

Warehouse Distribution Centers

CEQA Air Quality Impact Mitigation Fund: Initial Concept



Warehouse Working Group Subgroup Meeting
August 23, 2018

FBMSM

Agenda

- Background
- Examples of CEQA Impact Mitigation Fund
- Warehouse Air Quality Impact CEQA Mitigation Fund:
Initial Concept
- Next Steps

Background

Indirect Source Rule and Other Facility-Based Measures

- SCAQMD staff recommendations to Board (March 2018)*
 - Develop voluntary measures and a new indirect source rule with multiple compliance options
- Board direction (May 2018)
 - Staff should pursue development of both voluntary and regulatory strategies
 - Additional economic analysis
 - Status updates to the Board every 3-6 months
- Recent Working Group Meetings:
 - Warehouse Distribution Centers (August 1st, 2018)
 - New/Re-Development Projects (August 8th, 2018)

Background

Board Approved Warehouse Strategies

Potential Voluntary Measures

- **CEQA Air Quality Impact Mitigation Fund for New Projects**
- Warehouse Guidance Document (with CARB)
- Explore Green Delivery Options (e.g., opt-in fee paid by consumers to fund cleaner fleets)

Potential Regulatory Measures

- **ISR Compliance Options:**
 - On-Site Measures
 - Zero/Near-Zero Emission On-Site Equipment
 - EV/Alt. Fueling Infrastructure
 - Solar Panels/Electrical Storage
 - Voluntary Fleet Certification + Facility Requirement
 - Mitigation Fee
 - Others?

Analyses and Reporting

- **Rulemaking Analyses**
 - Anticipated Emission Reductions
 - Cost of Compliance
 - Economic Impact Study + 3rd Party Review
 - Impact of ISR on Industrial Real Estate Market
 - Technological Availability

San Joaquin Valley APCD Programs

ISR + CEQA Mitigation

- Rule 9510 (ISR) requires reduction of construction and operational emissions beyond baseline calculation
 - Compliance through project design features (on-site measures) or off-site fees

- Voluntary Emission Reduction Agreement (VERA)
 - Contractual agreement between SJVAPCD and project proponent to provide \$\$ for mitigating a project’s CEQA AQ impacts for multiple pollutants
 - Limits project exposure to legal challenge
 - Credited toward ISR compliance

- ISR off-site fees & VERA funds are used for emission reductions within the SJVAPCD

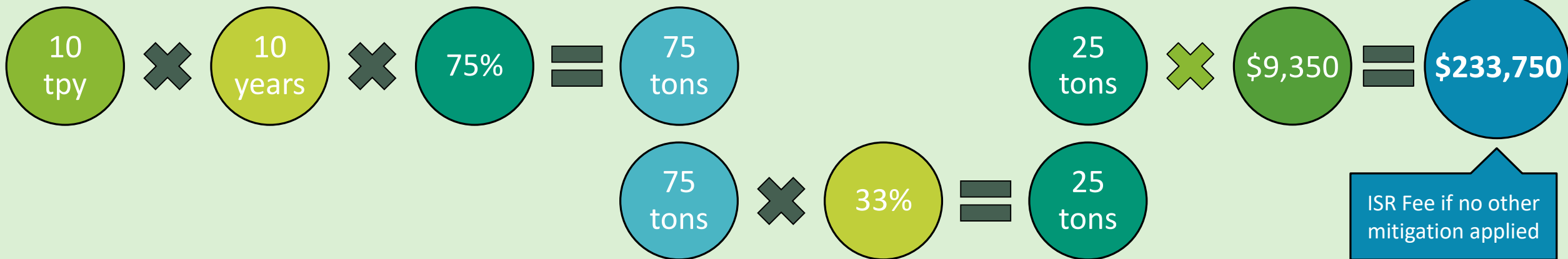
Project Phase	NOx	PM10
Construction	20%	45%
Operation	33%	50%

~\$58 million
 collected from
 ISR + VERA
 (Mar '06 - Jun '17)

SJVAPCD ISR Cost Calculation

- Operational unmitigated NOx emissions must be reduced by 33%
- Operational project emissions for ISR cost calculation
 - 1st year unmitigated emissions x 10 year default project life x 75% factor due to State and Federal tailpipe regulations for NOx
- Mitigation fee amount based on cost effectiveness of NOx controls determined during ISR rulemaking (2005) - \$9,350/ton

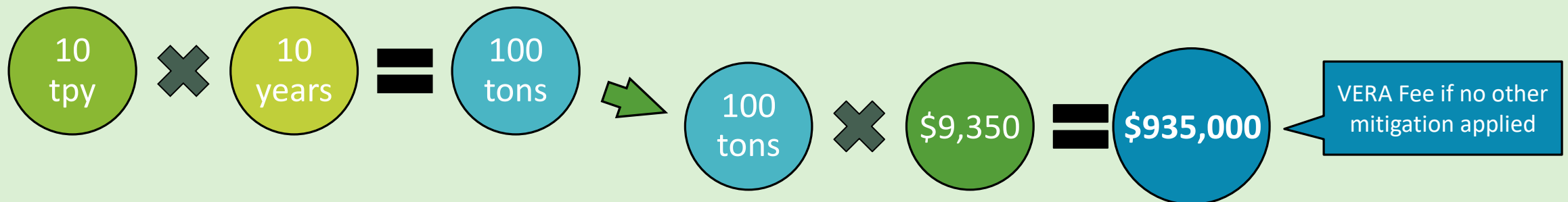
Example 10 tpy Project (*for NOx emissions*)



SJVAPCD VERA Cost Calculation

- Applicable to projects with significant air quality impacts or those that choose to opt-in
- Emissions must be reduced at least to a less-than-significant level under CEQA
- “Net Zero” approach recommended by SJVAPCD with focus on NOx emissions
- Operational project emissions for VERA cost calculation
 - 1st year unmitigated emissions x 10 year default project life
- Mitigation fee amount based on cost effectiveness of NOx controls determined during ISR rulemaking (2005) - \$9,350/ton

Example 10 tpy Project – Net Zero Approach (for NOx emissions)



SJVAPCD VERA Program Administration

- Individual contract amount varies greatly, depending on project size and whether “Net Zero” is adopted
- Full payment may be required before project construction
- All collected funds directly administered by SJVAPCD and spent via existing incentive programs
 - Lead agencies may collect funds from project proponent and pass them to air district
- 4% fee added for administration of program

Other Mitigation Fee Examples: Key Components from Other Programs

- WRCOG Transportation Uniform Mitigation Fee
 - Local jurisdictions adopt ordinance authorizing participation
 - Administered by Western Riverside COG - JPA
- World Logistics Center
 - SCAQMD Board has flexibility to spend funds - from CEQA settlement
- Western Riverside Multiple Species Habitat Conservation Plan
 - Local program includes explicit interaction with state and federal entities

Mitigation Fee Comparisons

	Mandatory	Determination of Fee Level	Mitigation Location	Administration	Implement Date	Fee Level
SJVAPCD VERA	No	Cost-Effectiveness Study	Anywhere in the air district	Air District	2005	\$93,500/ton (one-time) (~\$1.77/sf for a warehouse)*
WRCOG TUMF	Yes	Nexus Study	Identified infrastructure in the COG	COG/JPA	2003	~\$0.81/sf (warehouse) (one-time)
Western Riverside RCA MSHCP	Yes	Nexus Study	Elsewhere in Western Riv. Co.	Commission/ JPA	~2004	\$0.16/sf (total land) (one-time)
WLC Settlement Agreement	Yes	Litigation Negotiation	SCAQMD	Air District	2016+	\$0.64/sf (warehouse) (one-time)
RCTC Study (Draft)	Potentially	Nexus Study	Riverside County	RCTC	?	\$1.28/sf (warehouse) (one-time)

*Draft SCAQMD staff calculation – San Joaquin Valley APCD does not have a warehouse-specific fee rate

CEQA Air Quality Mitigation Fund for Warehouses - Concept

Project with Significant AQ Impacts based on Existing CEQA NOx Regional Threshold

Project Contributes \$ to Mitigation Fund

Fund Provides \$ for NOx Emission Reduction Projects

•CEQA AQ Impacts Reduced

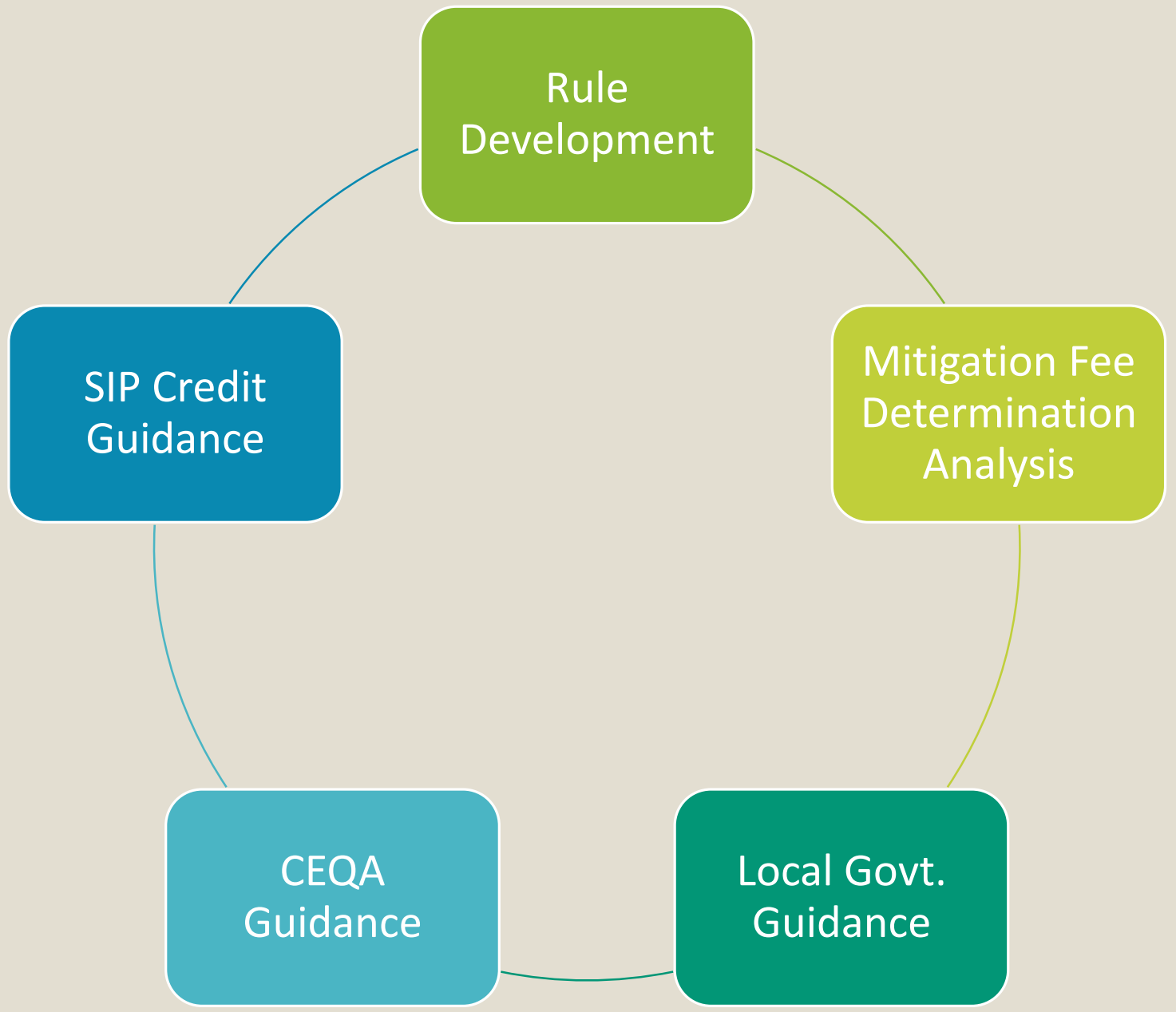
- Primary goal is to reduce a warehouse project's *operational* NOx emissions by investing in *surplus* NOx emission reductions from mobile sources
- Program can potentially be expanded in the future to cover any land use project, and also construction emissions
- Potentially will be pursued together with New/Re-Development Facility Based Measure
- Potentially creditable towards ISR

CEQA Air Quality Mitigation Fund for Warehouses - Concept (cont'd)

- Local agencies could have a role in program administration
- Fees collected could be used for multiple types of projects
 - Regional NOx reduction projects
 - Likely SIP creditable
 - Other local government air quality projects
 - Some project potentially SIP creditable (e.g., lower emission vehicles)
 - Some projects potentially provide air quality benefit but may not be SIP creditable (e.g., charging infrastructure, exposure reduction projects, etc.)
 - Compliance mechanisms will need to be developed (e.g., MOU, rule, etc.)
 - Guidance documents needed

Initial Key Elements for Warehouse CEQA Air Quality Mitigation Fund

➤ Public process for developing program



Potential Mitigation Fund Concepts

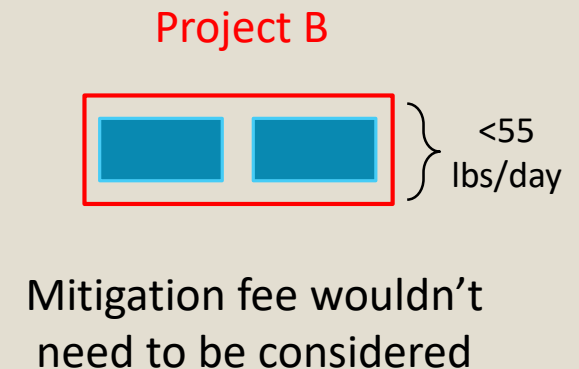
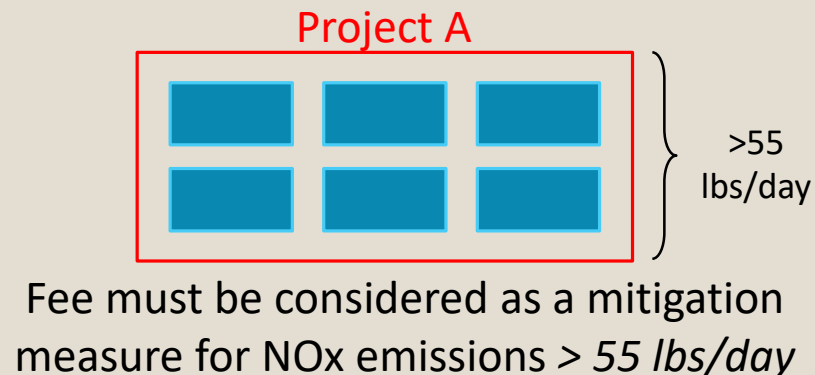
- Two potential concepts considered
 - CEQA project threshold approach
 - Regional, nexus study approach
- Staff seeking input on these concepts or other potential approaches

Warehouse CEQA Air Quality Mitigation Fund Fee Determination - CEQA Project Threshold Approach

- Determine the operational NOx emissions from a “typical” 1M sf warehouse project with CalEEMod software
- Use Carl Moyer guidance to determine emissions benefit from replacing trucks*
 - Ten year-old heavy-heavy duty diesel truck replaced with a near-zero emissions truck (0.02 g/hp-hr)
 - 40,000 mile per year per truck
 - Assume \$100,000/truck incentive
 - Assume 7-year truck replacement project life (and emissions benefit)
 - Emissions benefit declines through time due to fleet turnover & CARB’s Truck and Bus Rule
- Determine potential one-time mitigation fee for a project starting in XX calendar year

Warehouse CEQA Air Quality Mitigation Fund CEQA Project Threshold Approach - Considerations

- Fee changes through time due to Truck and Bus Rule
 - Very preliminary estimate ~\$1-\$5 per sq. ft. depending on the year (up to \$100K per ton NOx - based on Carl Moyer guidance)
- Different warehouse sizes results in different fee rates per square foot
 - Under CEQA, mitigation only must be considered if CEQA threshold is exceeded (e.g., 55 lbs NOx/day)
 - Example:



Warehouse CEQA Air Quality Mitigation Fund Fee Determination - Regional Nexus Study Approach

- Develop a flat, uniform fee (\$/sq. ft.) through a nexus study
 - Based on increased NOx emissions projected from all new warehousing development in the SCAQMD region or a specific jurisdiction
 - Set target based on projected regional emissions growth
 - Emission reduction target doesn't need to correspond to a project's CEQA significance
 - Could be tied to the "fair share" of emission reductions from growth of the warehousing sector
 - "Fair share" approach to be explored with Working Group in the future
 - Goal is a constant mitigation rate for all sizes of warehousing projects based on emissions and for all project starting dates within the study time frame

Warehouse CEQA Air Quality Mitigation Fund Regional Nexus Study Approach - Considerations

- Nexus approach requires all projects to participate - possible through a local ordinance
 - Projects with less than significant emissions may still be subject to fee
- ‘Nexus’ may not continue to apply at a regional level if program is strictly voluntary for a project
- Fee could be tailored to each jurisdiction - multiple nexus studies instead of one regional study

Topics for Group Discussion

- What do local governments need if they are going to participate in this program?
- Spending priorities - regional vs. local, emissions reduction projects vs. other air quality projects
- Is a less than significant regional AQ impact an appropriate motivation to take advantage of this program? Are there other motivations that should be considered?

Next Steps

- SCAQMD staff site visits and warehouse industry research
- Continue Working Group meetings
 - CEQA Air Quality Mitigation Fund Subgroup - As needed
 - Full Warehouse Working Group - early Fall 2018
- RFP for Economic Impact Study of Warehouse ISR
 - Governing Board - September 7, 2018
- Warehouse Facility Based Measures Status Update
 - Mobile Source - October 19, 2018
 - Governing Board - November 2, 2018

SCAQMD Staff Contacts

Warehouses & Rail Yards

- Ian MacMillan (909) 396-3244 imacmillan@aqmd.gov
- Elaine Shen (909) 396-2715 eshen@aqmd.gov
- Maryam Hajbabaei (909) 396-2341 mhajbabaei@aqmd.gov
- Michael Laybourn (909) 396-3066 mlaybourn@aqmd.gov