

MEETING  
STATE OF CALIFORNIA  
AIR RESOURCES BOARD

ZOOM PLATFORM

CALIFORNIA AIR RESOURCES BOARD  
SOUTHERN CALIFORNIA HEADQUARTERS  
MARY D. NICHOLS CAMPUS  
HAAGEN-SMIT AUDITORIUM  
4001 IOWA AVENUE  
RIVERSIDE, CALIFORNIA

THURSDAY, JANUARY 26, 2023

9:01 A.M.

JAMES F. PETERS, CSR  
CERTIFIED SHORTHAND REPORTER  
LICENSE NUMBER 10063

APPEARANCES

BOARD MEMBERS:

Liane Randolph, Chair

Sandra Berg, Vice Chair

John Balmes, MD

Hector De La Torre

John Eisenhut

Senator Dean Florez

Davina Hurt

Gideon Kracov

Tania Pacheco-Werner, PhD

Professor Dan Sperling, PhD

Senator Henry Stern

Diane Takvorian

STAFF:

Steve Cliff, PhD, Executive Officer

Edie Chang, Deputy Executive Officer, Planning, Freight,  
and Toxics

Chanell Fletcher, Deputy Executive Officer, Environmental  
Justice

Annette Hébert, Deputy Executive Officer, Southern  
California Headquarters and Mobile Source Compliance

Edna Murphy, Deputy Executive Officer, Internal Operations

Rajinder Sahota, Deputy Executive Officer, Climate Change  
and Research

APPEARANCES CONTINUED

STAFF:

Ellen Peter, Chief Counsel

Ali Adams, Manager, Central Valley Air Quality Planning Section, Air Quality Planning and Science Division (AQPSD)

Hnin Hnin Aung, PhD, Air Pollution Specialist, Health and Ecosystem Analysis Section, Research Division (RD)

Michael Benjamin, Division Chief, AQPSD

Pippin Brehler, Senior Attorney, Legal Office

Laura Carr, Air Pollution Specialist, Central Valley Air Quality Planning Section, AQPSD

Sonya Collier, PhD, Staff Air Pollution Specialist, Climate Action and Research Planning Section, RD

Ariel Fideldy, Manager, South Coast Air Quality Planning Section, AQPSD

Jessi Fierro, Senior Attorney, Legal Office

Bonnie Holmes-Gen, Chief, Health and Exposure Assessment Branch, RD

Vernon Hughes, Assistant Division Chief, AQPSD

Scott King, Air Pollution Specialist, South Coast Air Quality Planning Section, AQPSD

Jeannie Lee, Assistant Chief Counsel, Legal Office

Claudia Nagy, Senior Attorney, Legal Office

Hye-Youn Park, PhD, Manager, Health and Ecosystem Analysis Section, RD

Sarah Pittiglio, PhD, Manager, Climate Action and Research Planning Section, RD

APPEARANCES CONTINUED

STAFF:

Elizabeth Scheehle, Division Chief, RD

Sarah Jo Szambelan, Air Pollution Specialist, Executive Office

Sylvia Vanderspek, Chief, Air Quality Planning Branch, AQPSD

ALSO PRESENT:

Teresa Bui, Pacific Environment

Christopher Chavez, Coalition for Clean Air

Janet Dietzkamei

Harvey Eder, Public Solar Power Coalition

Perry Elerts, Leadership Counsel for Justice and Accountability

Ian Faloon, PhD, University of California, Davis

Jonathan Klassen, San Joaquin Valley Air Pollution Control District

Heather Lieb, University of California, Davis

Adrian Martinez, Earthjustice

Brent Newell, Central Valley Air Quality Coalition

Cynthia Pinto-Cabrera, Central Valley Air Quality Coalition

Brad Poiriez, Mojave Desert Air Quality Management District

Mark Rose, National Parks Association Conservation

Jane Sellen, Californians for Pesticide Reform

Robert Yuhnke, Elders Climate Action

INDEX

	<u>PAGE</u>
Call to Order	1
Roll Call	1
Opening Remarks	2
Item 23-1-1	
Chair Randolph	18
Executive Officer Cliff	19
Janet Dietzkamei	20
Motion	21
Vote	21
Item 23-1-2	
Chair Randolph	22
Executive Officer Cliff	23
Motion	25
Vote	25
Item 23-1-3	
Chair Randolph	26
Executive Officer Cliff	27
Staff Presentation	29
Dr. Sarah Rees	48
Dr. Ian Faloona	52
Robert Yuhnke	54
Chris Chavez	56
Heather Lieb	59
Adrian Martinez	60
Teresa Bui	62
Board Discussion and Q&A	64
Motion	78
Vote	78
Item 23-1-4	
Chair Randolph	79
Executive Officer Cliff	80
Staff Presentation	82
Jon Klassen	96
Dr. Ian Faloona	99
Janet Dietzkamei	101
Cynthia Pinto-Cabrera	103
Brent Newell	105
Perry Elerts	107
Robert Yuhnke	109
Jane Sellen	111

INDEX CONTINUED

	<u>PAGE</u>
Item 23-1-4 (continued)	
Mark Rose	113
Harvey Eder	115
Board Discussion and Q&A	118
Motion	126
Vote	126
Afternoon Session	129
Item 23-1-5	
Chair Randolph	129
Executive Officer Cliff	130
Staff Presentation	132
Janet Dietzkamei	151
Board Discussion and Q&A	152
Motion	167
Vote	167
Item 23-1-6	
Chair Randolph	168
Executive Officer Cliff	171
Board Discussion and Q&A	184
Harvey Eder	193
Adjournment	195
Reporter's Certificate	196

PROCEEDINGS

1  
2 CHAIR RANDOLPH: All right. Good morning. The  
3 January 26th, 2023 public meeting of the California Air  
4 Resources Board will come to order.

5 Clerk, will you please call the roll.

6 BOARD CLERK ESTABROOK: Yes. Thank you, Chair.  
7 Dr. Balmes?

8 BOARD CLERK ESTABROOK: Mr. De La Torre

9 BOARD MEMBER DE LA TORRE: Here.

10 BOARD CLERK ESTABROOK: Mr Eisenhut?

11 BOARD MEMBER EISENHUT: Here.

12 BOARD CLERK ESTABROOK: Senator Florez?  
13 Assemblymember Garcia?

14 Ms. Hurt?

15 BOARD MEMBER HURT: Present.

16 BOARD CLERK ESTABROOK: Mr. Kracov?

17 BOARD MEMBER KRACOV: Here.

18 BOARD CLERK ESTABROOK: Dr. Pacheco-Werner?

19 BOARD MEMBER PACHECO-WERNER: Here.

20 BOARD CLERK ESTABROOK: Senator Stern?

21 Professor Sperling?

22 BOARD MEMBER SPERLING: Here.

23 BOARD CLERK ESTABROOK: Ms. Takvorian?

24 BOARD MEMBER VARGAS: Supervisor Vargas?

25 Vice Chair Berg?

1 VICE CHAIR BERG: Here.

2 BOARD CLERK ESTABROOK: Chair Randolph?

3 CHAIR RANDOLPH: Here.

4 BOARD MEMBER FLOREZ: Florez here.

5 BOARD CLERK ESTABROOK: Madam Chair, we have a  
6 quorum.

7 BOARD MEMBER FLOREZ: Florez here as well.

8 CHAIR RANDOLPH: Oh, perfect. Thank you. Noted.

9 BOARD MEMBER FLOREZ: Thank you.

10 BOARD CLERK ESTABROOK: Chair, we have quorum

11 CHAIR RANDOLPH: All right. Thank you very much.

12 Before we launch in today's proceedings, I wanted to take  
13 a few moments to acknowledge a few recent changes to our  
14 Board membership. First, it's my pleasure to welcome  
15 Senator Henry Stern who has been appointed by the Senate  
16 as an ex officio member of the California Air Resources  
17 Board. Senator Stern represents the 27th Senate District,  
18 and has worked on climate, clean energy, wildfire  
19 preparedness, and other environmental issues during his  
20 time in the Senate. I had the pleasure of working with  
21 him both when I was at the PUC and here at CARB, and  
22 really happy to welcome him to the Board.

23 And I have the duty and honor to announce that  
24 the terms of two stalwart members of the California Air  
25 Resources Board have come to an end. As we discussed at



1 the December Board meeting, Supervisor Phil Serna has  
2 completed his term on the Board. He was appointed to the  
3 Board by Governor Brown in 2013. He's been committed to  
4 public service from a young age. In addition to his role  
5 on the Sacramento County Board of Supervisors on which he  
6 has represented District One since 2010, Board Member  
7 Serna has participated in numerous other boards and  
8 commission, including the Sacramento First Five  
9 Commission, Sacramento Regional Transit, the Sacramento  
10 Area Flood Control District, the Sacramento Metropolitan  
11 Air Quality Management District, the Sacramento Solid  
12 Waste Authority, and the Sacramento Library Authority to  
13 name just a few. And we had some time at the December  
14 meeting to share our thoughts about Supervisor Serna.

15           Barbara Riordan is the longest serving member in  
16 the Board's history. As a representative of the Mojave  
17 Desert Air Quality Management District, serving San  
18 Bernardino County's high desert area, Board Member Riordan  
19 was appointed in February 1991 by governor Pete Wilson and  
20 served as Chair from November 1998 to February 1999. She  
21 was reappointed in August 2004 by Governor Arnold  
22 Schwarzenegger, and again in 2011 by Governor Edmund G  
23 Brown, Jr.

24           Mrs. Riordan retired from elective office in 1996  
25 after 13 years as a member of the San Bernardino County

1 Board of Supervisors. Two of those years she served as  
2 chairwoman of the Board and four years as a member of the  
3 Redlands City Council. During her 30 years of service to  
4 the CARB Board and to the public, Board Member Riordan has  
5 provided wise counsel and has stepped up to support CARB  
6 by serving as Chair when the need arose.

7 So I will now hand the mic to Brad Poiriez,  
8 Executive Director of the Mojave Desert Air Quality  
9 Management District who would like to say a few words to  
10 recognize Mrs. Riordan's retirement.

11 MR. POIRIEZ: Good morning. Thank you, Madam  
12 Chair, Board members. You took a little bit of my  
13 thunder, but not much. I still have plenty to say about  
14 Barbara. So it's my honor and privilege to be here to  
15 recognize Ms. Riordan for her many, many years of service  
16 and dedication to air quality. So if you'd bear with me,  
17 I'd like to add a couple more little factoids as well.

18 So Ms. Riordan was appointed to the San  
19 Bernardino County Board of Supervisors in the 3rd District  
20 in August of 1983 to fill the remaining term of Supervisor  
21 David McKenna. And Barbara has heard this, by the way,  
22 but -- some of these, because we just had the same effort  
23 in front of my Board on Monday.

24 She was only the third woman in the County's 131  
25 years of history, at that time, to hold the supervisor

1 office and the first in the 3rd District. As 3rd District  
2 Supervisor, Ms. Riordan also served as a Board Member of  
3 the San Bernardino County Air Pollution Control District.  
4 When the County APCD transitioned by legislative statute  
5 to an independent agency, Ms. Riordan was one of the  
6 inaugural members of the Mojave Desert Air Quality  
7 Management District.

8           After leaving the Board of Supervisors, Ms.  
9 Riordan was selected by the balance of the Mojave Desert  
10 AQMD governing board as a public member, a seat she has  
11 held through reappointments through January of 2023. In  
12 1991, Ms. Riordan was appointed by Governor Pete Wilson,  
13 as was mentioned earlier, to the California Air Resources  
14 Board. Considering her appointment to the Board of  
15 Supervisors in 1983, and continuous service, this  
16 effectively equates to 40 years of commitment to air  
17 quality and the residents of the Mojave Desert Air Quality  
18 Basin. So that's quite the accomplishment.

19           Ms. Riordan has been a part of virtually every  
20 monumental important decision that the Mojave Desert AQMD  
21 has done. As recently as Monday, we just approved our  
22 ozone SIP as well. So she's had a hand in approving all  
23 the SIPs that have ever been submitted and approved for  
24 Mojave Desert AQMD.

25           So I've known -- I've know Ms. Riordan, I don't

1 know -- we don't have to say the years, do we?

2 (Laughter).

3 MR. POIRIEZ: So quite a -- quite a long time.  
4 From my days back in Imperial County where I was the APCO  
5 in Imperial County and also serving on the CAPCOA Board of  
6 Director as President. So I came before this Board and  
7 Ms. Riordan many times, many times for issues that were  
8 quite challenging and she has always served -- I think my  
9 Board Chairman said it best, she served with grace. She  
10 brings a levelheadedness and a calm demeanor to at least  
11 our Board meetings. And I think that's appreciated by  
12 most of the Board members and myself and my staff  
13 especially. She's amazing. She has a very calming effect  
14 on not only the people giving presentations, but also  
15 anyone that would like to come up and speak on a  
16 particular controversial issues. She has a well-balanced  
17 approach and she lets her position on the issues be known  
18 and why it's important to have that balanced approach.  
19 And I've appreciated that very much as the Executive  
20 Director.

21 She's going to be very missed, I think, on my  
22 Board and as well as yours. Big shoes to fill. But we  
23 are going to miss her and we wish her the very, very best  
24 in the next chapter. And I know she won't be quiet. I  
25 know she'll still be active and busy and hopefully she's

1 not going to be a stranger to us.

2 But Barbara, we do have a plaque for you, another  
3 one -- another one up here. Can I give that to you.  
4 Would you like to come up here.

5 (Applause).

6 MR. POIRIEZ: Do you want me to read it?

7 MRS. RIORDAN: Thank you, Brad. Thank you.

8 MR. POIRIEZ: Would you like me to read that?

9 MRS. RIORDAN: Well, yes, you're going to -- You  
10 read it, because I can't.

11 (Laughter).

12 MRS. RIORDAN: I can't hold it out there far  
13 enough.

14 MR. POIRIEZ: You want to hold it.

15 I'm going to try to read this. It's see-through  
16 glass, so it's a little rough. Let's see if I hold it  
17 right there. In recognition of Barbara Cram Riordan,  
18 representing the Mojave Desert of the California Air  
19 Resources Board, 1991 to 2023. Thank you for 32 years of  
20 exceptional commitment to protecting air quality in Mojave  
21 Desert and the State of California.

22 MRS. RIORDAN: Thank, Brad. Thank you very much.  
23 Thank you.

24 (Applause)

25 MRS. RIORDAN: Madam Chair, could I take just a

1 bit of prerogative and make a few comments?

2 I am so pleased to be here today to recognize all  
3 of you, particularly the Board members that I have served  
4 with, as well as the staff in this wonderful facility. I  
5 apologize for not being in person in Sacramento in  
6 December, but I had other commitments and I had promised  
7 that I would fill those commitments and do Zoom. And Zoom  
8 somehow seems to me to be very impersonal. And so that's  
9 why I'm here today to express my appreciation to the many  
10 Board Chairs that I've worked with over the years, to the  
11 many Board members. I can't even count the Board members  
12 that I've served with, but -- and they've all been so  
13 helpful to me and so thoughtful, and recognizing indeed  
14 what small air pollution control districts face or  
15 mid-sized air pollution control districts face.

16 And they're not -- they're -- not all of these  
17 rules and regulations that we promulgate over the years  
18 are equally able to be enforced by the local districts.  
19 People just don't have staff. They don't have the  
20 resources to do that. And hopefully I brought that to the  
21 Board over the years to remind them that there are a  
22 number of us who are in smaller areas that need a little  
23 bit more money and staff to be able to do some of the  
24 things that we need to do on behalf of air quality.

25 But most importantly, the reason I wanted to be

1 here was to say thank you to the staff here at the Air  
2 Resources Board and how helpful you have been to me and I  
3 wanted to recognize that. You need to understand I'm not  
4 a scientist. I'm not an engineer. I have very little  
5 background really in air pollution control, but you have  
6 been so gracious to give me your time and wise counsel  
7 over the years and I appreciate that so much.

8           We are so fortunate Madam Chair to have the staff  
9 that we have here at the Air Resources Board. And I will  
10 never forget, I took a tour the first month I believe that  
11 I was appointed to the Board, and I met people who had  
12 left graduate school or left college and came to work for  
13 the Air Resources Board, and they were still there working  
14 on behalf of air quality and air issues throughout  
15 California. And I was so impressed that people would stay  
16 for their entire careers almost and help people to breathe  
17 better and cleaner air here in California. And I think  
18 that is a testament to the greatness of the staff that we  
19 have. And all of you I know are as appreciative of that  
20 fact as I have been over these 30 years.

21           So I say thank you. I look forward to what you  
22 are going to be doing in the next 30 years. But I just  
23 want to say thank you and also to recognize this wonderful  
24 facility that we are in. It is a pleasure and I'm so  
25 pleased to be able to say it's in part of the area that I

1 represent called the Inland Empire. And so we're -- we,  
2 on behalf of this area, just welcome all of you. I wish  
3 all of our meetings were here. I love this room.

4 And so with that, I say goodbye.

5 (Applause).

6 CHAIR RANDOLPH: Would any of our colleagues like  
7 to say a few words?

8 Vice Chair Berg.

9 VICE CHAIR BERG: Well, for me, this is a mixed  
10 emotions day, because I can remember in 2004 as a very  
11 wide-eyed and almost what was I thinking I was getting  
12 myself into, and it was Barbara Riordan. And at that  
13 time, Barbara Patrick, the two Barbaras that absolutely  
14 took me under their wing and shepherd me into this  
15 position. And it's just been lovely working with Barbara  
16 Riordan over the last 18 and a half years for me. But to  
17 think 32 years I believe is the time on the Air Resources  
18 Board. And that will be a record that will hold for a  
19 very, very long time. If you think about all the world  
20 record holders, Barbara is going to hold this record  
21 probably forever.

22 And that is a real testament to Barbara, to all  
23 the people she served with, as well as the stakeholders.  
24 And all the times we sat next to each other and helped  
25 each other through various stakeholder concerns, both



1 communities and industry. When she became Chair -- our  
2 Acting Chair, it was often at a time where some -- there  
3 was a gap. And that's what Barbara was so good at.  
4 Barbara was so good at being able to step in, fill in, and  
5 be that stalwart, that glue that we all counted on.

6 And so she's a friend, she's a colleague, and I  
7 really, really wish you the best, as I know we all do, and  
8 can't wait to now just have dinner together and catch up.

9 So thanks, Barbara.

10 CHAIR RANDOLPH: Dr. Sperling.

11 BOARD MEMBER SPERLING: Yeah, I'd like to add to  
12 that. You know, Barbara has -- so she's been here  
13 obviously the whole time I've been here, and, you know,  
14 she's added stability to the Board. She's been the kind  
15 of person when we get some of these, you know, tense  
16 issues, she brings her wisdom and years of experience, and  
17 as Sandy mentioned, she's played a leadership role several  
18 times over the history of the Board. So you know, this is  
19 really the end of an era. And I think we should be really  
20 grateful to Barbara for all the time, and effort, and  
21 wisdom that she's brought to it. So thank you so much,  
22 Barbara.

23 CHAIR RANDOLPH: Board Member De La Torre.

24 BOARD MEMBER DE LA TORRE: Thank you, Barbara.  
25 The 32 years is impressive. Just -- it's such, you know,

1 a long period, but when you think that it's 32 out of 55  
2 years of the existence of this organization, it's even  
3 more impressive. It is amazing. And the thing that, as a  
4 former elected, that amaze -- that truly amazes me is that  
5 you were appointed by Pete Wilson. And every Governor  
6 since could have removed you and didn't, and that is a  
7 testament to your dedication to the mission of this  
8 organization. Because no matter what -- which way the  
9 pendulum swung, you were here and they wanted you to be  
10 here representing these communities, these smaller air  
11 districts. So that's what amazes me, because, you know,  
12 these -- if you put those governors in a room, they  
13 probably couldn't agree on anything --

14 (Laughter).

15 BOARD MEMBER DE LA TORRE: -- but they all agreed  
16 about you. And that's a really -- a testament to you.  
17 And so what I think about with you is how classy you are,  
18 always just even-keeled. You know, some of us say goofy  
19 things, but you're --

20 (Laughter).

21 BOARD MEMBER DE LA TORRE: -- you're always just  
22 totally even-keeled and classy and your dedication  
23 obviously. To be -- to be here for 32 years doing this  
24 sometimes very difficult work, taking very tough votes,  
25 and you never shirked that. You never ran from it. You

1 just did it and stuck by it. So, thank you, Barbara.

2 CHAIR RANDOLPH: Board Member Takvorian.

3 BOARD MEMBER TAKVORIAN: Hi, Barbara. Thank you  
4 so much. I -- it seems like yesterday that you welcomed  
5 me to the Board. It's almost six years ago now. And I  
6 really appreciated the context that you provided for me  
7 and the history. And as coming from a district that was  
8 not independent until just recently, I think we took a lot  
9 of wisdom from the model that you all presented. And also  
10 I really appreciated learning more about small districts  
11 and all of the challenges, which are sometimes greater  
12 than some of the large districts. And I think you taught  
13 us well and I really, really appreciated that. And, you  
14 know, we're close. We're kind of neighbors, so I  
15 appreciated that context as well.

16 And so thank you so much. You've always been so  
17 thoughtful and I always looked forward to your perspective  
18 on issues. So I wish you so much good wishes in your --  
19 in your -- good luck in your next adventure, because I  
20 think, as someone else said, you will not be quiet I'm  
21 sure. And I know that there will be a good adventure and  
22 I know you'll continue to serve your community that you  
23 care so deeply about. So thank you so much.

24 CHAIR RANDOLPH: So I've had the pleasure of  
25 working with you for the last few years. And as others

1 have stated, you know, you have been so welcoming to me  
2 and hearing your wisdom and your experience. And it  
3 amazes me how incredibly hard working you are. All those  
4 miles up and down I-5 to come to Sacramento for meetings  
5 is quite impressive. And you're always ready to share  
6 your wisdom and thoughtfulness on these complex issues we  
7 have to deal with. So I will miss you very much on the  
8 Board. We will all miss you and we are so grateful for  
9 your service to the people of the state of California. So  
10 thank you for your work.

11 (Applause).

12 (Standing applause).

13 CHAIR RANDOLPH: All right. Okay. Now, it's  
14 time to shift gears to the housekeeping, so get ready.

15 We are conducting today's meeting in person as  
16 well as offering remote options for public participation  
17 both by phone and by Zoom.

18 Anyone who wishes to testify in person should  
19 fill out a request to speak card available in the foyer  
20 outside the auditorium. Please turn it into a Board  
21 assistant prior to the commencement of the item. If you  
22 are participating remotely, you will raise your hand in  
23 Zoom or dial star nine if calling in by phone. The Clerk  
24 will provide further details regarding how public  
25 participation will work in just a moment.

1           For safety reasons, please note the emergency  
2 exit to the rear of the auditorium through the lobby. In  
3 the event of a fire alarm, we are required to evacuate  
4 this room and immediately exit the building through the  
5 front entrance. When the all-clear signal is given, we  
6 will return to the auditorium and resume the hearing.

7           A closed captioning feature is available for  
8 those of you joining us in the Zoom environment. In order  
9 to turn on subtitles, please look for a button labeled  
10 "CC" at the bottom of the Zoom window as shown in the  
11 example on the screen now. I would like to take this  
12 opportunity to remind everyone to speak clearly and from a  
13 quiet location, whether you are joining us in Zoom or  
14 calling in by phone.

15           Interpretation services will be provided today in  
16 Spanish. If you are joining us using Zoom, there is a  
17 button labeled "Interpretation" on the Zoom screen. Click  
18 on that interpretation button and select Spanish to hear  
19 the meeting in Spanish. If you are joining us here in  
20 person and would like to listen to the meeting in Spanish,  
21 please notify a Board assistant and they will provide you  
22 with further instructions. I want to remind all of our  
23 speakers to speak slowly and pause intermittently to allow  
24 the interpreters the opportunity to accurately interpret  
25 your comments.

1 (Interpreter translated in Spanish).

2 THE INTERPRETER: Back to you, Chair Randolph.  
3 Thank you.

4 CHAIR RANDOLPH: Thank you. I will now ask the  
5 Board Clerk to provide more detail on today's procedures.

6 BOARD CLERK ESTABROOK: Thank you, Chair.

7 Good morning, everyone. I'm going to provide  
8 some additional information on how the public  
9 participation will be organized for today's meeting.

10 We will first be calling on any in-person  
11 commenters who have turned in a request to speak cards and  
12 then I will be calling on our commenters who are joining  
13 us remotely. If you are joining us remotely and wish to  
14 make a verbal comment on one of today's Board items, you  
15 must be using Zoom webinar or calling in by phone. If you  
16 are currently watching the webcast on CAL-SPAN, but you do  
17 wish to comment remotely, please make sure to register for  
18 the Zoom webinar or call in. Information for both is  
19 found on the public agenda for today's meeting.

20 To make a verbal comment, as the Chair mentioned,  
21 we will be using the raise-hand feature in Zoom. If you  
22 wish to speak on a Board item, please virtually raise your  
23 hand as soon as the item has begun to let us know you wish  
24 to speak. To do this, if you are using a computer or  
25 tablet, there is a raise hand button. And if you are

1 calling in by phone, dial star nine to raise your hand.  
2 Even if you previously indicated which item you wish to  
3 speak on when you registered for the webinar, you must  
4 regi -- raise your hand at the beginning of the item, so  
5 that we can add you to the queue.

6 If you will be giving your verbal comment in  
7 Spanish and require an interpreter's assistance, please  
8 indicate so at the beginning of your testimony and one of  
9 our translators will assist you. During your comment,  
10 please pause after each sentence to allow for the  
11 interpreter to translate your comment into English.

12 When the comment period begins, the order of  
13 commenters will be determined by who raises their hand  
14 first. We will call on each commenter by name and will  
15 activate each commenter's audio when it is your turn to  
16 speak. For those calling in by phone, we will identify  
17 you by the last three digits of your phone number. We  
18 will not be showing a list of remote commenters, however,  
19 we will be announcing the next three or so commenters in  
20 the queue, so you are ready to testify and know who is  
21 coming up next. Please note that you will not appear by  
22 video during your testimony. I would like to remind  
23 everyone to please state your name clearly for the record  
24 before you speak. And this is especially important for  
25 those who are calling in by phone.

1           There will be a time limit for each commenter and  
2 we will begin with a comment period of three minutes,  
3 although this could change at the Chair's discretion.  
4 During public testimony, you will see a timer on the  
5 screen, and for those calling in by phone, we will run the  
6 timer and let you know when you have 30 seconds left and  
7 when your time is up. If you do require a Spanish  
8 interpretation for your comments, then your time will be  
9 doubled.

10           If you wish to submit a written comment today,  
11 please visit CARB's send-us-your-comments page or look at  
12 the public agenda for our webpage for direct links to send  
13 these documents electronically. Written comments will be  
14 accepted on each item until the Chair closes the record  
15 for that Board item.

16           If you do experience any technical difficulties,  
17 please call (805)772-2715, and an IT person can assist  
18 you. This number is on the public agenda.

19           Thank you. I'll turn it back to you, Chair.

20           CHAIR RANDOLPH: Thank you. The first item on  
21 the agenda is Item number 23-1-1, proposed 2022 amendments  
22 to area designations for State ambient air quality  
23 standards. If you are here with us in the room and wish  
24 to comment on this item, please fill out a  
25 request-to-speak card as soon as possible and submit it to



1 a Board assistant. If you are joining us remotely and  
2 want -- wish to comment, please click the raise hand  
3 button or dial star nine now. We'll call on in-person  
4 commenters followed by remote commenters when we get to  
5 the public comment portion of the item.

6 Dr. Cliff, will you please summarize the item.

7 EXECUTIVE OFFICER CLIFF: Thank you, Chair  
8 Randolph. State law requires CARB to annually review and  
9 update the area designations for the State air quality  
10 standards as appropriate. Therefore, based on a review of  
11 2019 through 2021 air quality data, staff is proposing  
12 amendments to existing area designations for ozone and  
13 fine particulate matter, or PM2.5

14 For ozone, staff recommends the Board redesignate  
15 Lake Tahoe Air Basin from attainment to nonattainment, and  
16 Amador County in the Mountain Counties Air Basin, and  
17 Shasta County in the Sacramento Valley Air Basin from  
18 nonattainment transitional to nonattainment.

19 Additionally, staff is recommending that the  
20 Board redesignate Tuolumne County in the Mountain Counties  
21 Air Basin and Santa Barbara County in the South Central  
22 Coast Air Basin from nonattainment to nonattainment  
23 transitional.

24 Finally, for PM2.5, staff recommends the Board  
25 redesignate the Sutter and Yuba counties in the Sacramento

1 Valley Air Basin from attainment to nonattainment.

2 In summary, these changes reflect the current air  
3 quality in these areas and staff recommends approval of  
4 the proposed changes to the state area designations.

5 This concludes my summary of the item. Thank  
6 you.

7 CHAIR RANDOLPH: All right. Thank you.

8 We will now hear from members of the public who  
9 signed up to speak on this item. Board clerk, do we have  
10 commenters?

11 BOARD CLERK ESTABROOK: Yes, we do have one  
12 person in Zoom who has raised their hand to speak and that  
13 is Janet Dietzkamei. Janet, you should be able to unmute  
14 and begin your comments.

15 JANET DIETZKAMEI: Thank you. This is Janet  
16 Dietzkamei. I am a resident of Fresno, California in San  
17 Joaquin Valley. And I would like to say that we in the  
18 San Joaquin Valley still have the worst PM2.5 and ozone  
19 levels in the United States. This is a very, very  
20 concerning situation, because thousands of us, myself  
21 included, have asthma as a result of breathing this air.  
22 We are -- there are a lot of us who also have other  
23 respiratory diseases.

24 But the final thing is every resident in the San  
25 Joaquin Valley is physically affected by the air that we

1 are breathing here. We are the worst for PM2.5 and ozone  
2 in the United States and we are breathing it. Fresno is  
3 the fourth -- fifth largest city in California. We have  
4 both rural and urban issues here. We have stationary and  
5 people -- all of the vehicles, the large trucks, the urban  
6 related vehicles, we just have all sorts of contributors  
7 to the bad air that we have to breathe.

8 Please consider the San Joaquin Valley as  
9 critical in this subject that we are discussing here,  
10 because many thousands of people are suffering from this  
11 air. Thank you.

12 BOARD CLERK ESTABROOK: Thank you.

13 Chair, that concludes the public commenters.

14 CHAIR RANDOLPH: All right. I will now close the  
15 record on this item. Board members, do you have any  
16 questions on this item?

17 Okay. Seeing none, I -- the Board has before  
18 them Resolution number 23-2. Do I have a motion and a  
19 second?

20 VICE CHAIR BERG: So moved.

21 BOARD MEMBER HURT: Second.

22 CHAIR RANDOLPH: Clerk, will you please call the  
23 roll.

24 BOARD CLERK ESTABROOK: Yes. Dr. Balmes?

25 Mr. De La Torre?

1 BOARD MEMBER DE LA TORRE: Aye.  
2 BOARD CLERK ESTABROOK: Mr. Eisenhut?  
3 BOARD MEMBER EISENHUT: Aye.  
4 BOARD CLERK ESTABROOK: Senator Florez?  
5 BOARD MEMBER FLOREZ: Florez, aye.  
6 BOARD CLERK ESTABROOK: Ms. Hurt?  
7 BOARD MEMBER HURT: Aye.  
8 BOARD CLERK ESTABROOK: Mr. Kracov?  
9 BOARD MEMBER KRACOV: Yes.  
10 BOARD CLERK ESTABROOK: Dr. Pacheco-Werner?  
11 BOARD MEMBER PACHECO-WERNER: Yes.  
12 BOARD CLERK ESTABROOK: Professor Sperling?  
13 BOARD MEMBER SPERLING: Aye.  
14 BOARD CLERK ESTABROOK: Ms. Takvorian?  
15 BOARD MEMBER TAKVORIAN: Aye.  
16 BOARD CLERK ESTABROOK: Supervisor Vargas?  
17 Vice Chair Berg?  
18 VICE CHAIR BERG: Aye.  
19 BOARD CLERK ESTABROOK: Chair Randolph?  
20 CHAIR RANDOLPH: Yes.  
21 BOARD CLERK ESTABROOK: Madam Chair, the motions  
22 passes.  
23 CHAIR RANDOLPH: All right. Thank you.  
24 The next item on the agenda is Item number  
25 23-1-2. The Ventura County 2022 Air Quality Management

1 Plan for the 70 ppb 8-hour ozone standard. If you're here  
2 in the room with us, please fill out a request-to-speak  
3 card. If you are joining us remotely and wish to comment  
4 on this item, please push the raise-hand button or dial  
5 star nine now. We will call on in-person commenters first  
6 then remote commenters.

7 Dr. Cliff, will you please summarize the item.

8 EXECUTIVE OFFICER CLIFF: Thank you, Chair  
9 Randolph. Before you is the Ventura County 2022 Air  
10 Quality Management Plan for the 70 part per billion 8-hour  
11 ozone standard. As the first of three SIPs for the 70 ppb  
12 ozone standard to be brought before this Board today, I  
13 want to emphasize that all of these plans represent the  
14 next building block in our collaborative efforts with the  
15 air districts to meet increasingly health protective ozone  
16 standards. In addition to the three SIPs being heard  
17 today, staff will bring the SIPs for the 70 ppb standard  
18 to the Board over -- will bring SIPs for the 70 ppb  
19 standard to the Board over the coming months, starting  
20 with the Western Mojave Desert SIP in February. The  
21 Mojave plan was just approved within the last few weeks by  
22 the Districts' Boards.

23 Returning to the item before you now, over the  
24 past decade, ozone levels in Ventura County have shown  
25 significant improvement in response to reductions in

1 emissions of oxides of nitrogen and reactive organic  
2 gases. Ongoing implementation of current CARB and  
3 district control programs, coupled with reductions from  
4 new measures included in the 2022 State SIP Strategy, will  
5 provide the reductions needed for attainment of the 70 ppb  
6 standard in Ventura County by the 2026 attainment  
7 deadline.

8           The Ventura County Air Pollution Control District  
9 adopted the 2022 plan on December 13, 2022. CARB staff  
10 has concluded that the 2022 plan along with the CARB  
11 emission reduction commitment and other elements included  
12 in the CARB staff report meets the requirements of the  
13 Clean Air Act. Staff recommends that the Board adopt the  
14 2022 plan and State aggregate emission reduction  
15 commitment and the planning emissions inventory appended  
16 to the CARB staff report and forwarded -- and forward  
17 them to the U.S. EPA as a revision to the California SIP.

18           This concludes my summary of the item.

19           Thank you.

20           CHAIR RANDOLPH: Thank you. We will now hear  
21 from members of the public who signed up to speak on this  
22 item. Board Clerk, do we have commenters?

23           BOARD CLERK ESTABROOK: There are no commenters  
24 for this item.

25           CHAIR RANDOLPH: All right. I will now close the

1 record on this agenda item.

2 Are there any questions or comments from Board  
3 members?

4 All right. Seeing none, the Board has before  
5 them Resolution number 23-1. Do I have a motion and a  
6 second?

7 BOARD MEMBER HURT: Move approval.

8 BOARD MEMBER DE LA TORRE: Second.

9 CHAIR RANDOLPH: Clerk, will you please call the  
10 roll?

11 BOARD CLERK ESTABROOK: Mr. De La Torre?

12 BOARD MEMBER DE LA TORRE: Aye.

13 BOARD CLERK ESTABROOK: Mr. Eisenhut?

14 BOARD MEMBER EISENHUT: Aye.

15 BOARD CLERK ESTABROOK: Senator Florez?

16 BOARD MEMBER FLOREZ: Florez, aye

17 BOARD CLERK ESTABROOK: Ms. Hurt?

18 BOARD MEMBER HURT: Aye.

19 BOARD CLERK ESTABROOK: Mr. Kracov?

20 BOARD MEMBER KRACOV: Yes.

21 BOARD CLERK ESTABROOK: Dr. Pacheco-Werner?  
22 Professor Sperling?

23 BOARD MEMBER SPERLING: Aye.

24 BOARD CLERK ESTABROOK: Ms. Takvorian?

25 BOARD MEMBER TAKVORIAN: Aye.

1 BOARD CLERK ESTABROOK: Vice Chair Berg?

2 VICE CHAIR BERG: Aye.

3 BOARD CLERK ESTABROOK: Chair Randolph?

4 CHAIR RANDOLPH: Yes.

5 BOARD CLERK ESTABROOK: Madam Chair, the motion  
6 passes.

7 CHAIR RANDOLPH: All right. Thank you.

8 The next item on the agenda is Item number  
9 23-1-3, the 2022 Air Quality Management Plan for the 70  
10 parts per billion 8-hour ozone standard in the South Coast  
11 Air Basin and Coachella Valley. If you are here with us  
12 in the room and wish to comment on this item, please fill  
13 out a request to speak card. If you are joining us  
14 remotely and wish to comment, please click the raise-hand  
15 button or dial star nine now. We will start with  
16 in-person commenters first, followed by remote commenters  
17 when we get to the public comment portion of this item.

18 For decades, the South Coast Air Quality  
19 Management District and CARB have been working together to  
20 develop plans that push the limits of technology in order  
21 to clean the air and improve the health of the millions of  
22 Californians who live in the South Coast Air District.  
23 The 2022 Air Quality Management Plan, or 2022 AQMP,  
24 targets emissions reductions from all sources of air  
25 pollution and highlights the importance of additional



1 future controls on large sources like ships, locomotives,  
2 and aircraft that are primarily federally and  
3 internationally regulated. The 2022 AQMP is the latest of  
4 these continually evolving plans and was developed to meet  
5 the newest National Ambient Air Quality Standard for ozone  
6 in the South Coast Air Basin and Coachella Valley.

7 Dr. Cliff, would you please introduce the item.

8 EXECUTIVE OFFICER CLIFF: Thank you, Chair  
9 Randolph.

10 Staff is pleased to bring before the Board, the  
11 South Coast Air Basin and Coachella Valley -- Valley's  
12 State Implementation plans for the 70 parts per billion  
13 ozone standard.

14 Historically, the South Coast has had the highest  
15 ozone pollution in the nation, due to the warm climate,  
16 surrounding mountains, high population, and robust  
17 economy. However, even with growth and population in  
18 vehicles over the past several decades, ozone levels in  
19 the South Coast and Coachella Valley have been  
20 significantly reduced due to CARB and the South Coast Air  
21 District's ambitious control programs. While we have made  
22 great strides lowering ozone, levels in the South Coast  
23 and Coachella Valley are still well above the 70 ppb  
24 standard.

25 Last month, the South Coast Air District adopted

1 their 2022 AQMP. This plan shows that the South Coast  
2 will need to reduce NOx emissions by over 80 percent from  
3 2018 levels to attain the 70 ppb standard. In the 2022  
4 AQMP, the District has committed to develop measures on a  
5 wide variety of sources under their regulatory control,  
6 including driving stationary sources to zero emissions  
7 wherever possible.

8           Reductions from direct -- District measures,  
9 together with the reductions from measures in the 2022  
10 State SIP Strategy, provide the necessary reductions for  
11 attainment in the South Coast and Coachella Valley.  
12 Measures from our State SIP Strategy provide the majority  
13 of the reductions to attain the ozone standard and will  
14 also greatly reduce pollution within disadvantaged  
15 communities.

16           Before I pass the presentation to staff, I would  
17 like to highlight an important difference between this air  
18 quality management plan and past ones. Like previous  
19 South Coast SIPs, this plan includes actions and emission  
20 reductions that will need to be approved by U.S. EPA under  
21 the extreme black box provisions of the Act, including  
22 with respect to sources primarily under federal or  
23 international authority, like aircraft and ships.  
24 However, the actions in this plan don't depend on  
25 uncertain funding. These actions are wholly and currently

1 achievable through the federal actions clearly defined in  
2 the 2022 State SIP Strategy. Emissions from these  
3 primarily federally and internationally regulated sources  
4 have grown rapidly and will overwhelm State and District  
5 efforts to meet the ozone standard in future years, absent  
6 new or strengthened federal controls.

7 I will now ask Scott King of the Air Quality  
8 Planning and Science Division to begin the staff  
9 presentation.

10 Scott.

11 (Thereupon a slide presentation).

12 AQPSD AIR POLLUTION SPECIALIST KING: Thank you,  
13 Dr. Cliff. Good morning, Chair Randolphs -- Randolph and  
14 members of the Board. It is my honor to present the South  
15 Coast Air Quality Management District's 2022 Air Quality  
16 Management Plan, or 2022 AQMP, for the 70 parts per  
17 billion ozone standard, along with staff's recommendations  
18 for your consideration today.

19 --o0o--

20 AQPSD AIR POLLUTION SPECIALIST KING: Before we  
21 get into the details of the 2022 AQMP, I'm going to  
22 provide some background on the areas and the standard  
23 being discussed in the item before you today. As you can  
24 see in this slide, the South Coast Air Basin is made up of  
25 significant portions of Los Angeles County, San Bernardino

1 County, Riverside County, and all of Orange County. It is  
2 home to almost 17 million residents, which is  
3 approximately 40 percent of California's population.

4 The Coachella Valley is made up of the Salton Sea  
5 Air Basin portion of Riverside County and has a population  
6 of approximately 450,000 residents that is expected to  
7 almost double by 2035. The South Coast Air Quality  
8 Management District is the local air agency that oversees  
9 both the South Coast Air Basin and the Coachella Valley.

10 --o0o--

11 AQPSD AIR POLLUTION SPECIALIST KING: Over the  
12 past 30 years, control programs developed by the district  
13 and CARB has significantly reduced ozone concentrations in  
14 the South Coast and Coachella Valley. As shown in this  
15 slide, between 1990 and 2022, the 8-hour ozone design  
16 values have been reduced by nearly 40 percent in the South  
17 Coast. And in some areas, such as in the cities of Los  
18 Angeles, San -- sorry, Los Angeles, Pasadena, and  
19 Glendora, the number of unhealthy ozone days has been  
20 reduced by 70 to 90 percent.

21 However, as you can see here, recent ozone design  
22 values have increased somewhat. 2020 was an especially  
23 bad year being atypically hot and stagnant resulting in  
24 ozone levels in the South Coast that have not occurred in  
25 15 years. 2020 air quality impacts not only the 2020

1 design value but also 2021 and 2022 design values seen on  
2 this graph. However, air quality in 2021 and 2022 was  
3 actually significant better and ozone is trending back in  
4 the right direction.

5 And in the Coachella Valley, design values have  
6 been reduced by over 30 percent in the last 30 years.  
7 However, to meet the latest health protective ozone  
8 standard, there is a tremendous amount of work that needs  
9 to be done. So let's talk about the standard we are  
10 focusing on today.

11 --o0o--

12 AQPSD AIR POLLUTION SPECIALIST KING: The federal  
13 Clean Air Act requires the United States Environmental  
14 Protection Agency, or EPA, to set air quality standards  
15 and reevaluate these standards every five years to make  
16 sure they are as healthy -- health protective as possible  
17 based on the latest science. In 2015, EPA reevaluated --  
18 thank you.

19 In 2015, EPA reevaluated the ozone standard and  
20 set it at 70 parts per billion, or ppb. When EPA set the  
21 standard, they classified the South Coast Air Basin as  
22 extreme, the highest ozone classification, giving the  
23 District 20 years to meet the 70 parts per billion  
24 standard. Originally, the Coachella Valley was classified  
25 as severe. But since ozone in Coachella is mainly due to

1 being downstream of the South Coast, the District has  
2 since determined that Coachella will also need 20 years  
3 and additional emission reductions to attain the 70 parts  
4 per billion standard.

5 As a result, the AQMP developed by the District  
6 includes a request that the Coachella Valley be classified  
7 as extreme, meaning that both areas will need to attain  
8 the standard in 2037.

9 --o0o--

10 AQPSD AIR POLLUTION SPECIALIST KING: For areas  
11 not meeting an ozone standard, the federal Clean Air Act  
12 requires that the states develop a State Implementation  
13 Plan, or SIP, that demonstrates how the area is going to  
14 attain the ozone standard. The Act requires that the SIP  
15 contain a number of specific pieces. This slide shows the  
16 basic elements of an attainment SIP and how they build  
17 upon each other to demonstrate attainment of the standard.

18 At the base of this process is air quality  
19 monitoring, understanding the extent of the ozone problem  
20 throughout the area. Next, an accurate accounting of  
21 source emissions is necessary to identify the amount of  
22 precursor emissions coming from different sources such as  
23 cars, trucks, trains, or factories.

24 The monitoring data and emission inventory are  
25 used in an air quality model to predict future ozone

1 levels and estimate the amount of emissions needed to be  
2 reduced to meet the ozone standard.

3 Finally, based on the results of modeling, a SIP  
4 must include a control strategy to reduce those emissions  
5 from the sources causing the ozone problem. Developing  
6 the control strategy requires extensive collaboration with  
7 local air districts impacted businesses, health advocates  
8 and community members, as well as other stakeholders.

9 --o0o--

10 AQPSD AIR POLLUTION SPECIALIST KING: To meet the  
11 Clean Air Act requirements, last month the District  
12 adopted the 2022 Air Quality Management Plan, which  
13 demonstrates how both the South Coast and Coachella Valley  
14 will attain the 70 parts per billion ozone standard in  
15 2037. The AQMP was developed over a three-year period  
16 with significant public input and in close coordination  
17 with CARB staff. The 2022 AQMP is an aggressive plan that  
18 drives zero-emission technology in all sectors to lower  
19 air pollution. The 2022 AQMP also includes emission  
20 reductions from the 2022 State SIP Strategy approved by  
21 this Board last September.

22 In the State SIP strategy, CARB focused on the  
23 drive to zero -- drive to zero, primarily on mobile -- on  
24 the mobile side. And for the first time in an AQMP, the  
25 District is also focusing on the transition to

1 zero-emission technologies for stationary sources  
2 everywhere feasible.

3           In another first, the District shifted to a new  
4 screening threshold in the development of their control  
5 measures in the 2022 AQMP. The screening threshold in  
6 previous AQMPs was based on cost of control technology,  
7 while the new threshold is much higher and consists of the  
8 monetized health benefits of reducing pollution. The use  
9 of this new threshold further emphasizes the District's  
10 focus on health by ensuring that additional measures are  
11 subject to more rigorous analysis in consideration for  
12 inclusion in the 2022 AQMP.

13                           --o0o--

14           AQPSD AIR POLLUTION SPECIALIST KING: And while  
15 2022 AQMP and really all ozone SIPs are planning documents  
16 required to reduce pollution at a regional level, the  
17 control measures in the AQMP from the District and from  
18 CARB, as part of the State SIP Strategy, will reduce  
19 emissions in many priority communities that are  
20 overburdened by emissions from freight source, including  
21 trucks and warehouses, trains and railyards, and ships and  
22 ports.

23           As part of the AQMP, the District developed a  
24 socioeconomic report that evaluated and identified the  
25 cost and total health benefit of the AQMP, including



1 looking at specific benefits in at-risk communities. Both  
2 the District, when developing the AQMP, and CARB, when  
3 developing the State strategy, engaged with community  
4 members and organizations to pro -- to process -- in the  
5 process - sorry - of creating the control measures needed  
6 to reduce emissions and meet the ozone standard.

7           The Board heard in September about CARB staff's  
8 outreach and engagement with developing the CARB measures.  
9 In developing the 2022 AQMP, the District had numerous  
10 meetings and workshops with active participation by  
11 community-based organizations, environmental nonprofit  
12 organizations, business, university, and government  
13 representatives. This level of public engagement is  
14 critical to accomplish the reductions needed to attain the  
15 ozone standard in the South Coast.

16                           --o0o--

17           AQPSD AIR POLLUTION SPECIALIST KING: Now, let's  
18 talk about what it will take to meet the 70 part per  
19 billion standard in the South Coast. This slide shows the  
20 level of emissions -- the level of emission reductions of  
21 oxide of nitrogen, also known as NOx, needed for the South  
22 Coast Air Basin to attain the ozone standard. As  
23 demonstrated through air quality modeling, NOx emission --  
24 NOx reduction -- reductions are the primary driver for  
25 ozone reductions in the South Coast and provide the only

1 feasible path to meet the standard. The bar on the left  
2 shows NOx emissions from all sources of air pollution in  
3 the South Coast in 2018, a total of 351 tons per day  
4 broken down by their source category.

5 If we did nothing but rely on already adopted  
6 programs, the total NOx emissions in 2037 would go down to  
7 185 tons per day as shown in the second bar.

8 But to attain the 70 parts per billion standard,  
9 modeling in the 2022 AQMP determined that NOx emissions  
10 must be reduced to the third bar, or 60 tons per day, an  
11 additional 70 percent reduction beyond the baseline level  
12 that we would otherwise see in 2037 from programs already  
13 in place. To reach the 60 tons per day level, CARB and  
14 the District worked together to identify control measures  
15 to achieve the needed reduction.

16 --o0o--

17 AQPSD AIR POLLUTION SPECIALIST KING: The next  
18 two slides list control measures that the District has  
19 committed to pursuing to reach attainment. California law  
20 assigns the air districts as the primarily regulatory  
21 agency over stationary and area-wide sources of air  
22 pollution, while CARB has primary authority to control  
23 in-state mobile and consumer products emissions. This  
24 slide shows the stationary source measures proposed by the  
25 District as part of the recently adopted AQMP. The

1 District measures encompass all stationary sources of air  
2 pollution, ranging from large industrial complexes like  
3 energy generating facilities and oil refineries to small  
4 but numerous sources, like residential buildings.

5 The District control measures will reduce  
6 emissions from residential and commercial appliances, like  
7 water heaters, space heaters, and cooking devices by  
8 requiring cleaner energy to power these processes. The  
9 new district measures for stationary source -- sources  
10 accelerate the transition from traditional combustion  
11 sources towards zero-emission energy sources, resulting in  
12 a 60 percent reduction in NOx emissions between 2018 and  
13 2037.

14 --o0o--

15 AQPSD AIR POLLUTION SPECIALIST KING: This slide  
16 lists the District's mobile source control measures.  
17 While most of the authorities who regulate mobile sources  
18 lies with the State and federal governments, the District  
19 has a number of measures that will also reduce emissions  
20 from local sources. Some of the key measures on this  
21 slide that the District is actively developing are the  
22 ones labeled here as facility based measures. The  
23 District already approved a very stringent and significant  
24 Indirect Source Rule for warehouse and is continuing to  
25 work toward implementing additional indirect source rules

1 for marine ports and intermodal facilities like railyards.

2 They are also continuing to use voluntary  
3 memorandums of understanding at commercial airports. The  
4 District's other strategies to lower emissions for mobile  
5 sources include retiring older vehicles, exchange programs  
6 for off-road equipment, clean construction policies, and  
7 other incentives programs.

8 --o0o--

9 AQPSD AIR POLLUTION SPECIALIST KING: While the  
10 District measures provide reductions from sources under  
11 their authority, most of the NOx emissions in the South  
12 Coast come from sources that are under State and federal  
13 authority. The 2020 -- 2022 State SIP Strategy, which was  
14 developed to provide control measures and reductions  
15 needed to meet the 70 part per billion standard across  
16 California will provide 95.7 tons per day of NOx  
17 reductions as needed for attainment in the South Coast.  
18 This represents over 70 percent of the total reductions  
19 from new measures needed for South Coast to attain and  
20 builds on significant emission reductions that are being  
21 achieved through measures adopted in previous SIPs, and  
22 currently being implemented through adopted CARB rules.  
23 When the Board adopted the State SIP Strategy, you also  
24 approved the commitment to pursue each of the measures  
25 listed on the next slide.

1 --o0o--

2 AQPSD AIR POLLUTION SPECIALIST KING: In the  
3 Strategy, CARB committed to pursue an unprecedented  
4 variety of new measures to reduce emissions from the  
5 sources under our authority. This slide shows the  
6 measures from the strategy which are categorized into on-  
7 and off-road mobile sources, and other sources that  
8 California can regulate, such as consumer products and  
9 pesticides.

10 For on-road mobile sources, the strategy includes  
11 a number of measures that will require zero-emission  
12 travel both for people and freight. These include the  
13 Clean Miles Standard Regulation, the Advanced Clean Fleets  
14 Regulation, and the Zero-Emission Truck Measure. The  
15 control measures for off-road vehicles and equipment  
16 include a broad range of programs that target some of the  
17 oldest and dirtiest equipment that remain in use today  
18 from sources such as harbor craft, cargo handling  
19 equipment, and other off-road equipment. Along with  
20 on-road sources and off-road equipment, CARB will achieve  
21 additional reductions from new measures for consumer  
22 products and appliances.

23 Finally, and in some ways most importantly, the  
24 strategy includes measures to achieve reductions from  
25 sources primarily releg -- regulated at the federal and

1 international level, such as locomotives, ocean-going  
2 vessels, and aircraft, which will be needed to meet the  
3 ozone standard in the South Coast.

4 While CARB and thd District are working to  
5 identify all actions within our jurisdiction to remove --  
6 to reduce emissions from these primary -- primarily  
7 federal -- federally regulated sources, I want to  
8 highlight that we cannot achieve the ozone standard  
9 without action at the federal level.

10 --o0o--

11 AQPSD AIR POLLUTION SPECIALIST KING: This graph  
12 shows statewide mobile source NOx emissions from 2000 to  
13 2040, with the blue line representing California regulated  
14 mobile sources with adopted rules and the gold line  
15 represented -- representing primarily federally regulated  
16 sources, such as interstate trucks, planes, trains and  
17 ships. Emissions from primarily federal sources surpass  
18 California sources in 2020, and without more stringent  
19 federal requirements will double the contribution of  
20 California regulated sources by 2030. Given the  
21 increasingly significant contribution of air pollution  
22 from these federally regulated sources, federal and  
23 international action is critical to attain the 70 parts  
24 per billion ozone standard, as well as to support  
25 attainment of other federal standards and reduce community

1 exposure.

2 --o0o--

3 AQPSD AIR POLLUTION SPECIALIST KING: In the  
4 State Strategy, CARB identified regulatory actions needed  
5 to achieve emission reductions from the sources primarily  
6 regulated at the federal level. Emission reductions from  
7 these sources are necessary for the South Coast and  
8 Coachella Valley to attain the 70 part per billion  
9 standard. The actions identified for on -- for the  
10 on-road sector include a federal low-NOx standard for  
11 on-road heavy-duty vehicles, now being proposed as the  
12 federal Clean Truck Plan and federal zero-emission on-road  
13 heavy-duty vehicle requirements.

14 In the off-road categories, we are pushing EPA  
15 for off-road equipment, Tier 5 compression ignition  
16 standards, more stringent national locomotive emission  
17 standards, and for the option of more stringent Tier 4  
18 marine standards.

19 In aviation, we will -- we need to position or  
20 continue to advocate to EPA, the International Civil  
21 Aviation Organization, and other regulatory agencies for  
22 more stringent standards for aircraft engines and the use  
23 of cleaner fuels and engines when traveling through  
24 California. The measures to control primarily federally  
25 regulated sources will also provide health benefits for

1 disadvantaged communities disproportionately affected by  
2 emissions associated with ports, warehouses, and other  
3 freight hubs.

4           While CARB has defined these measures for EPA, it  
5 should be noted that for EPA to approve them in the SIP,  
6 they will need to be approved under the advanced  
7 technology provision of the Clean Air Act, also referred  
8 to as the black box. The black box measures in the 2022  
9 AQMP differ from those of past AQMPs in that in the 2022  
10 State SIP Strategy, these measures are defined and  
11 assigned to specific federal actions.

12                           --o0o--

13           AQPSD AIR POLLUTION SPECIALIST KING: And while  
14 federal actions seem glacial, the State and District  
15 continue to pass rules lowering emissions. CARB will get  
16 approximately six tons per day of NOx emi -- NOx  
17 reductions from measures included in the 2016 State SIP  
18 Strategy namely the Advanced Clean Cars II, the TRU  
19 Regulation Part 1, and, the Zero-Emission Forklift Rule.

20           While most of CARB's measures committed to in the  
21 2016 State SIP Strategy have been adopted and their  
22 emission -- and their associated emission reductions are  
23 reflected in the baseline inventory for the 2022 AQMP, the  
24 three measures listed here were not included in the  
25 baseline inventory, so their emission reductions will be



1 included as part of the commitment being considered by the  
2 Board today.

3 Two of these measures, the Advanced Clean Cars II  
4 and the Transportation Refrigeration Unit Part 1, were  
5 adopted by the Board in 2022. And the final one,  
6 Zero-Emission Forklift Regulation is planned for the  
7 Board -- is planned for Board consideration this year.

8 --o0o--

9 AQPSD AIR POLLUTION SPECIALIST KING: Arriving at  
10 a legally approvable SIP requires action on the part of  
11 the CARB Board that can be broken down into two steps.  
12 First, the Board needs to approve a commitment to pursue  
13 all feasible measures under CARB's authority. This was  
14 accomplished last September when you adopted the 2022  
15 State SIP Strategy.

16 Second, the Board needs to commit to achieving  
17 the aggregate emission reductions from all sources needed  
18 to show attainment in a specific region, such as the South  
19 Coast, by the designated attainment date.

20 Today, staff is asking you to take this second  
21 step, namely to adopt the commitment to aggregate -- to  
22 achieve aggregate emission reductions in our State  
23 measures in the South Coast and Coachella Valley by  
24 specific dates. I will go into more detail on the  
25 District's State and federal commitments in the next

1 series of slides.

2 --o0o--

3 AQPSD AIR POLLUTION SPECIALIST KING: In addition  
4 to the State commitment -- commitments I just described,  
5 the District has also committed to emission reductions  
6 from measures included in their 2022 AQMP. This table  
7 provides the commitments from the District in the 2022  
8 AQMP and from State and federal measures in the 2022 State  
9 SIP Strategy.

10 In 2037, the District has committed to achieve 29  
11 tons per day of NOx reductions. CARB measures in the 2022  
12 State SIP Strategy would achieve 44 tons per day of NOx  
13 reductions, of which approximately 10 will come from  
14 regulations that the Board has already approved that were  
15 measures in the 2016 and 2022 State SIP strategies.

16 And finally, for the sources that are primarily  
17 under federal or international authority, quantified  
18 measures would prove -- would provide 52 tons per day of  
19 NOx reductions. Collectively, these reductions prove --  
20 provide for attainment of the 70 parts per billion  
21 standard in the South Coast by 2037. Modeling in the 2022  
22 AQMP also demonstrates that this strategy provides for  
23 attainment in the downwind Coachella Valley by 2037 also.

24 --o0o--

25 AQPSD AIR POLLUTION SPECIALIST KING: With these

1 commitments, the 2022 AQMP demonstrates that the South  
2 Coast will attain the 70 parts per billion ozone standard  
3 in 2037. This slide provides a detailed breakdown of the  
4 categories of emissions and their reductions.

5 The first bar on the left is the 2037 baseline  
6 emissions that you saw previously in slide 7, showing the  
7 emissions if no new regulations are adopted beyond those  
8 currently adopted by CARB and the District. The middle  
9 bar shows the remaining emissions in 2037 after the  
10 District and CARB measures have been implemented. And the  
11 bar on the right represents remaining emissions from  
12 sources in the South Coast when all measures, including  
13 those assigned to federal and international sources --  
14 international sources are implemented.

15 The third bar, which reflects all the measures in  
16 this plan shows that we have identified the emission  
17 reductions needed to attain the 70 part per billion  
18 standard in the South Coast.

19 --o0o--

20 AQPSD AIR POLLUTION SPECIALIST KING: Oh, 20.  
21 Thank you.

22 And while ozone is a regional pollutant, meaning  
23 that it typically forms some distance downwind of the  
24 emission sources, the District and CARB went to great  
25 lengths to verify that the 2022 AQMP was providing air



1 requirements. The SIP being considered by the Board today  
2 includes the required emission -- emissions inventories,  
3 assessment of reasonably available control measures,  
4 attainment demonstrations, as well as a demonstration of  
5 the required annual progress reducing emissions, and  
6 related motor vehicle emission budgets, a vehicle miles  
7 traveled offset demonstration, and contingency  
8 requirements.

9 --o0o--

10 AQPSD AIR POLLUTION SPECIALIST KING: In closing,  
11 staff recommends the Board adopt the State commitment to  
12 achieve aggregate emission reductions in the South Coast  
13 Air Basin and Coachella Valley by 2037, adopt the South  
14 Coast 2022 Air Quality Management Plan, adopt the planning  
15 emissions inventories, reasonable further progress  
16 demonstrations, and vehicle miles traveled offset  
17 demonstration included in the CARB staff report, and  
18 direct staff to submit the 2022 AQMP and CARB staff report  
19 to EPA as revision to the California SIP.

20 --o0o--

21 AQPSD AIR POLLUTION SPECIALIST KING: Thank you  
22 for your attention and now I would like to invite Dr.  
23 Sarah Rees, the South Coast Air Quality Management  
24 District Deputy Executive Officer for Planning, Rules  
25 Development, and Implementation to provide comments from

1 the District

2 DR. SARAH REES: Great.

3 AQPSD AIR POLLUTION SPECIALIST KING: Dr. Rees.

4 (Laughter).

5 DR. SARAH REES: Good morning, Chair Randolph,  
6 members of the Board. Thank you for the opportunity to  
7 speak this morning. My name is Sarah Rees. I'm the  
8 Deputy Executive Officer for Planning at the South Coast  
9 AQMD.

10 We strongly support adoption of this Air Quality  
11 Management Plan. This is our most aggressive Air Quality  
12 Management Plan to date. It's needed as you can see from  
13 staff's report. The amount of emissions reductions  
14 required are quite frankly breathtaking and so this is why  
15 for the first time we are expressly pivoting towards  
16 adoption of zero-emission technologies wherever and where  
17 are feasible across all sectors.

18 The good news is when fully implemented, this  
19 Plan is going deliver substantial public health benefits.  
20 We will avoid approximately 1,500 premature deaths a year.  
21 When we monetize all the health benefits that we expect  
22 from this plan, it's going to be in the range of \$19.4  
23 billion a year, so very, very substantial benefits. And  
24 as staff mentioned, we do expect to see these benefits  
25 across the basin, but particularly for our EJ communities

1 that are already overburdened by air pollution.

2           It's going to be very challenging to get to this  
3 plan and to implement it. You know, the amount of  
4 emission reductions are very significant. But there's  
5 also a few barriers and I want to touch on three points  
6 that are going to be critical to the success of this plan.  
7 The first is the need for zero-emission infrastructure,  
8 the fueling infrastructure. We have issues both on the  
9 generation side as well as all the planning and  
10 coordination required for the buildout of the  
11 infrastructure.

12           On the generation side, we estimate that power  
13 generation needs to approximately double over the period  
14 of the plan in order to be able to support all of the  
15 zero-emission technology needed. That arguably is the  
16 more solvable problem.

17           The bigger issue, in my opinion, is the buildout,  
18 is how do we finance the buildout needed, how do we  
19 coordinate amongst all the agencies, both State and local  
20 level, that have a piece of this to be able to get the  
21 infrastructure in place in a timely manner. So getting  
22 the funding present, figuring out the permitting issues et  
23 cetera.

24           The second issue is one that staff highlighted,  
25 which is a need for federal action. Frankly, we will not

1 be able to attain the 2015 ozone standard without federal  
2 action and I believe probably the other ozone standards as  
3 well.

4           In 2037, which is the date we need to be able to  
5 attain the standard, the amount of emissions from  
6 ocean-going vessels and aircraft alone are going to eat up  
7 almost all of the NOx that we can have in the atmosphere  
8 and still be able to meet the standard. They'll be  
9 simply, despite the best efforts of CARB staff and South  
10 Coast, no room to be able to meet that standard unless  
11 those choices are addressed. We stand at the ready to  
12 continue to work with CARB staff and our efforts in D.C.  
13 to get the federal government to pay attention and to  
14 Frankly step up and have their regulations keep pace with  
15 what California has been able to achieve.

16           And then the third issue is that of equity and  
17 environmental justice. This plan is going to be very  
18 challenging and very expensive to implement and it's  
19 critical that we do this and make this transition to  
20 zero-emission technology in an equitable way that doesn't  
21 leave behind our environmental justice communities. One  
22 of the ways we think is really important to do that is to  
23 design incentive programs in a way that prioritizes funds  
24 to EJ communities, recognizes the challenges of low-income  
25 areas, and some of the challenges on some of our control



1 measures addressing residential buildings, for example.  
2 If you're majority tenant occupied in an area, how do you  
3 overcome that hurdle, how do you get the funds to upgrade  
4 the wiring and all the other infrastructure that's needed  
5 to support electrification.

6           And finally, I want to express my gratitude and  
7 thanks to CARB staff. I feel like we have a very strong  
8 partnership. Their help has been invaluable in getting  
9 this Air Quality Management Plan together and across the  
10 threshold and also thank them for their partnership with  
11 us, and frankly often much needed sense of humor as we  
12 battle these very, very challenging and daunting issues,  
13 and look forward to continuing our partnership in the  
14 future.

15           Thank you.

16           CHAIR RANDOLPH: All right. Thank you very much.  
17 We will now hear from the public who signed up to speak on  
18 this item, either by submitting a request to speak card or  
19 by raising a hand in Zoom.

20           Board Clerk, will you please call on the public  
21 commenters.

22           BOARD CLERK ESTABROOK: Yes. Thank you, Chair.  
23 It looks like we have five people in Zoom with their hands  
24 raised. And the first three are Ian Faloona, Robert  
25 Yuhnke, and Chris Chavez.

1           So, Ian, you should be able to unmute and begin.

2           DR. IAN FALOONA: Thank you very much. My name  
3 is Ian Faloona. I'm an atmospheric scientist at the  
4 University of California at Davis.

5           I would like to present something, but I don't  
6 have any access to share screens, so I won't be able to  
7 show you any of the data. But to cut to the chase, I  
8 believe that your SIP modeling in the plan that was  
9 outlined by Mr. Moore is fatally flawed, because it  
10 ignores a significant source of nitrogen oxides of the  
11 atmosphere, that is those that come from microbes in soil,  
12 and particularly in warm dry soils like in the Southern  
13 San Joaquin Valley and in the Coachella Valley.

14           This is a well established mechanism that is  
15 completely overlooked by the current modeling that CARB is  
16 doing. We have mounting evidence that I would just like  
17 to go over. I can't show you visually, but I can tell you  
18 the history. In 2015, Oikawa et al. in Nature published  
19 results that showed that soil NOx emissions from the  
20 Imperial Valley were 10 to 60 times greater than what is  
21 commonly model in the chemical transport model.

22           In 2018, I was involved with a paper that came  
23 out in Science by Almaraz et al. and we showed that in the  
24 Southern San Joaquin Valley and the Imperial Valley and  
25 Coachella Valley, there are large soil source -- sources

1 of NOx, which is, by the way, a precursor to both ozone  
2 and PM2.5. Both of these problems, as you all know, are  
3 extremely recalcitrant in these regions of great  
4 agricultural activity. That paper came out.

5           Then in -- more recently, Shah et al. showed from  
6 their modeling of soil sources that in cropland areas of  
7 California, approximately 50 percent of the total NOx  
8 emissions come from these soils sources and California  
9 wide, it's more like 40 percent. This is right in line  
10 with what Almaraz et al. estimated, something like 20 to  
11 30 percent coming from these soil sources.

12           Work I've been doing with David Parrish that was  
13 public in Parrish et al. 2017 and is in press right now  
14 shows that the ozone trends across decades in much of  
15 Southern California indicate that there's an asymptote  
16 being approached. There's a floor, which is above the  
17 national ambient air quality standards. I would like to  
18 show you some of that information, but again, I don't have  
19 the visual access, but this shows -- okay. I see that.

20           BOARD CLERK ESTABROOK: Ian, I wanted to let you  
21 know -- I wanted to let you know that if you -- there's a  
22 link here or -- that's shown -- web address that's shown  
23 on the screen application/public comments. The docket for  
24 this item will be able to receive written comments until  
25 the conclusion of public comment. So if you want to go to

1 that website now, you can submit that, and then the Board  
2 members and the public, everyone will be able to see your  
3 materials from the webpage.

4 DR. IAN FALOONA: Yeah. I would also just like  
5 to point out that I've seen in public comments to these  
6 documents other people have raised this issue. And so  
7 while I think it's laudable to have these public comments,  
8 I think it's -- it's incumbent that you have to  
9 acknowledge this. You have to acknowledge this source.  
10 It's been ignored for too long --

11 BOARD CLERK ESTABROOK: Thank you.

12 DR. IAN FALOONA: -- and the mounting evidence is  
13 there.

14 BOARD CLERK ESTABROOK: Thank you.

15 All right. Next, we will hear from Robert  
16 Yuhnke. After Robert will be Chris Chavez, Heather Lieb,  
17 Adrian -- and then Adrian Martinez. If you would like to  
18 comment on this item, please raise your hand now. Robert,  
19 you should be able to unmute and begin.

20 ROBERT YUHNKE: Thank you. Chairman Randolph and  
21 Board members. My name is Robert Yuhnke. I am currently  
22 representing Elders Climate Action. I'm a senior with  
23 grandchildren and we're committed to protecting the  
24 environment for their future.

25 We submitted written comments addressing the

1 challenge that you face in developing rules to achieve the  
2 aggregate NOx reductions in the black box and particularly  
3 with regard to the reductions that are needed from on-road  
4 sources to achieve attainment in the South Coast. You are  
5 taking a revolutionary step towards phasing out the  
6 operation of internal combustion engines with the draft  
7 Clean Fleets Rule, which is one of the primary elements of  
8 the commitments that you have taken.

9           That commitment is very important, especially for  
10 the protection of the frontline communities along the  
11 SR-47, the 710, and the 110 to protect those communities  
12 from diesel exhaust from the trucks that are serving the  
13 ports. The Clean Fleets Rule would phase out those  
14 internal combustion engine vehicles in -- that serve the  
15 ports. And that is an important first step in  
16 implementing a requirement of the Clean Air Act that I  
17 helped write back in 1990.

18           At that time, I was the senior attorney at  
19 Environmental Defense Fund working with Henry Waxman's  
20 staff in drafting the Act. And I want you to be clear  
21 that the authority that you are relying upon intended  
22 that the District and the states have authority to phase  
23 out the operation of polluting vehicles. This is a  
24 requirement that you are now pursuing for the first time.  
25 We're sure that it will be challenged and that comments

1 that I submitted for the purpose of helping to support the  
2 legal basis for those strategies.

3 But in addition, we urge you to take two other  
4 actions. One is that in the development of the Clean  
5 Fleets Rule that you direct staff to pursue Alternative 2,  
6 which aligns the phaseout deadline for the internal  
7 combustion vehicles with the attainment deadline in the  
8 Act of 2037, and secondly, that you investigate expanding  
9 the scope of the Clean Fleets Rule to ultimately eliminate  
10 the operation of all internal combustion medium and  
11 heavy-duty vehicles for which there is a zero-emission  
12 policy available.

13 Thank you.

14 BOARD CLERK ESTABROOK: Thank you.

15 Chris Chavez.

16 CHRISTOPHER CHAVEZ: Yes. Good morning. This is  
17 Chris Chavez, Deputy Policy Director at Coalition for  
18 Clean Air. First, I just wanted to note that it sounds  
19 like the Spanish translation is getting into the English  
20 channel, so you might want to address that.

21 We recognize the difficult task ahead for the  
22 South Coast Air Quality Management District. Not only is  
23 South -- the South Coast Air Basin the smoggiest in the  
24 region, it also has some of the nation's highest  
25 particulate matter levels. While all Southern California

1 is affected by poor air quality, we can't lose site of the  
2 fact that the burden falls heaviest on low-income and  
3 disadvantaged communities, many of which were formerly  
4 red- and yellow-lined neighborhoods.

5 We remain concerned about the role, however, of  
6 speculative black box reductions from future technologies  
7 in the AQMP. Prior AQMPs also relied heavily on black box  
8 reductions. Yet we are still out of attainment of air  
9 quality standards. It's also worth noting that initially,  
10 this AQMP was not supposed to rely on such reductions.

11 We fully agree that U.S. EPA needs to step up to  
12 the plate with new standards, rules, and enforcement. We  
13 also believe that South Coast AQMD and CARB both need to  
14 get every ounce of emission reductions it can get as  
15 quickly as possible. This will require the district to  
16 get rid of artificially low cost effectiveness thresholds.

17 Further, the District must pass and begin  
18 implementing an Indirect Source Rule for both the ports  
19 and railyards this year. Reducing emissions from the  
20 ports has been identified as a strategy since at least the  
21 2007 AQMP and the route to the current process span back  
22 to 2018.

23 Meanwhile, there are two proposed railyards, one  
24 in the very heart of the Wilmington, Carson, and West Long  
25 Beach AB 617 community and another adjacent to the Colton

1 community. For AB 617, we'd also note that while the  
2 District is likely to have its rules updated for the best  
3 available retrofit control technology deadline by 20 -- or  
4 December 31st, 2023, the actual Implementation of these  
5 rules will extend well into the 2030s.

6 We are also concerned about the availability of  
7 State incentive dollars which both AQMD and CARB rely  
8 heavily upon. The governor's budget proposal includes  
9 billions of dollars in trigger cuts, most of which will  
10 come to -- from the medium- and heavy-duty programs of  
11 transit and infrastructure. If these cuts come to pass,  
12 both the District and CARB will need to rethink of the  
13 role of the incentives in its air quality and climate  
14 plans. With those comments, I do want to elevate and  
15 commend South Coast for the AQMP's provisions on building  
16 decarbonization.

17 While transportation is the largest source of  
18 pollution in California, pollution from carbon-intensive  
19 buildings, including back-up generators, contributes to  
20 our region's poor air quality. We encourage both CARB and  
21 the District to pursue building decarbonization control  
22 measures, while also assisting equity communities with the  
23 transition.

24 Thank you.

25 BOARD CLERK ESTABROOK: Thank you and thanks for



1 flagging that for us about the Spanish coming through.  
2 We're going to work on that.

3 Heather, you can unmute and begin.

4 HEATHER LIEB: Hi. My name is Heather Lieb. I  
5 am a graduate student at UC Davis and I focus on research  
6 in the Salton Sea Air Basin. I have four points I want to  
7 make today.

8 So first, I just want to acknowledge thank you so  
9 much for your hard work, but the references mentioned in  
10 your weight of evidence for the Coachella Valley a lot of  
11 them are from studies before 2016, so I don't think that  
12 it really reflects any of the recent research, which is  
13 mainly to address the current NOx budget, which was  
14 actually published in 2012, so it's over a decade old now.

15 This NOx budget does not acknowledge the  
16 contribution of soil NOx, which could be anywhere from 20  
17 to 50 percent based on previous studies. And the reason I  
18 bring this up is because the Coachella Valley is NOx  
19 limited. So, yes, reducing vehicle emissions will help  
20 with the ozone pollution, but not addressing agricultural  
21 and lawn management sources from soil NOx emissions and  
22 warmer temperatures is going to result in an increase in  
23 NOx just due to the microbial process in the soil, and  
24 therefore that's going to raise your NOx emissions, which  
25 is only going to make it harder to attain the ozone

1 standard.

2           The reason I mention this is because the region  
3 of the Coachella Valley that will most likely face this  
4 problem the most are the southern and eastern portions of  
5 the Coachella Valley. They have more agriculture in the  
6 region, but these regions are also the communities that  
7 face the most environmental burdens. They are the  
8 low-income communities. A lot of our ag workers -- I work  
9 with Lideres Campesinas and Comite Civico del Valle in my  
10 research, and so I really just wanted to acknowledge that  
11 not addressing agricultural sources and their production,  
12 and ozone pollution, and PM pollution in this region is  
13 actually an act of environmental justice. So thank you  
14 for your time.

15           BOARD CLERK ESTABROOK: Thank you.

16           Next, we'll hear from Adrian Martinez and then  
17 after that, our last speaker will be Teresa Bui.

18           Adrian, you can unmute and begin.

19           ADRIAN MARTINEZ: Good afternoon, Chair Randolph  
20 and members of the Board. My name is Adrian Martinez and  
21 I'm an attorney with Earthjustice. Earthjustice  
22 participated extensively with our partners and clients in  
23 the development of the South Coast Air Plan and then also  
24 the State Strategy.

25           I'm here today to recommend that there be

1 continuing monitored -- monitoring of control measure  
2 development. You know, both the California Air Resources  
3 Board and the South Coast Air Quality Management District  
4 have been ambitious in setting forward many control  
5 measures on deadlines in the plan. Sometimes, after the  
6 plan approval, everyone takes a breath and sometimes we  
7 forget to kind of implement some of the measures.

8           And in this case, it's really important, because  
9 for certain measures, there are no emission reduction  
10 commitments in the plan, such as the Indirect Source Rules  
11 for ports and railyards. And so what that means is  
12 sometimes there may be, you know, the agencies achieve  
13 their emission reductions and they forget to kind of go  
14 back and address certain types of sources. A classic  
15 example from the last Air Plan, the 2016 plan, was there  
16 was a measure around diesel back-up generators to pursue  
17 aggressive reductions, but because of other efforts such  
18 as the RECLAIM dismantling, that effort took a back  
19 burner.

20           We're at a stage in our air quality in the region  
21 where we can -- we have -- we don't have -- we can't  
22 afford to have anything on the back burner. And in fact,  
23 we need to, you know, eliminate burners altogether in the  
24 region.

25           We encourage the Air Resources Board to really

1 roll up their sleeves and work with Dr. Rees and her team  
2 on industrial electrification and zero-emission options in  
3 that space. There's a lot of boilers, commercial kitchen  
4 equipment, and other things in the South Coast that are  
5 prime for zero emissions. And so we hope that the ARB  
6 will work with the agency staff to make sure that those  
7 regulatory efforts move forward quickly so we can get on  
8 our path to a zero-emission future.

9           And then the final thing, you know, I'd encourage  
10 some more transparency for both agencies around progress  
11 on control measures, perhaps the South Coast website, that  
12 can, you know, talk about where they are at the different  
13 rule development for the different control measures. Just  
14 to create a better way for the public to understand how  
15 the plan has been implemented been. It's been sometimes  
16 hard to do that, given the length of the plans and how  
17 many measures there are. And so some of that work, which  
18 I think could be relatively easily done administratively,  
19 I think would be helpful from a transparency standpoint.

20           Thank you for your time and have a good day.

21           BOARD CLERK ESTABROOK: Thank you.

22           Teresa.

23           TERESA BUI: Good morning, Board members. My  
24 name is Teresa Bui with Pacific Environment. We are a  
25 global NGO with a consultative status with the

1 International Maritime Organization, which sets global  
2 shipping laws. We want to thank staff for their hard work  
3 on this plan. However, we have major concerns that the  
4 plan do not contain sufficient adopted control measures to  
5 provide for the NOx emission reduction. We want to echo  
6 Adrian's recommendation to monitor and continue to refine  
7 the plan.

8 Right now, it lacks developed and immediately  
9 actionable plans to put measures into action. Many of the  
10 control measures paint in very vague, broad strokes or  
11 allude to future rules. And so we need implementation of  
12 measures that would get to immediate life-saving benefits.

13 Right now, last year, the Port of Long Beach saw  
14 record shipping traffic and associated toxic pollution.  
15 CO2 increased by 87 percent from 2020 and diesel  
16 particulate matter jumped up to -- by 77 percent from  
17 2020. And the Port of Long Beach was even worse with a  
18 staggering 147 percent jump in diesel PM. And so we  
19 really need South Coast to set strong emission targets for  
20 the commercial marine port sector. That's in alignment  
21 with the 1.5 degree with the Paris alignment.

22 And so again, we're urging CARB in conjunction  
23 with South Coast to -- immediately to set strong emission  
24 reduction targets from the marine sector and consider  
25 setting clear mandates to allow only Tier 3 main engine

1 visits to the San Pedro ports by 2025.

2 Thank you for your consideration.

3 BOARD CLERK ESTABROOK: Thank you.

4 Chair, that concludes the comments.

5 CHAIR RANDOLPH: All right. Thank you very much.

6 Staff, are there any issues raised in the  
7 comments you want to address before I close the record on  
8 this item?

9 Okay. Now, we will bring the conversation to the  
10 Board.

11 Board Member Kracov.

12 BOARD MEMBER KRACOV: Good morning, Chair and  
13 everyone. Sorry I couldn't be with you there today in  
14 person. I will be there tomorrow.

15 I represent the South Coast on this Board. And I  
16 just wanted to say a couple of quick words kind of  
17 repeating what's already been said frankly, which seems to  
18 be a very good summary of where we are on this. This is  
19 our ozone SIP to try to get into attainment by 2037. And  
20 it's true that if you look at the, you know, last 20, 30  
21 years, there's been tremendous accomplishment here in the  
22 South Coast with regard to ozone. Yet, the last 12 years,  
23 there has really been stagnation. In fact, the ozone  
24 levels are ticking up.

25 Now, there's complicated science on this.

1 There's complicated atmospheric chemistry, which we had  
2 presentations on both from CARB and the South Coast. But  
3 the bottom line is that we have a problem with goods  
4 movement and ozone emissions, NOx emissions in the South  
5 Coast. And to get to where we need to be in 2037, it is  
6 an enormous challenge, an 80 percent reduction of -- in  
7 our carrying capacity. So, you know, with that, I just  
8 wanted to highlight a couple things if I can, Chair.

9           You know, the first is that, you know, only about  
10 15 percent of our NOx inventory is from stationary  
11 sources, smoke stack sources, which are the typical  
12 authority of air districts like ours. And you can only  
13 squeeze, you know, so much more NOx emissions out of our  
14 stationary source and manufacturing sector. And we're  
15 trying to do that in the Plan. The Plan is a  
16 zero-emission plan, you know, for things like boilers,  
17 furnaces, and building electrification.

18           And one of the issues that was really -- that got  
19 a lot of attention, colleagues, when we approved the Plan,  
20 that really was around some of the stationary work was  
21 this -- that was mentioned by Mr. King was the raise -- or  
22 in the increase in our cost effectiveness threshold. This  
23 is a threshold that this -- not necessarily required by  
24 law, but something that we've had as guidance to staff in  
25 past AQMPs about what measures we were going to analyze

1 depending on how expensive they were. It was a typical  
2 analysis of cost effectiveness, the amount of NOx  
3 reductions over how much it's expected to cost.

4 In the past AQMP, colleagues, it was set at  
5 \$56,000. So if we measure, it was potentially more than  
6 that per ton, it was something that there was a sense that  
7 we might not pursue. As part of this SIP, however, we've  
8 sort of switched a couple important things. The first is  
9 we've gone from a typical cost effectiveness threshold to  
10 one now that is sort of a benefit cost analysis, that  
11 focuses on the benefits of the NOx reductions, public  
12 health benefits, et cetera.

13 And the second big thing there is that we've  
14 raised the threshold, colleagues, from \$56,000 by 500  
15 percent to \$325,000. I mean, this is a huge jump and we  
16 got to present and get industries in the South Coast to be  
17 supportive of it and generally they were, as I'll mention.  
18 But the bottom line is, is that this document really does  
19 recognize that if we're going to continue to try to reach  
20 attainment, and we're going to try to get that extra, you  
21 know, drops out of stationary sources, it's going to be  
22 extremely expensive for our stationary sources and our  
23 manufacturing sector.

24 The second point then is, you know, what's left?  
25 And it really is the goods movement, it's the remaining 85



1 percent. And again many of these are sources that the  
2 South Coast and the districts do not typically regulate,  
3 and that's the challenge that we have for the on-road  
4 stuff, the work we're doing here at CARB with trucks is  
5 going to make a huge difference. Over time, the  
6 projections show that the on-road emissions are really  
7 decreasing, but it's the off-road emissions, the federal  
8 international regulated emissions that really are the  
9 problem. Locomotives, huge problem. Aircraft, ships, as  
10 Ms. Bui just mentioned.

11 And the South Coast is trying do what we can on  
12 that. We are -- have Indirect Source rules in this SIP  
13 for railyards, as well as the ports. And colleagues,  
14 these have been very difficult to pass, very difficult to  
15 fight back, you know, legal challenges on as well. That's  
16 one of the reasons why there's not necessarily numeric  
17 reductions associated with these. And the other part of  
18 it is even with those, we still cannot do it alone. We,  
19 at CARB, we at the South Coast absolutely need federal  
20 help. I agree with Mr. King without additional assistance  
21 from the feds on these kind of sources, we will not reach  
22 attainment, you know, period.

23 And so what does that leave us with? You know,  
24 nonattainment penalties, these extremely expensive  
25 measures for stationary sources that even if we implement

1 though, it still won't get us in attainment even if raise,  
2 which we've done, our cost effectiveness measure, by 500  
3 percent.

4           So we're talking to the federal government. We  
5 have a strategy with CARB, talking to Senator Padilla  
6 about this trying to explain what kind of draconian  
7 impacts nonattainment penalties will have and the measures  
8 that are needed on our manufacturing base and economy, if  
9 we cannot get help from the federal government on  
10 locomotives, ships, and aircraft.

11           So, you know, trying to speak plainly, that's  
12 sort of where we are. That being said, you know, there  
13 was broad support, colleagues, for this AQMP at the  
14 District, broad support from the Board at the South Coast,  
15 broad support from environmental stakeholders which you've  
16 heard today, and industry, you know, also, I think,  
17 understands the challenges that we face, and generally, I  
18 think is supportive of this -- of this AQMP, although  
19 they're wary, as we start to implement the rules as part  
20 of it, how much it's going to cost. And so that's the  
21 challenge that we face.

22           So I'm supportive today of this AQMP. I want to  
23 thank AQMD staff, Dr. Rees and her whole team on this, Mr.  
24 King Ariel Fideldy from CARB, who's our sort of district  
25 liaison. You know, this document gives CARB and the AQMD,

1 through the statewide SIP and through the local AQMP, you  
2 know, the roadmap on how we're going to try to get to  
3 attainment and what it's going to take. And I'm  
4 privileged, colleagues, to lean in with all of you on this  
5 work, both at this Board, and at AQMD.

6 Thank you, Chair.

7 CHAIR RANDOLPH: Thank you.

8 Board Member De La Torre.

9 BOARD MEMBER DE LA TORRE: Thank you. I'm going  
10 to be supportive of this, but -- because it's about South  
11 Coast and because we did the SIP back in September. I am  
12 frustrated with South Coast with how long it's taken for  
13 them to do an Indirect Source Rule for the port complex.  
14 You all -- I think I've flashed my show and tell, which is  
15 the MATES study where there's been progress made  
16 throughout Southern California except one place. It is  
17 very obvious when you see that chart. There's only one  
18 purple zone in all of Southern California with the MATES  
19 study, which is the carcinogenic effect of air pollution.  
20 It is at the port complex, period. And the fact that they  
21 got a delay when they did the overall Indirect Source Rule  
22 for all of South Coast and left out the worst place in  
23 their District was amazing to me. And here we are, two  
24 years later and they still don't have one for that area,  
25 for the worst polluted area in the South Coast Air

1 District.

2 That has to happen. I can only imagine all of  
3 the emissions reductions we would have today if they had  
4 gone along -- had been part of the original Indirect  
5 Source Rule for the rest of the District.

6 I also wanted to point out related to that, that  
7 the Pacific Maritime Shipping Association is shopping a  
8 bill in Sacramento to get near zero authority from the  
9 Legislature. A, that's forum shopping and you all have  
10 heard me say I hate that. B, we don't have the luxury for  
11 near zero any more. These numbers speak for themselves  
12 and so we have to push for zero. We have to defeat  
13 efforts by those who would go around the push that we are  
14 making for zero and we need the Air District to really  
15 zero in on the Indirect Source Rule for the port complex.

16 Thank you.

17 CHAIR RANDOLPH: Board Member Hurt.

18 BOARD MEMBER HURT: Thank you. Board Member  
19 Kracov, I think summed it up pretty well. And I just want  
20 to emphasize the need for federal action really moving  
21 beyond pledges and actually doing the work and the  
22 measures that are needed.

23 I just wanted to state I really appreciated how  
24 comprehensive this Plan is. And I know as a Bay Area Air  
25 Quality Management District representative it's a really

1 helpful roadmap for what we can do in our own communities.  
2 It's a menu of items. So I want to thank everybody that's  
3 worked on this plan and worked with the community to make  
4 it happen, that includes South Coast, of course, CARB, and  
5 all the community members business as well.

6           And then lastly, terms matter. A small thing to  
7 some and a big thing to others. And I would reconsider us  
8 using another term than "black box". Hailing from the Bay  
9 Area, I'm aware that a number of tech companies have  
10 pledged to remove exclusionary terms like whitelist  
11 blacklist, black box, white, master, slave, et cetera. So  
12 I would hope that we can reconsider using more inclusive  
13 language and not exclusive language

14           Again, as I said, small to some, but big to  
15 others. Thank you, everyone, for working on this.

16           CHAIR RANDOLPH: Thank you. Any other -- Vice  
17 Chair Berg.

18           VICE CHAIR BERG: Thank you, Board Member Hurt  
19 for bringing up that language. I mean, personally,  
20 language does matter. And in my own references, I know  
21 when we're comparing something that has a suggestion of  
22 good and bad, and black and white is one that comes to  
23 mind a lot. And I am personally committed to go to day or  
24 night, you know. You're looking for opposites, but not in  
25 categories where it does affect others. So I do

1 appreciate you bringing that up.

2           Thank you. I mean, I've lived in the South Coast  
3 Air Quality Management District all my life. Of course,  
4 now, I'm up here also in Davis, but Southern Cal has  
5 always been my home. And I know as a young child when  
6 we -- and I lived in Arcadia and couldn't see the  
7 mountains, which was just a few miles away. So we do know  
8 that this agency and all of our stakeholders, and the  
9 innovation, and how we have pushed has made a very  
10 significant difference. There's just no question about  
11 it.

12           But as we push to even greater health benefits,  
13 one of the things I would -- I would like to see in our  
14 presentations and our SIPs, as you did include, and that  
15 is the benefits to our communities that are even further  
16 behind than other parts of our communities. And I think  
17 that that within a -- to incorporate that in SIPs in our  
18 presentations to show how we're really closing the gap.  
19 There's no question where they were to where we are today.  
20 We have made great progress, but there is a gap and we  
21 know that.

22           And those gaps are cumulative impacts. And how  
23 are we going to continue to push the cleanest in those  
24 neighborhoods first? And so I would like just to  
25 highlight that, thank everybody very, very much, and

1 especially thank Board Member Kracov. I think he did an  
2 excellent job in really summarizing everybody's  
3 commitment, absolutely the need for the federal government  
4 to step up and get to the table, because this is critical  
5 for this region, but also giving us a bit of a highlight  
6 of the challenges to get there.

7 So thank you so much.

8 CHAIR RANDOLPH: Dr. Pacheco-Werner.

9 BOARD MEMBER PACHECO-WERNER: Thank you. Thank  
10 you, Chair. I really appreciate the District and CARB  
11 staff's effort at proactively engaging with our federal  
12 partners, and particularly our congressional delegation.  
13 I think that, you know, the team -- you know, together  
14 everyone achieves more. I think that approach is really  
15 helpful and I look forward to seeing how in this session,  
16 you know, the entirety of our California, you know,  
17 delegation can be activated into these causes that really  
18 affect all Californians, not just South Coast, not just  
19 our extreme nonattainment areas.

20 I do -- you know, I did appreciate the comments  
21 from the public and some from the docket. I do think  
22 that, you know, because of the proportion of reductions  
23 that are based on our zero-emission transition, as we see  
24 the implementation of these measures, it will be important  
25 for us to see if any unforeseen delays in implementation

1 are significantly impacting our attainment. And again,  
2 just because at the forefront, you know, we want to see  
3 these reductions on paper, but we also want to see the  
4 public health benefits that we're getting from these  
5 reductions. And so we need to know if those public health  
6 benefits are being attained.

7 I definitely support Board Member Kracov's  
8 comments on the federal action piece and Board Member  
9 Hurt's comments on the language. I also -- I also -- you  
10 know, even though, I am cautious around, you know, the  
11 transition and wanting to make sure we get that right, I  
12 definitely support Board Member De La Torre's comments on,  
13 you know, the need to really be pushing zero at every  
14 which turn. And I do think that if we can -- if we can  
15 see some of that implementation, if we can -- as Board  
16 Member Berg -- Vice Chair Berg mentioned, if the public  
17 can see that progress, if we can -- if we can see that  
18 progress, you know, I think that will help us also  
19 identify those opportunities where there does remain that  
20 gap in where we can also in our own respective roles or as  
21 private citizens continue to activate our either state or  
22 federal delegations to support those communities as well,  
23 again with that public goal -- public health goal in mind.  
24 Thank you.

25 CHAIR RANDOLPH: Thank you.



1 Oh, Board Member Takvorian. Sorry.

2 BOARD MEMBER TAKVORIAN: Thank you. Just  
3 briefly. I think we've heard a lot and I really  
4 appreciate everyone's comments, particularly Board Member  
5 Kracov's for the really good summary I think that he gave  
6 as the South Coast representative. And thanks to CARB  
7 staff and to South Coast for the work that's been done. I  
8 would just reiterate that I think the port action is  
9 critical to take. And Mr. De La Torre's comments about  
10 the ISR, we were disappointed not to see the port's in the  
11 previous -- in the current ISR. San Diego is considering  
12 an ISR now and consider the ports as part of that. So if  
13 South Coast had moved on that, that would have been a good  
14 model, and I really encourage there to be collaboration  
15 between the District, so that that can occur, and  
16 particularly given that -- given the crippled EPA, that we  
17 have at the federal level, I believe, the staffing is --  
18 capacity is quite sparse, the -- you know, across the  
19 Board, and the likely inaction from Congress, I think  
20 California has to maximize our efforts, so -- and I  
21 believe that's what we're striving to do.

22 So I'm supportive, but I do think that we have to  
23 think outside of the box, which should not be named black.  
24 Thank you for those comments as well.

25 CHAIR RANDOLPH: All right. Thank you. I have a

1 couple comments. But before the comments, I just wanted  
2 to ask a question around the issue of soil NOx and how you  
3 guys see that evolving over time. Did any -- can you  
4 share what your thoughts are on that?

5 AQPSD CHIEF BENJAMIN: Yeah, absolutely. This is  
6 Michael Benjamin. I'm Chief of the Air Quality Planning  
7 and Science Division at CARB.

8 I'd like to start, first of all, by thanking Ian  
9 Faloona and Heather Lieb for their comments. We really  
10 respect their scientific expertise in this area. We've  
11 been hearing similar comments about the role of soil NOx,  
12 also in the San Joaquin Valley and concerns about it  
13 there.

14 We have -- I just want to clarify, first of all,  
15 soil NOx is accounted for in the SIP. So it is in the  
16 modeling. It is in the plan. On -- the other points  
17 about the magnitude of the soil NOx emissions, we are  
18 working with academic researchers to better understand  
19 that -- the magnitude. We're doing studies and we look  
20 forward to working with Mr. Faloona and others on this  
21 issue.

22 CHAIR RANDOLPH: Okay. Thank you. It sounds  
23 like more -- more analysis will be needed going forward.  
24 All right. Thank you. Appreciate that.

25 I just wanted to echo a lot of the comments from

1 my -- from my fellow Board members. And I particularly  
2 appreciated Dr. Rees's summary of the challenges, right,  
3 you know, getting that infrastructure to support this  
4 transition to zero. Really pleased that the Plan, you  
5 know, pushes zero, but we have to recognize that we need  
6 that infrastructure in place to support that transition.  
7 And, of course, as many of you have said, the importance  
8 of federal action and the importance of prioritizing the  
9 communities that are hit hardest and most cumulatively  
10 first as much as we possibly can.

11 So with that, I will ask for a motion to approve.  
12 Board Member Kracov, would you like to make a motion.

13 BOARD MEMBER KRACOV: Sure. I can make that  
14 motion. And I just wanted to support the discussion here  
15 and Board Member De La Torre's emphasis on the port ISR.  
16 It's really been a heck of a process on that. Just FYI,  
17 colleagues, and I think you should be aware of this and  
18 hold us accountable, but we are trying to bring the  
19 Indirect Source Rule for new railyards to the Board  
20 sometime in Q3 of this year and we're trying to bring an  
21 Indirect Source Rule for the ports sometime to our Board  
22 in Q4 of this year or perhaps Q1 of 2024. Those dates  
23 have been slipping a little bit, in part because of all  
24 the work that was done on the AQMP. But these are among  
25 many other things that we're doing, ethylene oxide, rules

1 on a notification in oil wells. These are some of the top  
2 priorities for the District. That is the current  
3 timeline, Board Member De La Torre. And I urge you and  
4 all our other colleagues here and all the stakeholders to  
5 try to keep us at South Coast accountable to these dates,  
6 because without that, without all the other work here,  
7 we're are -- attainment is not going to be attainable.

8 So with that, I'll make the motion to approve  
9 Item 23-1-3 the 70 part per billion 8-hour ozone standard  
10 for the South Coast Basin and the Coachella Valley.

11 Thank you, Chair.

12 BOARD MEMBER PACHECO-WERNER: Second.

13 CHAIR RANDOLPH: Clerk, will you please call the  
14 roll.

15 BOARD CLERK ESTABROOK: Mr. De La Torre?

16 BOARD MEMBER DE LA TORRE: Aye.

17 BOARD CLERK ESTABROOK: Mr. Eisenhut?

18 BOARD MEMBER EISENHUT: Aye.

19 BOARD CLERK ESTABROOK: Senator Florez?

20 BOARD MEMBER FLOREZ: Florez, aye.

21 BOARD CLERK ESTABROOK: Ms. Hurt?

22 BOARD MEMBER HURT: Aye.

23 BOARD CLERK ESTABROOK: Mr. Kracov?

24 BOARD MEMBER KRACOV: Yes.

25 BOARD CLERK ESTABROOK: Dr. Pacheco-Werner?

1 BOARD MEMBER PACHECO-WERNER: Yes.

2 BOARD CLERK ESTABROOK: Professor Sperling?

3 BOARD MEMBER SPERLING: Yes.

4 BOARD CLERK ESTABROOK: Ms. Takvorian?

5 BOARD MEMBER TAKVORIAN: Aye.

6 BOARD CLERK ESTABROOK: Vice Chair Berg?

7 VICE CHAIR BERG: Aye.

8 BOARD CLERK ESTABROOK: Chair Randolph?

9 CHAIR RANDOLPH: Yes.

10 BOARD CLERK ESTABROOK: Madam Chair, the motion  
11 passes

12 CHAIR RANDOLPH: All right. Thank you.

13 The next item on the agenda is item number  
14 23-1-4, public meeting to consider the proposed San  
15 Joaquin Valley 70 parts per billion ozone State  
16 Implementation Plan.

17 If you are here with us in the room and wish to  
18 comment on this item, fill out a request to speak card as  
19 soon as possible and submit it to a Board assistant. If  
20 you are joining us remotely and wish to comment, please  
21 click the raise hand button or dial star nine now. We  
22 will call on in-person commenters first followed by remote  
23 commenters when we get to the public comment portion of  
24 this item.

25 This is the third of the three SIPs for the 70

1 ppb ozone standard on the agenda today. In this item, we  
2 will hear the plan for the San Joaquin Valley to meet the  
3 8-hour ozone standard of 70 parts per billion by the 2037  
4 deadline.

5           The plan includes a proposed aggregate commitment  
6 in the CARB staff report to achieve emission reductions  
7 from the suite of State measures that CARB committed to  
8 pursuant -- that CARB committed to pursue as part of the  
9 2022 State SIP Strategy, which CARB adopted last  
10 September. Reductions from these measures are now being  
11 quantified for the San Joaquin Valley, including the  
12 pesticide measure. These emissions reductions and the  
13 Plan will improve air quality throughout the valley,  
14 including in environmental justice communities that are  
15 disproportionately impacted by air pollution.

16           Dr. Cliff, would you please introduce the item.

17           EXECUTIVE OFFICER CLIFF: Thank you, Chair  
18 Randolph.

19           The 2022 Ozone Plan for the valley was developed  
20 jointly by CARB and the San Joaquin Valley Air Pollution  
21 Control District to meet Clean Air Act requirements for  
22 the 70 ppb ozone standard and to lay the pathway for  
23 continued ozone air quality improvement in the valley.  
24 Together, District and CARB programs represent some of the  
25 nation's most protective air pollution emissions controls.

1           As you mentioned, Chair Randolph, the 2022 ozone  
2 plan includes CARB measures committed to as part of the  
3 2022 State SIP Strategy, which the Board adopted in  
4 September. Measures from the 2022 State SIP Strategy will  
5 reduce emissions throughout the valley, including in low  
6 income and underserved communities.

7           The 2022 Ozone Plan demonstrates that the valley  
8 will meet the 70 ppb ozone standard by 2037 with many  
9 areas of the valley reaching 70 ppb before that date.  
10 Through implementation of the current CARB and District  
11 control programs and the 2022 State SIP Strategy measures,  
12 I want to highlight that in the past extreme ozone  
13 challenge in the valley necessitated the use of the box  
14 that we have been discussing with undefined measures to  
15 demonstrate attainment of the ozone standards, but in this  
16 SIP there is no such box. This means that all measures  
17 needed to get to the valley -- get the valley to  
18 attainment are identified. This is a significant  
19 milestone in the valley's progress towards improving ozone  
20 air quality.

21           In addition, I want to highlight one specific  
22 measure which we'll hear more about in the staff  
23 presentation, namely the commitment to reduce emissions  
24 from the pesticide 1,3-dichloropropene or 1,3-D. In  
25 September when the Board adopted the 2022 State SIP

1 Strategy, it directed staff to come back with a quantified  
2 expected emission reductions from the measure being  
3 developed by our sister agency, the California Department  
4 of Pesticide Regulation, or DPR. Following up on that  
5 Board direction, staff have continued to work with DPR and  
6 the CARB staff report includes a quantification of the  
7 emission reductions from the measure committed to in the  
8 2022 State SIP Strategy.

9 I will now ask Laura Carr of the Air Quality  
10 Planning and Science Division to begin the staff  
11 presentation.

12 Laura

13 (Thereupon a slide presentation).

14 AQPSD AIR POLLUTION SPECIALIST CARR: Thank you,  
15 Dr. Cliff. Good morning, Chair Randolph and Board  
16 members. Today, I'll be presenting the final SIP for the  
17 day, the 70 parts per billion Ozone State Implementation  
18 Plan for the San Joaquin Valley.

19 --o0o--

20 AQPSD AIR POLLUTION SPECIALIST CARR: As we heard  
21 in the previous presentation, in 2015 the U.S.  
22 Environmental Protection Agency strengthened the existing  
23 8-hour ozone National Ambient Air Quality Standard to 70  
24 parts per billion or ppb. In response, EPA designated the  
25 San Joaquin Valley as an extreme nonattainment area for



1 the standard. This means the valley must meet the  
2 standard within 20 years in the 2037 ozone season.

3 Along with South Coast and Coachella Valley, the  
4 San Joaquin Valley is one of just three extreme  
5 nonattainment areas in the country for this ozone  
6 standard. Developing a plan for attaining the standard is  
7 a unique challenge.

8 --o0o--

9 AQPSD AIR POLLUTION SPECIALIST CARR: The San  
10 Joaquin Valley Air Pollution Control District and CARB  
11 worked together to jointly develop the 2022 plan for the  
12 2015 8-hour Ozone Standard or the 2022 Ozone Plan. The  
13 2022 Ozone Plan builds on previous planning efforts for  
14 ozone and particulate matter and shows attainment of the  
15 70 ppb ozone standard throughout the valley in 2037.

16 The Plan includes a commitment from CARB for  
17 emission reductions from the State SIP Strategy, which are  
18 key for the valley to reach attainment. The Plan was  
19 adopted by the District governing board in December 2022  
20 and is now in front of you for your consideration. The  
21 starting point for each plan is air quality.

22 --o0o--

23 AQPSD AIR POLLUTION SPECIALIST CARR: Over the  
24 past three decades, ozone air quality has improved in the  
25 valley. The graph shows 8-hour ozone design values, which

1 represent a three-year average of each annual fourth  
2 highest ozone value. In the 1990s, ozone levels were  
3 between 110 and 120 parts per billion. From those high  
4 levels, ozone is now trending downwards in response to  
5 significant NOx emission reductions from CARB and District  
6 measures, putting the valley on a path to attaining all  
7 three 8-hour ozone standards by their respective  
8 deadlines, reaching 84 parts per billion by 2023, 75 ppb  
9 by 2031, and 70 ppb by 2037.

10 In recent years, the prevalence of wildfires  
11 during the summer ozone season significantly impacted air  
12 quality in the valley. High ozone concentrations were  
13 observed at several valley sites on days affected by  
14 wildfire. After accounting for data in 2020 and 2021  
15 impacted by fire, the ozone design value in 2022 was 85  
16 ppb, as shown in the blue trend line for adjusted design  
17 value.

18 --o0o--

19 AQPSD AIR POLLUTION SPECIALIST CARR: Reactive  
20 organic gases, or ROG, and oxides of nitrogen, or NOx, are  
21 the precursor pollutants which combine to form ozone. In  
22 the valley, as well as most parts of California, the key  
23 to lowering ozone concentrations and meeting the federal  
24 air quality standards is reducing emissions of NOx.

25 Ongoing implementation of CARB's Mobile Source

1 Control Strategy continues to drive down NOx emissions and  
2 will achieve most of the reductions needed to get the  
3 valley to attainment of the 70 ppb ozone standard in 2037.

4 From 232.4 tons per day in 2017, the current  
5 control program will reduce emissions down to 87.3 tons  
6 per day in 2037. However, air quality modeling conducted  
7 by CARB for the 2022 Ozone Plan indicates that for the  
8 valley to attain the 70 ppb standard in 2037, NOx  
9 emissions need to be even lower at 62 tons per day, almost  
10 the same level as is needed in the South Coast Air Basin.  
11 This means an additional 25.3 tons per day NOx reductions  
12 from new control programs are still needed to reach  
13 attainment. The Ozone Control Strategy in the 2022 Ozone  
14 Plan provides those reductions as I will discuss in the  
15 next few slides.

16 --o0o--

17 AQPSD AIR POLLUTION SPECIALIST CARR: The  
18 strategy to get the valley to attainment of the 70 ppb  
19 ozone standard has four main components. As mentioned, a  
20 significant fraction of the reductions needed for  
21 attainment will come from ongoing implementation of the  
22 CARB and District measures that make up the existing  
23 control program.

24 Second, there are three CARB measures from the  
25 previous 2016 State SIP Strategy, which achieve reductions

1 not accounted for in the baseline emissions inventory for  
2 the 2022 ozone plan.

3 Third, new measures committed to in the 2022  
4 State SIP Strategy adopted by the Board in September  
5 provide the remaining emission reductions needed to reach  
6 attainment.

7 And from the District, the 2022 Ozone Plan  
8 includes commitments for SIP strengthening and further  
9 study measures, which although they do not have emission  
10 reductions quantified in this SIP, do reduce emissions and  
11 will contribute towards improving air quality.

12 The 2022 Ozone Plan control strategy does not  
13 include advanced technology measures allowed under the  
14 extreme area designation. These are control measures that  
15 are not yet defined because the specific technologies or  
16 controls to achieve the emission reductions are not yet  
17 known. The attainment strategy for the valley does not  
18 need to rely on these measures, since all of the measures  
19 necessary to get the valley to attainment have been  
20 identified. This is the first Ozone SIP for the valley  
21 that does not need these advanced technology measures, so  
22 this is a significant milestone.

23 The next few slides will provide more detail on  
24 the 2016 State SIP Strategy remaining measures, new  
25 measures in the 2022 State SIP Strategy, and the District

1 commitments.

2 --o0o--

3 AQPSD AIR POLLUTION SPECIALIST CARR: Although  
4 most of the CARB measures committed to in the 2016 State  
5 SIP Strategy have been adopted and have their associated  
6 emission reductions reflected in the baseline emissions  
7 inventory for this plan, there are three exceptions shown  
8 here. The Board adopted the Transport Refrigeration Unit  
9 Regulation Part 1 in February 2022 and Advanced Clean Cars  
10 II in August 2022. By early 2022, the process of  
11 developing the inventory for the 70 ppb ozone plan for the  
12 San Joaquin Valley and other regions in the state was  
13 already underway. Thus, neither adopted regulation has  
14 its emission reductions accounted for in the baseline  
15 inventory.

16 The Zero-Emission Forklift Regulation is the only  
17 remaining measure from the 2016 State SIP Strategy that  
18 the Board has not acted on yet, but action is expected in  
19 2023.

20 CARB anticipates that these measures will achieve  
21 1.9 tons per day NOx reductions in the valley in 2037 and  
22 1.7 tons per day of reductions in ROG emissions.

23 --o0o--

24 AQPSD AIR POLLUTION SPECIALIST CARR: As  
25 discussed in the previous Board item, the Board approved

1 the State measure commitments in the 2022 State SIP  
2 Strategy in September following a robust public process to  
3 develop the Strategy. Staff presented potential measures  
4 at four public workshops and two hearings over a year and  
5 a half. Staff met with environmental advocates,  
6 community-based organizations, and other stakeholders  
7 throughout the process. Measure suggestions from this  
8 outreach were added to the Strategy.

9 The Strategy is aggressive and drives the pace  
10 and scale of CARB rulemakings through the end of the  
11 decade. For the San Joaquin Valley, the Strategy includes  
12 a commitment to reduce 23.4 tons per day of NOx emissions  
13 or 14.6 percent of the reductions needed for the valley to  
14 reach attainment.

15 --o0o--

16 AQPSD AIR POLLUTION SPECIALIST CARR: Listed here  
17 are the measures from the 2022 State SIP Strategy, which  
18 provide emission reduction benefits in the San Joaquin  
19 Valley. Key measures focus on on- and off-road mobile  
20 sources, locomotives, and measures for other sources,  
21 including a measure for the pesticide 1,3-dichloropropene,  
22 or 1,3-D, which I'll describe in more detail. The  
23 inclusion in the Strategy of a measure for 1,3-D was  
24 suggested by advocates as part of the strategy development  
25 process.



1 shows the emission reductions from the 2022 State SIP  
2 Strategy measures the Board approved last September in the  
3 San Joaquin Valley. By the attainment year of 2037, these  
4 new measures will provide an additional 23.4 tons per day  
5 of NOx emission reductions and an additional 2.9 tons per  
6 day of ROG emission reductions.

7 Significant reductions come from the In-Use  
8 Locomotive Regulation at 11.2 tons per day NOx, the  
9 Advanced Clean Fleets regulation at 5.9 tons per day NOx,  
10 and the Transport Refrigeration Unit Regulation Part 2 at  
11 3.8 tons per day NOx. We can also see the 0.4 tons per  
12 day ROG reductions expected from the 1,3-D pesticide  
13 measure.

14 CARB staff will continue developing this  
15 ambitious suite of measures bringing them to the CARB  
16 Board according to the schedule adopted in September as  
17 part of the 2022 State SIP Strategy and implementing them  
18 to provide the emission reductions needed for attainment  
19 in the valley and throughout the state.

20 --o0o--

21 AQPSD AIR POLLUTION SPECIALIST CARR: The next  
22 two slides focus on District measures that contribute to  
23 ozone air quality improvement. Here we want to highlight  
24 eight recently strengthened District rules which achieve  
25 NOx reductions. These seven stationary source rules were



1 committed to as part of the District's 2018 plan for the  
2 fine particulate matter standard. And the last rule in  
3 the table, open burning, was not part of the 2018 PM2.5  
4 SIP, but was amended by the District as part of developing  
5 its agricultural open burning phaseout strategy and has  
6 been approved by EPA. Ongoing implementation of these  
7 District rules achieves NOx reductions, which will  
8 contribute to attainment of the 70 ppb ozone standard.

9 --o0o--

10 AQPSD AIR POLLUTION SPECIALIST CARR: The 2022  
11 Ozone Plan also includes new measure commitments from the  
12 District. While these measures are not needed for  
13 attainment and no emission reductions are being committed  
14 to, they are expected to provide additional emission  
15 reductions.

16 On the left is a list of regulatory control  
17 measures, which the District is providing as SIP  
18 strengthening measures, all with action dates in 2023 or  
19 2024. These measures focus on reducing ROG emissions from  
20 the oil and gas sector. On the right is a list of  
21 stationary and area source measures that the District is  
22 flagging for further study, which may yield future  
23 emission reductions.

24 --o0o--

25 AQPSD AIR POLLUTION SPECIALIST CARR: In the CARB

1 staff report accompanying the 2022 Ozone SIP, CARB lays  
2 out its commitment for emission reductions for the valley.  
3 As we heard in the previous presentation, CARB's  
4 commitment is two parts. The commitment to pursue  
5 measures was adopted in September when the Board adopted  
6 the 2022 State SIP Strategy. And today, the Board is  
7 considering the aggregate emission reduction commitment  
8 for the valley as proposed in the CARB staff report.

9 --o0o--

10 AQPSD AIR POLLUTION SPECIALIST CARR: This slide  
11 summarizes the aggregate emission reductions that CARB is  
12 committing to in 2037 for the valley. The proposed  
13 commitment is for 25.3 tons per day of NOx and 4.6 tons  
14 per day of ROG. These numbers include the reductions from  
15 the three remaining 2016 State SIP Strategy measures, as  
16 well as the new 2022 State SIP Strategy measures. This  
17 Commitment also includes a subset of emission reductions  
18 to come specifically from on-road mobile source measures  
19 of 7.5 tons per day NOx and 1.6 tons per day ROG as  
20 specified in the CARB staff report to be accounted for as  
21 part of transportation conformity.

22 CARB's current Mobile Source Control Program will  
23 also contribute significant reductions bringing the total  
24 reductions achieved in 2037 to 159.8 tons per day of NOx  
25 and 37.5 tons per day of ROG.

1 EPA guidance indicates that the emission  
2 reductions coming from committed measures should be a  
3 small proportion of the total reductions needed for  
4 attainment. Here, we can see that the aggregate emission  
5 reduction commitment represents 15.8 percent of needed NOx  
6 reductions and 12.3 percent of needed ROG reductions.

7 --o0o--

8 AQPSD AIR POLLUTION SPECIALIST CARR: The ozone  
9 control strategy described will lead to attainment of the  
10 70 ppb 8-hour ozone standard in 2037. This slide  
11 summarizes the modeling results in the 2022 Ozone Plan and  
12 illustrates how ozone is predicted to improve throughout  
13 the valley.

14 Preliminary staff analysis shows that predicted  
15 ozone improvements are consistent in disadvantaged and  
16 non-disadvantaged communities, with a percent reduction in  
17 ozone levels similar in both communities. The left-hand  
18 map shows ozone levels in 2018 with most of the valley  
19 exceeding 70 parts per billion. From 2018 to 2037, we  
20 estimate that CARB and District rules, combined with the  
21 new measures described, will achieve over a 70 percent  
22 reduction in NOx and about a 10 percent ROG reduction.  
23 These emission reductions are predicted to reduce ozone  
24 levels to meet the 70 ppb standard by 2037, as shown on  
25 the right-hand map. It's important to note that these

1 maps show ozone concentrations, which include wildfire  
2 impacted ozone values. So the attainment demonstration  
3 modeling shows that the valley is expected to attain the  
4 70 ppb standard in 2037, even with the inclusion of  
5 wildfires.

6 --o0o--

7 AQPSD AIR POLLUTION SPECIALIST CARR: The 2022  
8 Ozone Plan meets the requirements for a State  
9 Implementation Plan under the Clean Air Act. This table  
10 summarizes the elements required to be in the SIP. In the  
11 left-hand column are listed the SIP elements included in  
12 the 2022 Ozone Plan, including the attainment  
13 demonstration. Elements in the middle column have already  
14 been provided to EPA in previous submittals. And on the  
15 right are the two elements which will be submitted in the  
16 coming years.

17 --o0o--

18 AQPSD AIR POLLUTION SPECIALIST CARR: While  
19 federal measures are not included in the San Joaquin  
20 Valley attainment demonstration, I want to highlight the  
21 importance of federal action to ozone air quality  
22 improvement in the valley. For California to meet air  
23 quality standards, it is imperative that the federal  
24 government act decisively to reduce emissions from  
25 primarily federally regulated sources of air pollution,

1 including interstate trucks, ships, locomotives, aircraft,  
2 and certain categories of off-road equipment. CARB and  
3 the San Joaquin Valley Air District are exploring our  
4 respective authorities with regard to these sources, but  
5 federal action is needed to reduce emissions to improve  
6 air quality and accelerate attainment in the valley.

7 --o0o--

8 AQPSD AIR POLLUTION SPECIALIST CARR: That brings  
9 us to the staff recommendations as laid out in Resolution  
10 23-3. These are as follows:

11 One, adopt the commitment to achieve aggregate  
12 emissions reductions of 25.3 tons per day of NOx and 4.6  
13 tons per day of ROG in the San Joaquin Valley by 2037,  
14 including a subset to come specifically from on-road  
15 mobile source measures of 7.5 tons per day NOx and 1.6  
16 tons per day ROG, as specified in the CARB staff report;  
17 two, adopt the 2022 Ozone Plan; and three, direct the  
18 Executive Officer to submit the 2022 Ozone Plan and the  
19 aggregate commitment as described in the CARB staff report  
20 to EPA as a revision to the California SIP.

21 That concludes the presentation and I would now  
22 like to introduce Jon Klassen, Director of Air Quality  
23 Science and Planning at the San Joaquin Valley Air  
24 Pollution Control District to provide a few comments on  
25 the SIP.

1 BOARD CLERK ESTABROOK: Can you say the name  
2 again?

3 AQPSD AIR POLLUTION SPECIALIST CARR: Jon  
4 Klassen.

5 BOARD CLERK ESTABROOK: Got it.

6 Okay. Jon, you should be able to unmute.

7 JON KLASSEN: Thank you. Can you hear me?

8 BOARD CLERK ESTABROOK: Yes, we can.

9 JON KLASSEN: Great. Thank you so much and thank  
10 you, Laura.

11 Good morning, Chair Randolph, members of the  
12 Board. I'm Jon Klassen, Director of Air Quality Science  
13 and Planning with the San Joaquin Valley Air Pollution  
14 Control District. The District appreciates the  
15 opportunity to provide some comments today on the San  
16 Joaquin Valley's 2022 Ozone Plan addressing the federal  
17 2015 ozone standard.

18 Through the development and implementation of  
19 numerous attainment plans addressing a variety of federal  
20 air quality standards, both the District and CARB have  
21 adopted and implemented the most stringent regulatory  
22 programs in the nation to significantly reduce emissions  
23 across the valley. These efforts have reduced NOx  
24 emissions in the region by over 75 percent since 1980,  
25 with ongoing reductions expected in the coming years. As

1 you saw in the CARB staff's presentation, these reductions  
2 have brought about significant reductions in ozone  
3 concentrations and improvements in the valley in air  
4 quality with the valley on the verge of meeting the 84  
5 parts per billion standard, and proving the effectiveness  
6 of our collective efforts.

7           As with all planning efforts, the District  
8 appreciated the close collaboration with CARB staff during  
9 the development of the 2022 Ozone Plan and also  
10 appreciated all of the public involvement and input  
11 provided through a robust public process, which included a  
12 number of evening workshops and meetings along the way  
13 with interpretation services made available, if needed.

14           While major progress has been made, we must  
15 continue to work together to further reduce air pollution  
16 and improve air quality for our residents as expeditiously  
17 as possible. To that end, the 2022 Ozone Plan includes a  
18 variety of aggressive emissions control strategies,  
19 including significant new NOx emissions reductions from  
20 the District's recent amendments to a variety of  
21 stationary sources rules affecting boilers, steam  
22 generators, process heaters, industrial flares, glass  
23 melting furnaces, solid fuel boilers and engines.

24           In addition, the 2022 Ozone Plan includes  
25 commitments to reduce VOC emissions through amendments to

1 a variety of district oil and gas regulations, such as  
2 leak and detection and repair and evaluation of crude oil  
3 production sumps. These efforts, coupled with CARB's new  
4 State SIP Strategy, to reduce emissions from mobile  
5 sources, NOx emissions in the valley, are expected to be  
6 reduced by another 72 percent through the timeline of this  
7 plan.

8 In addition to these regulatory programs, the  
9 District is committing in the 2022 Ozone Plan to further  
10 study the opportunities for additional emissions  
11 reductions from a number of sources, including residential  
12 and commercial heating, stationary sources of NOx and VOC,  
13 energy and climate change programs, and commercial  
14 landscaping equipment.

15 The District looks forward to working with CARB  
16 and valley stakeholders as the strategy for this plan is  
17 implemented and further emissions reductions are achieved  
18 to bring the valley into attainment of the federal 2015  
19 ozone standard.

20 Thank you again for the opportunity to comment.

21 CHAIR RANDOLPH: All right. Thank you.

22 We will now hear from the public who signed up to  
23 speak on this item. I will ask the Board clerks to call  
24 the commenters.

25 BOARD CLERK ESTABROOK: We currently have seven



1 people with their hands raised to speak in Zoom. If you  
2 would like to comment, please raise your hand in Zoom by  
3 using the raised hand icon or dialing star nine if you're  
4 calling in by phone. The public comments will conclude --  
5 the sign-ups will conclude at 11:50.

6 So our first few speakers will be Ian Faloota,  
7 Janet Dietzkamei, and Cynthia Pinto-Cabrera.

8 Ian, you can unmute and begin.

9 DR. IAN FALOONA: Hi. Thank you again for  
10 hearing me out. My name is Ian Faloota. I'm an  
11 atmospheric scientist at the University of California at  
12 Davis and I've been studying air quality problems in the  
13 San Joaquin Valley for almost a decade now. This includes  
14 work that we published in Almaraz et al. in Science  
15 Advances, which indicated that particularly in the  
16 southern San Joaquin Valley, there are large agricultural  
17 sources of soil NOx, which comes from application of  
18 fertilizer. So it can be organic, synthetic, it doesn't  
19 matter. It's the excess nitrogen that's in the soil,  
20 which is converted by microbes naturally living in the  
21 soil into nitrogen oxides, which are precursors for both  
22 ozone and particulate matter. Because of the warm climate  
23 in Southern California in general and the dry soils, these  
24 emissions are particularly concentrated in regions in this  
25 area.

1           So this is an important point. I realize that  
2 the SIP modeling that's been done by CARB does ostensibly  
3 have a soil source. However, it's just wildly  
4 underestimated as evidenced by several publications that  
5 are not referenced in this plan. So I just wanted to  
6 point out again, these recent papers -- not even that  
7 recent, right? The Almaraz paper is from 2018. There's  
8 analysis of ozone done by David Parrish, a colleague of  
9 mine, formerly of NOAA, that shows that the ozone trends  
10 are indicating that there's some other source that's not  
11 currently regulated that is contributing to this large  
12 background levels of ozone that you're not going to be  
13 able to eliminate through what has been traditionally  
14 regulated.

15           And I just want to point out that this is  
16 actually a point of optimism in a sense, because there --  
17 we've heard a lot about how hard it is to wring that  
18 sponge out any more to reduce sources traditionally from  
19 internal combustion. But there -- in the Almaraz et al.  
20 paper, we suggest many reason -- many ways in which  
21 fertilizer application and agricultural practices can be  
22 implemented to reduce this significant source of NOx  
23 through the region. So I implore ARB and the San Joaquin  
24 Air Quality Pollution Control District to please study  
25 this further. And it -- like I said, it represents

1 potentially a way to control a large amount of the  
2 existing NOx sources and reduce both ozone and PM in the  
3 relatively short term.

4 Thank you very much for your time and  
5 consideration.

6 BOARD CLERK ESTABROOK: Thank you.

7 Janet Dietzkamei, you can unmute and begin.

8 JANET DIETZKAMEI: Thank you. Good morning,  
9 Chair Randolph, and Board members, and staff.

10 We in the San Joaquin Valley live in a bowl. In  
11 addition to pollution generated in our valley, we have  
12 some pollutants bleeding in from north and south of us.  
13 Other speakers will address the ozone contributing  
14 sources. I am addressing what the San Joaquin Valley air  
15 does to me and thousands of others breathing the air here.

16 Air pollution reductions are not yet eliminating  
17 air, which causes us disease. Levels above 70 parts per  
18 billion cause me to struggle to take air into my lungs.  
19 Trying to breathe in elevated ozone is like putting a  
20 plastic bag over my mouth and nose. Air will not go into  
21 my lungs. Air will not go into my lungs. It causes  
22 others in the valley to suffer asthma attacks. Thousands  
23 of us in the San Joaquin Valley, including young children  
24 with developing lungs, are seriously affected by breathing  
25 ozone.

1           The cost of the health effects of ozone is not  
2 figured into costs relative to lowering ozone in our  
3 valley. There are medication costs, doctor visit costs,  
4 ER costs, sometimes hospital costs. Some here are unable  
5 to afford those costs. It is expensive to have asthma and  
6 other medical issues due to air pollution. One summer  
7 many years ago, I discovered the serious effect ozone has  
8 on me, when while walking my dog I began to struggle to  
9 breathe, then became light headed, and this developed to  
10 so close to passing out while I am out walking my dog. I  
11 didn't know the ozone was at high levels and my reaction  
12 to ozone at that level. I managed to make it home and  
13 take inhalers and lie down. It took me hours to recover.

14           Now, I do not go out into ozone when levels are  
15 in the air monitoring moderate level. I always check air  
16 monitors to discover is it safe to go outside. I don't  
17 want a reoccurrence of the episode I have just described.

18           Masks, unless they are gas masks, do not protect  
19 us from ozone. Some of our San Joaquin Valley residents  
20 are more affected by the locations they live. Reducing  
21 ozone in those locations also helps the valley. Unlike  
22 PM2.5, ozone is able to more easily affect a larger area.  
23 Please help us. Please help us.

24           Thank you.

25           BOARD CLERK ESTABROOK: Thank you.

1           Our next speaker will be Cynthia Pinto-Cabrera.  
2 After Cynthia will be Brent Newell, Perry Elerts, and  
3 Robert Yuhnke.

4           Cynthia, you can unmute and begin.

5           CYNTHIA PINTO-CABRERA: Hello. Good morning,  
6 Chair Randolph and members of the Board. Cynthia  
7 Pinto-Cabrera, Policy Coordinator with the Central Valley  
8 Air Quality Coalition, or CVAQ.

9           And today, we're discussing another important  
10 opportunity to meet health protective standards here in  
11 the valley. And as an asthmatic and valley resident,  
12 these plans are extremely important for my family and my  
13 community. However, Valley Air and CARB has really missed  
14 the opportunity to prioritize environmental justice  
15 communities and their concerns.

16           I'd like to start and say that it was really  
17 disappointing to hear that the Valley Air governing board  
18 was so adamantly opposed to pesticide commitments. For  
19 years, EJ communities have raised concerns about  
20 pesticides, raising concerns for their health and their  
21 well-being, but have been ignored. So we are -- we are  
22 far past ignoring these opportunities. The commitment to  
23 reduce the ROG emissions and 1,3-D is definitely a step in  
24 the right direction, but we urge CARB to do more and to  
25 use the authority -- your existing authority to really

1 guide DPR in their rule making and ensure that they will  
2 implement the most health protective measures without any  
3 loopholes or exemptions to major violators.

4           And this level of importance and stringency  
5 should also be applied to soil NOx. We had some  
6 conversations in the South Coast SIP, but would like to  
7 highlight again the concerns in the valley as well and the  
8 amount of NOx emissions that could be controlled through  
9 better management practice is definitely missed and to  
10 proceed without this clear element we feel violates the  
11 reasonably available control measure requirements and  
12 demonstrates that the Plan doesn't have the most stringent  
13 measures available.

14           And lastly, I'd like to point to the public  
15 process that was an -- also an extremely disappointed --  
16 pointing experience with little outreach being done to  
17 communities. And I'm not even sure if AB 617 communities  
18 were informed about these workshops, which I think is the  
19 bare minimum that should be done. An example is the  
20 October 27th workshop. Questions weren't fully answered  
21 by several advocates. And a workshop that was allocated  
22 for an hour and a half only lasted about 30 minutes. This  
23 is not an equitable process. There should be some time  
24 left over for folks to be -- community residents to be  
25 able to join. Not sure if everybody can join after work

1 long days, things like that.

2           And overall the valley is long overdue to meet  
3 existing clean air standards and human caused climate  
4 change is only increasing our region's challenges. Valley  
5 Air and CARB mustn't ignore these opportunities to improve  
6 health and well-being to valley residents. We really need  
7 CARB to take initiative and provide that guidance for  
8 DPR's rulemaking and acknowledge the role of soil NOx and  
9 overall promote a more equitable public process in order  
10 to really address the disproportionate impacts in EJ  
11 communities and help us finally meet our standards.

12           Thank you.

13           BOARD CLERK ESTABROOK: Thank you.

14           Next will be Brent. Brent Newell, you should be  
15 able to unmute and begin.

16           BRENT NEWELL: Hello. My name is Brent Newell.  
17 I represent the Central Valley Air Quality Coalition. I  
18 have three points today. First, the Plan lacks  
19 contingency measures required by Section 172(c)(9) of the  
20 Act. Second, the Plan lacks a demonstration required by  
21 section 110(a)(2)(E) of the Act that must demonstrate and  
22 provide reasonable assurances of compliance with Title 6  
23 of the Civil Rights Act. And third, the Plan lacks an  
24 accurate and current inventory as required by Section  
25 172(c)(3) of the Act.

1           The Board should not adopt the proposed  
2 resolution, which incorrectly finds that the Plan complies  
3 with the Clean Air Act. Rather, the Board has a duty to  
4 disapprove the Plan if it finds that the Plan does not  
5 comply with the Clean Air Act as required by Health and  
6 Safety Code section 41650.

7           So first, the contingency measures are entirely  
8 emitted from the Plan. Contingency measures are an  
9 essential Plan strategy and provide a back-up when the  
10 Plan's primary attainment strategies fail. Every plan for  
11 every federal health based ambient air quality standard  
12 has failed to attain those standards by their respective  
13 deadlines in the San Joaquin Valley. Given that history  
14 of failure to attain, the lack of contingency measures in  
15 the Plan should not be overlooked or excused by claiming  
16 you are waiting for EPA guidance. Instead of doing  
17 nothing, you should proceed based on current law. The  
18 resolution should be amended to acknowledge that you have  
19 not and cannot make a finding that the Plan complies with  
20 Section 172(c)(9).

21           Second, Title 6. EPA's proposed disapproval of  
22 the Plan to attain the 2012 annual PM2.5 standard  
23 discusses the obligation on CARB to demonstrate compliance  
24 with Title 6 in this Plan. Title 6 prohibits recipients  
25 of federal financial assistance from engaging in racial



1 discrimination, which includes disparate impacts resulting  
2 from your policies and procedures. This Plan lacks any  
3 Title 6 analysis or demonstration and instead acknowledges  
4 racial disparities from air pollution. The resolution  
5 should be amended to acknowledge that you have not and  
6 cannot make a finding that this Plan complies with Section  
7 110(a)(2)(E)

8 Finally, soil NOx. The testimony of Professor  
9 Faloona supports the need for an updated NOx inventory.  
10 The resolution should be amended to commit to submit an  
11 updated inventory within 12 months to support an EPA  
12 action on this Plan. The resolution should be amended to  
13 acknowledge that you have not and cannot make a finding  
14 that the Plan complies with Section 172(c)(3).

15 That's all I have today. Thank you very much.

16 BOARD CLERK ESTABROOK: Thank you.

17 Next is Perry Elerts. Perry, you should be able  
18 to unmute and begin.

19 PERRY ELERTS: Good morning, Chair and members of  
20 the Board. My name is Perry Elerts, an attorney with  
21 Leadership Counsel for Justice and Accountability.

22 The SJV 2022 Ozone Plan presents an opportunity  
23 to once and for all map out a strategy for how the valley  
24 aims to finally reach and maintain a safe ozone level.  
25 Unfortunately, this plan falls short of that goal and

1 fails to meet many Clean Air Act requirements.

2 For starters, the Plan lacks any contingency  
3 measures, as was just discussed, which are required by the  
4 Clean Air Act. Given the history of failure to meet any  
5 of the ozone or PM standards or to meet multiple Clean Air  
6 Act deadlines, it is vital contingency measures are  
7 included in this Plan.

8 Leadership Counsel and others have put forth many  
9 potential emission controls that can be used to either  
10 more expeditiously meet the 2015 ozone standard or act as  
11 contingency measures. For example, we have suggested many  
12 ways to further strengthen the ISR Rule. We have also  
13 recommended additional pesticide controls with  
14 corroboration of DPR, and we've recommended improvements  
15 to the Animal Confinement Rule 4570 requiring emission  
16 reductions beyond offering an optional menu of controls.  
17 Those are just a few examples we and others have  
18 highlighted where there's still plenty of room to further  
19 emission reductions.

20 The Plan also does not make any mention of the  
21 District's duty to comply with Title 6 of the Civil Rights  
22 Act. As the District and CARB is aware when it withdrew  
23 the Valley's PM2.5 Plan for failure to regulate ammonia  
24 and failure to comply with Title 6, it is a requirement  
25 that the District analyze in its SIP how the Plan complies

1 with Title 6 to ensure the District's actions, including  
2 permitting actions, are not intentionally discriminatory  
3 or have discriminatory effect based on race, color, or  
4 national origin.

5 Just because we have 15 years to meet the 2015  
6 standard doesn't mean we should wait till the very last  
7 year to try to reach attainment. Doing so means valley  
8 residents and the valley's environment will only continue  
9 to suffer longer.

10 I thank you for your time.

11 BOARD CLERK ESTABROOK: Thank you.

12 So next will be Robert Yuhnke. And then after  
13 Robert will be Jane Sellen, Mark Rose, and then a phone  
14 number ending in 373. And that's the total number of  
15 commenters that I have in Zoom at this time.

16 So, Robert, you can go ahead and unmute and  
17 begin.

18 ROBERT YUHNKE: Thank you. I previously  
19 identified myself this morning, so I'll just pick up from  
20 the earlier comment, but this time focused on the Central  
21 Valley Plan.

22 I want to highlight the importance of the Clean  
23 Fleets Rule as part of the CARB commitment to meeting the  
24 emission reductions needed for attainment in the Central  
25 Valley. The Plan shows that the Clean Fleets Rule would

1 achieve approximately 5.9 tons of reduction of NOx. And  
2 that is limited by the fact that the Clean Fleets Rule, as  
3 currently designed, would only apply to fleets with more  
4 than 50 vehicles from large fleet owners. And according  
5 to the inventory developed by staff, that would regulate  
6 or phaseout 518,000 medium- and heavy-duty vehicles by  
7 2042 out of a total inventory of 1.8 million medium- and  
8 heavy-duty vehicles in the state.

9           So what that says is that this rule is only going  
10 to reduce roughly 30 percent of the NOx that is being  
11 emitted by medium- and heavy-duty vehicles in the state.  
12 That additional 70 percent is open for reductions that  
13 could be used to either offset the additional NOx that's  
14 coming from soils that has been previously discussed or to  
15 offset additional ozone that will result from expanded  
16 wildfire. We've seen roughly an 8-fold increase in the  
17 area burned by wildfire over the last 20 years in  
18 California.

19           There's every expectation that as we get closer  
20 to 15 -- 1.5 degrees centigrade above the baseline for  
21 climate warming, that the wildfire problem will  
22 accelerate. So past patterns are not predictive of future  
23 emissions. And in addition, your plan relies on the Feds  
24 to reduce railroad emissions by 11 tons. Well, if you  
25 increase the scope of the Clean Fleets Rule to cover all

1 of the medium- and heavy-duty vehicles in the State by the  
2 attainment deadline, you would offset most of all those  
3 other sources and including the 11 tons that the Feds  
4 might not give you, if they don't take the action that you  
5 request on locomotives.

6 Thank you.

7 BOARD CLERK ESTABROOK: Thank you.

8 Jane Sellen, you may unmute and begin.

9 JANE SELLEN: Hi, Chair Randolph, CARB Board, and  
10 staff. Thank you for the opportunity to comment. I'm  
11 Jane Sellen with the statewide coalition Californians for  
12 Pesticide Reform. We're a coalition of groups and  
13 organizations working to reduce the environmental  
14 injustice of pesticide exposure, particularly in the San  
15 Joaquin Valley and Central Coast.

16 On behalf of the coalition, I want to thank CARB  
17 for exercising their appropriate authority to set  
18 standards for toxic air contaminant emissions in the San  
19 Joaquin Valley SIP and for including -- specifically for  
20 including a commitment to reduce 1,3-dichloropropene  
21 emissions by 2037. Although, we have serious concerns  
22 about the Department of Pesticide Regulation's ongoing  
23 rulemaking for 1,3-D, we are glad to see CARB and DPR  
24 working together on this SIP measure.

25 As noted in our comment letter, which was signed

1 by 24 San Joaquin valley groups and coalitions, we believe  
2 even more is possible and that CARB must set the overall  
3 air quality context within which DPR should regulate.  
4 Instead of relying on DPR's conservative estimate, it's  
5 based on a flawed draft regulation that excludes  
6 farmworkers, eliminates 1,3-D use caps, and is based on  
7 the lifetime cancer risk level recommended by the  
8 manufacturer Dow over the 14 times more health protective  
9 recommendation of CARB and DPR's sister agency OEHHA.

10 We also want to express our thanks to CARB staff  
11 for clarifying in the SIP -- in the draft SIP the shared  
12 authority with DPR with regards to pesticides that are  
13 classified as toxic air contaminants. State law is clear  
14 that it is DPR's job to regulate the use of pesticides,  
15 but that CARB retains primary jurisdiction over all toxic  
16 air contaminants including pesticides. In practice, that  
17 means CARB must set overall pollution standards and DPR's  
18 regulation must ensure that the regulated industry can  
19 meet them.

20 Thank you for the opportunity to comment and  
21 thank you for ensuring the inclusion of this class of air  
22 pollution, which CalEPA researchers have found to be one  
23 of two pollutants, with the greatest disparity in impact  
24 by race and income.

25 Thank you.

1 BOARD CLERK ESTABROOK: Thank you.

2 Mark Rose, you can unmute and begin.

3 MARK ROSE: Good morning, Madam Chair and members  
4 of the Board. Thank you for this opportunity to comment.  
5 My name is Mark Rose and I'm the Sierra Nevada Program  
6 Manager for National Parks Conservation Association.

7 After decades of failure in meeting nearly all  
8 existing ozone and PM2.5 standards on time, sadly CARB and  
9 the Valley Air District have once again brought forward an  
10 ozone plan that is all but guaranteed to fail at securing  
11 expeditious attainment for valley residents suffering from  
12 some of the worst pollution in the country.

13 Like we've seen time and time again with SIPs for  
14 the valley, this Plan is not forward-thinking and is  
15 instead heavily reliant on existing measures that have  
16 repeatedly come up short in delivering clean air. Nearly  
17 all reductions needed to meet attainment are coming from  
18 either mobile sources measures CARB has already enacted or  
19 plans to enact or from legal dubious aggregate  
20 commitments, which we have seen are basically empty  
21 promises to come up with a plan later on to reduce  
22 emissions.

23 While we strongly support the mobile source rules  
24 that CARB has included in this Plan, far more is needed.  
25 Even accounting for future mobile source standards, the

1 State still needs to achieve over 25 tons per day of NOx  
2 reductions and 4.6 tons per day of ROG reductions from  
3 aggregate commitments. This oversized commitment accounts  
4 for 15 percent of needed NOx reductions and over 12  
5 percent of ROG reductions needed to reach attainment.

6 With the Ninth Circuit Court recently ruling  
7 against the State for its failure to show that it was  
8 capable of meeting similar large aggregate commitments for  
9 the valley's 2006 PM2.5 plan, it is frankly dumbfounding  
10 while CARB continues to move ahead with plans that rely so  
11 heavily on commitments that violate the plain language and  
12 intent of the Clean Air Act, but at least CARB is  
13 proposing to actually do something new, as opposed to the  
14 Valley Air District, which is basically planning to do  
15 nothing above and beyond their existing measures for the  
16 next 15 years.

17 Although we do support the small handful of oil  
18 and gas leak detection and repair measures the District  
19 committed to, the reductions from these measures appear to  
20 be so minimal that the Valley Air District didn't even  
21 bother to calculate them. The District's Plan also states  
22 that they may further study potential new measures for key  
23 sources such as commercial and residential heating,  
24 stationary source NOx combustion, and stationary VOCs.  
25 With 15 minutes -- 15 years until the attainment deadline,



1 the District must do more to reduce emissions than simply  
2 state they'll look into maybe controlling these key  
3 sources in the future. Commitments to reduce these  
4 sources must be included in this Plan now, in order for  
5 them to be federally enforceable. The Valley Air District  
6 fails to even promise to study how it can improve upon  
7 current measures, such as their outdated ISR measure, or  
8 analyze wholly unregulated precursors like soil NOx.

9           Moreover, as other commenters have pointed out,  
10 this Plan is missing key sections required for SIP  
11 completeness, including contingency measures, and holistic  
12 Title 6 analysis. We ask that you learn from the Valley's  
13 long history of past failures and do not approve this Plan  
14 until the State addresses the oversized reliance on  
15 aggregate commitments, the utter lack of commitments from  
16 the Valley Air District, and the missing SIP requirements.

17           Thank you.

18           BOARD CLERK ESTABROOK: Thank you.

19           And our final speaker is a phone number ending in  
20 373. Please state your name for the record before you  
21 begin.

22           HARVEY EDER: Yes. Am I being heard?

23           BOARD CLERK ESTABROOK: Yes, you are.

24           HARVEY EDER: Good morning. My name is Harvey  
25 Eder. I'm the founder and director of the Public Solar

1 Power Coalition that goes back close to 50 years in the  
2 state.

3           We've litigated on these plans with you all for a  
4 long time. We believe that these plans, the Scoping Plan,  
5 the '22 plans, like South Coast, et cetera, are illegal.  
6 We put in a hundred exhibits in the '16 plan from  
7 Department of Energy's SunShot Program, modeled after the  
8 Moonshot, that's how we got to the moon in the sixties.  
9 And just to bring solar down cost effective with no  
10 benefits, tax credits or any of this other stuff. And it  
11 was done for all different types of solar for all  
12 applications.

13           In March of '16, we brought these to the South  
14 Coast and it came to you all. And we -- it was never  
15 studied, never evaluated, no due process, in fact, purging  
16 us. We got run out of federal court three years ago by  
17 the Federal Marshal and the FBI. We asked for exculpatory  
18 evidence, such as getting a copy of the tape from you all,  
19 and EPA, and the District, nothing. This is really  
20 outrageous. And we are giving you legal notice. And  
21 we've been talking to staff and all for the past two  
22 weeks. We're going for an emergency stay in the Ninth  
23 Circuit under Rule 27-3. Okay. We are going to -- we're  
24 getting -- we're actually funding in the budget from EPA  
25 and from the State, so that we will do these studies. We

1 will do this plan. Okay. You can't be trusted. And so  
2 that's part of it.

3 Also, inequity. We studied 40 years ago the  
4 low-income solar equity program with the PUC under  
5 Commissioner Grimes, the first black commissioner on the  
6 PUC. The myopic definition of environmental justice of  
7 just to have less air pollution more like the white  
8 communities, the wealthier communities is insufficient and  
9 it's a dodge. The real issue is who's going to control  
10 it, own it, and make the decision-making?

11 These communities, these laborers, we people, we  
12 get it. Piketty, the French economist, *Capital in the*  
13 *21st Century* and *Capital and Ideology* a couple years ago,  
14 60 percent of this country -- two-thirds of this country  
15 haven't seen, for the last 40 years, no increase in income  
16 or equity. It's (inaudible)

17 BOARD CLERK ESTABROOK: Thirty seconds remaining.

18 HARVEY EDER: -- firsthand. The -- also you're  
19 using the base years of '15 through '17 for your plans and  
20 you purged '20 and '21, and then try to say it was  
21 approved by -- it has not, i.e, Jeff Welling, attorney for  
22 EPA. This stuff is all part of what -- the emergency  
23 stay, we got them to hold of Ninth Circuit and we're going  
24 to proceed. And we want a stipulation to do this. We  
25 don't want to fight you on it. We will fight you and

1 we're looking to other emergencies, TRO, injunction, and  
2 writ.

3 All right. Let's work together on this and let's  
4 do something real instead of something that's going to --

5 BOARD CLERK ESTABROOK: Thank you.

6 HARVEY EDER: -- not work --

7 BOARD CLERK ESTABROOK: Chair, that concludes the  
8 commenters.

9 CHAIR RANDOLPH: All right. Thank you.

10 Staff, are there any issues raised in the  
11 comments that you want to address before I close the  
12 record?

13 Okay.

14 I will now close the record on this agenda item.

15 Now, will we bring it to the Board for comments  
16 and questions.

17 Dr. Pacheco-Werner.

18 BOARD MEMBER PACHECO-WERNER: Thank you, Chair.  
19 And thank you so much to CARB staff for working with our  
20 District staff to achieve this ambitious and important  
21 plan. As I told our District Board, I am actually a  
22 walking ozone monitor myself. Nothing affects my asthma  
23 more than ozone. So this Plan is personal to me too. And  
24 I thank our commenters today for raising their issues on  
25 how ozone affects them as well.

1 I want to give a special gratitude to our  
2 environmental justice community for working with CARB,  
3 DPR, and District staff to get a DPR commitment to  
4 regulate and enforce pesticide -- pesticides included in  
5 the State's commitment. I also want to mention that  
6 included in our District 2023 legislative platform is a  
7 commitment to engage in zero-emission infrastructure --

8 (11:48 a.m. sound went out.)

9 (11:50 a.m. sound came back on.)

10 BOARD CLERK ESTABROOK: All right, I think we're  
11 good. Go ahead.

12 CHAIR RANDOLPH: Okay. First of all, I just want  
13 to make sure that to the extent that the question did not  
14 get broadcast, we should probably repeat it and then  
15 respond.

16 AQPSD AIR QUALITY PLANNING BRANCH CHIEF

17 VANDERSPEK: Okay. Dr. Pacheco-Werner asked if we could  
18 address the issues related to Title 6 and contingency  
19 measures. So I'm going to -- my name is Sylvia  
20 Vanderspek, and I'm Chief of the Air Quality Planning  
21 Branch at the California Air Resources Board and so I'll  
22 quickly answer those questions.

23 So CARB prioritizes environmental justice,  
24 incorporating racial equity in conducting meaningful  
25 community engagement in its policy and planning efforts

1 and programs to address a long-standing environmental and  
2 health inequities from elevated levels. These connected  
3 efforts provide a -- and these interagency efforts will  
4 provide additional pathways to address Title 6.

5 In the CARB staff report, we do acknowledge that  
6 EPA recently came out and mention that CARB needs to start  
7 addressing Title 6. As part of the State SIP Strategy  
8 process, we reached out to community members asked them  
9 for measures that were included in the Plan. Throughout  
10 the process, we had those as public suggestion measures  
11 and then we incorporated some of those measures including  
12 the pesticide measure in the Plan. Many of the measures  
13 that CARB is working on, as you know, you know, impact  
14 disproportionate, you know, communities. We're definitely  
15 waiting for EPA guidance and we think we have made some  
16 steps in addressing these.

17 We're working internally how to effectively  
18 address Title 6 in these Air Quality Management Plans and  
19 we're looking forward to working out -- working with the  
20 community members to get guidance from them and some  
21 appropriate measures to do that.

22 CHAIR RANDOLPH: Can you move a little closer to  
23 the mic. Sorry.

24 AQPSD AIR QUALITY PLANNING BRANCH CHIEF

25 VANDERSPEK: Oh, I'm sorry. I'm sorry. And so then on

1 contingency measures, you know, as you know, the Board  
2 just received a memo about contingency measures, about the  
3 process that's been going on with the last couple years.  
4 And so we are definitely committed as an agency to provide  
5 these contingency measures. I do want to highlight though  
6 as CARB is driving emissions down to zero, these  
7 opportunities for contingency measures do become fewer and  
8 farther between.

9           We are internally looking at ways to meet this  
10 requirement, especially with -- in the anticipation of EPA  
11 guidance coming out. We have actually met with their  
12 headquarters at EPA almost a year ago where, at that time,  
13 they let us know that guidance was imminent. So our  
14 understanding now it should be coming out fairly shortly,  
15 but I can tell you as an agency and as staff we want to  
16 meet this requirement. We have a commitment in our  
17 resolution that we will continue to work with our federal  
18 partners to come up with an approvable contingency measure  
19 that not only applies to South Coast and the San Joaquin  
20 Valley, but also that can be used for the rest of the  
21 State.

22           CHAIR RANDOLPH: Okay. Thank you. All right.

23           Other Board member questions and comments?

24           Okay. Vice Chair Berg.

25           VICE CHAIR BERG: Thank you so much. You know,

1 both San Joaquin Valley and South Coast, it has always  
2 been such a struggle meeting these various attainment.  
3 And so as we look at -- you know, a couple of commenters  
4 did comment that we have yet to attain an ozone level. I  
5 didn't think that was correct, so I'd like a -- just some  
6 clarification on that.

7           And secondly though, as we are now bringing  
8 pesticides back, because we did have that 1,3 --

9           CHAIR RANDOLPH: 1,3-D.

10           VICE CHAIR BERG: Thank you -- 1,3-D in a SIP  
11 regulation many years ago -- several years ago. And so --  
12 and did we meet that SIP obligation? And now, are we  
13 looking to make a measurable impact in reducing it  
14 further? And so I'd like just to get your kind of take on  
15 that. Thank you.

16           AQPSD CHIEF BENJAMIN: This is Michael Benjamin.  
17 On the ozone question, I think we can think about it in  
18 maybe two parts. Ozone air quality is definitely  
19 improving in the San Joaquin Valley. I think that's not  
20 in question. I think maybe where some of the frustration  
21 lies is the pace at which that's happening and have we  
22 been meeting the commitments in terms of the timing on  
23 that?

24           So we are seeing very significant improvement in  
25 air quality and ozone. And the Plan that we have before



1 us today is really another step in that direction. And so  
2 as staff, we feel very confident that the measures that  
3 are in this Plan will provide us -- will get us to  
4 attainment in the time that's required by the Clean Air  
5 Act.

6 On --

7 VICE CHAIR BERG: Just some translation here.

8 AQPSD CHIEF BENJAMIN: Yes.

9 VICE CHAIR BERG: So does that mean we have  
10 missed every other benchmark or we -- has there ever been  
11 a time where the San Joaquin Valley was in attainment for  
12 ozone, since we have had SIPs?

13 AQPSD AIR QUALITY PLANNING BRANCH CHIEF

14 VANDERSPEK: I'll go ahead and answer that question. Yes,  
15 they have attained the one-hour ozone standard in 2017.  
16 And just a little bit on the -- your other question about  
17 DPR and the original SIP target. DPR did meet the  
18 requirement that was specified in the '99 -- 1994 SIP on  
19 those reductions.

20 And as far as the 1,3-D Measure, it -- you know  
21 it definitely reduces, you know, exposure for that  
22 category. There is a lot of other pesticides, but it's  
23 about what 10 percent of the emission, Michael?

24 VICE CHAIR BERG: So an additional 10 percent,  
25 but, you know, we are going on 30 years since 1990. And

1 would you say 19 --

2 AQPSD AIR QUALITY PLANNING BRANCH CHIEF

3 VANDERSPEK: It was the 1994 SIP.

4 VICE CHAIR BERG: Yeah, the 1994 --

5 AQPSD AIR QUALITY PLANNING BRANCH CHIEF

6 VANDERSPEK: Right.

7 VICE CHAIR BERG: -- so we've done one. We  
8 reduced it 20 percent. If we had done that in all other  
9 air quality areas, we'd have a whole different subject  
10 here. We wouldn't have the reductions like we do before.  
11 So I'm sure hoping we're going to reduce it more than 10  
12 percent after all this time additionally. So we'll keep  
13 working with everybody and thank you for that information.

14 CHAIR RANDOLPH: All right. Thank you. The  
15 Board has before them --

16 BOARD MEMBER BALMES: Chair Randolph.

17 CHAIR RANDOLPH: Oh, sorry, Dr. Balmes. I didn't  
18 see your mic up there.

19 BOARD MEMBER BALMES: Thank you and I apologize  
20 for being late, but Southwest canceled my flight due to  
21 the high winds, so I had fly into LAX and then drive here.  
22 So I missed much of the testimony, but I did hear several  
23 advocates expressing their concern about asthma and ozone.  
24 You know, I've been studying ozone for about 40 years,  
25 initially largely related to asthma. And I can confirm

1 Dr. Pacheco-Werner's comments that people with asthma feel  
2 it when ozone levels go high. And while we've made great  
3 progress in the San Joaquin Valley in terms of ozone,  
4 I'm -- I've been doing research in ozone since about 1999,  
5 and the ozone levels have improved as have other air  
6 pollutants.

7           There are still, you know, levels that are high  
8 enough to cause health problems for people with  
9 preexisting disease like asthma. So while I, you know,  
10 support the efforts both from the District and CARB to  
11 implement this SIP Strategy, I share the frustration  
12 about, you know, could we do more? And in particular,  
13 with regard to pesticides, while I have to say I'm very  
14 pleased that we have the 1,3-dichloropropene piece of this  
15 SIP, it's a -- you know, it's a foot in the water -- toe  
16 in the water, whatever -- toe in the water, but I think we  
17 need to do more. I realize this is an ozone SIP and  
18 pesticides are more of a holistic issue with regards to  
19 air quality in the San Joaquin Valley, but I guess we use  
20 this particular item to emphasize that we need to do more  
21 about ambient pesticides.

22           And the other -- the last comment I would make --  
23 well, it's not the last comment. I just wanted to clarify  
24 that we met the 1-hour standard or the Valley met the  
25 1-hour standard. That standard is an old standard. You

1 know, the 80 part per billion -- I mean 8-hour 70 part per  
2 billion standard that is currently the EPA NOx is -- you  
3 know, it's -- we're a ways from being able to meet that.

4           And I hope that the measures in this State SIP  
5 Strategy for the San Joaquin Valley will get there. It  
6 would be nice if we get their faster. And I guess the  
7 last comment I would make is given the Board's commitment  
8 to environmental justice, I do think we need to do better  
9 outreach, as several people suggested, to make sure that  
10 the environmental justice community members can be made  
11 aware of items like this SIP. You know, it requires us to  
12 be active in outreaching to folks. But with that, I am  
13 supportive of the State SIP for the San Joaquin Valley.

14           CHAIR RANDOLPH: All right. Thank you, Dr.  
15 Balmes.

16           Any further comments or questions?

17           Okay. Seeing none, the Board has before them  
18 Resolution number 23-3. Do I have a motion to approve?

19           BOARD MEMBER PACHECO-WERNER: Move to approve.

20           CHAIR RANDOLPH: And a second.

21           BOARD MEMBER DE LA TORRE: Second.

22           BOARD MEMBER EISENHUT Second.

23           CHAIR RANDOLPH: Okay. Clerk, would you please  
24 call the roll.

25           BOARD CLERK ESTABROOK: Dr. Balmes?

1 BOARD MEMBER BALMES: Yes.

2 BOARD CLERK ESTABROOK: Mr. De La Torre?

3 BOARD MEMBER DE LA TORRE: Yes.

4 BOARD CLERK ESTABROOK: Mr. Eisenhut?

5 BOARD MEMBER EISENHUT: Yes.

6 BOARD CLERK ESTABROOK: Senator Florez?

7 BOARD MEMBER FLOREZ: Florez, aye.

8 BOARD CLERK ESTABROOK: Ms. Hurt?

9 BOARD MEMBER HURT: Aye.

10 BOARD CLERK ESTABROOK: Mr. Kracov?

11 BOARD MEMBER KRACOV: Yes.

12 BOARD CLERK ESTABROOK: Dr. Pacheco-Werner?

13 BOARD MEMBER PACHECO-WERNER: Yes.

14 BOARD CLERK ESTABROOK: Professor Sperling?

15 BOARD MEMBER SPERLING: Yes.

16 BOARD CLERK ESTABROOK: Ms. Takvorian?

17 BOARD MEMBER TAKVORIAN: Yes.

18 BOARD CLERK ESTABROOK: Vice Chair Berg?

19 VICE CHAIR BERG: Yes.

20 BOARD CLERK ESTABROOK: Chair Randolph?

21 CHAIR RANDOLPH: Yes.

22 BOARD CLERK ESTABROOK: Madam Chair, the motion

23 passes

24 CHAIR RANDOLPH: All right. Thank you very much.

25 We will now take a one-hour lunch break and

1 return at 1 o'clock for the remaining items on today's  
2 Board agenda. Thank you very much.

3 (Off record: 12:02 p.m.)

4 (Thereupon a lunch break was taken.)

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25



1 order to address CARB's evolving goals and priorities with  
2 scientifically rigorous research.

3 Today, staff will be recommending Board approval  
4 of proposed projects for fiscal year 2023 and 2024, as  
5 well as delegation of approval of research contracts to be  
6 funded in fiscal years 2023 through 2025.

7 Dr. Cliff, would you please introduce the item.

8 EXECUTIVE OFFICER CLIFF: Thank you, Chair  
9 Randolph. Today, staff will present the 11 proposed  
10 research projects for fiscal year 23-24 and a short health  
11 research update. The proposed research projects were  
12 developed through a public process, which began in the  
13 spring of 2022 with a public solicitation of research  
14 concepts and comments. Concepts were prioritized in  
15 consultation with CARB staff and stakeholders, advocates,  
16 and research partners through individual meetings, and a  
17 public meeting on September 14, 2022. The public meeting  
18 included a public comment period, an additional  
19 informational materials on our website for those unable to  
20 attend the meeting.

21 The project concept prioritization was also  
22 guided by the triennial strategic research plan for fiscal  
23 years 2021 through 2024, which was approved by the Board  
24 on March 25th, 2021. The plan includes a commitment to  
25 operationalize racial equity in CARB research. In today's



1 presentation, staff will summarize current research  
2 projects -- current progress towards that goal including  
3 changes to the research planning process that increase  
4 transparency, how equity is embedded in the process and  
5 project implementation, and a description of community  
6 driven research roadmap projects currently funded.

7           The health update will focus on CARB's expanding  
8 health analysis, project, and research studies.

9           The proposed research projects support CARB's  
10 regulatory priorities related to health, environmental  
11 justice, air pollution, and climate change. Due to a  
12 limited research budget, many of the projects presented  
13 today strive to holistically address agency priorities and  
14 rely on partnerships in collaboration with other State and  
15 federal entities to make our research dollars go further.  
16 Staff will be seeking Board approval to develop the  
17 proposed budget project concepts into full projects and  
18 ask for delegation of contract approval to the executive  
19 officer for contracts covering fiscal years 2023 through  
20 2025.

21           Today, we will be hearing from two research  
22 division staff, Dr. Sonya Collier will review the proposed  
23 research projects and Dr. Hnin Hnin Aung will be  
24 presenting the health research.

25           I will now ask Dr. Sonya Collier to begin the

1 staff presentation.

2 Dr. Collier.

3 (Thereupon a slide presentation).

4 RD STAFF AIR POLLUTION SPECIALIST COLLIER: Thank  
5 you Dr. Cliff. Good afternoon, Chair Randolph and Board  
6 members. Today, we'll be -- we will be presenting CARB's  
7 proposed research projects for fiscal year 2023 through  
8 2024. The proposed projects were released for public  
9 comment on December 16th of 2022.

10 Next slide, please.

11 --o0o--

12 RD STAFF AIR POLLUTION SPECIALIST COLLIER: CARB  
13 is seen as a world expert in monitoring, analyzing, and  
14 regulating air emissions. This reputation is result of  
15 using sound science and up-to-date research to inform our  
16 work. The Research Program is key to providing that  
17 scientific foundation as envisioned by the Legislature  
18 when they created the Board's Research Program in 1971.  
19 The Research Program encompasses all aspects of air  
20 pollution and plays an important role in meeting the  
21 challenges of increasingly stringent federal air quality  
22 standards and long-term climate goals and serves as the  
23 foundation for effective regulatory decisions.

24 The Program enables research using leading edge  
25 technology and methods in key areas, such as environmental

1 justice, economics, climate, air quality, and health. The  
2 Triennial Strategic Research Plan is an important tool for  
3 collaboration and for communicating CARB's research  
4 priorities. In the plan, staff compiled information on  
5 our past and current research projects and future research  
6 priorities. The development of the future research  
7 priorities in the plan was also guided by public input.  
8 This document aids in our annual research planning process  
9 and is an important tool in our outreach efforts.

10 --o0o--

11 RD STAFF AIR POLLUTION SPECIALIST COLLIER: The  
12 Research Program priorities are driven by CARB incentive  
13 and regulatory program needs. Additionally, research  
14 priorities remain responsive to the triennial plan,  
15 internal and external coordination, and emerging topics  
16 identified through external input and the scientific  
17 literature. Each year, the Research Program funds new  
18 projects that are responsive to these identified  
19 priorities.

20 We have a variety of projects types. Our  
21 extramural research contracts consist of scientifically  
22 robust projects that are highly responsive to CARB's  
23 priorities and missions. We also fund white paper  
24 projects that collect the latest information available on  
25 emerging topics, and we fund community-driven research

1 roadmap projects in response to community concerns. We  
2 coordinate with large external research efforts in  
3 collaboration with other State and federal agencies to  
4 make our research dollars go further. Finally, CARB  
5 experts also develop in-house projects leveraging data  
6 collected through extramural research and we collect data,  
7 develop models, and write highly impactful scientific  
8 papers.

9           Projects are completed by leading scientists and  
10 community researchers in collaboration with  
11 community-based organizations, by experts in State,  
12 national, and international organizations, and by CARB  
13 staff. The research results derived through these various  
14 efforts inform CARB programs and help advance our mission  
15 to protect public health and the environment.

16                           --o0o--

17           RD STAFF AIR POLLUTION SPECIALIST COLLIER: As  
18 discussed in previous slides, although we create a  
19 triennial plan to guide our efforts, each year we go  
20 through a research planning process to select new projects  
21 for funding. We will now discuss the annual research  
22 planning process and highlight the opportunities for  
23 public guidance. Our annual research planning process  
24 begins each year around April by identifying research  
25 project concepts through a public concept and comment

1 solicitation. The comments and concepts are reviewed by  
2 CARB staff and the top priority project concepts are  
3 presented to the public later in the calendar year to get  
4 further input on which projects should be funded. We also  
5 get input from CARB staff, Board members, and external  
6 stakeholders.

7           After we have received all project ideas and  
8 priori -- prioritize them through internal and external  
9 engagement, a final list of proposed projects is presented  
10 to the Board for approval. If the Board approves, then  
11 project concepts are developed into full projects. In  
12 some cases, the projects' requirements are defined by  
13 community-driven research roadmaps or white papers. Right  
14 now, we are at this stage in the process.

15           If the Board approves the plan, we release a  
16 solicitation for proposals from the Universities of  
17 California and California State Universities. In order to  
18 increase the transparency of our solicitation award  
19 process and foster the development of multi-disciplinary  
20 research teams, we hold solicitation meetings and leverage  
21 online forums. Proposals are reviewed and winning  
22 proposals selected and finalized using multi-division  
23 diverse review panels. Once proposals are finalized, the  
24 Research Screening Committee, which is composed of various  
25 subject matter experts independent of CARB, reviews the

1 proposal and provides comments. Considering their  
2 recommendations, proposals are then developed into  
3 contracts.

4           The Executive Officer provides final approval and  
5 these projects become active research. During this phase,  
6 online progress updates and outreach are done. When  
7 appropriate, we establish project advisory committees to  
8 provide oversight and direction.

9           Once projects are finalized, the Research  
10 Screening Committee reviews and provide comments and  
11 recommendations on the final results and report, which are  
12 then shared with the public through seminars and online  
13 documents. We have started requiring research contractors  
14 to create accessible and clear outreach documents that can  
15 be used to share results with the public. At the end of  
16 every project, there is a public seminar where the  
17 contractors present their research results.

18                           --o0o--

19           RD STAFF AIR POLLUTION SPECIALIST COLLIER: The  
20 previous slide provided an overview of the annual research  
21 planning process, which helps us decide which projects to  
22 fund each fiscal year. We'd like to now discuss proposed  
23 changes to how we engage with the Board on setting  
24 research priorities to provide more context for the Board  
25 and leverage more funding opportunities. We have a

1 limited budget and working with other funding sources  
2 would allow our budget to go further.

3           The first major change we'd like to propose is to  
4 bring a five-year strategic research plan to the Board  
5 rather than a triennial strategic research plan. Projects  
6 take two to three years to deliver results and extending  
7 the strategic research plan from three to five years will  
8 allow us to summarize more results and inform the next  
9 strategic research plan.

10           The next major change we are proposing is to have  
11 a more focused engagement with the Board. Currently, we  
12 present individual proposed research projects for Board  
13 approval. However, because our time with the Board is  
14 limited, we are not able to provide updates on the overall  
15 direction of the Research Program or summarize important  
16 topics like wildfires, health analysis, or the impact of  
17 our work on regulations. We are proposing to reduce our  
18 overall meeting frequency from once a year to twice within  
19 the five-year strategic research plan cycle, where we will  
20 provide more detailed subject-specific updates. As an  
21 example of what that might look like, today, we will -- we  
22 will be providing a very brief update on our health  
23 analysis research.

24           As part of the annual planning process, CARB will  
25 continue to engage with the public to guide project

1 selection by collecting project concepts and comments from  
2 the public and hosting public meetings. Board members  
3 will still be given the opportunity to receive briefings  
4 on an annual basis. In preparation for each five-year  
5 plan, we will hold research symposia summarizing the  
6 current state of the research and identifying remaining  
7 research gaps.

8           These proposed changes will allow for more  
9 holistic, comprehensive, topical Board discussions. It  
10 will also increase the flexibility to leverage other funds  
11 and encumber funds when they become available. And it  
12 will allow for broader stakeholder engagement and more  
13 focused and tailored discussions.

14                           --o0o--

15           RD STAFF AIR POLLUTION SPECIALIST COLLIER: The  
16 Research Program is an important part of CARB's work and  
17 we are committed to operationalizing racial equity within  
18 the program. In response to public comments and input  
19 from environmental justice and community advocates, we  
20 have started implementing changes to the Research Program,  
21 including in the research planning process and the types  
22 of projects we fund. We have made changes to our annual  
23 research planning process in response to comments we have  
24 received to increased transparency, reduced burdens on the  
25 public, and have more touchpoints where community members



1 can provide guidance on project selection.

2           As part of this effort, CARB has funded community  
3 engagement projects focused on incorporating the voices of  
4 concerned community members interested in research on a  
5 specific air quality or public health issue occurring in  
6 their community. The objective is to create a research  
7 roadmap with community members that highlight potential  
8 research projects for future funding consideration. For  
9 projects that have equity components, we require cultural  
10 humility statements and we encourage partnerships in all  
11 projects with new researchers, community-based  
12 organizations, and community advocates through scoring  
13 criteria and project requirements.

14           These changes have demonstrated that we need to  
15 increase internal capacity to provide transparency in our  
16 planning process. And all projects that include community  
17 engagement require additional resources and solutions, for  
18 example translation services for language justice should  
19 be guaranteed. In addition, our contracting process  
20 potentially limits our ability to have deeper engagement.  
21 Creating research roadmap projects has allowed for  
22 community engagement to be the main focus of a project.

23           The Research Program is only at the initial  
24 stages of these changes and we are looking forward to  
25 leveraging upcoming models and tools that can guide our

1 efforts. For example, CARB is currently in collaboration  
2 with the other boards, departments, and office under the  
3 California Environmental Protection Agency to develop a  
4 community science model that will be leveraged in the  
5 future by all the agencies to organize and fund effective  
6 and collaborative community science projects that center  
7 community voices, and needs, and build capacity.

8 As you will hear in Executive Officer Cliff's  
9 presentation, our research serves a critical role in  
10 CARB's overall work to deliver emissions reductions. He  
11 will also discuss agency-wide efforts on equity and  
12 community engagement that the division will integrate into  
13 its work as applicable.

14 --o0o--

15 RD STAFF AIR POLLUTION SPECIALIST COLLIER: Now,  
16 we would like to update you on the community-driven  
17 research roadmap projects that the Research Program has  
18 initiated. In order to develop these contracts, we first  
19 start by identifying topics, interested communities, and  
20 interested partners. A research team consists of  
21 Researchers from both the academic and community settings.

22 In the three projects being described here, a  
23 research team is formed from the partnership between a UC  
24 or CSU researcher and a community-based organization or  
25 member of the community. An important initial step is for

1 the research team to summarize all information gathered by  
2 the community or by the local air district and to include  
3 the latest literature results on the topic of focus. The  
4 research team must develop a community engagement plan  
5 that is achievable and that takes into consideration  
6 community capacity and needs. The research team then must  
7 collect community input and in collaboration with the  
8 community create a research roadmap.

9           Ideally, the findings in the roadmap have  
10 elements applicable to communities in other parts of the  
11 state. Although CARB can't guarantee funding ahead of  
12 time, the roadmap is created to drive future research  
13 priorities and projects. Future projects based on the  
14 roadmap can be used to collect data that is important for  
15 community advocacy and the public generally.

16           So far, we have funded three roadmap projects.  
17 One focused in the Salton Sea that consist of a  
18 partnership among community-based organizations, local  
19 advocates, and academic institutions. This project  
20 facilitated a series of digital community forums and  
21 informational sessions focused on health disparities and  
22 air quality surrounding the Salton Sea region. Another is  
23 focused on air pollution sources of concern and potential  
24 mitigation strategies in Imperial Valley. And the newest  
25 project is almost ready to be initiated and is focused on

1 toxic metal emissions in the City of Paramount.

2 --o0o--

3 RD STAFF AIR POLLUTION SPECIALIST COLLIER: I  
4 will now give a brief overview of the 11 research projects  
5 we would like to fund in 2023-2024. For this funding  
6 year, we anticipate a total budget of \$6.2 million and the  
7 list of proposed project concepts covers topics in four  
8 major topical categories. Environmental justice and  
9 equity are a part of several projects within those  
10 categories. In the next slides, I will provide additional  
11 background on each of the proposed projects.

12 --o0o--

13 RD STAFF AIR POLLUTION SPECIALIST COLLIER: The  
14 Research Program has funded several important projects  
15 that focus on understanding disproportionate exposure to  
16 air pollutants experienced in priority communities. Our  
17 program will continue to focus on developing tools and  
18 metrics needed to understand disproportionate impacts of  
19 air pollution and climate on priority communities.

20 We are proposing to fund a project to continue  
21 developing the novel Toxic-metal Aerosol Real-Time  
22 Analysis or TARTA instrument, make it more user-friendly  
23 and deploy it in areas of concern. We are also proposing  
24 to provide initial funding for a research project that  
25 will be responsive to the research roadmap project

1 described earlier and focused on Imperial valley.

2 --o0o--

3 RD STAFF AIR POLLUTION SPECIALIST COLLIER: Air  
4 quality continues to be an important research topic. We  
5 will continue to improve our understanding of pollution  
6 sources in highly impacted areas. We are proposing to  
7 fund three projects including one focused on the San  
8 Joaquin Valley that investigates which sources of air  
9 pollution will dominate air quality as regulations are  
10 implemented. We also propose to fund a project focused on  
11 train wheel and brake wear to better understand the  
12 potential exposure impacts of locomotives, passenger car,  
13 and freight car wheel and brake wear emissions on nearby  
14 communities.

15 Finally, we would like to fund a project to  
16 characterize wildland fire emissions, transport,  
17 transformation, plume chemistry, and ultimately air  
18 quality impacts, including toxicity of smoke, and  
19 investigate how pollutant levels change during fires, how  
20 gases and particles pollutants measured in the wildland  
21 urban interface are different than those directly emitted  
22 from fires, and how pollutant levels in the wildland urban  
23 interface compare with urban areas.

24 --o0o--

25 RD STAFF AIR POLLUTION SPECIALIST COLLIER: We

1 are proposing several projects that improve understanding  
2 of greenhouse gas emission quantification across the state  
3 of California. The first proposed project investigates  
4 the real-world emissions of methane from landfills and how  
5 we can better estimate statewide emissions. We are also  
6 proposing to fund a project that expands our understanding  
7 of the industrial sector's contributing to methane  
8 emissions in the southern San Joaquin Valley.

9 In response to public comment, we are proposing a  
10 project that investigates impacts of fumigant use,  
11 including fumigant types, application methods, rates, and  
12 management practices on emissions of the potent greenhouse  
13 gas, N2O from soils.

14 Next, we will present on our health research. I  
15 will now pass the mic over to Dr. Hnin Hnin Aung, who will  
16 give an overview of our health analysis research program,  
17 our proposed health projects and will wrap up our  
18 presentation.

19 --o0o--

20 RD AIR POLLUTION SPECIALIST AUNG: Thank you, Dr.  
21 Collier. We will now provide an update on pro -- on the  
22 progress in addressing the Board Resolution that directed  
23 CARB staff to provide a more comprehensive evaluation of  
24 the health benefits of both air quality and climate  
25 action. In response to the Board's direction, we have

1 been working on developing new methodologies to assess  
2 health impacts, including developing new qualitative and  
3 quantitative approaches, inclusion of additional health  
4 endpoints, assessing health impacts in priority  
5 communities, quantifying additional pollutants, and  
6 evaluating and communicating greenhouse gas reduction  
7 benefits.

8 --o0o--

9 RD AIR POLLUTION SPECIALIST AUNG: This slide  
10 describes our initial work of developing new health  
11 endpoints for analysis of Board rules and programs. In  
12 this initial phase of projects, we have updated and  
13 incorporated several new health endpoints for PM2.5 into  
14 our health analysis in response to recent research and  
15 Board direction. We updated three health endpoints and  
16 have added eight new endpoints. As a result, staff are  
17 using 12 health endpoints to evaluate air quality benefits  
18 instead of the four we have used in the past.

19 The new and updated endpoints are described in  
20 our public bulletin released in November 2022 on our  
21 health analysis methodology website. These include  
22 cardiovascular endpoints in red such as hospital  
23 admissions, ED visits, and acute myocardial infarction,  
24 also known as heart attack. Also, we have respiratory  
25 endpoints in yellow, such as hospital admission, ED

1 visits, asthma onset and symptoms, and lung cancer  
2 incidence. We also have neurological endpoints in blue,  
3 which are Alzheimer's disease and Parkinson's disease, and  
4 a nonspecific endpoint such as work loss days. Two of  
5 these new health endpoints, asthma onset and asthma  
6 symptoms, provide information about children's health  
7 effects. We will continue to update and edit health  
8 endpoints going forward as we complete additional  
9 research.

10           These endpoints are important as they are  
11 necessary to more comprehensively quantify benefits from  
12 regulations and plans. These were incorporated into the  
13 Scoping Plan analysis, and we expect you -- we will begin  
14 to see -- you will begin to see these quantified benefits  
15 in regulations this year.

16                           --o0o--

17           RD AIR POLLUTION SPECIALIST AUNG: Another key  
18 aspect of our expanding health analysis project is to  
19 conduct research, support -- that supports the continued  
20 development of new or updated health endpoints and deepens  
21 our understanding of the health impacts of pollution in  
22 California, including criteria pollutants and air toxics.  
23 This table is an overview of several research projects  
24 that are either completed or underway. These studies will  
25 be incorporated into our new health endpoints for



1 regulatory analysis in the future, if appropriate.

2 For example, we are investigating birth outcomes  
3 and neurodegenerative diseases in which we will be looking  
4 at air pollution effects on preterm birth, low birth  
5 weight, autism, and Alzheimer's and Parkinson's diseases.  
6 For the children's health and neurodevelopment project, we  
7 will look at air pollution effects on neurodevelopmental  
8 milestones, attention, and standardized test scores.

9 Additionally, we are looking at air pollution  
10 effects on lost work days and metabolic illnesses such as  
11 diabetes, and the impact of freight pollution on  
12 respiratory symptoms such as asthma medication use,  
13 respiratory symptoms, and ED visits.

14 We are also identifying and establishing a  
15 dashboard to track various health indicators in vulnerable  
16 and impacted communities, including AB 617 communities in  
17 the Improved Assessment and Tracking of Health Indicators  
18 Project. As you can see, we are focusing on our research,  
19 both on better understanding the impacts of PM2.5 and  
20 other criteria pollutants and going beyond these  
21 pollutants to see if we can quantify health effects of air  
22 toxics also.

23 --o0o--

24 RD AIR POLLUTION SPECIALIST AUNG: In addition,  
25 our new research has more focus on community health

1 issues. We are focusing in this slide on three ways we  
2 have been increasing our community focus. For instance,  
3 multiple research projects are examining air pollution  
4 related health impacts by racial and ethnic subgroups.  
5 This means we are investigating ways to go beyond our  
6 current analysis that looks at the State average health  
7 impacts. Some examples are the health impacts and health  
8 indicators projects that we discussed on the previous  
9 slide. Analyzing health effects in subgroups will allow  
10 us to understand how to best reflect the impacts on air  
11 pollution on the most impacted populations in the state.

12           The second way we are increasing community health  
13 focus is to include paid community collaborators in  
14 research. For example, in our wildfire smoke health  
15 effects projects researcher will quantify the health  
16 impacts of short-term exposure to wildfire smoke and they  
17 will work with communities for a new California Education  
18 Fund and the Central California Asthma Collaborative to  
19 collect community input on health effects and disseminate  
20 results.

21           Another way we are increasing health focus in  
22 projects is to require mechanisms for community advice and  
23 input. One example is our building decarbonization  
24 projects that includes a community advisory committee to  
25 provide input on research methods to instigate impacts of

1 building decarbonization among priority populations.

2 In summary, staff is moving forward on research  
3 to support expanded health analysis while incorporating  
4 new ways to understand community health issues. We plan  
5 to provide more information on ways we are updating our  
6 health analysis and adding health endpoints in the future.

7 --o0o--

8 RD AIR POLLUTION SPECIALIST AUNG: Now, I will  
9 present the health research projects proposed for 2023.  
10 These projects focus on improving health analysis and  
11 understanding the nexus of health and climate change  
12 impacts. The first proposed health project focuses on  
13 health impacts and benefits of land management strategies  
14 and investigate how we can better support land management  
15 practices to reduce wildfire with improved quantification  
16 of health impacts from reduced exposure to wildfire smoke.

17 The second proposed project focuses on combined  
18 impacts of multiple climate change stressors on health,  
19 taking into account environmental justice, racial equity,  
20 and social vulnerability factors. Combined impacts could  
21 include, for example, heat, air pollution, and wildfire.

22 Finally, we are proposing a project on health and  
23 economic benefits of cancer risk reduction, specifically  
24 investigating how CARB can expand current health analysis  
25 methodologies to quantify the health and economic benefits

1 of cancer risk reduction in addition to other benefits of  
2 reducing exposure to air toxics including diesel.

3 --o0o--

4 RD AIR POLLUTION SPECIALIST AUNG: As Dr. Collier  
5 described earlier, the research planning process relies on  
6 the priorities delineated in the triennial research  
7 strategic research plan. Based on the current plan, we  
8 still have research gaps remaining that will guide  
9 projects selected over the next few years until we create  
10 and present the next five-year plan.

11 --o0o--

12 RD AIR POLLUTION SPECIALIST AUNG: If the Board  
13 approves the proposed project for year -- fiscal year  
14 23-24, staff would develop full project scopes and include  
15 them in a proposal solicitation. We are required by the  
16 Health and Safety Code to look for expertise in the UC and  
17 CSU systems first. We are releasing the solicitation  
18 on -- an online platform called Empower Innovation, which  
19 will facilitate the development of partnerships between UC  
20 and CSU researchers and non-academic researchers and  
21 community partners. We are also holding a solicitation  
22 meeting in April in order to provide guidance on these,  
23 particularly for researchers who have not worked with CARB  
24 previously. Future solicitation meetings may be held if  
25 additional funding becomes available.

1           We will also continue the process to  
2 operationalize racial equity in CARB research by  
3 increasing engagement efforts, gathering new suggestions,  
4 and feedback on changes we make to the program, and  
5 continuing to leverage internal CARB results and efforts.

6                           --o0o--

7           RD AIR POLLUTION SPECIALIST AUNG: Staff are  
8 recommending that vote approve Resolution 23-5, which  
9 includes the proposed research projects for planning year  
10 2023-2024 and that they delegate authority to the  
11 Executive Officer to approve contracts and future projects  
12 for both fiscal year 2023-2024 and 2024-2025.

13           With that, I would like to thank the Board and  
14 the public for your attention today.

15           CHAIR RANDOLPH: Thank you very much, Dr. Aung  
16 and Dr. Collier.

17           It is now time to hear from the public who signed  
18 up to speak on this item. Clerk, do we have commenters.

19           BOARD CLERK ESTABROOK: It looks like we have one  
20 person with their hand raised in Zoom and that's Janet  
21 Dietzkamei. Janet, you can unmute and begin.

22           JANET DIETZKAMEI: Thank you. This is something  
23 that I have felt should have been done a long time ago,  
24 expanded health analysis. Those of us who have pollution  
25 sickness I feel like we're just kind of dismissed in the

1 discussions. And hopefully, the information gathered  
2 regarding expanded health analysis of pollution sickness  
3 will help bring to the forefront the thousands of people  
4 in this state that are suffering from pollution sickness.

5 I appreciate this study. I thank you for this  
6 study. And I hope this study helps in our work towards  
7 improving California air, and especially San Joaquin  
8 Valley air.

9 Thank you.

10 BOARD CLERK ESTABROOK: Thank you.

11 Chair, that concludes the commenters.

12 CHAIR RANDOLPH: All right. I will close the  
13 record on this agenda item and bring it to the Board for  
14 comments or questions.

15 Dr. Pacheco-Werner.

16 BOARD MEMBER PACHECO-WERNER: Thank you, Chair,  
17 and, you know, thank you so much. I really want to give a  
18 special recognition to this Division for being so  
19 responsive to community feedback to get us to where we are  
20 with this list of studies. I think -- I think that's  
21 wonderful. I have a couple of points and maybe, you know,  
22 if there's -- if any of them warrant responses, I'd love  
23 to hear from you.

24 I do think that it's important that we're  
25 incorporating equity in the -- in the next phase of this

1 discussion. And I wonder, you know, if there are -- at  
2 this point, if there's any warrant of any concrete next  
3 timelines or things that we're thinking about to -- around  
4 that particular point of discussion. And I also think  
5 that there are some very, very important proposed projects  
6 here having to do with monitoring. I hope that we can  
7 also work with districts to maximize the data and  
8 monitoring that they are already doing, especially  
9 opportunities to use any community air grant monitoring  
10 that has -- that has already been used. I know that the  
11 community members have expressed the need for -- to have  
12 that -- more analysis of that data. And I definitely see  
13 how maybe there's an opportunity for this -- for some of  
14 these proposed projects to do just that.

15           You know, I have to say that with -- I think our  
16 investment in the research plan outlined here has the  
17 great potential to have effects not only within our own  
18 rulemaking, but outside of our walls too. You know, I  
19 think we can find opportunities to bring this amazing work  
20 already done. The first -- the first one really being the  
21 endpoints -- the new health endpoints to bodies like  
22 CAPCOA to see how air districts can be using this  
23 information in real-time as well. As we -- as we saw just  
24 today, you know, the next steps for many of our air  
25 districts, you know, are complex. And I think any other

1 information that they can include in their analysis is  
2 important.

3           So I do hope to see some of that -- that  
4 collaboration and see how we can support them in having  
5 more robust analyses themselves as well, as well as the  
6 importance, I think, of reporting back. And I know that,  
7 you know, we have -- we have very precious and limited  
8 resources in this Division. And I think that part of  
9 the -- part of what we could prob -- a way to maximize  
10 that may be in our solicitations to really have that  
11 reporting back really be embedded in the -- our selected,  
12 you know, researchers that, you know, we actually, you  
13 know, have them go out into their own communities where  
14 they are conducting this work to report back as well. And  
15 so I hope to see some of that. And I just, you know --  
16 these -- this list is phenomenal and I can't wait to see  
17 the results.

18           Thank you.

19           CHAIR RANDOLPH: Thank you.

20           Board Member Hurt.

21           BOARD MEMBER HURT: I'll echo the comments of the  
22 hard work that's been put into this and a really amazing  
23 list. I just have a few questions. And one of my first  
24 questions is how is racial equity lens applied in the  
25 evaluation of the project priorities? I think the public



1 would be really curious to hear that. I know we have said  
2 and stated racial ethnic subgroups is an expectation, but  
3 is there a requirement that all projects really apply that  
4 racial equity lens, since we know that our most impacted  
5 are low-income and minorities.

6 DEPUTY EXECUTIVE OFFICER SAHOTA: Board Member  
7 Hurt, this is Rajinder Sahota, the Deputy Executive  
8 Officer for Climate Change and Research and I'd be Happy  
9 to respond to that question.

10 So the equity lens, the REAL equity lens program,  
11 there's one that's being formally developed at CARB that  
12 Deputy Executive Officer Chanell Fletcher is leading. And  
13 I know the teams have been collaborating on the types of  
14 questions and the types of -- lens-specific types of  
15 details that should be included or that could be included  
16 in the research projects. But that real effort, the  
17 formal process, is not completed yet, so we're just  
18 collaborating with the staff in Executive Officer  
19 Fletcher's[SIC] team to integrate as much as we can right  
20 now.

21 But I also want to be very transparent that there  
22 are going to be some types of projects that will lend  
23 themselves substantially to the questions that the REAL  
24 framework will have. And there are going to be some other  
25 questions that won't lend themselves to those kinds of

1 reviews. For example, when we look at something that's  
2 more technical, for example, the satellite data -- the  
3 methane satellite data, that's going to be data that comes  
4 in that we then have to apply across different agencies  
5 and then understand what the emissions are at the ground,  
6 engage with communities to talk about what their symptoms  
7 are, what might be impacting them, the sources that  
8 they're exposed to.

9           Whereas, some of the work that staff is doing,  
10 such as the work in Imperial Valley is very community  
11 driven. And so they are themselves expressing their lens,  
12 and their questions, and their views about what they want  
13 to see. And so there's going to be a spectrum of how much  
14 of the community and lens for REAL is going to be applied  
15 across the different project types. What you saw today  
16 was a substantial increase in the types of projects that  
17 staff is looking at. We historically have a budget of  
18 about \$4 million and I'm happy to see that we were able to  
19 get about 2.2 million more.

20           The goal is to continue to leverage as much of  
21 the resources as we have internally, but also leverage  
22 relationships with other academics and other institutions,  
23 so that we can continue to integrate more of that  
24 community work and community lens on health analyses into  
25 our own work here.

1           BOARD MEMBER HURT: Thank you. I think it's  
2 really important and I'm glad to hear that we're  
3 continuing to build in this racial equity lens. And I  
4 think it's really important when I think about the  
5 reduction of black maternal mortality, chronic illness  
6 that underlies that. I think we can all be a part of the  
7 solutions by having important research projects coming out  
8 of our shop.

9           My other question is how do we determine what  
10 health endpoints we focus on. In other words,  
11 hypertension is not on the list. You know, how are we  
12 determining out of the many chronic illnesses which ones  
13 when it comes to PM2.5 we want to focus upon?

14           DEPUTY EXECUTIVE OFFICER SAHOTA: So Board Member  
15 Hurt, this again is one of those areas where we are  
16 leveraging work that's being done outside of ARB. There  
17 are many manifestations of health impacts that can  
18 potentially be looked at in terms of air pollution or  
19 other kinds of impacts and environmental stressors out  
20 there including socioeconomic stressors.

21           But what we traditionally do is go back to U.S.  
22 EPA and look at some of the work that's been done at the  
23 federal level, where there's a wealth of information and  
24 research that's available, and then use some of their  
25 guidelines for how to incorporate those health endpoints

1 into our own work.

2           We went from four to a substantially increased  
3 number and we used that increased number as part of the  
4 scoping plan last year. The goal is to not only continue  
5 to use about a dozen or so new ones and updated ones for  
6 every rule and regulation that we move forward, but also  
7 do some of the research like presented -- such as  
8 presented here today to help feed into some of the work at  
9 U.S. EPA, collaborate with other academics, and continue  
10 to add to that list of health endpoints. It really comes  
11 down to the resources, the amount of data, and the  
12 progress that's been made where we can pick up some of  
13 that work, use in its readily available form or do a  
14 little bit more investment of our own through our Research  
15 Program or through academic institutions, and then  
16 integrate it back into some of the analyses we do for the  
17 rules and regulations here.

18           BOARD MEMBER HURT: Thank you. I look forward  
19 through -- of us doing more investment through our own  
20 shop, because we all know there's really a lack of that  
21 data and information in the places that you listed. But I  
22 am very happy to see the direction that we're pointed and  
23 thank all of you for all the hard work in getting us in  
24 that direction.

25           DEPUTY EXECUTIVE OFFICER SAHOTA: Thank you.

1 CHAIR RANDOLPH: Dr. Balmes.

2 BOARD MEMBER BALMES: Thank you, Chair Randolph.

3 First of all, I want to salute the Research  
4 Division. Elizabeth Scheehle and Bonnie Holmes-Gen have  
5 reached out to me on a regular basis about the types of  
6 health studies that they wish to do, and I appreciate  
7 that. I think it's been a mutually informative dialogue  
8 that we plan on continuing. I think we're already trying  
9 to set up the next meeting.

10 I think a couple comments from my fellow Board  
11 members. I agree with Dr. Pacheco-Werner that similar to  
12 what I said about outreach with regard to the San Joaquin  
13 Valley SIP, I think we really have to work hard to get the  
14 results of our research projects back out to the affected  
15 communities. You know, there's already a reporting back  
16 process -- there's a reporting process -- public reporting  
17 process every successfully concluded research project.  
18 There's a -- I think it's called the Chair's seminar or  
19 whatever. But those aren't attended -- they're attended  
20 by other scientists and maybe policymakers, but not by the  
21 community.

22 So I think it's, as Dr. Pacheco-Werner knows very  
23 well, it's, you know, important principle that a -- that  
24 participants in the study or affected communities that are  
25 involved in a study should be informed of the results.

1 And I think that, you know, we have good intentions in  
2 that regard, but we have to work at it, and -- but I also  
3 recognize that that strains resources, so there's a  
4 balance between the outreach that we can do and our  
5 resources, but we should actually try more. And it fits  
6 with the direction that the Board -- the agency is going  
7 in terms of trying to both involve the communities with  
8 designing research that's relevant to them, but also we  
9 then have to get the results back to the community.

10           And Vice Mayor Hurt made some good comments about  
11 the outcome -- the health outcomes that we look at. And,  
12 you know, I've tried to provide advice to the Research  
13 Division, but I welcome collaborating with other Board  
14 members in that regard. I can funnel good ideas from  
15 other folks.

16           You know, with that said, I think that the  
17 Research Division is trying to make the research that the  
18 agency is funding with its limited resources. That's  
19 something to remember. We -- this is like a pittance in  
20 terms of academic research funding. They're trying to  
21 make it relevant to health -- public health, but climate  
22 change mitigation, transportation policies. And I applaud  
23 the Division's efforts to continue that search for  
24 relevance and for making the research responsive to  
25 community needs.

1 CHAIR RANDOLPH: Thank you.

2 Senator Stern.

3 SENATOR STERN: Thanks, Chair Randolph. And it's  
4 good to be with you all. These are my -- I wish my first  
5 remarks as your new ex officio from the Senate were in  
6 person, but I'll be there in a few hours, wind  
7 cooperating.

8 I just want to say briefly at the outset too, I  
9 did have a chance to watch the morning proceedings on the  
10 SIP process. And just for the record, I want to state  
11 that I did support the item and the approval and did want  
12 to echo the frustrations of those down south on the timing  
13 of Indirect Source Rules as well as the -- express some  
14 concern about legislative efforts to undercut the Air  
15 Board and South Coast work on that front. And I'll be  
16 vigilantly hunting for those efforts. And I also want to  
17 pledge my support in the federal piece of the puzzle. So  
18 just wanted to put that note in the record since I missed  
19 that comment period that I am ready and willing to go with  
20 you all to Senator Padilla's office and everywhere else to  
21 get some cooperation and some leadership from the Biden  
22 Administration to help us through here.

23 My brief comment on this research item was just,  
24 you know, a note of enthusiasm about the quality of the  
25 work and this new process, and do agree in terms of size,

1 you've always punched above your weight for a very, very  
2 modest budget here. And with even these modest increases,  
3 they are doing much more than a normal agency would do,  
4 but that's what CARB does.

5 I would -- just two things to note. In terms of  
6 opportunities for leverage even in the near term, last  
7 year's budget was quite good and the research budget was  
8 expanded. UC right now is administering about \$100  
9 million program statewide on the future climate research.  
10 And so in addition to foundation partners and others, I  
11 think there's a good opportunity to perhaps leverage that  
12 open solicitation and try to get some near-term work  
13 product done or some collaborative work done here. I'm  
14 especially interested in the gap noted in terms of what's  
15 going to be important to look to the future of the Scoping  
16 Plan where do we want more work done?

17 And, in particular, I'm curious whether there's  
18 an opportunity to start thinking about what an investment  
19 roadmap could look like or a sort of needs assessment to  
20 identify not just sort of from that more rigid  
21 cost-benefit analysis that we'll see in -- through the  
22 CEQA process on something like the Scoping Plan, but  
23 something a lot more functional and operational where we  
24 could actually understand the scope of need to accomplish  
25 our ambitious goals and to think about the mix of direct



1 regulations and private sector investments, as well as  
2 sort of public investments. I'm thinking about the IRA  
3 and maybe the Air Board that may be a combination of  
4 multiple agencies, but I do think we're eager to move  
5 forward and start to chart that out in sort of  
6 identifiable sectoral investment opportunities. Even if  
7 they far outstrip the current resources, I think it's  
8 helpful for people to understand that context.

9           So I did want to note that on the gap -- or the  
10 future work. And then just a -- the other brief note was  
11 just to agree with Dr. Balmes about that idea of sort of  
12 being community facing. And I just want to offer the idea  
13 that perhaps in those topical presentations as you're  
14 doing your sort of more regular Board updates, that you  
15 could put a community facing component on those too. So  
16 even if you're not fully done with the work or it's got a  
17 little longer lead time, perhaps those topical  
18 presentations can be a little more polished and, you know,  
19 digestible also for public consumption as well, and sort  
20 of give some interim updates. So that might be an  
21 opportunity for you all to continue to sort of be public  
22 facing, drive the conversation, elicit more interest and  
23 support from outside folks, and hopefully help.

24           So anyway, those are my first two cents. I  
25 apologize in advance for all the future, yeah, deep dives,

1 but I'm really excited to get into details with you all  
2 and hopefully see you in a few.

3 DEPUTY EXECUTIVE OFFICER SAHOTA: Thank you,  
4 Senator Stern.

5 CHAIR RANDOLPH: All right.

6 DEPUTY EXECUTIVE OFFICER SAHOTA: Welcome to ARB.  
7 Chair Randolph, may I just respond to the UC \$100 million,  
8 because I'm excited to share a couple of areas on that  
9 front. We are looking at least --

10 CHAIR RANDOLPH: Sure. Go ahead.

11 DEPUTY EXECUTIVE OFFICER SAHOTA: Thank you. So  
12 we are looking at least three specific efforts to partner  
13 with the different UCs. One of them is a broader effort  
14 related to the Scoping Plan implementation that has space  
15 to put in the types of questions that you raised about the  
16 relationship of incentives, private, public investment,  
17 and federal action versus State action, and then also  
18 specifically on IRA.

19 There's also a specific contract to continue to  
20 look at how to best quantify the societal costs of carbon.  
21 We did some of that work -- updated work for the last  
22 Scoping Plan, and so that effort is going to be pushed  
23 forward again as part of the grant process by the UCs by  
24 UC Santa Barbara.

25 And then this brings me to another effort pushed

1 forward by UC Davis ITS related to the transportation  
2 sector. So the UCs have been contacting us directly  
3 specifically on that \$100 million, because they have been  
4 tracking the Scoping Plan and they are also monitoring  
5 what needs are out there and what conversations are  
6 happening. And they also want to make sure that the work  
7 they do is going to be informing and actionable when we go  
8 to try and achieve those reductions that we looked at in  
9 that Scoping Plan. So I'm happy to report back on that  
10 point.

11 SENATOR STERN: Thank you for that. Very  
12 encouraging.

13 CHAIR RANDOLPH: Okay. I have a quick question  
14 and a comment. I'll do the comment first, which is as I  
15 said last year when this item came up, I really cannot  
16 express how much I appreciate the way the Research  
17 Division really jumped right in to prioritize racial  
18 equity and to prioritize working with community. I mean  
19 it is truly impressive sort of that you all took that  
20 opportunity and just ran with it, so I very much  
21 appreciate that. Things like the community-driven  
22 research roadmap is just so forward-thinking and such a  
23 huge opportunity and I can't express my appreciation more.  
24 The second question I have is just a really basic  
25 question for Elizabeth, which is can you tell me a little

1 bit more about the Toxic-metal Aerosol Real Time Analysis  
2 instrument?

3 (Laughter).

4 RESEARCH DIVISION CHIEF SCHEEHLE: I can try.  
5 Thank you for that question, Chair Randolph. So we've  
6 been working with the UCs on an instrument that can  
7 real-time -- look in real-time at toxic measurements.  
8 It's still in sort of a laboratory experimental phase.  
9 And so this would be expanding that, seeing how it works  
10 actually out in a community, and if it works, and next  
11 steps for that. So it would really be taking something  
12 we've been working on on an experimental phase and trying  
13 to make it something that can be used as a monitoring tool  
14 on a more regular basis.

15 CHAIR RANDOLPH: Okay. So it's really just sort  
16 of looking at what's there in the air in real-time at a  
17 community level?

18 RESEARCH DIVISION CHIEF SCHEEHLE: And it's  
19 limited in -- and you can't measure everything, so there  
20 are limitations to what sort of toxics you could look at.  
21 And I can follow-up with more details about what exactly  
22 we can and can't look at, because I don't have the  
23 specifics in front of me right now. But yeah, so it would  
24 be going out and seeing what you can look at in the  
25 community in real-time and if that works actually out in

1 the real world versus in an experimental setting.

2 BOARD MEMBER BALMES: And if I might, if that is  
3 successful, that would be a major improvement under the  
4 current situation.

5 CHAIR RANDOLPH: All right. That sounds great.

6 Okay. Thank you so much.

7 Any other questions or comments?

8 All right. And so we have Resolution number 23-5  
9 before us. Do I have a motion?

10 BOARD MEMBER HURT: Move approval.

11 BOARD MEMBER BALMES: Second.

12 CHAIR RANDOLPH: Clerk, will you please call the  
13 role.

14 BOARD CLERK ESTABROOK: Dr. Balmes?

15 BOARD MEMBER BALMES: Yes.

16 BOARD CLERK ESTABROOK: Mr. De La Torre?

17 BOARD MEMBER DE LA TORRE: Aye.

18 BOARD CLERK ESTABROOK: Mr. Eisenhut?

19 BOARD MEMBER EISENHUT: Aye.

20 BOARD CLERK ESTABROOK: Senator Florez?

21 BOARD MEMBER FLOREZ: Florez, aye.

22 BOARD CLERK ESTABROOK: Ms. Hurt?

23 BOARD MEMBER HURT: Aye.

24 BOARD CLERK ESTABROOK: Mr. Kracov?

25 BOARD MEMBER KRACOV: Yes.

1 BOARD CLERK ESTABROOK: Dr. Pacheco-Werner?

2 BOARD MEMBER PACHECO-WERNER: Yes.

3 BOARD CLERK ESTABROOK: Ms. Takvorian?

4 BOARD MEMBER TAKVORIAN: Aye.

5 BOARD CLERK ESTABROOK: Vice Chair Berg?

6 VICE CHAIR BERG: Aye.

7 BOARD CLERK ESTABROOK: Chair Randolph?

8 CHAIR RANDOLPH: Yes.

9 BOARD CLERK ESTABROOK: Madam Chair, the motion  
10 passes.

11 CHAIR RANDOLPH: All right. Thank you so much.

12 Okay. The last item on the agenda today is item  
13 number 23-1-6, a report on the California Air Resources  
14 Board program priorities for 2023. If you are here with  
15 us in the room and wish to comment, please fill out a  
16 request to speak card and submit it to the Board  
17 assistant. If you are joining us remotely and wish to  
18 comment, please click the raise-hand button or dial star  
19 nine now. We call on in-person commenters first followed  
20 by remote commenters.

21 So when I think about all that CARB and the State  
22 of California have accomplished over the last year, I am  
23 proud to say that we have made real progress towards  
24 ending the harmful combustion of fossil fuels and  
25 protecting health in communities across the state. This

1 progress is born from our tremendous staff work, a lot of  
2 which you have heard about today, and Board actions across  
3 our programs. I want to emphasize three important  
4 milestones from 2022.

5           We passed our Advanced Clean Cars II Regulation,  
6 creating an enforceable pathway to 100 percent  
7 zero-emission car sales by 2035 and strong consumer  
8 assurances for new technology. We adopted the State Clean  
9 Air Implementation Strategy, to map out how to meet  
10 stringent federal air quality standards in 2037 and  
11 protect our most vulnerable communities from dangerous  
12 levels of air pollution.

13           And most recently, we approved the 2022 Scoping  
14 Plan, our fourth Scoping Plan update and the most  
15 ambitious to date. It sets out the actions needed to  
16 achieve carbon neutrality and reduce anthropogenic  
17 emissions 85 percent from 1990 levels by 2045,  
18 prioritizing reductions in the communities most affected  
19 by pollution.

20           In all of these efforts, we prioritized  
21 addressing environmental justice and advancing racial  
22 equity. For each of these milestones, we worked with  
23 communities to uplift their concerns by collaboratively  
24 developing solutions to ensure more equitable outcomes for  
25 all Californians.

1           These actions usher in our next era of equitable  
2 clean air and climate policy. We are looking at a  
3 technology and economic transformation that moves us once  
4 and for all away from fossil fuel combustion with a focus  
5 on addressing the needs of the people and communities most  
6 burdened by pollution.

7           This commitment to air quality, a healthy  
8 climate, environmental justice, and racial equity is  
9 bolstered by significant investments that California has  
10 dedicated to climate change over the next several years.  
11 And through these and other actions, California continues  
12 to lead the nation and the world on climate and clean air  
13 policy.

14           This year, we have the opportunity to continue to  
15 live -- to deliver on the progress we've made to map out a  
16 clean air and carbon neutral future. We have the chance  
17 to assess and ensure that the many programs that span our  
18 agency align with our unprecedented plans and directives,  
19 including our Board resolution on social justice and  
20 racial equity. We will need to leave no stone unturned in  
21 looking for ways to ensure alignment of our programs with  
22 these principles. It will require the rigorous,  
23 consistent, equity-focused work we know we can deliver at  
24 CARB.

25           We also know we need to work with a wide range of



1 partners, not only within the Administration, but with  
2 stakeholders in our communities, industry, and the  
3 academic community, as well as with our federal partners.  
4 This is absolutely an all-hands-on-deck effort now and  
5 throughout the years to come.

6 So with that, I'm pleased to turn things over to  
7 Dr. Steven Cliff for an overview of what this year holds  
8 for CARB and the people of the state of California.

9 (Thereupon a slide presentation).

10 EXECUTIVE OFFICER CLIFF: Thank you, Chair  
11 Randolph. Really appreciate that.

12 I'm glad to have the chance to look ahead to  
13 discuss with you CARB's priorities for the coming year. I  
14 feel a little guilty taking what would maybe normally be a  
15 staff presentation during a Board meeting and taking the  
16 spotlight here for a few minutes.

17 To start the conversation, I'll present some high  
18 level priorities for 2023, including the actions that will  
19 come before you, CARB's key efforts to implement clean air  
20 and climate policy and our internal efforts to make CARB a  
21 rewarding place to work for all employees. Throughout,  
22 I'll discuss our plans to integrate Environmental justice  
23 and racial equity into all we do.

24 --o0o--

25 EXECUTIVE OFFICER CLIFF: Let's begin with

1 process -- progress made through Board action.

2 --o0o--

3 EXECUTIVE OFFICER CLIFF: Last fall, the Board  
4 heard important initial discussions on two regulations,  
5 the Advanced Clean Fleets Rule and the In-Use Locomotive  
6 Regulation. Staff continue to refine both under your  
7 direction and with stakeholder input and you will have the  
8 chance to hear these again later this year. Many other  
9 regulations will come before you this year as well, each  
10 going through their own public process with the goal of  
11 helping to protect communities and reach our air quality  
12 and climate targets.

13 --o0o--

14 EXECUTIVE OFFICER CLIFF: 2022 was a historic  
15 year in planning for our most ambitious clean air and  
16 climate plans to date. This year, the Board will consider  
17 actions to ensure our programs align with them. The Board  
18 just approved, as you all observed, three State  
19 Implementation Plans, or SIPs, to meet the U.S. EPA's 70  
20 ppb ozone standard, and will consider more regional SIPs  
21 later this year. These SIPs drive the pace and ambition  
22 of our rulemaking calendar, which is especially important  
23 for low-income and front-line communities that are  
24 disproportionately exposed not just to smog but also  
25 diesel exhaust and other toxic air pollutants.



1                   --o0o--

2           EXECUTIVE OFFICER CLIFF:  Given the State  
3 deficit, we have anticipated cuts to some of CARB's  
4 incentive programs in the Governor's recent budget  
5 proposal.  While the \$10 billion zero-emission vehicle  
6 package from last year was trimmed to about 8.9 billion  
7 dollars this year, we will still see substantial  
8 investments in drayage trucks, transit buses, and our  
9 projects to support low-income consumers and our  
10 innovative clean mobility projects developed and  
11 implemented by communities to fit their needs.

12           Some of our other programs will see greater cuts,  
13 but triggers in the proposed budget will fully restore  
14 them if general fund health improves.  We will continue to  
15 work with the administration until the budget is finalized  
16 this June.

17                   --o0o--

18           EXECUTIVE OFFICER CLIFF:  We will also continue  
19 to prioritize community-scale and community-focused  
20 investments.  For example, investment through AB 617 is  
21 beginning to payoff.  Ten of the 17 selected communities  
22 are either in their third or fourth year of  
23 implementation.  And next month, staff will recommend to  
24 the Board the inclusion of two more communities.

25           Through our Community Air Grants Program, a

1 funding stream dedicated to projects identified by  
2 community organizations and tribes, CARB has supported 95  
3 projects statewide with another \$10 million in funding  
4 available now. This year, CARB will look for ways support  
5 more communities through this program.

6 In addition, the 2022-23 funding plan for clean  
7 transportation incentives, developed across CARB and in  
8 partnership with several community stakeholders, calls for  
9 spending billions to benefit priority population. It  
10 includes funding for zero-emission medium- and heavy-duty  
11 vehicles operating in our most polluted communities, and  
12 for community-led efforts to create walkable, bikeable,  
13 transit-friendly places for all.

14 --o0o--

15 EXECUTIVE OFFICER CLIFF: In 2020, the Board  
16 passed Resolution 20-33, "A Commitment to Racial Equity  
17 and Social Justice". Presented to the Board last May --  
18 presented to the Board last May, its implementation  
19 remains a priority in 2023. We are building our capacity  
20 to more meaningfully involve and engage communities in our  
21 programs, policies, and regulation. CARB will work  
22 directly with communities to co-develop community  
23 engagement guidance and curriculum, which will serve as a  
24 resource for all staff and will continually refine -- be  
25 refined over time.

1           We are also developing our racial equity  
2 assessment lens that you heard a bit about earlier, REAL,  
3 which is a set of questions for staff to use as they  
4 design programs and develop policies and regulations.  
5 This tool will help us operationalize racial equity across  
6 all that we do. We will continue to refine it internally  
7 and externally and pilot its use this year.

8           Our model of change requires long-term commitment  
9 to racial equity, transparency, and accountability,  
10 including through annual Board updates, the next of which  
11 will be in April.

12                           --o0o--

13           EXECUTIVE OFFICER CLIFF: CARB's work to define,  
14 measure, and ensure emission reductions spans hundreds of  
15 specialized staff every day. As seen in the images across  
16 the slide, meeting our clean air and climate goals means  
17 that we need to continue to ask and answer our most  
18 pressing research questions, as well as sample, measure,  
19 inspect, and test emissions in a variety of settings and  
20 from a variety of sources. Our staff will continue this  
21 important work in 2023 as well.

22                           --o0o--

23           EXECUTIVE OFFICER CLIFF: We are pushing the  
24 envelope and finding innovative ways to efficiently  
25 identify our biggest emitters with large-scale

1 technologies.

2           For example, through a competitive process, we're  
3 currently looking to work with a satellite operator to  
4 monitor and detect large methane emitters, which have an  
5 outsized impact on climate. With a sizable \$100 million  
6 in funding, we will aim to launch roughly eight satellites  
7 by 2025. This will augment two philanthropically funded  
8 satellites that we expect to launch later this year. Data  
9 generated by satellites and other large-scale methods can  
10 be fed back into research, improve our understanding of  
11 emission sources, and can support our regulatory  
12 implementation and enforcement activities. We'll also use  
13 funding from this project to engage communities.

14                           --o0o--

15           EXECUTIVE OFFICER CLIFF: Residents of our  
16 communities have a unique ability to inform CARB's  
17 monitoring and enforcement efforts. As a tool for the  
18 community and pictured here, CARB received \$30 million to  
19 collect air quality data from across the state using mobile  
20 air monitors. These data will be shared with local  
21 communities to increase understanding of community  
22 exposure to the pollutants and facilitate focused  
23 community and agency action to reduce emissions.

24           In 2023, we will continue to refine our  
25 community-based enforcement efforts from prioritizing

1 community-identified concerns to focusing enforcement  
2 within disadvantaged and AB 617 communities, and  
3 supporting community-based environmental projects with a  
4 portion of -- with a portion of enforcement penalties.

5 --o0o--

6 EXECUTIVE OFFICER CLIFF: To achieve our clean  
7 air and climate goals, we rely on federal partners to  
8 address sources primarily under their jurisdiction and  
9 that uniquely affect the most vulnerable Californians. We  
10 will continue to push for swift recognition of our unique  
11 authority under the federal Clean Air Act. We will  
12 continue to urge our federal partners to align their  
13 emission standards with our own and to establish decisive  
14 plans and actions to address emissions from primarily  
15 federally regulated ocean-going vessels, locomotives, and  
16 interstate trucks.

17 Large federally owned fleets, such as postal  
18 trucks, present another important opportunity for the  
19 federal government to choose health protective  
20 zero-emission technologies and become a signal of  
21 zero-emissions transportation visible to all Americans.  
22 The U.S. EPA's recent proposal to follow the science and  
23 lower the PM2.5 standard only emphasizes the need for the  
24 federal government to do their part.

25 Lastly, we will continue to engage with federal



1 partners as they design and administer Inflation Reduction  
2 Act programs and funds totaling hundreds of billions of  
3 dollars. We will urge aligning with existing State  
4 efforts, prioritizing funding for regions with severe air  
5 pollution, and to benefit front-line communities.

6 --o0o--

7 EXECUTIVE OFFICER CLIFF: Successful climate and  
8 clean air implementation will require close coordination  
9 with other State agencies and the private sector across  
10 every sector of California's economy. Together, our  
11 part -- our actions must align and support the goals and  
12 actions identified in our latest SIP and Scoping Plan to  
13 implement the climate package adopted last year, including  
14 beginning work on SB 905, SB 1757, and other directives  
15 from the Legislature.

16 While collaboration with sister agencies across  
17 all sectors is critical, this is particularly true in the  
18 case of infrastructure. To get to carbon neutrality by  
19 2045, it is essential that this decade we transition away  
20 from fossil energy systems, increase access to raw  
21 materials, and accelerate the buildout of new electricity  
22 transmission and distribution infrastructure.

23 --o0o--

24 EXECUTIVE OFFICER CLIFF: Similarly, we will rely  
25 on local governments that have responsibility and

1 authority over the built environment, land use, and  
2 transportation networks, and the provision of local  
3 services. They have unique authority to cite, permit, and  
4 support the transition and buildout of clean energy  
5 infrastructure and vehicle chargers, decarbonize  
6 buildings, and align land use and transportation systems  
7 to reduce vehicle miles traveled. As with statewide  
8 collaboration, local actions across all sectors must  
9 support the goals and actions identified in the SIP and  
10 the Scoping Plan for California to reach its climate and  
11 clean air quality targets.

12 --o0o--

13 EXECUTIVE OFFICER CLIFF: This year, we are  
14 prioritizing internal coordination across all CARB  
15 divisions that play a role in reducing emissions from  
16 stationary sources. We aim to better support air  
17 districts who are key partners with whom we implement  
18 clean air programs throughout the state. And we also plan  
19 to work closely with communities and CAPCOA to ensure the  
20 progress in this area and to advance equity and  
21 environmental justice.

22 --o0o--

23 EXECUTIVE OFFICER CLIFF: This year, we'll  
24 reimagine the community air protection blueprint, the  
25 program's guiding document. The People's Blueprint was

1 drafted in 2020 to capture, in their own words, the  
2 experiences and lessons learned of the environmental  
3 justice representatives from the AB 617 Consultation  
4 Group. This year's Blueprint update will be significantly  
5 informed by the People's Blueprint. It will also  
6 incorporate lessons learned from all program stakeholders,  
7 including air district partners who co-implement the  
8 program.

9 --o0o--

10 EXECUTIVE OFFICER CLIFF: I want to emphasize  
11 that all of the pioneering work here presented so far  
12 relies on CARB's organizational capacity, our internal  
13 resources, staff, its culture, and organizational health.  
14 Embedded in the Governor's 2023 budget proposal, CARB's  
15 operating budget for the next fiscal year included 13  
16 budget change proposals requesting 118.5 new positions,  
17 and 51 and a half million dollars to support both  
18 statewide program implementation and CARB's growing  
19 internal portfolio of IT projects.

20 Over the last year, our administrative services  
21 division experienced an abundance of staff turnover. Our  
22 focus in 2023 is getting staffed up. ASD acquired  
23 LinkedIn and other recruitment tools to expand our  
24 outreach and improve our hiring and retention process  
25 across the agency. In the process, we'll prioritize

1 creating an inclusive climate within CARB and supporting  
2 our essential personnel that despite significant vacancies  
3 continue to underpin CARB's mission.

4 CARB's many new programs and upcoming regulations  
5 and program expansions also require significant  
6 operational support, from the development of new systems,  
7 to ensuring processes are in place, to collect, distribute  
8 and track funding and data. In the Office of Information  
9 Services, we are expanding our IT governance processes,  
10 looking for opportunities to streamline and automate  
11 processes and to pilot new technologies to make everyday  
12 work more efficient and effective.

13 Through these steps, we aim to bolster employee  
14 satisfaction and retention and maintain our commitment to  
15 ensuring CARB is a rewarding place to work for all  
16 employees.

17 --o0o--

18 EXECUTIVE OFFICER CLIFF: In addition, CARB seeks  
19 to normalize conversations and action to advance racial  
20 equity, organize around such efforts, and operationalize  
21 them across the agency. Two initiatives will forward this  
22 work in 2023:

23 The Diversity and Racial Equity Task Force, known  
24 as DaRE, is moving into its third year and continues to  
25 attract growing participation. DaRE will continue to

1 offer employees implicit bias training, a shared language  
2 on racial equity, diversity, inclusion, and belonging, ten  
3 heritage month celebrations, and a 90-day challenge to  
4 learn and talk about racial equity alongside peers.

5           CalEPA's Advancing Racial Equity training will  
6 continue for all staff and is mandatory for CARB  
7 management and executives. It plays an essential role in  
8 creating shared understanding of institutional and  
9 structural racism, governance -- government's role in  
10 both, and why we must lead with race and be champions of  
11 racial equity.

12           We have heard from staff that these activities  
13 have significant personal impact and have helped shape  
14 CARB's work, including in our SB 150 report, the Advanced  
15 Clean Cars II Regulation, and much more.

16                           --o0o--

17           EXECUTIVE OFFICER CLIFF: To close, I'd like to  
18 draw our attention to where we are meeting now. Here in  
19 the Riverside -- here in Riverside at CARB's Mary D.  
20 Nichols campus, this space encompasses both CARB's decades  
21 of progress and signals our capacity to make lasting  
22 change in 2023 and beyond. This is the largest designed  
23 and built zero net energy facility in the nation. The  
24 facility and CARB's cutting-edge research and testing on  
25 an array of vehicles and equipment and consumer products

1 is already attracting visitors from around the world. And  
2 we're just getting started. Later this year, our  
3 Riverside facility will come completely online marking  
4 another milestone along our mission-critical path to  
5 address the existential threat of climate change and  
6 ensure healthy air for all Californians.

7           Before I close, I just want to say thank you for  
8 the staff that helped prepare this presentation. Sarah Jo  
9 is sitting here behind me and also Margaret Sanchez who  
10 helped, as well as the entire team who helped prepare me  
11 for this presentation. So with that, thank you for your  
12 attention and I look forward to the discussion.

13           CHAIR RANDOLPH: All right. Thank you.

14           DO we have any public commenters on this item?

15           BOARD CLERK ESTABROOK: No, Chair, there are no  
16 commenters.

17           CHAIR RANDOLPH: Okay. Any comments or questions  
18 from members of the Board?

19           I just realized I don't have my Zoom screen up.  
20 Okay. Any questions for comments?

21           Board Member Takvorian.

22           BOARD MEMBER TAKVORIAN: I'm not sure I wanted to  
23 start, but I will.

24           (Laughter).

25           BOARD MEMBER TAKVORIAN: Thank you. Thank you,

1 Dr. Cliff. I really appreciate the far-reaching nature of  
2 the plan that you're laying out and your vision. And I  
3 know that it's reflective of the experience that you had  
4 previously with CARB as well as your openness to the  
5 changes that have been made since your return. And I  
6 really want to speak to the importance of what you said in  
7 regards to the incorporation of racial equity across  
8 everything that this agency does. That's a sea change  
9 from when I know 20 years ago I started relating to this  
10 organization and then was privileged to come on the Board.  
11 I really believe that incorporating it into our regulatory  
12 work and internally especially has been an enormous  
13 change. And I know we have a long distance to go, but I  
14 do believe that everyone on this Board and in the staff  
15 are very sincere. So thank you for your leadership and  
16 thank you to everyone else on the staff who have really  
17 helped to push that forward and raised voices where they  
18 needed to be a little louder than perhaps we're used to.  
19 So I really appreciate that.

20 I did want to mention on the Blueprint on the  
21 Community Air Protection Blueprint, I mean you talked  
22 about a lot, but let's talk about that for just a second.  
23 I think we all know that the AB 617 had an undistinguished  
24 really inception. It wasn't the way we would like to have  
25 started programs. It was -- but it did serve to draw very

1 focused attention on the communities that need it the  
2 most, I believe.

3           And so while many of us were concerned about how  
4 it started, we believe that it's landed in a place that  
5 really focuses on those communities that need that  
6 attention. And I've watched firsthand and we've all  
7 witnessed the community emission reduction plans that have  
8 come forward from communities that -- where there's true  
9 community participation, I believe, and strong engagement  
10 from impacted residents. These are far-reaching and very  
11 aspirational plans, but they lack authority to ensure that  
12 they are -- that they're implemented and that they're  
13 complied with. So I appreciate that the blueprint  
14 revisions are moving forward and that they'll be informed  
15 by the People's Blueprint.

16           I think it's going to take another sea change  
17 with the blueprints in order for those to be real. I  
18 mean, we have multiple examples across 617 communities, if  
19 you will. I'm going to call them environmental justice  
20 communities. I don't -- nobody knows what a 617 community  
21 is except the people in this room, but that, you know,  
22 these have given people a whole lot of hope that there  
23 really can be changes in the community. And when we then  
24 hear back in communities that, well, they really aren't --  
25 there really isn't the authority to do much with them.



1 The District can't require that these things happen or  
2 CARB can't require that those things happen. I think it  
3 is -- we're making a bit of a false promise. So I know  
4 that that's a lot, but I think it's important that we  
5 really address that as the Blueprint comes back.

6 And I thought if you had thoughts about that, I  
7 know it's a big topic, I'd love to hear that. It's going  
8 to be important that when we talk about reducing, for  
9 instance, diesel particulate matter by 50 to 80 percent in  
10 one community, that -- and all of the strategies that  
11 we're talking about to do that, that we have some teeth in  
12 that, so that we can truly make that happen.

13 So I want to continue to work in that and be sure  
14 that we really can make good on the promises that I think  
15 everyone is very sincere about in this organization.

16 So that would -- those would be my comments. And  
17 any thoughts you have, I'd really appreciate it.

18 EXECUTIVE OFFICER CLIFF: Well, thank you, Board  
19 Member Takvorian. I will -- I will -- I will say just two  
20 things. One, the regulation that you'll hear tomorrow is  
21 something that we, you know, heard as part of the  
22 community engagement that was a concern in communities.  
23 And so CARB is prioritizing its own work to respond. And  
24 while that's not enough to do everything that's in those  
25 plans, it is a start for us.

1           The plans also help us organize our  
2 conversations. And I'll give you just one example of  
3 that. There's a project in the San Joaquin Valley that's  
4 a transportation project that community voices have raised  
5 as a concern to us. And using the 617 process as sort of  
6 an organizing framework for us in CARB has allowed us to  
7 have conversations with our other sister agencies, in  
8 particular Caltrans, about this project, and engage them  
9 in ways that we wouldn't necessarily previously have been  
10 able to do. So we learn of things that, through this  
11 community engagement, that then we can raise to others.  
12 It's not a perfect process, but, you know, there is more  
13 work to do.

14           I'd also give space if Deputy Executive Officer  
15 Fletcher wanted to add any comments there. I believe that  
16 Deldi is out today taking some much needed time off, but  
17 Chanell if you're -- if you're on and would like to say  
18 any more, I'd be glad to give space.

19           DEPUTY EXECUTIVE OFFICER FLETCHER: Thank you,  
20 Steve, so much. And so apologies that I can't be there in  
21 person I'm sick yet again, so did not want to get anyone  
22 else sick.

23           I guess the best method there of not getting sick  
24 is not having kids under five. So that's a pro tip for  
25 anybody that wants to hear it.

1           I think that what Executive Officer Cliff said  
2 makes a ton of sense. And so I think, Diane, I know we've  
3 had conversations about this. Some of the things that I  
4 would also want to bring up is that we've been doing a lot  
5 of work to leverage, I think, what are in the CERPs and  
6 really think about what does that look like in terms of  
7 actual teeth. And I'll bring up the example that we've  
8 been doing a lot of actually community-driven enforcement  
9 efforts.

10           So you're talking in Stockton, right, and we're  
11 working with like Little Manila Rising, we're working with  
12 CVAQ and we're really focusing on, well, how do we kind of  
13 drive some of those enforcement efforts, how are they  
14 driven by community? And that's why we have partnerships,  
15 and I think that 617 has really brought to forefront. I  
16 think Steve already mentioned the example with Caltrans.  
17 And again, it's really communities using, I think, the 617  
18 process and those levers that are in place to start to get  
19 to what we want to see in terms of the projects and what's  
20 going to actually benefit on the ground.

21           And so I do think that when we're looking at the  
22 blueprint and we're talking about the update to it, what  
23 we're -- what we're trying to do, right, is leverage what  
24 we've already been doing, particularly I think I would  
25 say, in both, I think, the enforcement space, the

1 commitments around hex chrome. So as Steve pointed out,  
2 you'll hear tomorrow and you'll actually see the community  
3 that mentioned this in their CERP, this is actually going  
4 to be addressing those kind of what's -- what was in the  
5 CERPs, which is huge, right? There's also, I think, oil  
6 and gas coming up, right, with the Methane Task Force.

7           So there's a number of things that are actually,  
8 I think that we're realizing that we need to do a better  
9 job of communicating how 617 is actually driving those  
10 processes, and really getting us to some actual real teeth  
11 in terms of seeing changes for communities. That's part  
12 of what we want to see in that blueprint update,  
13 communicating how those are connected while we're also  
14 leveraging what we have in place to kind of expand the  
15 benefits of 617 beyond those selected communities, so that  
16 we're reaching more across the state.

17           BOARD MEMBER TAKVORIAN: Well, I just want to  
18 thank you both. Thanks, Chanell, and I hope you feel  
19 better.

20           I think -- I really do agree that you're making a  
21 really important point, which is something that as a Board  
22 member I've noticed that I also hear as community members  
23 make the point that CARB is so much more responsive. And  
24 so I think what you're describing is the very concrete  
25 ways, like in rules, that CARB can respond to some of

1 the concerns that have been raised as part of the 617  
2 process. I would agree with that. And I think in other  
3 areas as well just having more resources from CARB for all  
4 kinds of different projects that came up during the 617  
5 process of the CERPs, because they were so far-reaching,  
6 and they -- from parks, and school filtration projects,  
7 the research projects I think are impacted by it.

8 So I don't want to say that I don't see that. I  
9 think it's when we look at what the goals are that were  
10 set in the CERPs and the difficulty people have about  
11 thinking about how those are going to get achieved. But  
12 it's important to point out that it's not a straight line  
13 by a lot.

14 Thank you.

15 CHAIR RANDOLPH: Thank you so much.

16 Okay. Any other questions or comments from Board  
17 members?

18 All right.

19 VICE CHAIR BERG: We did have one person pop up  
20 online if you want. Not -- public comment, if you want to  
21 do it.

22 BOARD CLERK ESTABROOK: You want to take the  
23 hand?

24 CHAIR RANDOLPH: Yes. However, Board Member  
25 Kracov just raised his hand so let's do that and then

1 we'll take the comment.

2 BOARD MEMBER KRACOV: Yes. Thank you, Chair.  
3 I'm sorry I'm off video here just to end the day. But,  
4 you know, my head is spinning from the amount of work and  
5 the vision for the agency and all the things that we have  
6 ahead of us. I mean, what an incredible presentation of  
7 work, you know, in furtherance of our mission. I thought  
8 we had a big year last year with ACC II, and Scoping Plan,  
9 and the funding plan, and the all other things that we did  
10 back to back there in the second half, but the work just  
11 continues.

12 So I want to thank you, Dr. Cliff, and staff.  
13 And I think anybody listening to this is going to be  
14 inspired and committed to the work that we have ahead. So  
15 thank you.

16 CHAIR RANDOLPH: Okay. Thank you.

17 All right. So we will hear our public comment.  
18 The Clerk can call the comment and then I think that's...

19 BOARD CLERK ESTABROOK: Okay. So it looks like  
20 we have a phone number ending in 373. You should be able  
21 to unmute and begin.

22 HARVEY EDER: Hello. Am I being heard?

23 BOARD CLERK ESTABROOK: Yes.

24 HARVEY EDER: Hello. Okay. Is this on public  
25 comments or is it public comments on what was just being

1 discussed?

2 CHAIR RANDOLPH: This is public comment on what  
3 was just being discussed.

4 HARVEY EDER: Okay. Well, my name is Harvey  
5 Eder. And I'm speaking for myself and for the Public  
6 Solar Power Coalition that's been around for more than 40  
7 years.

8 I just want to state that we put in into the '16  
9 Plan for South Coast, you know, working with Dr. Burke  
10 and -- a hundred exhibits from the SunShot Program from  
11 the Department of Energy. It was made after the Moonshot  
12 back in the sixties. And, you know, that was just  
13 trashed. No due diligence. Nothing was -- we put it --  
14 we put in eight reports from March of '16. The draft plan  
15 for South Coast came out in late June, actually early  
16 July.

17 In August, we addressed that and they said  
18 there'd been an Adrian -- Aaron Katzenstein wrote the  
19 section. He's head of research for us now. All right.  
20 So he said there'd been a 30 percent increase in methane,  
21 okay? We used those numbers. We had an article from  
22 National Geographic on the cover. The arctic is melting,  
23 all right. This is all put in there. We (inaudible) the  
24 shift to EPA and they wanted to give it back to us. This  
25 guy Ombariski[phonetic], he wouldn't send us a copy. This

1 is pretty outrageous, okay?

2           So we -- the 26th -- the 12th of August we wrote  
3 on that and we said that actually you didn't -- looking at  
4 CO2 equivalence and was coming out of methane that they  
5 had a 10 time increase in 10 years of nitrous oxide.  
6 That's 30 times global warming potential. And there's the  
7 methane and everything else coming out.

8           Okay. We had 780 and plus or minus maybe 40, 50,  
9 but that's what it was, you know, eight years ago, all  
10 right? And that could have been very low. Now, you're  
11 not using CO2 equivalent. Nobody is. We're talking  
12 about -- this is in the open. We've got to deal with it.  
13 We've got to be in the real. And our plans and what we're  
14 addressing is not just from '16 that's -- that should be  
15 going on now that we've got to redo and then we need them  
16 for the new plans, the Scoping Plans, going into the  
17 future. But the 617 plans, they're all -- the local plans  
18 for growth, generally plans are all subsidiaries --

19           BOARD CLERK ESTABROOK: Thirty seconds remaining.

20           HARVEY EDER: -- to the plan. The controlling  
21 plan is the Solar New Deal, based on the SunShot from  
22 Department of Energy. And we've controlled market. IAE  
23 says the 290 given watts that were putting, 85 percent  
24 solar and wind, but 60 percent of that two years ago was  
25 owned by fossil fuel companies. We've got to stop it



1 internationally. We've got to stop it right here in River  
2 City right now. Enough is enough.

3 How much time do I have?

4 BOARD CLERK ESTABROOK: Thank you.

5 CHAIR RANDOLPH: Okay. Thank you. All right.

6 With that, the January 26th Board meeting is now  
7 adjourned. The Board will reconvene tomorrow, Friday,  
8 January 27th at 8:30 a.m. for the remaining agenda item  
9 for this month. Thank you all for your participation.

10 (Thereupon the Air Resources Board meeting  
11 adjourned at 2:34 p.m.)

12

13

14

15

16

17

18

19

20

21

22

23

24

25

