsheet). Two properties have so far been amortized through National City’s amortization program. 3. The Barrio Logan San Diego CERP includes an action (Action F1) on page 177 that states: “support for Westside Specific Plan (WSP) amortization strategy” and “National City to pursue the implementation of the amortization plan.” 4. Air District guidance document on “Non-Conforming Polluting-Use Transition Incentives” that summarizes the West Oakland strategies and the National City Example.
Type of action	Regulatory
Lead action implementor	City of Richmond, City of San Pablo, County of Contra Costa.
Related existing Program, Policy, or Initiative	The City of Richmond added Article 15.04.615 to the Richmond Municipal Code to reduce the release of pollutants into the environment from coal and petroleum coke storage and handling and reduce associated impacts to public health, safety, and welfare. This article phases out existing allowed land uses for these facilities by providing an amortization period to transition

¹⁵[https://www.baaqmd.gov/~media/files/ab617-community-health/west-oakland/100219-files/final-plan-vol-1-100219-pdf.pdf?la=en](https://www.baaqmd.gov/~/media/files/ab617-community-health/west-oakland/100219-files/final-plan-vol-1-100219-pdf.pdf?la=en)

	<p>to other lawful uses and materials and protect public health while also allowing businesses time to transition. The City of Richmond could further protect public health and the community by incentivizing additional polluting industries to relocate and using a similar amortization approach. To support these efforts, Air District can help provide guidance on where such industries should relocate to, so such uses do not simply move to other overburdened or impacted communities.</p> <p>Amortization is mentioned in the Contra Costa County and City of San Pablo codes, although not in reference to reducing exposure to air pollution. In Chapter 540-2 of the Contra Costa County Code on Mobile Home Space Rent, rent increases are amortized over the useful life of any rehabilitation or capital improvements. In a recent ordinance found in Section 17.62.300 of the San Pablo Code of Ordinances, there is an amortization schedule for transitioning nonconforming wireless facilities into compliance with the regulations outlined in the code. This ordinance can be used as a model but does not apply to all other polluting businesses.</p>
Partners in action implementation	Bay Area Air Quality Management District
Key stakeholders to engage in action implementation	Engage community members in areas adjacent to heavy industry and sources emitting high levels of emissions and the business community.
Potential obstacles	<p>While Amortization is intended to provide property owners with a reasonable amount of time to recover their investment in businesses that are non-conforming uses, business/property owners are not offered financial compensation. Therefore, businesses identified to be amortized may argue against and legally contest amortization, even though amortization is legally defensible under California State Law. Additionally, amortized businesses may employ community members in the PTCA area. Job impacts need to be considered. An investigation into which types of greener, non-polluting businesses can replace amortized ones in the CERP Community is recommended. This type of study could hopefully estimate job loss (from amortized businesses) and job replacement (from incoming greener businesses) by industry type.</p> <p>To preempt issues with amortization policies, two actions can be taken:</p> <ol style="list-style-type: none"> 1. Study the potential unintended consequences of amortization and identify relocation incentives for polluting industries. 2. Create a workgroup composed of relevant stakeholders, including adjacent residents (if applicable), to develop the criteria for amortization.
Action initiation timeframe	Depends on each jurisdiction (cities & county may differ) Near=<2 years; Mid=2-4 years; Long > 4 years
Action intervention point	Exposure
Action impact timeframe	Depends on each jurisdiction (cities & county may differ) Near=<2 years; Mid=2-4 years; Long > 4 years
Measure/metric of action implementation	See above - "Strategy Metric(s)"
Can any emission/exposure	-

reduction be estimated	
Action #	LU 1.3
Action name/brief description	<p>Overlay Zones</p> <p>Zoning overlays, also called overlay districts, can improve health outcomes and further environmental justice by preventing concentrations of polluting or harmful facilities and activities near historically disadvantaged communities and sensitive receptors. An overlay zone provides an additional layer of standards or requirements for all areas within the defined overlay boundary, regardless of the underlying base zoning district. For example, an industrial base zone called I-3 might also have a pollution overlay zone with requirements to protect sensitive receptors or a certain population. In this example, the base zone might allow the development of a warehouse according to the I-3 standards; however, the pollution overlay zone could prevent new development without first complying with specific site development standards that would mitigate pollution impacts (see the following action for more information on development standards).</p> <p>The American Planning Association's Equity in Zoning Policy Guide states that "A key element of pursuing environmental justice is balancing strategies that prevent hazards from being created with those that mitigate the impacts of pollution or hazards already existing. An overlay zone can accomplish both by severely restricting the expansion of existing harmful industrial uses, requiring larger setbacks and more intensive buffers from residential uses, requiring environmental remediation, protection of existing trees, and/or requiring sound walls during redevelopment. These types of zoning districts should be developed in close collaboration with the surrounding communities so that concerns about health, the environment, and employment reflect the values of the community." https://planning.org/publications/document/9264386/ .</p> <p>Air District suggests local governments create overlay zones to reduce and/or limit cumulative air pollution impacts. See below for examples of overlay zones policy templates.¹⁶</p> <ol style="list-style-type: none"> 1. Example Air Pollution Exposure Zone (APEZ) Policy to buffer freeway right-of-ways or high-trafficked corridors: https://www.baaqmd.gov/~media/files/planning-and-research/sb-1000/policy-initiatives/policy-1-stripped-pdf.pdf?la=en 2. Example Industrial-Residential Interface Zones (IRIZ): https://www.baaqmd.gov/~media/files/planning-and-research/sb-1000/policy-initiatives/policy-2-stripped-pdf.pdf?la=en
Type of action	Regulatory
Lead action implementor	City of Richmond, City of San Pablo, County of Contra Costa

¹⁶<https://www.baaqmd.gov/plans-and-climate/planning-for-environmental-justice-sb-1000/air-pollution-policy-initiatives>

Related existing Program, Policy, or Initiative	<p>The City of San Pablo has already recently successfully updated their Air Quality Health Risk Overlay.¹⁷ An air quality health risk overlay district (D3) is required in Section 17.38.050 of the San Pablo Code of Ordinances to reduce impacts from toxic air emissions along the Interstate 80 corridor. The zone extends five hundred feet from Interstate 80 on both sides of the freeway and does not allow residential development, parks, other open spaces, schools, childcare facilities, senior centers, hospitals, or medical centers to be located in the district.</p> <p>General provisions for overlay district regulations in the City of Richmond are outlined in Article 15.04.301 of the Municipal Code; however, there are no specific mentions of overlay districts or zoning overlays to reduce air pollution exposure. Nor are zoning overlays and overlay districts mentioned in the Contra Costa County Municipal Code.</p>
Partners in action implementation	Bay Area Air Quality Management District
Key stakeholders to engage in action implementation	Engage community members in areas adjacent to sources emitting high emissions levels. Engage members of the local business community.
Potential obstacles	Creating air pollution-specific overlay zones will require updating the municipal code, which will require staff time and resources.
Action initiation timeframe	Depends on each jurisdiction (cities & county may differ) Near=<2 years; Mid=2-4 years; Long > 4 years
Action intervention point	Exposure
Action impact timeframe	Depends on each jurisdiction (cities & county may differ) Near=<2 years; Mid=2-4 years; Long > 4 years
Measure/metric of action implementation	See above - "Strategy Metric(s)"
Can any emission/exposure reduction be estimated	No

Action #	LU 1.4
Action name/brief description	<p>Site Development Standards and Conditions of Approval</p> <p>This action recommends that the County of Contra Costa and the cities of San Pablo and Richmond require site development standards and conditions of approval that protect against air pollution exposure and reduce emissions.</p> <ol style="list-style-type: none"> 1. Site development standards are standards set forth and regulated by local jurisdictions and} used by architects and builders. Site development standards address the physical layout and quality of the property, including buildings and other facilities, on which permitted activities are conducted. These standards can protect

¹⁷ Successful update to the City of San Pablo Air Quality Health Risk Overlay.
<https://www.codepublishing.com/CA/SanPablo/html/SanPablo17/SanPablo1738.html>
(17.38.050)

	<p>against air pollution exposure by requiring that new developments and businesses implement pollution-reducing mitigations in the site and building design. Development standards can specify that builders and architects design buildings to reduce air pollution exposure by asking for setbacks, placing windows away from the freeway, requiring indoor filtration within 500 feet to 1,000 feet of a freeway, and establishing robust landscaping standards that require vegetative buffers around development.</p> <p>2. Conditions of approval, typically codified in a city's or county's zoning code, are usually a blend of policy, zoning, and building code requirements, which can require specific criteria to be met for the approval of new developments, buildings, and businesses. For example, Conditions of approval might require a proposed development to improve walkability, restrict truck parking and idling, and offer parking spaces for car-sharing programs, transit subsidies programs, and on-site bicycle and pedestrian facilities to reduce driving. However, many conditions are not codified and are specific to each project, as negotiated with the developer of a project.</p> <p>Air District offers a guidance document that lists potential conditions of approval and site development standards that can reduce air pollution.¹⁸ Examples include limiting idling on site, requiring Transportation Demand Management (TDM) strategies such as shared mobility and transit passes,¹⁹ limiting truck operation hours, requiring Zero Emission (ZE) infrastructure projects and all-electric building infrastructure, and requiring green infrastructure. Starting on page 92, the State Office of Planning and Research's Model Environmental Justice Policies for General Plans report provides information on improving air quality from California general plans that have been formally adopted by cities and counties.²⁰ One example is the City of El Monte, which states in its Public Health and Safety Element: "As a condition for siting or expanding operations in El Monte, require air pollution emitters to evaluate and fully mitigate the impacts of their operations on schools, homes, medical facilities, child care centers, and other sensitive receptors."</p> <p>In addition to the work mentioned above that Contra Costa County can do, the Air District and the CARB should evaluate updating their permitting and/or other rules (including the ATCM) to require more stringent health protections for new, relocated, and possibly existing sources of TAC emissions near schools, including further evaluation of the South Coast AQMD's Rule 1401.1 found here: http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1401-1.pdf.</p> <ul style="list-style-type: none"> • Cross-reference: Commercial & Industrial action (C&I 2.4) to Open Permitting Rules for Rule Development
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¹⁸ [https://www.baaqmd.gov/~media/files/planning-and-research/sb-1000/policy-initiatives/policy-c-stripped-pdf.pdf?la=en](https://www.baaqmd.gov/~/media/files/planning-and-research/sb-1000/policy-initiatives/policy-c-stripped-pdf.pdf?la=en)

¹⁹ <https://learn.sharedusemobilitycenter.org/benefitcalculator/#/>

²⁰ https://opr.ca.gov/docs/20200624-Model_EJ_Policies_for_General_Plans.pdf

	<ul style="list-style-type: none"> • Cross-reference: Commercial & Industrial action (C&I 5.1) for Backup Generators (BUGs), which has additional detail specific to limits on BUGs when located near sensitive receptors. <p>This action also relates to Mobile Action 1.3, which asks that “in coordination with CARB, local, and regional agencies, review policies and assess opportunities to require and/or encourage truck-attracting businesses to incorporate zero-emission operations, including the electrification of loading docks, trucks, and TRUs and by incorporating electric vehicle (EV) capable/ready infrastructure for all vehicle classes visiting the facility.”</p>
Type of action	Regulatory
Lead action implementor	City of Richmond, City of San Pablo, County of Contra Costa
Related existing Program, Policy, or Initiative	<p>Articles 15.04.201 through 15.04.207 of the City of Richmond Municipal Code includes site development standards for different types of land use. Development standards for Commercial Districts and supplemental regulations for Industrial Districts include standards for truck docks, loading, and service areas so as not to be within a certain distance of a Residential District or visible from public streets. In addition, standards for ensuring pedestrian access and walkability are included in standards for Residential Districts, Mixed-Use Districts, and Commercial Districts.</p> <p>Development standards are established for different types of land use in the San Pablo Municipal Code; for example, Chapter 17.34 establishes development standards for Commercial and Industrial Districts. However, these standards do not address air pollution exposure. Similarly, development standards are established for different types of land use in the Contra Costa County Municipal Code but do not address air pollution exposure.</p>
Partners in action implementation	Bay Area Air Quality Management District
Key stakeholders to engage in action implementation	Engage community members in areas adjacent to sources emitting high levels of emissions. Engage members of the local business community.
Potential obstacles	Because site development standards can add significant costs to a new development or redevelopment project, they often specify what level of size or investment will trigger compliance with these standards. However, to mitigate air pollution, all developments near sources of pollution should include health-protective site development standards and conditions of approval. If the standards place an unfair burden on businesses adding a needed investment and/or employment in historically disadvantaged and vulnerable neighborhoods, assistance programs for applying businesses should be considered if possible.
Action initiation timeframe	Depends on each jurisdiction (cities & county may differ) Near=<2 years; Mid=2-4 years; Long > 4 years
Action intervention point	Exposure
Action impact timeframe	Depends on each jurisdiction (cities & county may differ) Near=<2 years; Mid=2-4 years; Long > 4 years

Measure/metric of action implementation	See above - "Strategy Metric(s)"
Can any emission/exposure reduction be estimated	No

Action #	LU 1.5
Action name/brief description	<p>Zoning Regulations and Business Permitting</p> <p>This action recommends local governments update their land use regulations to prevent the siting of new polluting uses near sensitive uses and to require LUPs and CUPs to proactively protect health by managing the permits granted to polluting sources. Zoning and Conditional Use Permits can protect against air pollution exposure by prohibiting the siting of new polluting land uses/businesses adjacent to residential areas or sensitive populations.</p> <p>Land Use Permits, or LUPs for short, ensure that property owners who would like to develop or alter their property can do so within the requirements of the existing zoning code. This ensures that the property owner's interests and the interests of community members are both considered.</p> <p>Conditional Use Permits, or CUPs for short, require discretionary approval from a municipal government through a public hearing. Although sometimes planning directors can approve minor CUPs, such as in Oakland, CA. These types of permits allow a city or county to apply conditional uses and if approved, to make nonconforming uses comply with the current land use designation(s).</p> <p>Local government actions include:</p> <ol style="list-style-type: none"> 1. Update zoning regulations and LUPs and CUPs to prohibit or restrict the siting of new pollution-generating businesses <i>near residential areas and sensitive receptors (e.g., within 1,000 feet)</i>. End the practice of issuing CUPs for polluting and incompatible land uses like freight movement and industrial operations near where people live, work, and play. 2. Work with community members and Air District to identify and define categories of air pollution-generating uses specific to Richmond, San Pablo, and Contra Costa County. Pollution-generating businesses include, but are not limited to, freight, logistics, and other businesses that generate onsite pollution and attract mobile sources of pollution, such as truck deliveries and shipments. 3. Consider defining a new land use classification for pollution-generating businesses so that new businesses of this classification are not outright permitted in their proposed location. 4. Develop objective CUP criteria and performance standards related to truck-attracting businesses to ensure businesses adhere to the highest standards (see Oakland example).

	5. Establish a program for proactive code enforcement to ensure businesses adhere to operating conditions, performance standards, or any other CUP criteria, including focused enforcement at “hot spots” (idling near warehouse clusters, fugitive dust near construction sites, etc.). Establish a joint enforcement task force with partner regulatory agencies (Air District, EPA, CARB, etc.).
Type of action	Regulatory
Lead action implementor	City of Richmond, City of San Pablo, County of Contra Costa
Related existing Program, Policy, or Initiative	<p>Article 15.04.806 of the Richmond Code of Ordinances establishes procedures and criteria for the approval, conditional approval or disapproval of Use Permits, including Conditional Use Permits. However, criteria for different types of permits could be updated to include language specifically targeted towards reducing land use developments that increase cumulative emissions. Chapter 6.43 on Industrial Safety establishes a requirement for a Conditional Use Permit for any stationary source that changes its process to include the use of a higher hazard category material than currently being used.</p> <p>Chapter 17.34 of the San Pablo Code of Ordinances establishes allowed uses in different types of zoning districts but could also establish stricter requirements for land uses that involve significant emissions.</p> <p>Division 84 of the Contra Costa County Municipal Code establishes uses requiring land use permits for specific land use districts. Chapter 84-63 specifically requires land use permits for development projects that could significantly and adversely affect public health, safety, and the environment.</p>
Partners in action implementation	Bay Area Air Quality Management District
Key stakeholders to engage in action implementation	Engage community members in areas adjacent to sources emitting high emissions levels. Engage members of the local business community.
Potential obstacles	Some businesses generate air pollution but also benefit the community, such as large grocery stores with many shipments from polluting trucks. The types of businesses included in permitting restrictions should be drafted with community members to avoid limiting land uses that support community well-being.
Action initiation timeframe	Depends on each jurisdiction (cities & county may differ) <i>Near=<2 years; Mid=2-4 years; Long > 4 years</i>
Action intervention point	Exposure
Action impact timeframe	Depends on each jurisdiction (cities & county may differ) <i>Near=<2 years; Mid=2-4 years; Long > 4 years</i>
Measure/metric of action implementation	See above - “Strategy Metric(s)”
Can any emission/exposure reduction be estimated	No

Resource PTCA Plan Implementation

Resource (R) Strategy – Detailed Action Descriptions

Strategy 1 Actions

Action #	R 1.1
Action name/brief description	<p>Allocate Dedicated Staff Resources to CSC Early Priorities</p> <p>Based on information gathered during the development process of the PTCA Plan, the CSC strongly recommends an annual implementation plan that identifies priority actions and staff resource needs (co-developed with the CSC and the Air District) to do the following:</p> <ul style="list-style-type: none"> • Prioritize an increase in staff dedicated to Chevron inspections, enforcement activities, engineering, and incident response activities, including ensuring there are appropriate staff available for incident response at off hours • Prioritize staff needed to ensure the expeditious and effective implementation of Rule 11-18, in all relevant Divisions, including Engineering, AIM, Rule Development, M&M, C&E • Prioritize staff needed to ensure the expeditious and effective implementation of incentive programs including, new program development and implementation, direct outreach to all target audiences, track regulatory development by CARB and review and prepare comment letters to CARB in consultation with CSC, and report incentive program results. • Prioritize adequate staffing for internal and external communications to improve public education, transparency, and accessibility, in all relevant Divisions, including IT, Communications, Community Engagement, C&E, Legislative Office, Strategic Incentives, and Engineering (Cross-reference M&R, Website, FR, Public Health, etc.). Some priorities include but are not limited to: Website, news media, and PTCA AB617-focused app. • Ensure AIM, M&M, and Engineering are sufficiently staffed to continuously improve and analyze air quality and public health impacts in the PTCA area, provide accessible data to the public, and track emission and exposure reductions achieved by the PTCA Plan (Cross reference: Improved Emissions & Exposure Modeling and HRA Methodology Strategy) • Prioritize resources and staffing for actions to improve permitting, especially equity-based actions such as development of a program to apply a Title VI lens, including, but not limited to, a process for civil rights/disparate impact analyses
Type of action	Other
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	N/A
Partners in action implementation	CSC

Key stakeholders to engage in action implementation	
Potential obstacles	Achieving consensus on specific early priorities; staff resource limitations that cannot be overcome through reallocation or re-prioritizing.
Action initiation timeframe	Near < 2 years
Action intervention point	Potentially all levels
Action impact timeframe	Near < 2 years
Measure/metric of action implementation	Resources dedicated to early CSC implementation priorities
Can any emission/exposure reduction be estimated	No

Action #	R 1.2
Action name/brief description	Co-develop and implement an annual Implementation Plan Air District staff will co-develop with the CSC an annual PTCA Implementation Plan that prioritizes strategies and actions for implementation each year. The PTCA Implementation Plan will identify specific and appropriate Air District staff resource needs, which will help inform Air District annual budget planning and staff resource allocations. Additionally, on an annual basis, the Air District will report PTCA Plan implementation successes and challenges to the Board of Directors, including describing if the level of allocated staff resources was sufficient or if there were shortfalls.
Type of action	Other
Lead action implementor	Air District
Related existing Program, Policy, or Initiative	N/A
Partners in action implementation	CSC
Key stakeholders to engage in action implementation	Other Lead action implementers, e.g., Richmond, San Pablo, Contra Costa County, CARB, etc.
Potential obstacles	Developing the implementation plan without taking resources away from plan adoption and early implementation; agreeing on annual priorities; coordination with other lead action implementers.
Action initiation timeframe	Near < 2 years
Action intervention point	Potentially all levels
Action impact timeframe	Near < 2 years

Measure/metric of action implementation	Annual Implementation Plan; Annual report to Board on successes and challenges.
Can any emission/exposure reduction be estimated	No

Action #	R 1.3
Action name/brief description	Engage with the Air District on Annual Budget Planning The CSC will engage with Air District staff and the Board of Directors on the annual budget planning process, and any mid-year budget adjustment process, to ensure the voices of the PTCA CSC and community are heard. This will include recommendations to address ongoing resource needs to fully implement the PTCA Plan, new or evolving issues in the PTCA area, and as appropriate, overall support needs for the AB617 program. CSC members can also consider participating in the Air District's Budget Advisory Group which serves to help inform the annual budget planning process.
Type of action	Other: Advocacy
Lead action implementor	CSC
Related existing Program, Policy, or Initiative	Annual Air District budget planning process
Partners in action implementation	Air District
Key stakeholders to engage in action implementation	Other CERP CSCs
Potential obstacles	Timing to complete annual implementation plan to inform annual budget planning process; ongoing engagement in annual budget planning process.
Action initiation timeframe	Near=<2 years
Action intervention point	Potentially all levels
Action impact timeframe	Near=<2 years
Measure/metric of action implementation	Inclusion of PTCA Plan implementation resource needs in annual budget recommendation to the Board
Can any emission/exposure reduction be estimated	No

Action #	R 1.4
Action name/brief description	Engage with Air District on Strategic Planning

	The CSC will engage with Air District staff and the Board of Directors on the development and implementation of the agency's Strategic Plan. The CSC will share PTCA implementation and PTCA community priorities and views to help inform the goals and objectives of the Strategic Plan, which is one of the agency's core planning documents that will direct how future resource commitments are prioritized and allocated.
Type of action	Other: Advocacy
Lead action implementor	CSC
Related existing Program, Policy, or Initiative	Air District Strategic Plan development
Partners in action implementation	Air District
Key stakeholders to engage in action implementation	Other CERP CSCs
Potential obstacles	Timing of PTCA Plan completion and initiation of implementation with agency Strategic Planning process; ongoing engagement with agency strategic plan implementation and future updates.
Action initiation timeframe	Near < 2 years
Action intervention point	Potentially all levels
Action impact timeframe	Near < 2 years
Measure/metric of action implementation	Inclusion of PTCA Plan implementation and community priorities in Strategic Plan
Can any emission/exposure reduction be estimated	No

Urban Greening (UG)

UG Strategy – Detailed Action Descriptions

Strategy 1 Actions

Action #	UG 1.1
Action name/brief description	<p>Plant Street Trees and Vegetation in Priority Neighborhoods</p> <p>Working in collaboration with local government and community partners, Air District and CSC advocate for a municipal program for street tree and vegetation plantings. Plant native, drought tolerant, shade tree species and vegetation in a manner recommended by the City of Richmond Urban Greening Master Plan and City of San Pablo Landscaping Master Plan within the public right-of-way, facilities susceptible to urban heat island effects and high pollution emissions.</p> <p>Free and/or discounted street tree and vegetation plantings will be prioritized in neighborhoods throughout PTCA area that have:</p>

	<ul style="list-style-type: none"> • Low tree canopy • High risk of urban heat island effect • Low ratio of green space to grey space • Low-income, affordable housing development • Black, Indigenous, People of Color (BIPOC) communities • Low education levels • High levels of non-English speaking • Highest contribution of particulate matter impact from local sources (via Air District data) • Sensitive receptors (i.e., housing, hospitals, schools, daycares)
Type of action	Further research; Education/Outreach; Incentives; Enforcement; Other (implementation)
Lead action implementor	City of Richmond, City of San Pablo, Contra Costa County
Related existing Program, Policy, or Initiative	<ul style="list-style-type: none"> • Richmond Rising Transformative Climate Communities (TCC) Grant.²¹ A State-funded grant that will provide \$35 million to the City of Richmond for the next 5 years towards projects related to climate change. These include but are not limited to: urban greening and cooling of neighborhoods; complete streets and affordable active transportation options; renewable energy resilient homes; water absorption and reuse; and enhanced food security for improved health and wellbeing. • Air District Policy Templates Policy A - Vegetative Buffers/Barriers²² Policy E - Freeway Greening Retrofits²³ Policy Recommendations for Freeway Corridors and Industrial Zones Adjacent to Residential and Sensitive Land Uses²⁴ • Friend of Trees Partnership with City of Portland (Portland, Oregon)²⁵ Friends of Trees is a non-profit in the City of Portland, Oregon, that partners with the City of Portland to plant trees in neighborhoods prioritized by several factors, including dearth of green space, racial and income levels. Plantings come at no cost to residents in these neighborhoods. • CalFire Grants²⁶ Urban forestry grants used to conduct tree plantings in cities across the state of California. • California Natural Resources Agency Grants²⁷ Urban forestry grants used to conduct tree plantings in cities across the state of California • City of Richmond Green-Blue New Deal and Just Transition Plan (2021)²⁸ A plan adopted by the City of Richmond in July 2021 to

²¹<https://richmondstandard.com/richmond/2022/10/28/richmond-gets-35m-state-grant-for-community-led-climate-projects/>

²² [Air District Policy A - Vegetative Buffers/Barriers](#)

²³[https://www.baaqmd.gov/~media/files/planning-and-research/sb-1000/policy-initiatives/policy-e-stripped-pdf.pdf?la=en](https://www.baaqmd.gov/~/media/files/planning-and-research/sb-1000/policy-initiatives/policy-e-stripped-pdf.pdf?la=en)

²⁴<https://www.baaqmd.gov/plans-and-climate/planning-for-environmental-justice-sb-1000/air-pollution-policy-initiatives>

²⁵ <https://friendsoftrees.org/>

²⁶ <https://www.fire.ca.gov/what-we-do/grants/urban-and-community-forestry-grants>

²⁷ <https://resources.ca.gov/grants/urban-greening>

²⁸ <https://www.ci.richmond.ca.us/4138/Green-Blue-New-Deal-and-Just-Transition>

	<p>catalyze at least 1000 new green-blue jobs for Richmond residents that build a just, equitable, resilient, and sustainable future.</p> <ul style="list-style-type: none"> • City of Richmond Urban Greening Master Plan (2017)²⁹ Serves as the master document to guide and coordinate future greening projects in Richmond. It includes a citywide tree inventory, urban forest best practices, and a list of approved street trees for the city. • City of San Pablo Master Landscape Plan³⁰ Serves as a guideline for proper placement of trees and plants by location in the City of San Pablo. • The San Joaquin Valley and Imperial County Air Pollution Control Districts Matched community-identified greening projects with CARB Community Air Protection Incentives. This model may serve as a template to support urban greening projects in the PTCA area. • Imperial County Urban Greening Program³¹ The Imperial County CERP implemented an urban greening program, which can be referenced for further programming details and ideas for emissions reductions.
Partners in action implementation	Union Pacific, Caltrans, Neighborhood councils, Air District, Community-based organizations such as Groundwork Richmond, Urban Tilth
Key stakeholders to engage in action implementation	Neighborhood councils, housing providers, Air District, community-based organizations such as Groundwork Richmond, Richmond Trees and Richmond Seed Library; workforce development programs; local growers such as Annie's Perennials and The Watershed Nursery
Potential obstacles	<p>Cities do not have adequate funding for a designated urban forestry team. The City of Richmond, for example, contracts this work out to Groundwork Richmond, a nonprofit that does not work in the City of San Pablo. There are a variety of grants available to apply to, such as CalFire grants and EDF's Frontline Resources Institute. In addition, the City of Richmond has just been awarded the \$35 million Transformative Climate Communities (TCC) Grant for the next 5 years, which will allow for capacity building and green infrastructure implementation with the partnership of the State.</p> <p>Planting trees poses a few logistical issues. Water scarcity may pose an issue in years to come as droughts become more prevalent. Without dedicated water sources, tree plantings will not be sustainable. It may be difficult to find sufficient locations to plant trees, especially within neighborhoods. There will need to be a lot of community engagement/public outreach to recruit residents who would be willing to have a street tree planted in front of their residence. Some residents may have concerns about impacts such as parking, sidewalk damage, property damage, tree impacts, tree appearance, and maintenance.</p>

²⁹<https://www.ci.richmond.ca.us/2858/Urban-Greening-Plan#:~:text=The%20Urban%20Greening%20Plan%20will,street%20streets%20for%20the%20city>

³⁰ <https://www.sanpabloca.gov/2628/-Master-Landscape-Plan>

³¹ Imperial County Community Emissions Reduction Program: Urban Greening. https://c1b3e492-1448-4e62-b7f8-7aaf61550a90.filesusr.com/ugd/9806d9_7ae8e7dff0b94ba5b96001cb2aca30ad.pdf

	A combination of successful grants that assist communities with climate change, long-term vision, and partnership for tree plantings will help ensure the success of this strategy.
Action initiation timeframe	Near <= 2 years
Action intervention point	Ambient concentration, exposure, dosage
Action impact timeframe	Long > 4 years
Measure/metric of action implementation	Has a tree and vegetation planting program been implemented throughout the PTCA area?
Can any emission/exposure reduction be estimated	Yes, later. Note that estimating emissions reductions will depend on appropriate information from the urban greening projects. See Imperial County Urban Greening Program for example methods.

Action #	UG 1.2
Action name/brief description	<p>Education and Funding Opportunities</p> <p>CSC, supported by Air District staff, educates elected officials around the permanent funding and use of green infrastructure in reducing health disparities and improving bike/ped infrastructure throughout the PTCA area.</p> <ul style="list-style-type: none"> • Create partnerships between local nurseries and the public to incentivize tree plantings • Provide community education on the benefits of planting trees and vegetation • Seek grants and programs that support tree plantings
Type of action	Further research; Education/Outreach
Lead action implementor	Air District, CSC members
Related existing Program, Policy, or Initiative	See Urban Greening 1.1
Partners in action implementation	Groundwork Richmond, Urban Tilth
Key stakeholders to engage in action implementation	Contra Costa County Public Health and Public Works Departments, local nurseries, including Annie's Perennials, Home Depot, Ace Hardware, etc., local school districts, other TCC groups such as Trust for Public Land and Rich City Rides' Park Cleanup program
Potential obstacles	Competing government priorities and limited resources mean there may be pushback from political forces that don't see the value of increasing the urban canopy, the ecosystem services trees provide, or don't see urgency at this time. Also, grant funding often does not provide the longer-term funding needed for on-going maintenance of green infrastructure projects.
Action initiation timeframe	Long > 4-year
Action intervention point	Ambient concentration, exposure, dosage
Action impact timeframe	Long > 4 years

Measure/metric of action implementation	Have there been grants received to support urban greening initiatives? List these and the dollar amount
Can any emission/exposure reduction be estimated	-

Action	UG 1.3
Action name/brief description	<p>Require New Development to Include Vegetative Buffers</p> <p>Local jurisdictions require conditions of approval for new development that encourage the planting of vegetated buffers around identified stationary sources of air pollution. Also, require prioritized tree plantings for future infrastructure plans, looking to categories listed in Urban Greening 1.1.</p> <ul style="list-style-type: none"> • Incentivize plantings around commercial, affordable, mixed-use, multi-family development, light and heavy industry, logistics center and other land uses likely to cause air pollution. • Provide enforcement to maintain landscaping on new development <p>See Land Use Strategy #1.4 "Site Development Standards and Conditions of Approval," for more information about conditions of approval that can reduce air pollution.</p>
Type of action	Regulatory; Enforcement; Further research
Lead action implementor	City of Richmond, City of San Pablo, Contra Costa County
Related existing Program, Policy, or Initiative	<ul style="list-style-type: none"> • See Urban Greening 1.1 and Land Use Strategies • LA County Green Zones Program³² <p>A framework of land use standards in LA County and unincorporated areas that seek to enhance public health and land use compatibility for communities that bear a disproportionate pollution burden.</p>
Partners in action implementation	Private developers
Key stakeholders to engage in action implementation	Neighborhood councils, housing providers, communities living near stationary sources
Potential obstacles	<ul style="list-style-type: none"> • New development may not be able to comply with site constraints for tree plantings if regulations are too stringent. • Enforcement agencies may not have the bandwidth to see regulations through. • When planting trees or landscaping for public right-of-way, water scarcity will be a major concern in the PTCA area and will require water upgrades from EBMUD.
Action initiation timeframe	Long > 4 years
Action intervention point	Ambient concentration, exposure, dosage
Action impact timeframe	Long > 4 years

³² LA County Green Zones Program: <https://planning.lacounty.gov/long-range-planning/green-zones-program/>

Measure/metric of action implementation	Have there been any changes to city regulations that promote urban greening for new development?
Can any emission/exposure reduction be estimated	-

Action #	UG 1.4
Action name/brief description	Green Workforce ³³ Development In collaboration with community groups hire and train community members for jobs in the green workforce, around tree planting and trail building. This would also include community education to better understand the importance of increasing neighborhood green infrastructure.
Type of action	Incentives; Further research; Education/Outreach
Lead action implementor	City of Richmond, City of San Pablo, Groundwork Richmond, Urban Tilth, Contra Costa County
Related existing Program, Policy, or Initiative	See Urban Greening 1.1
Partners in action implementation	Community-based organizations, workforce development programs
Key stakeholders to engage in action implementation	Underserved communities: immigrant, youth, communities of color, low-income, PTCA area high schools, Contra Costa Community College, YES Nature to Neighborhoods
Potential obstacles	Limited long-term funding for workforce development programs and connecting trainees to jobs.
Action initiation timeframe	Long > 4 years
Action intervention point	Emissions, health effects
Action impact timeframe	Long > 4 years
Measure/metric of action implementation	How many people have been trained and hired into green workforce development programs?
Can any emission/exposure reduction be estimated	-

³³ Green Workforce: a broad grouping of careers that contribute directly to moving society and the built environment towards sustainability.