



AQMP Advisory Group

November 21, 2019

Cleaning The Air That We Breathe...



Agenda

1. Welcome, Introductions, Minutes, and 2016 AQMP Updates

2. Contingency Measure Plan for the 1997 8-Hour Ozone Standard in the South Coast Air Basin

3. Overview of Draft Connect SoCal – 2020 Regional Transportation Plan/Sustainable Communities Strategy



Agenda Item #1

**Welcome, Introductions, Minutes, and
2016 AQMP Updates**



2016 Air Quality Management Plan (AQMP)

- Approved by the South Coast AQMD Governing Board in March 2017
- Integrated plan addressing multiple National Ambient Air Quality Standards (NAAQS)

Criteria Pollutant	Standard	South Coast Classification	Coachella Valley Classification	SIP Submittal Due Date
2008 8-hour Ozone	75 ppb	Extreme	Severe	July 20, 2016
2012 Annual PM2.5	12 $\mu\text{g}/\text{m}^3$	Serious	Unclassifiable/ Attainment	October 15, 2016
2006 24-hour PM2.5	35 $\mu\text{g}/\text{m}^3$	Serious	Unclassifiable/ Attainment	August 12, 2017
1997 8-hour Ozone	80 ppb	Extreme	Extreme*	SIP Update to 2007 AQMP
1979 1-hour Ozone	120 ppb	Extreme	Attainment	SIP Update to 2003 AQMP

**Voluntary reclassification from severe to extreme in September 2019*



2016 AQMP - EPA Actions for the South Coast Air Basin

Standards	EPA Actions	Reference
1979 1-hour Ozone (120 ppb)	<ul style="list-style-type: none"> • Approved most plan elements; • Conditional approval* for the reasonable further progress contingency measure requirement 	Effective Oct. 31, 2019; 84 FR 52005
1997 8-hour Ozone (80 ppb)		
2008 8-hour Ozone (75 ppb)		
2006 24-hour PM2.5 (35 µg/m3)	<ul style="list-style-type: none"> • Approved most plan elements; • Did not propose any action on the attainment contingency component 	Effective Mar. 14, 2019; 84 FR 3305
2012 Annual PM2.5 (12 µg/m3)	<ul style="list-style-type: none"> • No actions yet; deemed complete by default 	-

**Relied on South Coast AQMD's commitment to modify an existing rule or rules, or adopt a new rule(s), that would provide for additional emissions reductions*



Agenda Item #2

Contingency Measure Plan for the 1997 8-Hour Ozone Standard in the South Coast Air Basin



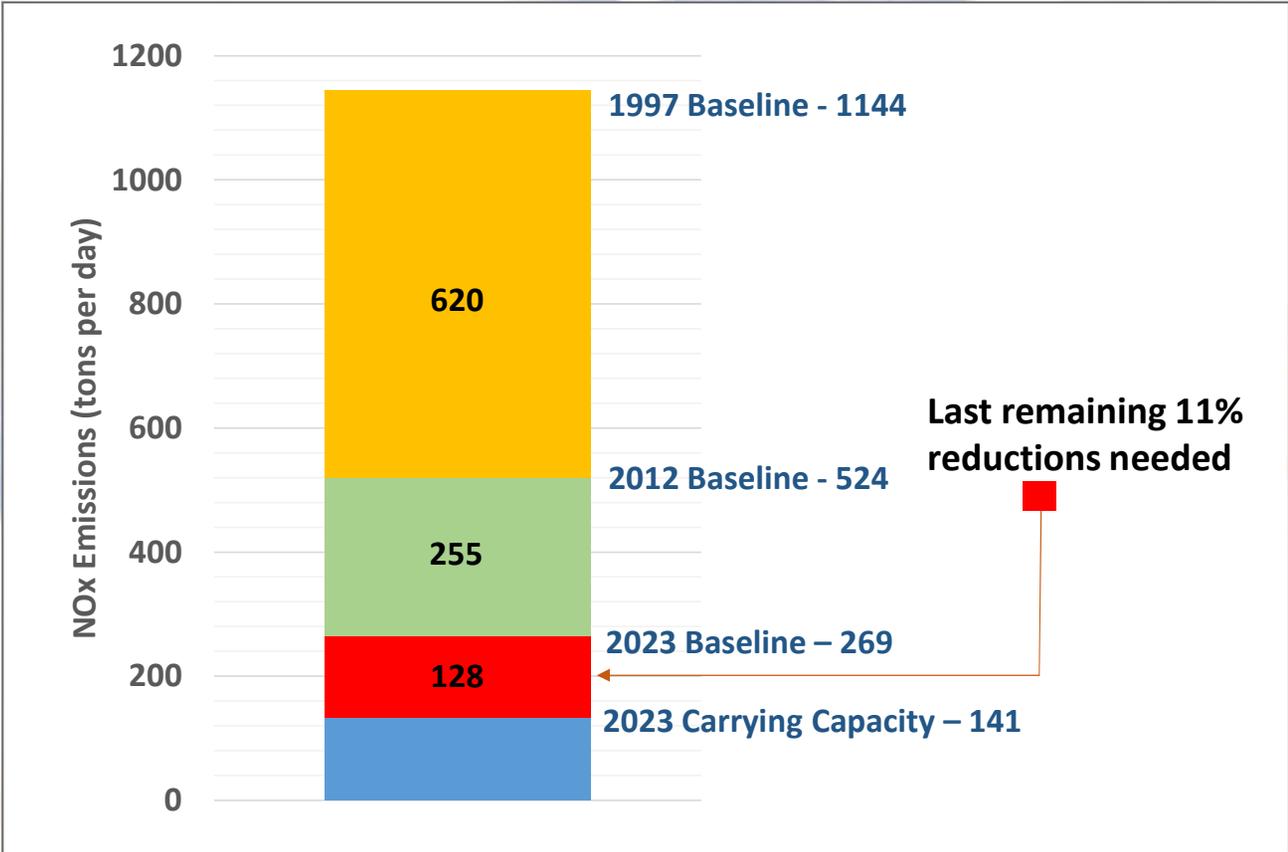
1997 8-hour Ozone Standard - Background

South Coast Air Basin – Extreme nonattainment area with an attainment date of June 15, 2024

- **2007 AQMP - Initial submission of State Implementation Plan (SIP)**
- **2016 AQMP Control Strategy Update**
 - **Defined measures**
 - **Further Deployment of Cleaner Technologies measures**
 - **Approved by U.S. EPA under section 182(e)(5) (i.e. black box)**
- **Contingency measures required for section 182(e)(5) reductions three years prior to implementation of plan provisions (i.e., 2023 attainment date)**
- **Draft Final Contingency Measure Plan prepared by South Coast AQMD and CARB**



Progress in Overall NOx Reductions Since 1997





2016 AQMP - Overall Control Strategy (NOx)

Sources	NOx (tpd)
Year 2023 Baseline¹	269
Carrying Capacity	141
Total Emission Reductions (All Measures):	135
Defined Measures:	27
South Coast AQMD Stationary Source Control Measures	7
South Coast AQMD Additional Mobile Source Control Measures	16
CARB Defined Measures	4
Further Deployment of Cleaner Technologies	108
Set Aside Budget²	3
2023 Remaining Emissions	137³

¹ Reflects CARB's 2018 Updates to the California State Implementation Plan

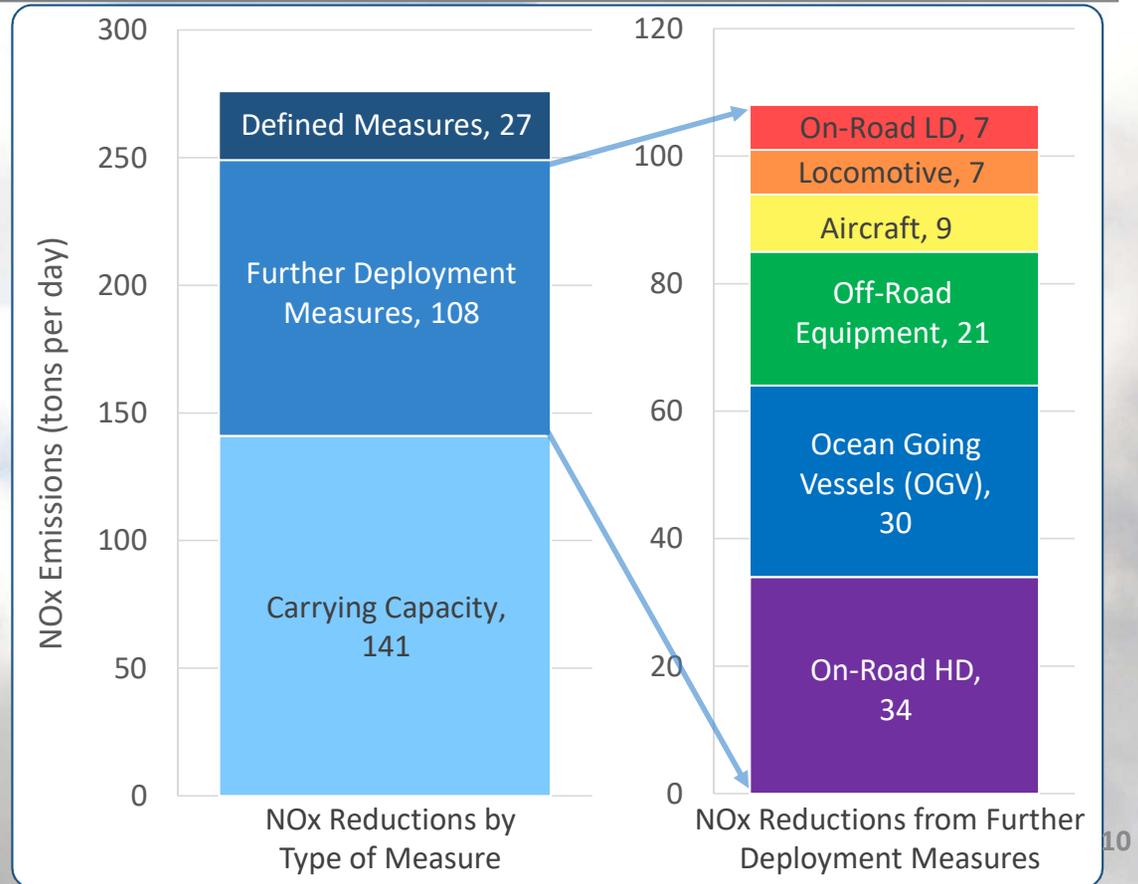
² As SIP reserve for potential technology assessment and for general conformity purposes

³ Reflects an additional 4.2 tons per day of NOx emission reductions beyond the projected carrying capacity of 141 tons per day to accommodate changes in ocean-going vessel (OGV) emission inventory and CARB's SIP strategy for OGV.



CAA Section 182(e)(5) for Extreme Non-Attainment Areas

- Allows for reliance on emission reductions from anticipated new technologies or improvement of existing technologies
- EPA approved Further Deployment measures in the 2016 AQMP under section 182(e)(5) - 108 tpd
- Contingency measures required 3 years prior to implementation of plan provisions (i.e., 2023 attainment date)
 - Provide full reductions assigned to 182(e)(5) measures





Draft Final Contingency Measure Plan



Identified Emission Reduction Strategies



Additional Incentive Funding



Federal Measures/Responsibilities



Identified Emission Reduction Strategies



Measures Description	Agency	NOx Reductions (tpd)
RECLAIM BARCT Rules	South Coast AQMD	2
Ports MOU	South Coast AQMD	3.2 – 5.2
Airports MOU	South Coast AQMD	0.5
Metrolink Locomotives	South Coast AQMD	3
Funding Incentives (Expected Future Funding)	South Coast AQMD	1.5
Low Carbon Fuel Standard and Alternative Diesel Fuels Regulation	CARB	1.7
ATCM for Portable Engines, and the Statewide Portable Equipment Registration Program Regulation	CARB	0.25
HD Inspection and Maintenance (I/M) program	CARB	4.2
Innovative New Measures	CARB	3.0
Total Reductions Towards 182(e)(5) Commitment*		24 – 26 tpd

* Estimated reductions including 4.2 tons per day of reductions associated with updated OGV emissions inventory and CARB's SIP Strategy for OGV



CARB's Innovative New Measures (3 tpd)



- **Tier 5 Off-Road Diesel Engine Standard**
- **State Green Contracting**
- **Reduction in Single-Occupancy Vehicle Travel Growth**
- **Locomotive Emission Reduction Measure**
- **VMT and Land Conservation**
- **Regional VMT Reductions**
- **Co-Benefits of Climate Change Scoping Plan Building Electrification**



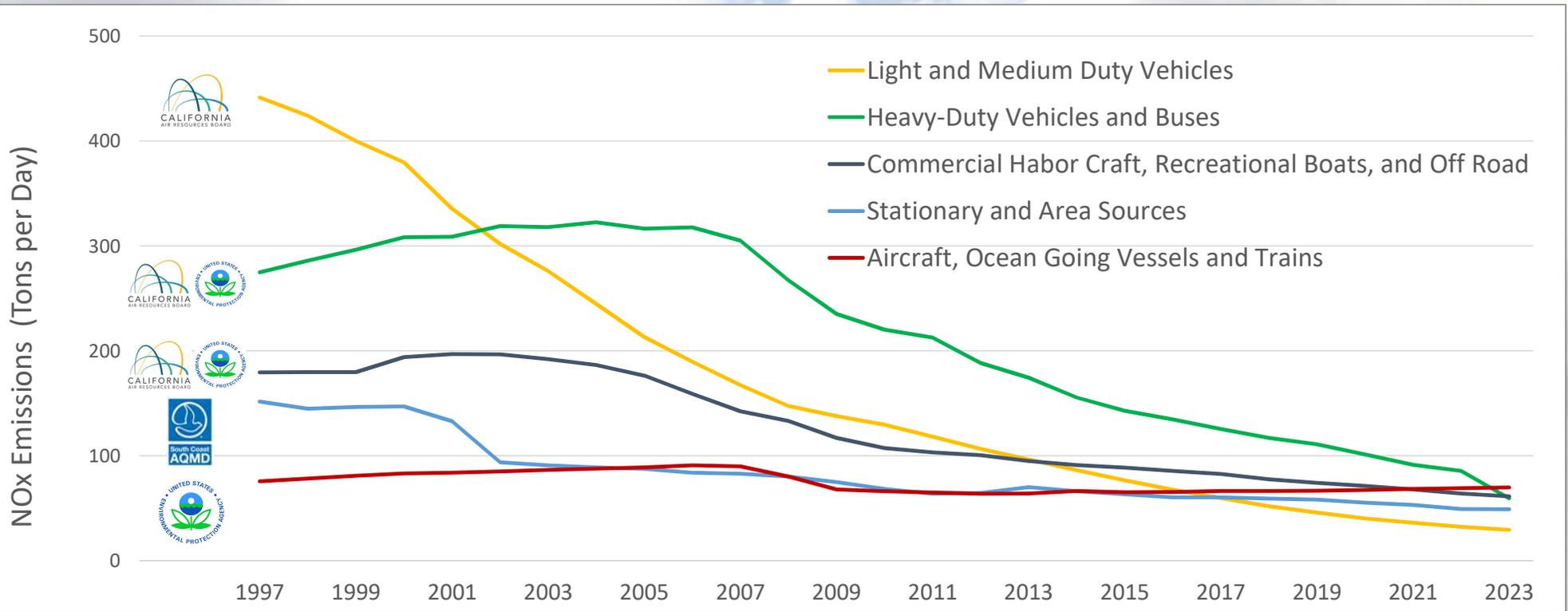
Additional Incentive Funding



- **2016 AQMP**
 - Estimated need over \$1 billion per year over 14 years
 - Current effort will update this estimate based on latest information
- **Expected Future Funding (approximately \$800 M over 4 years)**
 - AB 617-Related Incentives - \$80-90 M/yr.
 - Carl Moyer - \$40-50 M/yr.
 - Prop 1B - \$30 M
 - VW Settlement - \$67 M
 - AB2766 Subvention Fund - \$22 M/yr.
 - Mobile Source Air Pollution Reduction Review Committee - \$17 M/yr.
- **Additional Funding Needed**
 - Voting District Authorization Legislation - \$1.4 B/yr.
 - Other Mechanisms - TBD
 - Expected 2023 NOx Reductions: 15 tons per day

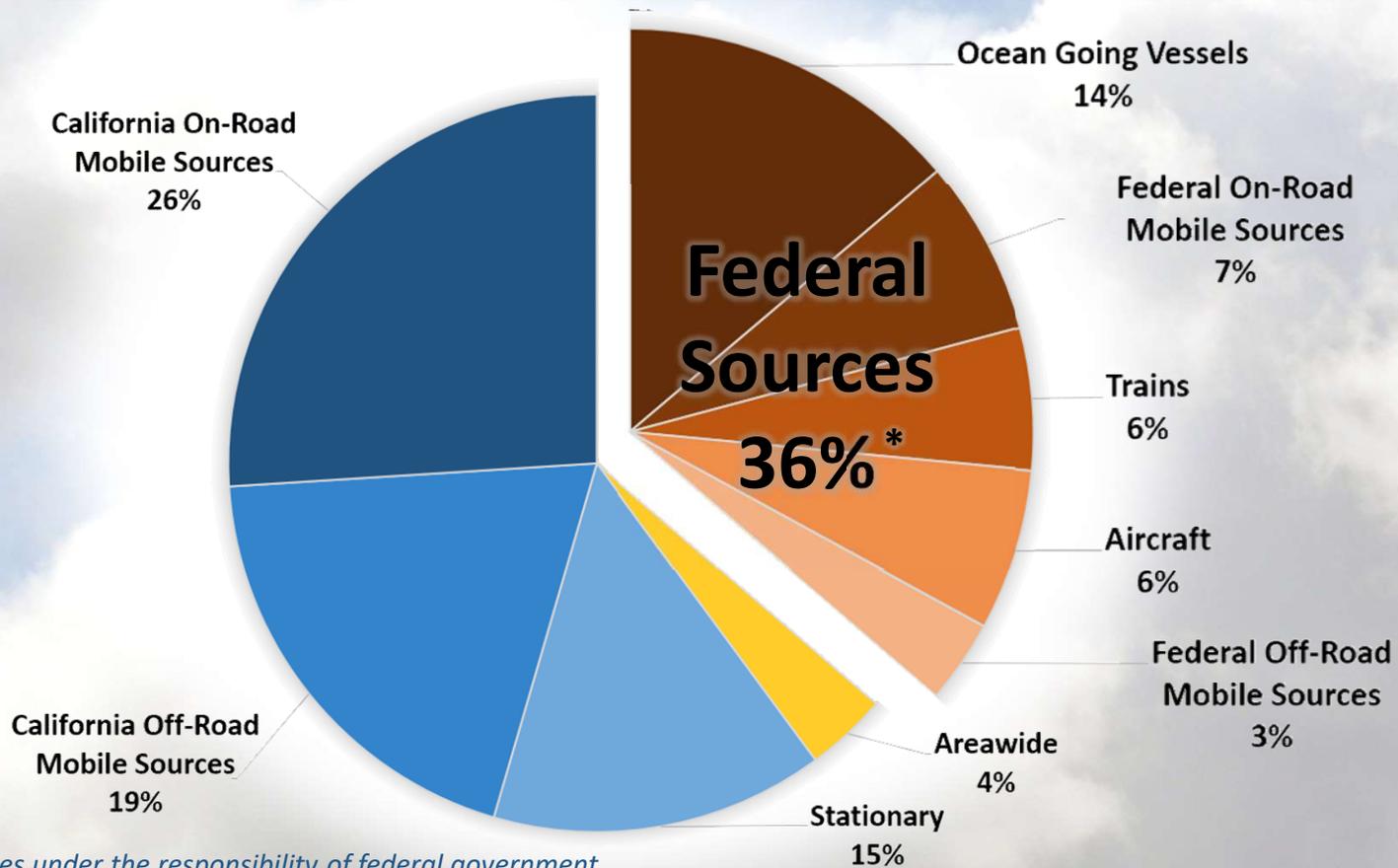


Emission Trends for Major Sources





Contribution of Federal Sources (2023 NOx emissions)



* Includes international sources under the responsibility of federal government



Potential Federal Measures



Measures	Measure Description	2023 NOx Reductions (tpd)
Low-NOx Heavy-Duty Vehicles	Heavy-duty vehicles (above 14,000 lbs. GVWR) powered by low-NOx engines in 2023	Up to 35
Low-NOx Ocean-Going Vessels	Ocean-going vessels coming to California powered by Tier 3 engines in 2023	Up to 28
Low-NOx Locomotives	Locomotives coming to California powered by Tier 4 engines in 2023	Up to 11
Low-NOx Aircraft	Aircraft NOx reductions assumption of 20% if emissions are held at 2012 levels.	Up to 4
Total Possible Reductions Towards Further Deployment Commitment		Up to 78



Contingency Measure Plan for Further Deployment Reductions

Strategy	2023 Reductions (tpd)
Identified Emissions Reduction Strategies	24 – 26
Additional Incentive Funding	15
Federal Measures and / or Funding	67 – 69
All Strategies	108



Key Public Comments



	Comments	Staff Responses
1	Concerns about funding availability	<ul style="list-style-type: none">• Staff to continue to pursue funding opportunities locally and with the state legislature• May utilize the remaining reductions from federal measures (a total of 78 tpd) if the anticipated funding does not fully materialize
2	Zero emission technologies for residential sector and co-benefits for climate goals	<ul style="list-style-type: none">• Net Emissions Analysis Tool (NEAT) developed to estimate changes in emissions and costs associated with deployment of zero and near-zero emission technologies for residential applications• Continue to implement 2016 AQMP measures through replacing existing appliances with zero or near-zero NOx emissions technologies in residential and commercial sectors<ul style="list-style-type: none">✓ \$47 M incentive funding for projects awarded in January 2019<ul style="list-style-type: none">▪ \$14 M for 9 projects in residential and commercial sectors✓ Potential for rulemaking in 2020-2022• CARB is accounting for co-benefits of 2017 Climate Change scoping plan



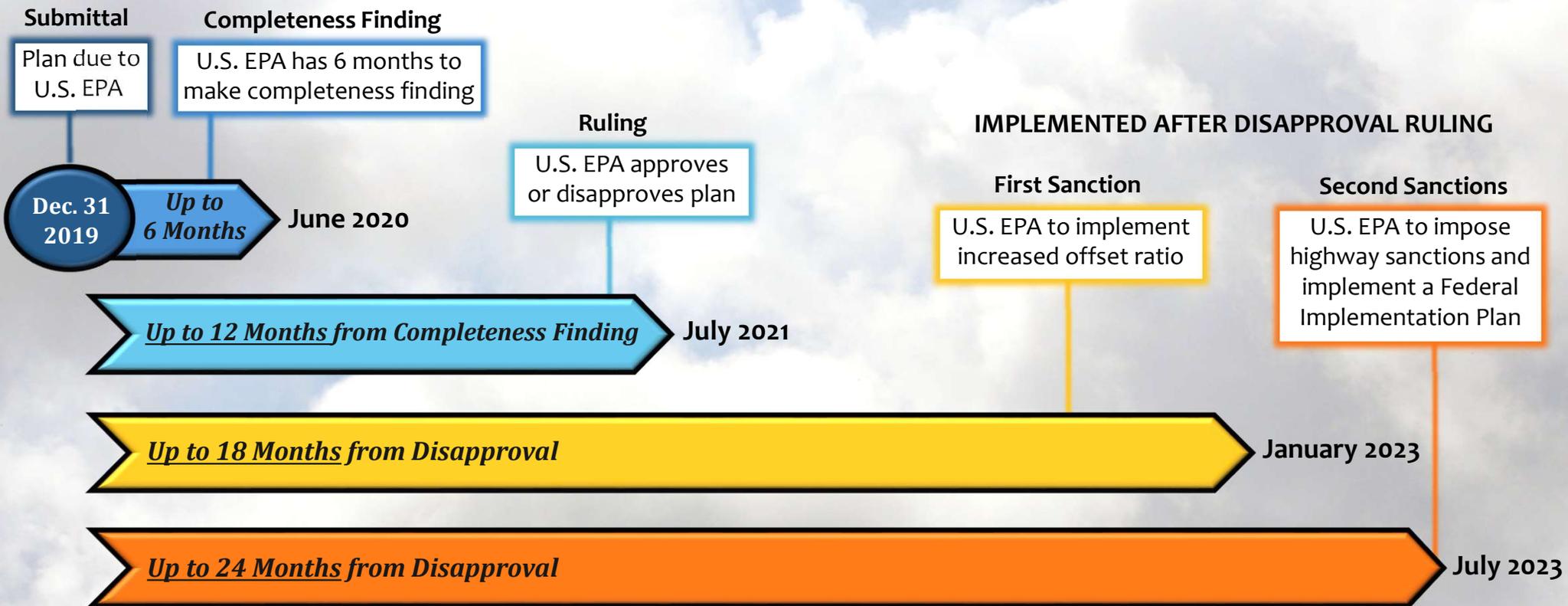
Key Public Comments (cont.)



Comment	Staff Responses
3 Emissions from transportation sector and transportation planning	<ul style="list-style-type: none">• Emission benefits for transportation control measures are included in the 2016 AQMP• Staff will work with SCAG and other stakeholders on the next Regional Transportation Plan (RTP) for inclusion in the 2022 AQMP
4 Timing for Sanctions	<ul style="list-style-type: none">• Sanction clock timelines and potential actions provided and summary was posted on AQMP website



CAA Statutory Timeline for Sanction Clocks





CAA Sanctions

Increased Offset Ratio

New Source Review:

- Current offset ratio is 1.2 to 1
- Offset ratio will be increased to 2 to 1 for new and modified major sources of ozone precursors (VOC and NOx)

Federal Implementation Plan (FIP)

Federal measures may include:

- No-drive days
- Emission caps for airlines, marine vessels and railroads
- Gas rationing

Highway Funding

- Highway funding will be cutoff
- Funds for transit and certain safety projects may continue

- The sanctions and FIP are removed only when plan meets U.S. EPA's expectations and is subsequently approved



A Call to Action

- **California is doing all we can to reduce emissions with current funding and authority**
- **All levels of government need to take action to reduce emissions**
- **More incentive funding is needed to accelerate turn over of existing fleet to cleaner technologies to meet air quality standards**
- **Federal action is absolutely needed on sources California cannot address**



Public Process





Agenda Item #3

Overview of Draft Connect SoCal – 2020 Regional Transportation Plan/Sustainable Communities Strategy