APPEARANCES

BOARD MEMBERS
Ms. Mary Nichols, Chairperson
Dr. John Balmes
Ms. Sandra Berg
Mr. Hector De La Torre
Mr. John Eisenhut
Mayor Judy Mitchell
Mrs. Barbara Riordan
Supervisor Ron Roberts
Supervisor Phil Serna
Dr. Alexander Sherriffs
Professor Daniel Sperling

STAFF
Mr. Richard Corey, Executive Director
Ms. Lynn Terry, Deputy Executive Director
Dr. Alberto Ayala, Deputy Executive Officer
Ms. Edie Chang, Deputy Executive Officer
Ms. Ellen Peter, Chief Counsel
Ms. La Ronda Bowen, Ombudsman
Ms. Jennifer Gress, Legislative Director, Office of Legislative Affairs
Ms. Karen Magliano, Assistant Chief, Air Quality Planning and Science Division
APPEARANCES

STAFF

Ms. Eileen McCauley, Manager, Atmospheric Processes Research Section, Research Division

Ms. Beth White, Manager, On-Road Compliance Assistance Section, MSCD

ALSO PRESENT

Mr. Ken Alex, Director, Office of Planning and Research

Mr. Randal Friedman

Mr. Jeff Morales, CEO, High Speed Rail Authority
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CHAIRPERSON NICHOLS: The November 20th, 2014, public meeting of the Air Resources Board will come to order.

And we will begin the meeting as we always do with the Pledge of Allegiance to the flag.

(Thereupon the Pledge of Allegiance was Recited in unison.)

CHAIRPERSON NICHOLS: Madam Clerk, would you please call the roll?

BOARD CLERK JENSEN: Dr. Balmes?
BOARD MEMBER BALMES: Here.
BOARD CLERK JENSEN: Ms. Berg?
BOARD MEMBER BERG: Here.
BOARD CLERK JENSEN: Mr. De La Torre?
BOARD MEMBER DE LA TORRE: Here.
BOARD CLERK JENSEN: Mr. Eisenhut?
BOARD MEMBER EISENHUT: Here.
BOARD CLERK JENSEN: Supervisor Gioia?
Mayor Mitchell?
BOARD MEMBER MITCHELL: Here.
BOARD CLERK JENSEN: Mrs. Riordan?
BOARD MEMBER RIORDAN: Here.
BOARD CLERK JENSEN: Supervisor Roberts?
BOARD MEMBER ROBERTS: Here.
BOARD CLERK JENSEN: Supervisor Serna?
BOARD MEMBER SERNA: Here.
BOARD CLERK JENSEN: Dr. Sherriffs?
BOARD MEMBER SHERRIFFS: Yes.
BOARD CLERK JENSEN: Professor Sperling?
BOARD MEMBER SPERLING: Here.
BOARD CLERK JENSEN: Chairman Nichols?
CHAIRPERSON NICHOLS: Here.
BOARD CLERK JENSEN: Madam Chairman, we have a quorum.

CHAIRPERSON NICHOLS: We certainly do. So nice to have you all here.

I have a couple of announcements I need to make. Anyone who wishes to testify is asked to please fill out a request to speak card. They're available in the lobby outside. And we ask that you give them to the Board assistant or clerk prior to the item that's called so that we have a chance to put a list together.

We will be imposing a three-minute time limit, and we appreciate it people will summarize any written testimony they submitted because we do have the written testimony. So it's much better if you don't read that, but just speak it in your own words.

I also need to point out the exits at the rear of
the room and the sides of the dais. In the event of a fire alarm, we're to go to the exits and evacuate this room immediately, go down stairs and outside the building until we get the all-clear sound. That's the extent of my official remarks here.

So I think we should just get started. Let's begin with the consent items. We have several of them, but I think we should probably take them in order. So the first item on consent is a research proposal. The Board members have had a chance to look at it. Do we have anyone who wants to take this off the consent? Anybody sign up to testify? Okay. Let's just have a motion.

BOARD MEMBER MITCHELL: I move approval.

BOARD MEMBER RIORDAN: Second.

CHAIRPERSON NICHOLS: Very good. All in favor please say aye.

(Unanimous aye vote)

CHAIRPERSON NICHOLS: Any opposed? Great.

Second item is the greenhouse gas quantification determination for the Association of Monterey Bay Area Governments Metropolitan Transportation Plan/Sustainable Community Strategy. That's a mouthful. Probably almost as long as the plan.

So again, Board Clerk, did any witnesses sign up to testify?
Are there any Board members who wish to have this taken off consent? If not, we have a motion and a second.

BOARD MEMBER BERG: So moved.

BOARD MEMBER ROBERTS: Second.

CHAIRPERSON NICHOLS: All in favor please say aye.

(Unanimous aye vote)

CHAIRPERSON NICHOLS: Any opposed?

Any abstentions?

Okay. Great.

And then the last item on the consent calendar is an update to the Transportation Conformity budget for the San Joaquin Valley.

And again, any witnesses? No.

Any Board members who want to discuss this item? If not, can we please have a motion and a second?

BOARD MEMBER MITCHELL: Move approval.

BOARD MEMBER RIORDAN: Second.

CHAIRPERSON NICHOLS: All in favor say aye.

(Unanimous aye vote)

CHAIRPERSON NICHOLS: Opposed?

Any abstentions?

Great.

Okay. Now we turn to the business of the meeting. And I see Ken Alex, the head of the Governor's
Office of Planning and Research. We have invited the Governor's office and the High Speed Rail Authority -- Mr. Morales, welcome -- to come and give us an update on what's going on with the High Speed Rail. We thought it would be good for the Board, because the state's transportation system is a key economic sector driving reductions in greenhouse gas emissions and accounts for almost 36 percent of our total emissions. High Speed Rail is a key component of the state's future transportation system, providing the backbone of a more sustainable growth strategy in the San Joaquin Valley. And of course, it's one of the many projects that are receiving funding now from the cap and trade auction proceeds.

So I'll turn to our Executive Officer to introduce this item.

DEPUTY EXECUTIVE OFFICER COREY: Yes, thank you, Chairman Nichols.

The State's long-term air quality and climate vision includes a variety of zero and near-zero transportation choices that are integrated into an inner-connected sustainable communities throughout the state. ARB has a major role in this future.

But we also have many partners, including the High Speed Rail Authority. I welcome today Ken Alex from the Governor's Office of Planning and Research and Jeff
Morales from the High Speed Rail Authority to share with us their progress on achieving this vision. Ken.

DIRECTOR ALEX: Thank you very much, Chairman Nichols and members of the Board.

Thanks for having this item on the agenda. Obviously, something of substantial importance to the Governor and to the Office of Planning and Research and to the Strategic Growth Council and on and on and on.

I'm mostly here this morning to introduce Jeff Morales, which I will do in a minute. But I wanted to talk a little bit for a couple of minutes about the work that the Strategic Growth Council and the Office of Planning and Research are doing in conjunction with High Speed Rail on a very under-appreciated, yet I think extremely important part of the value of High Speed Rail.

I think most people see High Speed Rail as a way to move people from north to south and south to north. A very important piece of what the rail is about, but not the only piece. As we move to 50 million people in the state of California, a lot of that growth will be in the Central Valley. And right now, the Central Valley, which has, as we know, all kinds of air issues and other kinds of series of problems is somewhat economically isolated from the coast. It's also expected to be the area of the largest growth in population.
Right now, we are losing agricultural land at a pretty frightening rate, prime agricultural land around cities like Fresno. And the growth patterns and development patterns are reminiscent of Southern California in that they tend to be sprawl.

So what OPR and the SGC are doing with High Speed Rail is to work with local governments to work on stationary planning around High Speed Rail stations to work on connectivity plans, how do we transport people to and from High Speed Rail stations, get them out of cars, think about how we actually preserve open space, agricultural land, create higher densities in population areas while we do so with connection to transit. And all of that is made possible by the backbone of the High Speed Rail running through this area of central California.

So just for example, if you think about the city of Fresno, which will have a High Speed Rail station, it's about 30 miles from the city of Madera. Right now, you can only get to the city of Madera by car. We need to think about that differently, because the proposals for building and development in Madera County are not in the city of Madera right now.

So this is an opportunity to really think about how we develop over time in the Central Valley differently and also to connect to areas like Silicon Valley, which
are isolated from the valley and make it an economic 
outpost.

So with all of that, SGC and OPR have dedicated 
personnel staff time to work pretty extensively in the 
valley and I think we're making some progress. And Jeff 
will talk a little bit more about the progress. So let me 
turn to my main function here, which is to introduce Jeff 
Morales.

Jeff is the CEO of the High Speed Rail Authority. 
He has enormous experience, and you'll see why he's the 
CEO of the High Speed Rail Authority. He is the former 
Director of Caltrans. He was a Senior Vice President at 
Parsons Brinkerhoff. He was the Vice President of the 
Chicago Transit Authority. He spent a fair amount of time 
at the federal level. He was a member of President Elect 
Obama's transition team. He was part of Vice President 
Gore's national performance review. He was part of the 
White House Commission on Aviation Safety and Security and 
also worked for a time at the U.S. Department of 
Transportation and was part of the U.S. Senate staff. So 
he brings all of that to High Speed Rail.

So let me turn it over to Jeff.

CHAIRPERSON NICHOLS: Good morning.

HIGH SPEED RAIL AUTHORITY CEO MORALES: Good 
morning. Thank you, Madam Chair. Thank you, Chairman
Nichols. Thank you for the chance to be here and make this presentation.

I want to before starting --

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HIGH SPEED RAIL AUTHORITY CEO MORALES: --
recognize one of our Board members, Rick Frank, who is known well to many of you who is here with us and has brought a very important perspective to our program and to ensure that we, in fact, achieve the kind of goals that Ken has just talked about. So very pleased to have Mr. Frank here with us today.

I want to acknowledge and thank the ARB for its support and work with us. Chairman Nichols, your work in leading up to the vote on the cap and trade program this summer was really indispensable, and that of your staff, Richard Corey, and others to help make sure that we shape this program and to implement it in a way that does achieve the goals of greenhouse gas reduction. And also we're off to a great start since the adoption of the budget, putting those cap and trade proceeds to use already. We're making good progress on that.

What I'd like to do today is run through where we are with the program, how it ties with the goals of this Board and the state's environmental goals, and then talk about next steps. Certainly happy to take any questions
you may have.

HIGH SPEED RAIL AUTHORITY CEO MORALES: Very consistent with what Ken said, we really have shifted the focus of this program. And much to the consternation of some of our train buffs and our engineers, I always say it's really not about the train. It is about what this system will mean for the state of California going forward, shaping its growth, helping tying together with local planning decisions, local development, cities like Fresno. Many people don't realize Fresno is the same size as Washington, D.C. and it will be getting bigger, a lot bigger. It needs different ways of meeting its growth that's ahead of us. This is one of those once-in-a-generation transformative investments that will really make a huge difference to the future of how people move in the state, how our economy is tied together. And it is also very significant in that it is the first infrastructure investment that literally is designed to and will connect all of the state's population centers.

Look at previous investments. They have -- as Ken alluded, the valley has been isolated. I-5 did not go to the population centers. It went past the Central Valley. This system by law will connect all of the population centers of the state. That in and of itself
will have a huge impact on what the state does, ties
together. Not just the Central Valley, with Silicon
Valley, for instance, but even between San Francisco and
San Jose. All those cars on the 101 taking an hour, hour
and a half, two hours to get between San Francisco, San
Jose, a half hour on an electric, non-polluting train
makes a big difference in that region. That's what this
program is about, and that's how we're implementing it.

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HIGH SPEED RAIL AUTHORITY CEO MORALES: Some of
the underlying reasons why I believe and I think it's a
lot of the reason the Governor has embraced and pushed
this program as hard as he has is in many ways we really
don't have a choice. We have to make an investment like
this. And some of the underlying conditions really speak
to that.

We have 38 million people in California today.
Will be growing to 50 million over the next few decades.
Our transportation systems cannot meet that demand. And a
few examples, many people don't realize that the L.A. area
to the Bay Area is the busiest air market in the
United States. And that has all sorts of implications for
air quality, for productivity, for economic benefit.
About one out of every five or so flights leaving the L.A.
area airports is coming to northern California. That's
not a very efficient way to use airplanes. It's not an efficient way to use airports, and it has significant implications in terms of air quality. And I'll talk more about that in a moment.

And one thing I would also point out, you may have seen there is a little bit of controversy about our program from time to time and people get a little upset. CHAIRPERSON NICHOLS: Actually, it doesn't seem that much to us.

HIGH SPEED RAIL AUTHORITY CEO MORALES: You're used to that. But I point out if you think clearing -- essentially clearing and ultimately building two tracks up and down the state is challenging, imagine what it would be like to build 4500 lanes -- new lanes of freeway up and down the state. Because that's what we're talking about in terms of alternatives. A huge cost difference, but also huge impacts on the environment and on communities.

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HIGH SPEED RAIL AUTHORITY CEO MORALES: One of the key benefits of High Speed Rail -- and this has been proven around the world where it's been implemented but an example closer to home is mode shift. That is, getting people out of cars, out of airplanes onto the train. And as a reminder, this system will be 100 percent electric. We have a goal of 100 percent
renewable energy powering the system. And that has huge implications for travel. And we will see as we've seen around the world a marked shift in how people travel. It's happened between Madrid and Seville, between Paris and Leon, between cities in Tokyo, all the cities where High Speed Rail has gone in, the share of travel on rail has grown from in some cases less than ten percent to now 90 percent.

Sometimes people dismiss that and say that's Europe or that's Asia and that will never happen in the U.S. We all love our cars too much. But we've seen the same thing happen in the northeast when Amtrak introduced the Acela service, which is the closest thing we have in this country to High Speed Rail. There is a three-mile stretch where they get up to 160 miles an hour and everybody gets excited and then it slows down again.

But since they introduced that service, Amtrak's share of that DC to New York commute market has grown from 37 percent and it's now actually up over 80 percent. That's real. And the significance of that in part is that the difference from an emissions perspective between electric high speed train and airplanes on short distances is huge, about 1/15th of the emissions result when you look at the entirety of the system.

And we project that when the full system is up
and running here, upwards of 200 flights a day between Southern California and Northern California will be eliminated as that traffic is moved onto trains. And that has huge implications for air quality and for transportation.

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HIGH SPEED RAIL AUTHORITY CEO MORALES: The system that we are moving forward with is, in fact, a statewide network. It's a massive investment, one that doesn't happen very often. But again, it will connect all of the state's population centers. And the initial segment Phase I, as it's described in Prop. 1A connecting San Francisco and Los Angeles, but ultimately the system will extend to Sacramento and to San Diego. We see all the points in between. We're moving forward simultaneously and building this on three areas. In the peninsula, we as part of our program, the CalTrain commuter rail system, which is currently a diesel system, is being electrified and upgraded. That will be incorporated into our system. Just that segment alone is projected to reduce starting in about 2020 some 68,000 tons of emissions a year by electrifying that existing system.

At the same time, we have begun the work and begun the construction in the Central Valley of the
dedicated High Speed Rail system. We're underway. Cap and trade funds are helping move that forward. And we're working in Southern California now to expedite our work down there connecting Burbank with Palmdale and making improvements at Union Station and to the existing commuter rail system in Southern California that will bring benefits for commuters today and in the near term and ultimately become part of our system.

One of the goals of the cap and trade program certainly is amended by its statute is also to create local benefits in disadvantaged communities, and that's a very important part of our program. We have incentives and requirements in our contracts to promote hiring in, for instance, the Central Valley where unemployment rates are twice the state average. And we're seeing that begin to take effect already.

We're promoting businesses here in California, jobs here in California. We have 160 small businesses already under contract in our program, 28 disadvantaged veteran businesses under contract. And we see those benefits accruing, not just for air quality purposes, but for economic and employment benefits as well.

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HIGH SPEED RAIL AUTHORITY CEO MORALES: We have made a lot of progress over the last few years, just a few
indications. We have secured federal funds as well as State bond funds. And now with the support of the Chairman and others, huge game changer, the securing of the cap and trade proceeds, 25 percent of those going forward, which is a critical element of making this program real and accelerating the benefits that will happen from this.

We secured environmental clearances for the construction throughout the Central Valley. One of the most extensive environmental clearances I think it's probably safe to say ever in this state.

And we've also done something else which is very important, and this is something our Board feels very strongly about and we as the management people very strongly about, which is making this program really a model for how infrastructure can be delivered in the state as we go forward. We've made a commitment to be zero net emissions during construction of the program, which I think you can appreciate a program of this scale is a massive commitment. One of the ways we're doing that is through a very important agreement we reached with the San Joaquin Air Pollution Control District. We just had a nice event yesterday down in Fresno with EPA Regional Administrative Jerod Blumenfield and Shamer Shak from the district to taut that. We are requiring as part of our
contracts that all of the equipment be the latest Tier 4
equipment as certified by the EPA, 100 percent recycling
of materials, many other steps to go forward.

And we are working through the San Joaquin Air
Pollution Control District to fund their program to make
improvements that will provide near-term benefits that
replacing diesel irrigation pumps, replacing old school
buses, old farm tractors, all things that will contribute
to improved air quality in the Central Valley.

As we begin construction, that will last far
beyond when we finish construction. So an important
investment in cleaner air in the Central Valley.

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HIGH SPEED RAIL AUTHORITY CEO MORALES: We
sometimes refer to -- I think people lost sight sometimes
and it's hard -- in many ways, this is an environmental
program. Those are the benefits we'll see.

The Central Valley, as Ken noted, we're losing by
some estimates 300,000 acres of farmland a year. The city
of Fresno in its growth over the last few decades has
consumed 50,000 acres by growing outward. That's one of
the reasons the city of Fresno, the Mayor there is so
supportive of High Speed Rail as a way of reshaping the
growth, bring it back downtown, more transit-oriented
development. So our program will be a part of a broader
effort to reverse that trend or slow down certainly the trends of loss of farmland.

    Again, we've committed to the zero net emissions. As part of that, we'll be going through an extensive tree planting program throughout the state, and very importantly, also tying into and working with and promoting the development of local transit options throughout the state.

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    HIGH SPEED RAIL AUTHORITY CEO MORALES: This gives a sense, pretty colors and trees of what our greenhouse gas emissions reductions our contribution to that will be. As the Chairman has pointed out on many occasions, we become, this system becomes the basis for long-term changes in the state. But there will be short-term improvements. I mentioned the 68,000 tons reduction on the CalTrain corridor on the peninsula. But we'll see as we implement the program continued reductions leading to very significant reductions. And these are just the direct reductions that we calculate based on mode shift. We are not taking into account the broader changes that will happen as development patterns change and as broader transit use, for instance, comes into place enabled in part by the ability to move around with the High Speed Rail system.
HIGH SPEED RAIL AUTHORITY CEO MORALES: Cap and trade I mentioned it is easy to overuse the term "game changer," but for this program, it is not an exaggeration. It really is a game changer, and not just for High Speed Rail. What the Legislature did and what the Governor proposed was made commitments not just to High Speed Rail, but to transit to inner-city rail, to affordable housing, and this is never been done in California. So this is really changes how we can approach our program and how we can implement it. But also how our regional and local transit partners can approach their programs as well. It's really promoting and creating greater opportunities for us to tie all those systems together.

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HIGH SPEED RAIL AUTHORITY CEO MORALES: And so as I mentioned, we're moving forward on three steps: Advancing on the peninsula, building now in the Central Valley, and beginning the work, the environmental clearance and moving as quickly as possible to the construction segment in Southern California, with the very exciting opportunity to tie into a potential line coming from Las Vegas into California.

And what we would create then together is not just a Las Vegas to Victorville or Palmdale, but we're
talking about Las Vegas to Los Angeles and Anaheim by tying those two systems together. Again, a huge investment. There are something on the order of 19 million trips a year taken out of the L.A. area to Las Vegas, 17 million by car. If you've done that, that's a five- to seven-hour trip, depending on traffic and accidents and other things. Again, lots of people and lots of cars. With an hour and a half trip by train when you can gamble and drink on the train on your way to Las Vegas, no one will drive. So that has huge implications.

And that concludes my prepared remarks. I want to again thank you for your support and your partnership. And we commit to working with you to make sure this program does what you want it to do and does what we want it to do and what the Governor envisions for this as we go forward.

CHAIRPERSON NICHOLS: Appreciate your coming over and particularly sort of laying out some of the array of environmental enhancements that I think have not been getting much attention, but that I can't think of anything that anyone has suggested could be done in a large scale construction project that you folks haven't found a way to incorporate into this project. It's really kind of amazing from that perspective.

This is a real partnership here. ARB has been
involved with High Speed Rail I think from the veryegin{align*}	ext{beginning of the environmental review process in terms of}
\text{just helping to define and articulate what the benefits}
\text{were that we were hoping for and how to think about the}
\text{air and climate implications of the project. So this is}
\text{not something that we just sort of woke up a year ago when}
\text{we began to think about spending money and said oh, yeah,}
\text{let's put some money into High Speed Rail. There has been}
\text{a long term involvement here.}
\end{align*}

But I thought it would be a good opportunity when
things are a little bit quiet around here, relatively
speaking, to give my Board members an opportunity to both
hear and ask some questions. I see one hand at least
already up. So -- two. I'll start with you, John.

BOARD MEMBER BALMES: Thanks, Mr. Morales, for
that presentation.

I wanted to specifically ask you about the
electrification of the train corridor. I'm from the Bay
Area, and I received actually multiple complaints over the
years about the diesel exposure that the current system
allows. So I just want to make sure that electrification
project is definitely happening and what's the time line.

HIGH SPEED RAIL AUTHORITY CEO MORALES: It is
absolutely happening. And we're working in partnership
with CalTrain to do that. Part of the funding we received
from the Legislature is funding that program. The environmental review is scheduled to be concluded right around the end of this calendar year. And then the initiation of the electrification will start next year. And with the target of 2019-2020, depending on exactly -- but that will be conversion to electric trains, clean, non-polluting trains. And we are working to make sure that system is fully complimentary with our statewide system so we can get the full benefits of it.

BOARD MEMBER BALMES: Thank you.
CHAIRPERSON NICHOLS: Dr. Sherriffs.
BOARD MEMBER SHERRIFFS: Thank you. Thank you for coming. Thank you for your presentation.
And I just wanted to highlight the importance and the value of that partnership with the valley because obviously we are one of the more troubled areas in terms of emissions and air quality, the importance of the zero net emissions commitment and the making available of funds for incentive programs that have been so important to the valley, particularly in terms of helping agriculture, specifically with things like pumps and tractors.

And again, emphasizing not just the short-term commitment to zero emissions during construction. But when we replace those dirtier tools, there are those ongoing benefits for the life of that machinery. So thank
you very much for that.

HIGH SPEED RAIL AUTHORITY CEO MORALES: Thank you. It's been a great partnership. Not everyone in the valley is as fully supportive as others. So I know it was a challenge from the pollution control district's part as well. But I think it's a critical partnership going forward. We're committed to making it work.

CHAIRPERSON NICHOLS: Yes, Mayor Mitchell.

BOARD MEMBER MITCHELL: Thank you.

I want to say again how great this program is. But I think one key part of it is the connection that the High Speed Rail will make to the inner city systems. I know that's important both in the Bay Area and in the Los Angeles area because you can get from L.A. to San Francisco, but can you get around once you get into those places? I think that's a real key component of this.

I didn't see in the presentation any time line on this. Maybe you could elaborate a little bit on what that time line is for -- I know we have first phase. But what are the sort of time points that you're looking at?

HIGH SPEED RAIL AUTHORITY CEO MORALES: Sure. Some of that is going through -- we're revising schedules based on the cap and trade funding, which creates new opportunities to accelerate some segments. But the
general schedule is on the peninsula, again, the
electrification will be underway. The time frame is 2019
to 2020 for that being up and running.

Our construction through the Central Valley is
underway. 2018 is the completion of that segment. 2022
is our current schedule to have the system running from
Merced to Burbank. And then by 2029, ultimately the full
San Francisco to Los Angeles segment.

Again, we will bring on segments within that as
quickly as we can and as soon as possible to provide
near-term benefits and tie it all together into one system
as we're able to by 2029.

BOARD MEMBER MITCHELL: One other question. I
guess this question is who. Who is going to provide the
rail cars? And do we have -- has that been decided?

HIGH SPEED RAIL AUTHORITY CEO MORALES: It has
not. We've begun the process. Right now, we're going
through an informal process of outreach to the industry.
And the manufacturers of high speed trains are all
overseas currently. We have active interest from
companies, manufacturers in China, Japan, Korea, France,
Germany, Italy. I'm probably leaving somebody out, the
UK. And we'll have a competition to see where those
trains are -- who provides them.

We do -- because we're using federal funds in
part we have a "buy America" requirement, which means that a significant amount of that work, ultimately the assembly and manufacturing will come to the U.S. We are doing everything possible to make sure it comes to California, not just to the U.S. But here in California.

BOARD MEMBER MITCHELL: There was another question. A friend recently pointed out to me the series of articles in the Atlantic magazine written by Mark Farrell on High Speed Rail. He's a strong supporter of that. And I've begun to read those, but I highly recommend that to everyone to take a look at because it does find some reasons to do this and how we go forward with it. So thank you for all your work on this.

I think what is not understood well is that this is more than just a transportation system. It's a sustainable communities strategy that reaches all through the Central Valley. So thank you for explaining that. I think some of us have a hard time talking to our colleagues who aren't supportive of this project. So I think if we look at it in that way, it's helpful for them to understand what we are truly doing here. Thank you very much for all your work.

HIGH SPEED RAIL AUTHORITY CEO MORALES: Thank you. And I think Jim Fallows' articles have been really important. One of the things they've done is help put
things in the right context and the right perspective. That's one of the biggest challenges we have is any program you're going to have near-term disruptions with property acquisition, with construction, and things like that. It's very hard to step back and think about why we are doing this and why we need it and also recognize that every big program had these challenges.

We always point out the Golden Gate Bridge, which is probably the most iconic structure in California and one in the country had 2,000 lawsuits filed against it in the 1930s. And the master plan for higher ed passed by a single vote in the Legislature. So I think it's hard to put those things in perspective when you're in the middle of them. I think those articles have helped broaden that exposure. We've been very happy to work with them on that.

CHAIRPERSON NICHOLS: Supervisor Serna.

BOARD MEMBER SERNA: Great. Thank you, Chairman Nichols.

Thank you to Mr. Morales for being here. I wanted to extend my thanks in addition to what has already been said. I think this is important to have this opportunity to have an exchange.

One of the slides that I thought was most impressive was your best kept environmental benefits
slide. And you have a bullet there reinforcing SB 375 stationary planning. And you know, you touched on it. But I'm wondering whether or not there's been any concerted effort to date to do a broader outreach/education program for the general public to consume that permits them to understand the link between reducing VMT and what this project will do in that regard. I think, to date, what we see in the popular media is this questionmark about how sincere this project is going to be to reduce GHG emissions based on the duration of time that has to pass for it to be constructed and then of course the emissions that go into the actual construction of the project.

But that back end part I think is absolutely critical especially with regards to SB 375 I haven't heard that much about. So I'm asking, wondering whether or not there has been any effort to do that. If not, if there is any intent to do that.

HIGH SPEED RAIL AUTHORITY CEO MORALES: I'll ask Ken to comment on some of this in a moment. I'll touch on a few things.

One: I think between 2008 when Prop. 1A passed and then I think 2010/12 when the Governor really kind of got ahold of the program and exercised his influence on the Board, I think the authority kind of lost its way and
got too focused on the engineering aspects of things and wasn't conveying that broader message. So as you saw in our presentation, it's really we think that sort of outreach and education is absolutely critical because that's what this program really is about.

We are -- among the things we're doing to help SB 375 achieve goals SB 375 goals is providing planning grants to the cities where our stations will be because we don't control those decisions, what local development looks like. But for our system to succeed, we need there to be coordinated sound planning. So we're providing funding to the cities to help them do that. And we're taking a number of steps through the Strategic Growth Council as well, which Ken can elaborate on.

DIRECTOR ALEX: Thank you for that question. I think it's right on point. As Jeff says, we have not been great about it in the past and are making a very big effort to change that. So High Speed Rail is funding Susan Hauge at the Strategic Growth Council. Her full job is to work with local communities, local governments in the Central Valley, stationary planning and related. And she's terrific. And if anybody would like to have her come talk in their community, she's absolutely available to do that.

We also were doing a bi-weekly meeting with Kate
White and others from the Transportation Agency and High Speed Rail and Strategic Growth Council and the Governor's Office on exactly the issue that you're raising. How do we change the discussion and how do people perceive the benefits of the rail for the Central Valley. I think we're making some progress. We're seeing articles now that actually are somewhat more balanced.

I think that there are counties like Fresno, city of Fresno that have been supportive that continue to be. We're seeing places where we now know the train seems to be much more inevitable than perhaps it was a year or two ago and that we're seeing a different piece of dialogue.

I think the James Fallows articles that Mayor Mitchell mentioned have been helpful. We're spreading those far and wide. We're looking for more and more opportunities. We're actually trying to remind environmental groups that they supported Prop. 1A years ago and that they should remember why and they should help us talk about those.

So we are very open if any Board members, if you have suggestions for how to better do that, we are absolutely committed to it. And we are certainly talking to all the metropolitan planning organizations about how to integrate this into the 375 process.

BOARD MEMBER SERNA: I'm glad you ended on that
note. You mentioned cities a number of times. But you know, there are some larger MPOs that are going to probably capture more than one city within their territory. It seems like that would be a logical construct to work with in terms of advancing that opportunity to plan around stations more intelligently.

HIGH SPEED RAIL AUTHORITY CEO MORALES: That's true up and down the state. We haven't talked about Sacramento. We're working with SACOG, with the City, with the County and making sure that even though the High Speed Rail system will be a little later getting here problem, there's lots of investments that will be made in the near term. And we need to make sure we plan for the long term. SCAG has been hugely supportive in Southern California of the program. High Speed Rail for the long run is a key element of attainment for them of air quality. We're very much working in partnership with SCAG and other MPOs all over the state.

BOARD MEMBER SERNA: Thank you.
CHAIRPERSON NICHOLS: Ms. Berg.
BOARD MEMBER BERG: Thank you.
Good morning.

I, too, want to express my appreciation for this presentation because I'm probably one of the citizens that had not been able to think about the High Speed Rail in
this framework. So much appreciated. So I'd like to piggyback on the comments that Supervisor Serna just made and also look at the outreach from a public perspective. And specifically when we're starting to talk about goals like zero net emission for construction and other environmental goals, how are we going to be transparent, what tools are we going to use specifically so that we can reach out to the citizens of California and ultimately be a role model for other types of projects that you also alluded to that we could be a good role model for other types of construction projects like that. So specifically, what kinds of things are we looking at in establishing what emissions would there have been and how did we curb those, just as an example. Of course, you have a laundry list of other examples. So thank you very much.

HIGH SPEED RAIL AUTHORITY CEO MORALES: Thank you. That scenario where we would very much like to work with the ARB to go forward because I think in some respects you may be a better messenger of some of those things than we are. But we have a number of things. The event I mentioned yesterday we did in Fresno with EPA and with the San Joaquin Air District was one step in that direction of trying to provide that broader information to the public.
We have a number of reports that we issue to the Legislature and others where that sort of information will be captured. We also have made a -- signed onto a sustainability program through the American Public Transportation Association, which represents the transit agencies to provide an annual sustainability report, which will capture a lot of this information.

But again, I would very much like to continue to work with the ARB to look at the best way of getting that sort of information out and capture it in a broader context as well. I think Ken may have something to add also.

DIRECTOR ALEX: So another staff person that High Speed Rail is funding at the Strategic Growth Council is a fellow named Denny Grossman, who is working on something that we used to call RAMP, Regional Advanced Mitigation Planning, but we are going to move on from that.

The idea of that is I think very much what you describe. This is a large infrastructure project. We know it has impacts. What if we think about mitigating those impacts not just piece by piece, project by project, but think about what are the things that could be done from a systemic or regional perspective to have the most impacts because we know they're going to be other infrastructure projects. So what if we tie those to
things like county -- what are sometimes called green
prints where you identify the areas of habitat of open
space for agriculture and mitigate on a regional basis.

And Denny is moving forward specifically with
High Speed Rail, but the idea will be to use this as a
project for pilot purposes and for infrastructure projects
going forward in the state of California to use this as a
model to say let's think more regionally and let's
mitigate in a different kind of way and maybe think about
CEQA compliance in a different way for those kinds of
projects as well. So I think it's exactly what you were
talking about.

BOARD MEMBER BERG: Just a follow up. It could
be also a role model for other types of programs that
we're trying to do, like sustainable freight where we
don't know -- it is visionary. And so all these pieces
are great learning pieces, as long as we can figure out
how to share our learning as we go forward. So thank you
evry much because this is one piece that you gave us to be
able to understand better. Thank you.

CHAIRPERSON NICHOLS: So documentation and
dissemination of the information is a piece that I think
we could partner on. And that would be useful I think for
both of us.

Professor Sperling.
BOARD MEMBER SPERLING: Hello. I have one suggestion and one question. You know, one is following up a little bit on this idea about the local planning and the SB 375 process. I've mentioned to you, Jeff, this idea that we need some innovative creative thinking about how to access these stations that in California with our land use patterns, the fixed guideway, fixed schedule type conventional transit services really aren't going to work very well in most of these communities connecting up the High Speed Rail.

And now with all these information technologies, there is a lot of opportunities for real time, demand-responsive-based type services. And there is a few companies just starting to play around with that idea. So kind of the suggestion is, you know, there is an opportunity to reinforce and support that, instead of locking into other investments, you know, and agreements with conventional services that might not be in the interest of what you're trying to do or in the communities. So you know, I think I mentioned to you I've been talking to the San Joaquin MPOs as well about this.

The question is, you know, going forward, you add up all the numbers in terms of the amount of money that you see coming in. And clearly, it falls short of what's needed. And the challenge is when you're looking at a big
project that has large societal benefits, but has large
costs up front, we look at it in terms of our electric
vehicles and fuel cell vehicles. We're looking at costs
of maybe 100 -- nationally about $100 billion more or less
additional cost of vehicles and infrastructure over the
years to really get to a cost competitive position. So we
know at the end there's going to be large benefits.

But $100 billion sounds like a big number, but in
terms of how much money we spend on fuel and vehicles, you
know, it's a drop in the bucket. I know it's hard for
people to get their heads around that.

CHAIRPERSON NICHOLS: A large drop.

BOARD MEMBER SPERLING: But for government, it's
a huge number. That's the challenge.

And so you have the same challenge with the High
Speed Rail is how do you get over the hump. So what is --
kind of what is -- I know you don't have definitive plans,
but what is the thinking for how to get over the hump?

HIGH SPEED RAIL AUTHORITY CEO MORALES: A few
things. On your first point -- and we have talked about
it and I agree completely. I think that's an area where
California can bring a different perspective to this or
European or Asian cities where they looked at fixed
transit systems. That's part of the equation. But we can
look at everything from Hoover to the Google car to
whatever tie all those things together and get the point
is mobility and more efficient mobility. So I think we're
looking at all those areas. And like to keep working with
you on that.

On your second piece, a few things. One, we have
done extensive analysis -- cost benefit analysis to put
the numbers in perspective in terms of what the state as a
whole, what the country gets back for the ultimate
investment. And that's part of the equation.

But then in terms of delivering the program, we
also are breaking the system into segments and looking at
how we can deliver pieces of it with independent utility
as soon as possible so it's really not about a $68 billion
program. It's about the pieces that ultimately get you to
that over time.

And one of the very important things about the
cap and trade commitment and the fact it was done through
a continuous appropriation means we don't have to come
back and get it each year is that that has fundamentally
changed our dialogue with the private sector now in terms
of delivering this program. They've always looked at this
program and said it makes sense, you know, because of
population, because of demand, everything else. The
question was the timing issue for when they could get
involved. The continuous appropriation of the cap and
trade now really lets us look at a whole different partnership and potentially on a different time scale with the private sector. It's very big significant private sector investment in this program as well in exchange for the long-term operating rights of the system.

So the total price tag is:
A, it's for an entire system.
B, it covers all costs, both public and private because of how we had it reported.

And then I guess the third element I would say is we are continually looking at ways of bringing that cost down, and I'm confident we can do that. There's significant savings and efficiencies that we can gain as we deliver the program that will make it easier.

CHAIRPERSON NICHOLS: Okay. I think we had a good discussion here. I just want to say, wrapping this up, that it really is an amazing opportunity. I think we've all tended to kind of lower our voices a little bit, because as Dan pointed out, it is a huge undertaking. And any time you do something really big, there are going to be people who are going to raise objections and there's going to be concerns and potential pitfalls.

But this is actually moving forward on a project of great magnitude and great importance for the future of the state of California. And the opportunity to be a part
of something like this, where instead of doing what we do
with most of our work here at ARB, which is really
cleaning up after bad decisions on land use and
technology, we are a part of doing something which is
going to shape the future of the state for many years to
come and give us an opportunity to do it right.

So it's really a pleasure to be able to be part
of it. And I just want to again appreciate the changes
that you've brought to the project in terms of the
openness and the willingness to consider all of our
suggestions and implement some of them before we even
thought of them. So hope to keep up the conversation.

Thank you.

HIGH SPEED RAIL AUTHORITY CEO MORALES: Thank you
very much.

CHAIRPERSON NICHOLS: We have more work to do
here. Next item is also a report, just an opportunity to
reflect on this year's legislation. So we'll bring up our
legislative team and talk about what we did this year.

It was a good year overall for climate and air
quality in the Legislature. We saw a focus on and a lot
of support for reducing short-lived climate pollutants and
strengthening incentives for electric vehicles. In
addition, as part of the Budget Act, the Legislature
developed a framework for the expenditure of cap and trade
auction proceeds, as we just heard, that not only effected
the appropriations for this year, but will shape the
appropriations in years to come, including obviously the
key investments in transit, High Speed Rail, zero emission
vehicles, and sustainable communities. These investments
will help to reduce greenhouse gas emissions in the state,
spur the development of clean technology, and reduce our
reliance on fossil fuels, delivering tangible benefits to
California communities and in particular focusing on the
needs of disadvantaged communities.

So, Mr. Corey, do you want to introduce this
item?

DEPUTY EXECUTIVE OFFICER COREY: Yes. Thank you,
Chairman.

With the finalized spending plan of the budget
for cap and trade auction proceeds, the investment phase
of the program's underway. And we're working with our
partners and other agencies, including High Speed Rail
Authority, who you just heard from, to develop and
implement projects that further reduce greenhouse gas
emissions.

And last year, we secured funding
re-authorization for some key incentive programs,
including the Air Quality Improvement Program and the Carl
Moyer Program. This year, the Legislature showed
continued support for vehicle incentive programs with the focus on heavy-duty sector and extending the reach of those programs to a broader diversity of Californians. This support strengthens ARB's efforts to reduce air pollution and greenhouse gas emissions.

And now our Legislative Director, Jennifer Gress, will give us the year in review, go over key legislation, and highlight potential areas of legislative interest this next year.

Jennifer.

(Whereupon the following slide show presentation was made.)

LEGISLATIVE DIRECTOR GRESS: Thank you.

Good morning. It is a pleasure to present the 2014 legislative update. As I prepare the update, I try to think of one or two adjectives that sum up the year. For 2014, the words that stand out are "calm" and "constructive." Members of the Legislature were engaged and expressed their views on major issues facing the Board, particularly the Clean Vehicle Rebate Project and inclusion of fuels in the cap and trade program. And there were a number of bills that sought to support or expand our work, including bills to promote zero emission technologies, control short-lived climate pollutants, and establish a process for setting a midterm greenhouse gas
reduction target.

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LEGISLATIVE DIRECTOR GRESS: What happened in 2014? A little more than 2200 new bills were introduced, 1300 survived the legislative process, and about 1178 of those were signed by the Governor.

The Legislative Office tracked a total of 356 climate and air quality related bills, which included 234 new bills introduced this year, plus 122 two-year bills that remained viable from 2013.

Of those 356 bills, 88, about 24 percent, reached the Governor's desk and the Governor signed 77.

I note that despite the large number, only a handful of bills prescribed specific responsibilities for ARB. Your packet includes a table describing the bills that require ARB to undertake a new activity.

We participated in five informational hearings and one town hall meeting, which is a lower number than in recent years. This is not to say that we were not involved in a large number of hearings. The lower number of informational hearings was offset by an unusually high number of budget hearings, about 11 in total. This year was the first year the Legislature and administration considered an expenditure plan for cap and trade auction proceeds, which prompted several hearings on the
administration's plan, as well as alternatives presented by the Senate and Assembly leadership.

The budget was a major accomplishment for ARB this year. We received 200 million in auction proceeds for low carbon transportation projects and were successful in securing resources for a number of other important programs.

In total, ARB proposed 15 budget change proposals, which is a higher number than in recent years. All were approved for a total of 82 new positions and 2.9 million in contract dollars.

Finally, 2014 saw the successful confirmation of four Board members. I want the pause for a moment and say that working with you to prepare for your confirmation hearings was a highlight. It is a special privilege to help a Board member prepare for his or her post. And I really enjoyed getting to know each of you. Thank you for your hard work and commitment to the confirmation process and to ARB as a whole.

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LEGISLATIVE DIRECTOR GRESS: This slide depicts the major subject areas represented in the 356 bills that were tracked. As we can see, the largest category is energy and fuels, followed by land use and transportation, bills affecting ARB's administrative procedures, including
CEQA, vehicles, climate, and other.

While climate represented a small category overall, bills in this category required more of our time and resources relative to other bills as they were often higher profile or directly impacted in ARB programs.

The most significant topics addressed in legislation introduced this year included zero emissions vehicles, the cap and trade regulation, the expenditure of cap and trade auction proceeds, short-lived climate pollutants, and AB 32 authority post-2020.

I will turn now to describe a few key bills in each of these areas.

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LEGISLATIVE DIRECTOR GRESS: Eleven bills were introduced specifically related to zero emission vehicles and six made it through the Legislature and were signed by the Governor.

AB 2013 increased the number of green stickers from 55,000 to 70,000 that DMV may issue to plug-in hybrid electric vehicles to access high occupancy vehicle lanes.

AB 2414 clarified that charging for electric vehicles in public parking lots does not constitute a gift of public funds, which had been a barrier for some people to take advantage of free charging.

AB 2565 prohibits property owners from denying
their tenants the ability to install charging stations on the property, provided certain conditions are met.

The two most significant bills supporting zero emission vehicles were SB 1204 by Senator Lara and SB 1275 by Senator De Leon. SB 1204 established a Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program to fund the development, demonstration, pre-commercial pilot and early commercial deployment of zero and near zero emission vehicles and equipment.

The projects potentially eligible for funding under this program are for the most part consistent with ARB's vision for spending its low carbon transportation funds, and the bill gives ARB flexibility to determine which projects to fund in our annual funding plan.

SB 1275, also known as the Charge Ahead California Initiative, establishes a goal to place in service one million electric vehicles in California by 2023, and requires ARB to establish programs designed to get zero emission technologies into lower-income and disadvantaged communities. The programs identified in the bill are consistent with the pilot programs that ARB proposed and it's implementing through the 2014-15 funding plan, including car sharing, increased voucher amounts for cleaner vehicles, and financial assistance.

SB 1275 also requires ARB to conduct market and
technology assessments as part of each annual funding plan and mandates that ARB establish an income cap for the Clean Vehicle Rebate Project.

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LEGISLATIVE DIRECTOR GRESS: A second area of significant legislative activity concerned cap and trade. Seven bills were introduced to amend the cap and trade regulations, mostly intended to ease requirements for compliance. Bills considering removing fuels from the Cap and Trade Program generated a significant amount of publicity but did not get far in the legislative process.

AB 69 and SB 1079 attempted to delay inclusion of fuels under the Cap and Trade Program, while Senator Steinberg's SB 1156 sought to replace fuels under the cap about a carbon tax on transportation fuel.

Other bills sought to allow offsets approved in any part of the world to be used for compliance, limit the amount of reporting the ARB, exempt certain fuel suppliers from the program, and require that gas stations post the estimated cost of compliance with the cap and trade on the fuel pump.

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LEGISLATIVE DIRECTOR GRESS: This legislative year was a defining year for cap and trade auction proceeds. As part of the 2014 Budget Act, the Legislature
approved the first expenditure plan for auction proceeds. In addition, 14 bills were introduced on this topic and six were signed. Of those 14, the majority aimed to establish new programs. Most of those efforts stalled in the Legislature.

The most far-reaching bill was SB 862, which was a budget trailer bill. SB 862 established a long-term framework for the ongoing expenditure of cap and trade funds with transit, affordable housing, sustainable community projects, and High Speed Rail slated to receive a total of 60 percent of auction proceeds each year.

The bill also established programmatic frameworks for several programs receiving proceeds and gave ARB a defined roll in the administration of the overall program. Specifically, the bill requires ARB to develop guidance on greenhouse gas reporting and quantification methods and to develop funding guidelines for administering agencies that receive appropriations from the greenhouse gas reduction fund.

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LEGISLATIVE DIRECTOR GRESS: The Legislature also lent support to ARB's effort to control short-lived climate pollutants. Short-lived climate pollutants such as methane are powerful climate forcers that remain in the atmosphere for a much shorter period of time than
longer-lived climate pollutants such as carbon dioxide. Their relative potency when measured in terms of how they heat the atmosphere can be several times greater than that of carbon dioxide.

The Legislature recognized that reducing these emissions can make an immediate beneficial impact on climate change.

SB 605 by Senator Lara directs ARB to develop a plan to address short-lived climate pollutants by January 1, 2016, which is consistent with our recommendation in the Scoping Plan update.

And SB 1371 by Senator Leno requires the PUC in consultation with ARB to adopt rules and procedures to minimize methane leaks from the natural gas pipeline system.

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LEGISLATIVE DIRECTOR GRESS: Four bills were introduced this year related to the development of the greenhouse gas reduction targets post-2020, but none were approved by the Legislature this year. The two most prominent bills were AB 2025 and SD 1125.

AB 2050 by Assembly Member Quirk would have required ARB to develop a proposal for further reducing greenhouse gas emissions by 2050, including intermediate goals by January 1, 2016.
SB 1125 by Senator Pavely would have required ARB in consultation with the Climate Action Team and other relevant agencies and stakeholders to develop greenhouse gas emission and short-lived climate pollutant reduction targets for 2030 for purposes of informing legislative action on this topic.

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LEGISLATIVE DIRECTOR GRESS: Looking ahead, with fuels subject to cap and trade in January, we expect to see continued legislative focus on that issue. We will need to continue our efforts to educate members on that Cap and Trade Program. While none of the bills on post-2020 targets survived this year, many members continue to be interested in legislating in this arena, and the Governor has signaled that he would like a midterm target to be established.

We also expect discussions to continue about the use of auction proceeds from cap and trade. While SB 862 provided the blueprint for ongoing expenditures of 60 percent of the funds, I anticipate that members will continue to be interested in determining how to spend the remaining 40 percent.

Finally, next month, staff will present to you the results of a working group process that ARB and the California Air Pollution Control Officers Association
convened to identify potential changes to the Carl Moyer Program. I anticipate that many of the recommendations will require legislation, and it is possible that we will see legislation on this in the coming year.

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LEGISLATIVE DIRECTOR GRESS: The November elections brought many new faces to the Legislature. This coming legislative class will be one of the least experienced in California's history, in particular for the State Assembly. Over one-third of the Assembly will be composed of new members, and the average number of years of legislative experience for an Assembly will be 1.6. Ten years ago, Assembly members had an average of 4.3 years of legislative experience.

In the Senate, there will be 16 new members, six of which will be new to the Legislature without having first served in the Assembly. Senators will have an average of 6.3 years of legislative experience, which is a little down from 9.1 years in 2004.

I note that newer Assembly members voted on SB 32 and only seven Senators, did although that number shrinks to six in January when Assembly Member Walters goes to Congress.

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LEGISLATIVE DIRECTOR GRESS: Of course, I don't
do all this work on my own. I rely on outstanding staff, specifically, Sam Wade, who is the Deputy Director for Legislative Affairs; Robin Neese, our Executive Assistant; and the analysts, Ken Arnold, Dominic Bulone, Danielle Fasse, Nichole Sotak, and Steve Trumbly.

Sydney Vergis also had excellent work in the Legislative Office this year, as well as ARB's Executive Fellow Ross Zelen.

I'd like to specifically recognize Dominic Bulone and Nicole Sotak, who both received Superior Accomplishments awards from ARB this year for their work in 2013. It's very well deserved.

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LEGISLATIVE DIRECTOR GRESS: Copies of the legislative summary are in your packet and can also be accessed on our website. The legislative summary contains brief descriptions of the most pertinent legislation tracked by the legislative office, listed by subject, author, and bill number.

That concludes my presentation. I would be happy to answer any questions.

CHAIRPERSON NICHOLS: Thank you very much, Jennifer.

I think your characterization of calm and constructive was a good one. I wish all years was calm
and constructive. That would be an ideal. Certainly we're going to see some excitement next year around, in particular, the setting of midterm target. The Governor's already indicated immediately after he was re-elected he intends to work on that and that he's going to be working with the Legislature. I've already been getting questions from members and others about what exactly that's going to look like. I have been able to truth truthfully I have no idea. But we are, in fact, going to be I think doing some pretty intense work within the administration to try to come up with answers to how to proceed on this because there is a general recognition that now that 2020 is just around the corner and we're clearly on track to meet it, but now we have to look beyond that. So I think next year maybe a little less calm, but hopefully equally constructive.

And I had a couple Board members who wanted to comment. So first Dr. Balmes.

BOARD MEMBER BALMES: I just wanted to follow up, Jennifer, with Chairman Nichols' comments about the post-2020 authority.

I see that the two bills, one in the Senate and one in the Assembly, died. Did they die because everybody is waiting for the Governor? Or I hope it didn't represent sort of a general unwillingness on the part of
the Legislature to look beyond 2020.

LEGISLATIVE DIRECTOR GRESS: No. I think there is a lot of interest in the Legislature in looking beyond 2020. But there are a lot of issues that come up when folks start thinking about how to proceed post-2020. And I think last year was the time to begin those conversations but wasn't enough time. I don't think everyone in the Legislature and I don't think the administration were fully ready to engage in a full-on decision-making process around them.

CHAIRPERSON NICHOLS: Yes.

BOARD MEMBER SPERLING: Actually, my question is for you.

CHAIRPERSON NICHOLS: Okay. That's fair.

BOARD MEMBER SPERLING: What is your thinking just generally about the process about moving forward? I mean, assuming the Governor makes this statement about what he thinks the appropriate targets are and however it plays out in the Legislature, what does it mean for us on the Board in terms of the time frame? As you said, 2020 is cutting it very close.

CHAIRPERSON NICHOLS: Right. Well, a couple of pieces that will help perhaps pull this all together. First of all, it's already the Governor himself and others on his behalf have said in response to a report from
Little Hoover Commission last year that there is an expectation that we will do a midterm update to the Scoping Plan. As you know, we just did our first update to the Scoping Plan as a Five-Year Plan. But as part of the effort to produce a more clearly coherent integrated energy plan for California, the vehicle for doing that is going to be the AB 32 Scoping Plan, because it's come to be seen as the most comprehensive document that the State has that articulates the path that we're on with respect to all the things that effect climate. And it also reflects a policy which this administration has reinforced in a number of different ways that while energy security, energy reliability, affordability, et cetera, are all necessary elements for our energy policy, that the overarching metric for our success is greenhouse gas emissions.

So there is a commitment on the part of all of the agencies that deal with these topics to be part of the overall plan for moving forward to make our state as resilient and as progressive as we can be with respect to the climate goals. So that's one fact.

Another fact I think is that we want to make sure that whatever target we set is science based and is also one that is consistent with international efforts, because California, despite the fact again that the U.S.
government has not been able to pass legislation in this area, clearly the President is determined to move forward. And he's already made an announcement in advance as to what he thinks the U.S. target should be in terms of our position with international negotiations. So whatever it is we do here in California needs to be cognizant of our role in all of these other proceedings as well.

In terms of timing, I think the hope is that next year there could be legislation, whether it's free-standing legislation or through the budget process or both because these things sometimes can go in both directions. But we're going to have to start work very, very quickly on whatever it is.

And so there's going to be some intensive conversations going on I think within the Governor's office and between the Governor and legislative leadership about how to tee up these various pieces. But I think there is a general sense that this coming year will be a year of action on this front.

So other than that, I get the same question that you just asked me all the time. And you know, I think we can sort of see some -- we can see some pluses and minuses of different approaches ranging from legislators who would like to themselves set the target to people who think they should just put in a very simple amendment to AB 32 that
says do more, you know. And ARB, you go figure it out and tell us what the answer is. And so I don't think we know for sure yet how that will all play out.

But I think there is a general sense that following on with what Ms. Gress just said, we do have a new Legislature, particularly a new assembly. They want to own this program. They know it's big. They know it's important. They know it's a hallmark of California, and they want to be part of whatever is happening. And they should be. As a co-equal branch of government, they should be.

So it's really just a question I think of how best to engage them to the extent that they are interested and have time. And it may well be that we'll see both sort of a generic target setting and then some -- a package of other legislation that would deal with some of the specific areas that we are really just beginning to tackle in a comprehensive way in the updated Scoping Plan, including agriculture and water.

We focus a lot on electricity and transportation, not that we have all the answers there. But we're way farther along in terms of the analytical work and the actions in those areas than we are in the natural resources side, for example, which we also know we need to be dealing with. So a lot of thinking to be done.
And it's hard, as you well know, with a Board that meets once a month and has actions that we have to take to sort of engage in the planning of all of this at the Board level, but I know our staff is doing a lot of thinking about these issues and really welcomes input and engagement with the Board. So we should think about what sorts of workshops and other activities we should be doing to help make sure that we've had an opportunity to hear the thoughts of all the Board members on these ideas as well.

BOARD MEMBER SPERLING: I would just comment that one level down where we're operating below the Legislature and the Governor, every one of these programs, there is a huge effort that's going to have to go take place for us in terms of what do we do with LCFS, what do we do with the Cap and Trade Program, you know, and some of these other programs as well as agriculture.

CHAIRPERSON NICHOLS: We just implement. Governor Schwarzenegger used to always say when I appeared with him at events around climate, "I get to do the fun stuff. I sign the big legislation. She has to actually go implement it." That means all of you, not just me.

BOARD MEMBER SPERLING: That's my point.

CHAIRPERSON NICHOLS: Yes.

BOARD MEMBER MITCHELL: I just want to recognize
Ms. Gress and the wonderful work she does and the wonderful work your staff does. For the four of us that were confirmed last year by the Senate and we got a really wonderful opportunity to work with Jennifer over a period of time and we appreciate all that you did for us to help us get confirmed and to learn all about the programs that ARB does.

And another comment is that we note that there is a third of the Legislature that's coming in is brand-new. And many of them came from local government. I was in the hotel lobby last night, and six people came up to me and said, "Hi." You know, I knew them from local government activities. So I think that as we work on greenhouse gas reduction, you know, we want that start from local government and go up. So I think we have some good opportunities here with our new legislators.

CHAIRPERSON NICHOLS: Yes. I think this is a great opportunity to take advantage of our local government Board members when it comes to helping to educate and build relationships with the Legislature. And we will definitely draft you into service and take advantage of that history and background that you have.

Any other questions? Comments?

We had nobody signed up to talk on this item. So if not, we'll thank you for a really good year. Thanks to
all of you. Thanks for your hard work. This is a group that really is a hard working group, but they somehow managed to have fun, too. It's a good model for all of us.

CHAIRPERSON NICHOLS: The last item on our agenda is one that everybody will be quite familiar with, which is the Truck and Bus Regulation -- oh, no, field studies. I missed it. Let's hear the staff report on the California Air Quality Field Studies and new science that's been coming out of these studies. Apologize for having skipped over this.

While the staff are assembling here, this is just an informational report. But it's one that again I think is worth updating ourselves on here because it builds on a long history of doing this type of atmospheric work in partnership with the local air districts and other agencies. And it reflects once again the importance of this kind of science for the development of our programs.

I can take just a minute to reflect that I was in India last week. I was there as a member of a dialogue on climate that has been going on for some years but I'm new to. It was a very exciting time to be in India because I was there when the President of the United States and the Chinese Premier made their joint announcement about the climate targets. So needless to say, the Indians were
quite excited about this and quite concerned about what it meant for them and for next stages in the international climate process.

But as part of my time there, since I knew I was going to have a day maybe to do some other work in New Delhi, I met with the Ministry of Environment and the Climate in the new Modi government and had an amazing conversation about the need they have for data in order to build their air quality program.

While I was there, we also released a report that the Air Resources Board was a party to that we did in conjunction with Dr. Patori's organization, the Terry Institute, with the Scripps Institute, our old friend Dr. Ramanathan. The three of us were there unveiling this report. And the number one recommendation of the report was to expand and improve the air quality monitoring network in India because it is so considered to be so unreliable and so weak in terms of its ability to be used for the source attribution, for designing programs, and so forth.

I found myself in a meeting with this minister who was saying, okay, I want California to help us. We want you to work with our staff. We want within 90 days a recommendation on what we should be doing. All of a sudden, I felt I had been converted into a member of the
Indian Air Pollution Control Agency. But in fact, we are
now in a position where fortunately with help and some
funding support I believe both from private foundations
and from the U.S. government, we are going to be asked to
be involved in a pretty interesting effort to design a new
state-of-the-art cost-effective air quality monitoring
system in this India. And all of that builds on the work
that our staff has done in this area. So hopefully that's
a good build up to a report from the head of our Research
Program and all.

Did you have any introductions on this one, Mr.
Corey?

DEPUTY EXECUTIVE OFFICER COREY: Well, just I
think they teed it up well. I think we can go right to
the staff presentation.

CHAIRPERSON NICHOLS: Okay. Great.
(Thereupon an overhead presentation was
presented as follows.)

MANAGER MC CAULEY: Thank you, Mr. Corey.
Good morning, Chairman Nichols and members of the
Board.

This morning, I will provide an overview of how
air quality field studies provide important scientific
data to support a variety of air quality and climate
programs.
MANAGER MC CAULEY: For over three decades, the Air Resources Board has developed and participated in multiple air quality field studies that have helped inform the design of successful strategies that improve the air quality in California.

Field studies have examined atmospheric processes, emissions, and air quality at the statewide, regional, and local levels. Regional studies have focused on ozone and particulate matter pollution. At the local level, we have looked at the benefit of our programs in individual communities highly impacted by air pollution. Most recently, we have partnered with other agencies on statewide climate-related efforts.

MANAGER MC CAULEY: Air quality field studies can be designed to meet a number of different objectives. A fundamental goal of most field studies is to improve understanding of how the chemical and physical processes that form and disburse air pollution. However, field studies can also be designed to address specific questions about the nature of air pollution problems whether at the local, regional, or statewide level. Another aspect of field studies can be to collect data for use in assessing the relative effectiveness of air
pollution reduction strategies.

Lastly, scientific data collected in field studies, combined with ongoing air quality monitoring and emissions tracking, can be used in air quality modeling to help determine the magnitude of emission reductions needed to meet air quality standards.

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MANAGER MC CAULEY: California's air quality field studies have evolved and expanded over the last three decades. In the 1980s and 1990s, ARB was able to build on previous research to design field studies needed to develop effective State Implementation Plans to meet the federal ozone standards. These studies included the Southern California Ozone Study or SCOS 97. As the health impacts of particulate matter became more clear, field studies to examine the sources and formation processes of particulate matter were conducted. The particulate matter studies initially focused on PM10 and later incorporated PM 2.5 as new air quality standards were adopted.

As you know from the recent Mega Cities presentation at the July Board meeting, we are now participating in field studies which seek to answer important climate change questions.

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MANAGER MC CAULEY: The work that has been done
in California could not have been accomplished without partner agencies. The local air quality districts play key rolls in field studies in their jurisdiction. Federal agencies such as the National Oceanic and Atmospheric Administration, the National Aeronautics and Space Administration, the US Navy, and U.S. EPA share our need to understand the atmosphere, and their efforts in the state have been vital.

The University of California and other universities also play an important role in our air quality research program. Over the years, funding for air quality studies has been provided by a combination of sources, including federal, state, and local agencies and affected regions.

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MANAGER MC CAULEY: California has one of the most extensive networks of ongoing air quality monitoring stations in the country. The network has documented progress towards attainment of other air quality standards and changes in atmospheric chemistry. Field studies can enhance the routine network by using instrumented air craft, tall towers with monitoring equipment, along with radar, lidar, and satellites.

Data collected with these tools helps to characterize the influence of air pollution high above
ground level and on the air quality in communities. Expanded networks of monitoring and meteorological stations provide information on spacial variability of air pollution within a region.

Collection of data on compounds not measured by our routine network help improve understanding of atmospheric chemistry and the nature of air pollution in California.

In addition, field studies help identify daily variations in emissions, which allows us to more effectively model specific pollution episodes.

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MANAGER MC CAULEY: As I mentioned earlier, California's field studies can be local, regional, or statewide in nature. Now let's focus on regional field studies for a moment.

These studies are designed to understand how the interaction between the specific mix of emissions sources, geography, and meteorological characteristics of a region contribute to air pollution problems. There are two distinct study regions in California, central California and southern California. While there are commonalities between the two, the differences are great enough to require focused studies for each. The scope of the study regions is designed to incorporate both upwind and
downwind relationships among California's air pollution control districts, as well as a portion of the Pacific Ocean.

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MANAGER MC CAULEY: This map illustrates the two major study areas. The Central California study area includes the Sacramento region, the San Joaquin Valley, and the San Francisco Bay Area. It also includes the adjacent mountain counties. The Southern California study area includes the South Coast, San Diego, and downwind desert areas.

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MANAGER MC CAULEY: One of the major priorities of California's field studies has been to collect new scientific data needed to develop State Implementation Plans for ozone and particulate matter air quality standards. As emissions in California are reduced over time, we see lower ozone and PM levels at monitoring stations, as well as changes in the atmospheric chemistry. This is one reason why it's been important to do successive studies over several decades. The findings from earlier studies provide a foundation to build upon and better understand and reflect the benefits of our programs as they are implemented. Findings from multiple studies over the years have improved California's air
quality modeling and supported SIP strategy development.

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MANAGER MC CAULEY: Now let's take a look at field study findings which have helped ARB address our two biggest air pollution problems: Ozone and particulate matter.

First, let's look at key ozone findings.

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MANAGER MC CAULEY: The atmospheric chemistry which forms ozone is complex, and our understanding of these processes has greatly improved. The foundation of current and upcoming State Implementation Plans is a body of science that gives us a solid understanding of the roll of VOC and NOx in ozone formation and the relative effectiveness of reducing each. Early field studies in California led ARB to recognize that reductions in both VOCs and NOx were needed.

Subsequent field studies occurring about a decade apart documented changes in atmospheric composition due to California's air pollution control efforts. The field studies identified some areas of the state where NOx control is especially important relative to VOCs. Current air quality modeling indicates that large NOx reductions will be essential to meet ozone standards in the coming decades, although some ongoing VOC reductions will also be
In addition to exploring the relative role of NOx and VOC in ozone formation, the specialized measurements collected as part of California's field studies have also looked at how nighttime atmospheric chemistry impacts daytime ozone levels, as well as how pollutants aloft influence ozone levels on the ground. This information has been incorporated into the air quality modeling done for California's SIPs.

The next two slides discuss some additional finding for San Joaquin Valley and the South Coast air basins.

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MANAGER MC CAULEY: In the San Joaquin Valley, while the predominant air flow during the ozone seasons moves north to south, we've also learned there are complex wind patterns creating a mechanism for circulating pollutants throughout the valley. As a result, high ozone concentrations can occur in many locations throughout the Central Valley.

Another important finding resulted from the study of biogenic emissions in the region. ARB has funded several studies to look at the VOCs emitted by different types of vegetation and the magnitude of these biogenic VOCs in the San Joaquin Valley. These studies found that
the presence large biogenic emissions tempers the impact of VOC controls from anthropogenic low sources. Field studies have also provided enhanced data for air quality modeling that has shown that ozone reductions in the San Joaquin Valley reduce ozone in downwind mountain areas, including national parks.

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MANAGER MC CAULEY: Regional field studies in the South Coast air basin have provided insights into the atmospheric chemistry and physical processes that impact ozone pollution levels.

One key finding is that a lot of recirculation of pollution in the air basin contributed to episode buildup. Another finding is that VOC reductions are relatively more effective in the South Coast compared to the San Joaquin Valley due to lower biogenic emissions.

With respect to air pollution transport, data and air quality modeling show that ozone reductions in the South Coast reduce ozone levels downwind in San Diego, Ventura, and desert areas.

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MANAGER MC CAULEY: Now let's look at how field studies influenced our particulate matter programs. In this presentation, I will concentrate on PM2.5, or fine particulate matter.
MANAGER MC CAULEY: In both central and southern California, the PM 2.5 problem is the result of both directly emitted PM 2.5 and the secondary formation of PM 2.5 in the atmosphere. Secondary PM 2.5 is primarily in the form of ammonium nitrate. The buildup of ammonium nitrate on stagnant days make it the biggest contributor to regional PM 2.5.

Given the magnitude of the ammonium nitrate on days that violate air quality standards, controlling NOx is the most effective approach for reducing PM 2.5 on a regional basis. However, reductions in directly emitted PM 2.5 are also necessary to attain air quality standards.

MANAGER MC CAULEY: Increased density and frequency of air quality measurements during field studies in Central California were designed to capture the multi-day episodes, which in the San Joaquin Valley allow PM 2.5 buildup in the both urban and rural areas. In some cases, the valley can experience multi-week episodes.

The emissions contributing to the valley's PM 2.5 problem include sources of NOx and directly emitted PM 2.5. Field studies identified that residential wood smoke and commercial cooking activities add to regional PM 2.5 in urban areas and further controls on these sources are
included in the Valley Air District's Air Quality Plan. Residential wood burning controls have also been an important element of PM 2.5 strategies in both the Bay Area and Sacramento based on the contribution to exceedances of air quality standards.

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MANAGER MC CAULEY: Southern California's PM 2.5 problem differs from the Central Valley's in a number of ways. For example, high PM 2.5 days are not limited to cold weather periods.

Another difference between the two regions is that in the past ammonium sulfate was more prevalent in coastal areas than in other areas of the state. Controls which targeted sulfur associated with shipping were instituted and our routine monitoring sites have documented a dramatic reduction in PM 2.5 sulfate.

Measurements during CALNEXT aboard a research vessel confirmed much reduced sulfur in a ship's exhaust plume.

Local field studies have also shown that truck rules targeting diesel particulate matter pollution have also resulted in a significant reduction in PM 2.5 levels near the ports.

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MANAGER MC CAULEY: This presentation has
highlighted the general findings of past air quality field studies. These studies have enhanced air quality modeling, provided supplemental monitoring data, and pollutant speciation, and helped improve emission inventories.

The 2015-2016 SIP development process will build on this foundational work. The upcoming SIP process will also include substantial new technical work, including assessment of current air quality data and trends, new air quality modeling, and updates to the emission inventory and future forecasts.

The combination of these analyses will provide a scientific weight of evidence evaluation as part of the attainment demonstration for the air quality standards.

Today's presentation is a prelude to further public discussion of the data and analyses that will be prepared to support development of the upcoming SIPs for both ozone and PM 2.5. As ARB staff works with air districts on these SIPs, the scientific and technical information to be used will be discussed in future public workshops and other public meetings.

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MANAGER MC CAULEY: Now let's turn to climate studies.

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MANAGER MC CAULEY: CALNEXT 2010 was the first major field study in California to address both air quality and climate questions. Dozens of research groups participated, taking advantage of monitoring super sites in Bakersfield and Pasadena and research vessel in multiple aircraft.

So far, over 100 peer reviewed publications have come out of CALNEXT. The data collected will improve our inventories of air pollutants, precursors, and greenhouses gases and equally important advance our understanding of the chemistry which forms pollution. The multiple aircraft provided a dense database of ozone levels above the surface.

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MANAGER MC CAULEY: While ARB has long recognized the adverse health effects of black carbon, black carbon also has a significant impact on climate and is considered a short-lived climate pollutant.

A study conducted by Scripps showed that four decades of particulate matter controls have reduced black carbon levels by 90 percent in California. Thus, efforts to improve air quality have also had benefits in combating climate warming.

Current research is investigating brown carbon, which primarily comes from biomass burning and has
recently been recognized as a short-lived climate pollutant.

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MANAGER MC CAULEY: One important aspect of the field study is to assess the benefits of our air quality programs. Targeted studies are tracking the benefits of our diesel rules on reducing localized exposure. Currently, we are funding studies which examine emissions from diesel trucks and use the mobile platform to monitor to confirm that port regulations are benefiting communities near the ports.

In the past few years, a partnership with NASA has provided satellite data to help validate our inventories for NOx and methane. We are also collaborating on studies to look at the contribution of Asian transport to ozone levels in California.

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MANAGER MC CAULEY: In summary, the success of our programs rests on a strong scientific foundation. Field studies provide essential scientific data for development of SIPs, climate policies, and local community strategies. And as in the past, partnerships and collaborations will continue to be crucial to future air quality and climate field studies. Thank you.

CHAIRPERSON NICHOLS: Thank you.
Questions or comments? Dr. Balmes.

BOARD MEMBER Balmes: I just want to thank the staff for all the work they've been doing for many years in this regard.

As a user of some of the data generated by field studies that the Research Division has played a major role in, air pollution research wouldn't be the same without the efforts of CARB staff over the years. So I greatly appreciate all that you've done for many years, and I appreciate this report.

I hope my fellow Board members appreciate the amount of effort that's required and the value of the data that's been generated and will continue to be generated by this kind of work.

CHAIRPERSON NICHOLS: Thank you.

Any other -- yes, Ms. Berg.

BOARD MEMBER BERG: I, too, want to echo Dr. Balmes's sediment. I had a lively discussion with staff, mainly because I felt that the report did not do the department justice. We all know that we need to keep working on lowering VOCs and NOx and the work that is behind those statements is tremendous. And I wanted to make sure that we saw some of those efforts. So my Board briefing really was focused on that side of it.

I think one question I will have for you is
looking at the field studies, are you seeing any
indication of any new trends within the atmospheric
science that is going to lead us into how to think about
the SIPs differently?

ASSISTANT DIVISION CHIEF MAGLIANO: This is Karen
Magliano, Assistant Chief of the Air Quality Planning and
Science Division.

I think what we have really seen through that
incremental process that we've had through the field
studies has improved our understanding as we've been
implementing our control programs how has that evolution
of VOC and NOx programs really changed as we've been
implementing our programs. We have seen for years that
we've really needed a multi-pollutant strategy for both
VOCs and NOx to help us improve air quality.

But over the long term, I think we're finding
that more and more we're going to need those very
substantial NOx reductions to help us achieve the ozone
standards throughout the state. And those field studies
have really helped us understand both the spacial extent
over which we need those reductions and the magnitude of
those reductions. But they've also helped us understand
better just where we potentially need to especially
benefit from the VOC controls. And as we move forward in
our upcoming SIP development process, I think we'll have a
much better understanding about how we can better look at the need for statewide programs versus regionally focused programs. And that will be extremely beneficial.

BOARD MEMBER BERG: Thank you very much.

CHAIRPERSON NICHOLS: Yes, Mrs. Riordan.

BOARD MEMBER RIORDAN: I want to thank the staff also because the work that you're doing at the very most local level -- as you know, I had the opportunity to travel along the 710 freeway and really understand the incredible work that you're doing at such a finite level and what that means to us in the future as we develop our plans to somewhat mitigate the effects of air pollution.

CHAIRPERSON NICHOLS: You weren't just traveling. You were monitoring.

BOARD MEMBER RIORDAN: I was monitoring, holding that equipment in my lap.

CHAIRPERSON NICHOLS: The picture is very dramatic.

BOARD MEMBER RIORDAN: On the other side, on a much bigger side, it's so important what you're doing because it makes a difference between the air basins. And I represent on a local Board a receptor basin where much of the pollution travels through the passes and other modes from the South Coast and it really makes us understand why we have to work with our neighbors to work
together, Ms. Mitchell, to work together to help and as we
do with the San Joaquin and periodically the Mohave has
had a little extra money to be able to share in the Carl
Moyer Program with those two districts because it's a
great help to us if we allow for the cleanup of air
pollution in the districts next to us who are affecting
our air quality.

So it's terrific to have the bigger scope of
measurements, the atmospheric. So you go from a freeway
up into the atmosphere, but we're doing it all. And I
really commend the staff for their innovation and what
we've been able to do. And we ought to be able to share
with India and their interests all of this, because I
think once we can share that information, they should be
able to easily replicate it.

CHAIRPERSON NICHOLS: Oh, yes. We're dealing
with very sophisticated educated people. It's not like we
have to sort of teach them the basics. It's more a
question of sort of helping to think through based on what
we've learned from these experiences ways too shortcut it
and do it more cost effectively maybe than some of the
things -- they don't have 40 years to build out a program
or many millions of dollars.

BOARD MEMBER RIORDAN: So we should send one of
our clever cars over there.
CHAIRPERSON NICHOLS: That would be good. Yes.

Dr. Balmes.

BOARD MEMBER BALMES: In my enthusiasm for praising the staff, I forgot to ask my question, which is with regard to ultra fine particles. I asked this in my briefing. But for the Board as a whole, what are we doing with regard to ultra fines since that's an area of important toxicological and epidemiologic concern. And I think down the road we may have to be dealing with regulating ultra fines.

RESEARCH DIVISION CHIEF CROES: Ultra fine particles are a subset of PM 2.5 because they can penetrate deeper into the lung and cross over into the blood strains. There's these various hypotheses they have differential health effects from the larger particles that compose PM 2.5. So we've been setting this for the past five years. Basically, a lot of our emissions testing program is looking at the effect of different technologies. And I think the good news is that things like the diesel particulate filters reduce ultra fine particles by a couple orders of magnitude.

We're also looking at other potential sources of ultra fines, as well as near-roadway exposures. But most importantly, we're including it in our health studies. So for instance, the Board approved last year a major...
epidemiological study to look at the effect of ultra fine separate from PM 2.5 across the state. This is the first major study of its kind. We hope to have results in two and a half or three years.

CHAIRPERSON NICHOLS: Yes, Dr. Sherriffs.

BOARD MEMBER SHERRIFFS: I don't think I have a question here, but just a reminder. And the Board understands how important supporting the science is to getting our work done. And just thinking of a recent example in the Central Valley, which with my inferiority complex of the Central Valley, I hesitate to bring up fireplaces when we have things like international, global trade and the ports and these giant ships and that kind of thing. But, you know, it's the science that shows us how important it is to have a rule in the Central Valley that has put an emission standard at 20 micrograms, which before earlier this year it was 30.

And we're talking about three to five tons of primary PM 2.5 being reduced through this. And it's the science that drives adopting very difficult regulations like that. And then also the science that supports, because one of the Board members suggested perhaps we should have an exception during the holidays so we can have a day off on Thanksgiving and Christmas. And the response of the Board, people recognize this might
administratively have some difficulties. But, in fact, it was the science and the health that drove not just the consensus but the overwhelming, no, we can't do that. We can't go backwards like that. And again, that wouldn't happen if we didn't have the science to back up the administrative things that we're doing, the regulation. So thank you.

CHAIRPERSON NICHOLS: I agree. I just would underscore the point that there is a direct connection between what you have been wrestling with at the local Board level in terms of the impacts of fireplaces and stoves and the work that I was referring to on the international level, which is that California's ability and our credibility to even talk about these issues is totally based on the fact that we have been so successful in bringing down harmful levels of air pollution that hurt people's health and doing it in a way that has not hurt our economy. That is what other countries are looking to emulate. So that's what we have to continue to be able to refer to if we're going to keep on doing this work.

Okay. I think that's it. Thank you very much. Appreciate the conversation and the update. And I think you've heard from all of us a resounding support for continuing this work. I know it's sometimes challenging when the big money always goes to implementation, but we
try to put together enough to keep the science programs not only alive but robust. These guys do a very good job of producing science.

Last, but not least, we return to the truck and bus regulation, which is back before us because it needs final adoption.

Mr. Corey, will you introduce this item?

DEPUTY EXECUTIVE OFFICER COREY: Yes, Chairman.

At the Board hearing in April this year, the Board approved adoption of proposed amendments to the truck and bus regulation. The amendments were designed to provide lower cost compliance options and greater compliance flexibility to truck owners to better ensure the emission benefits of the regulation to be realized.

Based on Board direction at the April hearing, staff developed modified regulatory language which was made available for public comment. Following the completion of that public process, staff prepared the final regulation order for the amendments, which is being presented to the Board today for final adoption.

Staff also prepared written responses to additional comments which raised environmental issues and were received during a subsequent 15-day comment period. Staff proposes the Board approve these responses as part of today's Resolution.
I'd now like to introduce Beth White of the Mobile Source Control Division will now give the staff presentation. Beth.

(Thereupon an overhead presentation was presented as follows.)

MANAGER WHITE: Thank you.

Good morning, Chairman Nichols and members of the Board.

Today, I will be presenting the final regulation order for the amendments to the truck and bus regulation. The amendments you approved in April provide fleet owners more flexibility to comply with the regulation, while better preserving emission benefits the regulation was designed to achieve.

This item is being presented for final action since there were several changes requested at the April hearing that required modified regulatory language. Those changes are now reflected in the final regulation order before you.

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MANAGER WHITE: As you recall the Board hearing in April of this year, the Board approved for adoption staff's proposed amendments to the regulation as set forth in Appendix A to the Initial Statement of Reasons released to the public on March 5, 2014.
The Board directed the Executive Officer to make modified regulatory language that reflected the changes directed by the Board and any other conforming modification available for public comment for a period of at least 15 days. The Executive Officer was directed to take final action to adopt the finalized regulation after addressing all appropriate modifications or to present the final regulation order to the Board for final consideration.

The Executive Officer concluded that presenting the final regulation to the Board for final adoption was the most appropriate action, given the changes requested by the Board at the hearing and the importance of this program.

Modified regulatory language and supporting documentation were circulated to two 15-day public comment periods: From July 1, 2014, to July 17, 2014, and September 12, 2014, to September 29, 2014.

Now staff has completed the final regulation order, which reflects all changes directed by the Board at the April 2014 hearing and other conforming modifications.

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MANAGER WHITE: I will briefly summarize the modifications made available for the two 15-day comment periods. The modifications were described in detail in...
each of the notices issued for those modifications.

They include: A change to the compliance date for the second truck in a small fleet from January 1, 2016, to January 1, 2017, to reflect the Board decision to change the compliance date.

A change to allow certain cattle livestock trucks to qualify for the specialty agricultural vehicle extension and allow others to operate under the extension for two cattle seasons each year as directed by the Board at the hearing.

Modifications to the staff proposal of the newly added economic hardship extension per the Board's direction at the April 2014 hearing. This includes changing the proposed extension deadline from January 1, 2018, to January 1, 2017, and requiring that the vehicle meet the model year schedule upgrade requirements by 2017 instead of requiring the proposed upgrade to a 2010 model year equivalent engine.

In addition, the Board directed staff to make changes to reduce the potential for fraud and abuse.

Lastly, there were other minor modifications that consist primarily of definition and provision clarifications and other minor changes to provide consistency and improve readability.

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MANAGER WHITE: The environmental analysis included in the staff report released on March 5, 2014, concluded that implementation of the amendments would not result in any adverse environmental impacts. The modifications made available for 15-day comment do not alter that conclusion so no revisions to the environmental analysis or recirculation was required.

As described in the air quality section of the staff report, emissions of diesel PM, NOx, and other criteria pollutants will continue to decline from today's levels as a result of the amended truck and bus regulation.

The 15-day modifications do not alter this conclusion. Using the base line of existing environmental conditions, the regulation, as amended, will lead to continued reductions in pollutants and will continue to improve air quality.

As described in the staff report, the amendments are projected to result in a near-term delay in achieving some air quality benefits initially projected for the regulation in 2010. That 2010 projection was based on the assumption of full compliance, which is no longer an accurate projection of what is actually occurring.

Of all the modifications made available for 15-day comment, only the extended compliance date for the
second truck of the small fleet option for 2016 to 2017 could alter the quantified emission benefits included in the staff report. As explained at the April 2014 hearing, staff's conservative estimate is a change of .4 tons per day of PM and five tons per day of NOx in the year 2016 only. This is a conservative estimate because staff expects this modification to be partially offset by newly created incentive funding opportunities.

Despite the small change in 2016, the regulation as amended is projected to still achieve the same NOx benefits in 2018 and the same PM benefits in 2020. The regulation as amended will continue to achieve State Implementation Plan commitments necessary to meet federal air quality standards and reduce exposure to diesel PM to meet the state's goals established in the Diesel Risk Reduction Plan.

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MANAGER WHITE: During the initial 45-day comment period, ARB received three comment letters that raised environmental issues related to the proposed amendments. Written responses to those environmental issues were approved by the Board in April of this year.

Although ARB did not reopen the comment period on the environmental analysis when the modified regulatory language was circulated for the subsequent 15-day comment
period, one comment letter submitted in July raised additional environmental issues. The primary issue raised was that staff needed to conduct additional environmental analyses for the modifications. Staff prepared written responses to the new issues raised in the July 2014 comment letter. Those written responses, along with revised written responses to the comments submitted during the 45-day period, are being presented to the Board for approval as part of the Resolution before you to comply with the requirements of ARB regulations implementing the California Environmental Quality Act.

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MANAGER WHITE: In closing, we recommend that the Board approve Resolution 14-41, which reaffirms the finding that the amendments do not result in any adverse environmental impacts, approves the written responses to environmental comments set forth in Attachment B to the Resolution and adopts the final regulation order set forth in Attachment A to the Resolution.

CHAIRPERSON NICHOLS: Thank you.

We had no witnesses who signed up to speak on this item, so I can close the record at this point and move to any Board discussion.

If we do receive any written or oral comments, they will not be accepted at this point. This is it.
This is the final action on this particular rule. It has
gone for a long time. But this bifurcated process seems
to be the best and clearest way to comply with our
obligations under CEQA.

The findings in response to the environmental and
the comments on the environmental analysis and the
response on the comments are all part of this single
Resolution. I think that's considered to be acceptable.
And I think that the responses are very thorough.

Are there any questions that any of the Board
members have at this point?

Comment? Yes, John.

BOARD MEMBER BALMES: I was going to move we
accept the staff recommendation.

CHAIRPERSON NICHOLS: I accept that motion. Is
there a second?

BOARD MEMBER RIORDAN: Second.

BOARD MEMBER BERG: Second.

CHAIRPERSON NICHOLS: I think Mr. De La Torre
wanted to comment before we take a vote.

BOARD MEMBER DE LA TORRE: Thank you. If you'll
recall, I voted no on this item first time around. I'm
going to be voting yes today, not because I changed my
mind, but because I believe that what we are doing here
today does meet the requirements under CEQA, that staff
has done all the proper due diligence regarding the law. And so, therefore, I'm going to be supporting this for the procedural effort that was made, not for the original issue, which I still remain opposed.

CHAIRPERSON NICHOLS: Thank you.

In that case, I think we can do our usual voice vote. So I'll ask all in favor please to signify by saying aye.

(Unanimous aye vote.)

CHAIRPERSON NICHOLS: Opposed?

Any abstentions?

Very good. I'm very glad to have this done. I'm sure the staff is even more glad to know this is now a rulemaking.

We have a couple other things we have to do before we adjourn. The first one is to take public comment. So we had one person sign up for the public comment period. And that's our old friend Randall Friedman who is here to talk about electric vehicle charging.

MR. FRIEDMAN: Good morning, Chairman Nichols, Board members.

I'm here today as an individual. It's been a year since I spoke with you about public charging loads for EVs. I wish I could say things are getting better,
but frankly, I think they're getting worse. This in contrast to the glowing reports we get about exploding EV sales with a high visibility of marking the sale of the 100,000th plug-in vehicle car recently in California.

Everybody loves a story about great sales performance. But what happens after the happy owner leaves the lot and wants to use the car? While there are more public chargers, the biggest issues involve whether they work and the owner can count on its availability.

For example, the L3 charger at U.C. Davis in the city of Vacaville have been out for months. Both of these chargers were given to the entities. It seems that once the initial enthusiasm of getting it wore off, there is little interest in the reality of maintenance.

How challenging is this landscape? I'm sad to say in the last month on the SF Bay Area Leaf Owners Facebook group, there have been several people regretfully saying they have to give up their EV. They are Bay Area commuters who need to charge and can no longer count on finding a charger available. These are energetic early chargers who are quite sad about this but they simply can't make it work.

Further, in the spirit of discussions about this subject, the issue of chargers for multi-family homes keeps coming up. Are EVs going to be relegated only to
owners of single-family homes which hardly seem the blueprint for smart growth development.

California still is still woefully behind in public charging. While there is money to place chargers, there doesn't appear to be the follow-up to their maintenance. Moreover, we still lack a systemic approach to a comprehensive charging network to ensure the mobility we expect when we purchase a car. Once again, just look at metro, Seattle or Portland and major highway corridors in Washington and Oregon, for example.

Governor Brown wants one and a half million EVs in California by 2025. Numbers like this are a base line necessity if we are going to meet increasingly difficult to obtain climate change goals. Frankly, we will never get there until we figure out public charging.

I continue to fear and dark sliding and dark clouds ahead when many of these 100,000 plug-in owners try to plug in and stories circulate on social networks about theirs EVs turn back in. It's already starting to happen. Just check the social networks for yours.

I would like to think there are creative solutions out there. Maybe we could recognize that greenhouse gas reductions of public chargers, especially solar-powered chargers like Vacaville and U.C. Davis and use some cap and trade money to ensure this infant network
survives and somehow create incentives for institutions like U.C. Davis and Vacaville that have their chargers operational to the growing numbers of EV owners. For both air and water quality considerations, electrified transportation must be our future, but we have first have to solve this problem of plug-ins first.

CHAIRPERSON NICHOLS: Thank you. I appreciate the comment. And there's much in it that I agree with, actually.

I would really appreciate it if you have a written version of it, if you would submit it to staff because I think we should work on a response to it. We don't always respond to comments, but this is one of those situations where I feel like some sort of a formal reply would be possibly useful. So if you agree with that, would you --

MR. FRIEDMAN: I would be happy to share some of the discussions on the social media. There's been quite some spirited discussions. I don't know if that's something that staff routinely follows, but there is a lot of information -- there is a lot of very dedicated people out there trying to make their EVs work. And yet, it's really sad when someone throws in the towel. And these are the people who should be --

CHAIRPERSON NICHOLS: I think these anecdotes,
collecting them is very useful. And again, I'd like to take advantage of the work you've already done. That will help us, too.

MR. FRIEDMAN: Certainly. Thank you.

CHAIRPERSON NICHOLS: Thank you. Okay. We now have a pleasant but sad occasion. Not sad really. It's mostly happy. But it's always sad when we recognize that someone who has meant a great deal to us is moving on, even if we know that they're doing it for very good reasons and are looking forward to the next interesting phase, still, we get to say good buy.

So we do have a Resolution that marks the retirement of the last of the old cars of our senior Deputies at ARB, our friend, Lynn Terry, who probably I would say overall has managed to avoid having major controversial items in front of the Board. I don't know how much this was part of a deliberate strategy and how much it reflects on the fact that she has a unique gift for resolving problems. Her ability to defuse difficult situations is indeed legendary, but so also has been her leadership in implementing some of the most complicated and difficult programs that ARB has.

While, you know, we brag about and deservedly so our science and technical chops and all of the great regulations that we've adopted, the meat and potatoes, if
you will, of getting the air cleaned up comes through the Clean Air Act, SIPs, and rules that she has very ably ushered through the process, from local government to EPA approval over a period of years, which we're going to embarrass her by remembering.

We do have an official Board Resolution, and we're also going to adjourn the meeting once we've presented it to her and hopefully embarrassed her a little bit more we'll adjourn and enjoy a little social time as well.

But before we do that, I think I have to actually present this Resolution. I guess I can read it from here and then we can all take a picture. This is fairly long. And it's signed by all of us.

"Whereas, Lynn began her career at ARB in 1985 as an Air Resources Technician II in what was then the Stationary Source Division and quickly moved up the ranks to become, in 1995, an Assistant Executive Officer and then Deputy Executive Officer where she demonstrated her leadership skills and has been a role model for women at ARB ever since.

"Whereas, Lynn has been at the forefront of California's clean air planning since 1992, overseeing the drafting of the first plans under the California Clean Air Act, before turning her attention to implementation of the
Federal Clean Air Act.

"Whereas, Lynn was there in 1994 when ARB approved its first State Implementation Plan under the Clean Air Act amendments of 1990, a plan she was instrumental in developing in record time. Not only did she help write the plan, she helped seal the 17 boxes of documents and load them in a car so they could be delivered to the Environmental Protection Agency by the statutory deadline.

"Whereas, since 1995, Lynn has been responsible for the Board's approval of 181 SIPs, some large, some small, none easy.

"Whereas, ARB has Benefited greatly from Lynn's background as a scientist, her shepherding of ARB's research program and her ability to build policy from science as the basis of ARB's world-renowned programs.

"Whereas, her leadership was crucial to the success of the Central California Ozone Study and the California Regional Particulate Air Quality Study, two of the largest air quality studies ever conducted that have supported the robust science-based air quality programs in the San Joaquin Valley.

Whereas, Lynn's keen intellect, cool head, strategic thinking, scientific perspective, and political skills have been a constant and comforting asset to the
Board and staff, providing a common sense and forward-thinking voice to the Board's deliberation.

"Whereas, just as Lynn's hard work is about to bring a region into compliance with federal air quality standards, the Environmental Protection Agency sets a new even more stringent and sisyphean standard so that her job is never done.

"Whereas, even as the goalposts have moved because of Lynn's hard work, all Californians enjoy cleaner, more healthful air.

"Whereas, Lynn is retiring from ARB in order to enjoy time with her husband and two daughters, Leslie and Kimberly, traveling the world, dancing, and enjoying her hobbies.

"Whereas, Lynn is known for her wonderful infectious, if often loud, laugh, fine taste in shoes, skilled in picking the best restaurants, so that sadly ARB will be quieter, less fashionable, certainly suffer from a lower culinary standard.

"Now, therefore, be it resolved, that the Board expresses its deep appreciation to Lynn Terry for her many years of dedicated service and wishes her a long and happy retirement, cruising the oceans, enjoying the wines and foods of California and the world, playing golf, and otherwise enjoying her leisure.
"Executed at Sacramento, California, this 20th day of November 2014."

And here it is from all of us. I wish it were gold, but you have a gold seal on it. I'm sure you got a place on your wall that just needs this. So Lynn, on behalf of all of us, thank you very much.

(Applause)

CHAIRPERSON NICHOLS: Supervisor Serna unfortunately has been reminded me that we never actually voted on this. It could be that if we don't vote on it, the retirement is ineffective. So may I have --

BOARD MEMBER SERNA: So moved.

BOARD MEMBER BALMES: Second.

CHAIRPERSON NICHOLS: A motion. Second. All in favor?

(Unanimous aye vote.)

CHAIRPERSON NICHOLS: Thank you, Lynn.

We anybody here to take pictures other than -- despite having been reminded by at least five people, I managed to forget to say that we're not done because, Lynn, more people wish to speak about you. So we are delighted to prolong your period of embarrassment here and I think we should start with CAPCOA.

MR. ABBS: Good morning, Chairman Nichols and members of the Board. Alan Abbs, the Air Pollution
Control Officer for Tehama County and also the CAPCOA President.

This is my first official appearance before the Board as the CAPCOA President. It's a bittersweet moment because, despite sometimes air districts asserting that we can do this all by ourselves, the fact is that we couldn't do it without -- we couldn't do what we do without the help of the Air Resources Board, and especially the work that Lynn Terry has done with the air districts over the years.

So CAPCOA thought it was appropriate to provide her with a Resolution as well on her retirement. And I would like to read it.

"Whereas, Lynn Terry has worked at the California Air Resources Board since 1985 where she had, among other duties, responsibilities to develop plans for implementing the California Clean Air Act and the Federal Clean Air Act and;

"Whereas, Lynn Terry has served as the Deputy Executive Officer for the California Air Resources Board since 1997 and has been instrumental in gaining approval of several local and State Implementation Plans, and;

"Whereas, Lynn Terry has worked closely with air districts on environmental justice issues, sustainable communities, and transportation planning programs, and;
"Whereas, Lynn Terry provided valuable assistance to local air districts in interfacing with EPA on potential designations for non-attainment, including directing ARB staff to provide timely and thorough analyses and worked with local air districts on international cross-border air quality efforts with Mexico, and;

"Whereas, Lynn Terry managed programs at ARB on federal transportation conformity analyses, air pollution transport assessment, and mitigation requirements, federal regional Hays plans, development and quantification protocols for reducing greenhouse gas emissions, air quality requirements for planned burns to reduce wildfire risk, emissions inventory development for ARB regulations, and communities air quality assessments.

"Now, therefore be it resolved, that the California Air Pollution Control Officers Association hereby recognizes Lynn Terry for her dedicated service to the cause of clean air in California and expresses the association's appreciation through this Resolution adopted November 17th, 2014.

CHAIRPERSON NICHOLS: Thank you.

(Applause)

CHAIRPERSON NICHOLS: It's an amazing list of accomplishments.
And we have one more. This is from the San Joaquin Valley Air District, Shamir Sheikh.

MR. SHEIKH: Thank you very much, Madam Chair, for extending the time period for allowing us to make these comments.

We would be remiss as a region to not speak on behalf of the San Joaquin Valley for all the hard work that Lynn Terry has done for the valley. Sayed Sadredin, our Executive Director, expresses deep regret for not being here, given his high level of respect and years of working with Lynn on various issues. She's been critical in so many ways I can't better capture what was said earlier in the prior Resolutions. I don't want to preempt some comments that Board Members Sherriffs is going to share in just a little bit.

One of the things we really respect about Lynn and we know that moving forward given the excellent ARB team we have in place is going to continue has been her willingness to be really creative in the way that we explore various strategies for dealing with the air quality challenge that we have in the valley. She's gotten to know our stakeholders over the years. She's been very effective at looking for cost effective ways to reduce pollution in a way that has improved the air quality in the San Joaquin Valleys where we have attained,
for example, the PM standard through a lot of that hard work. We're at the verge here of attaining the one-hour ozone standard and continue to make significant air quality progress.

We do have a lot of work left to do. We have very significant air quality challenges. So we do express a lot of regret in seeing Lynn go, from a selfish perspective. As you said earlier, it really is good news overall. But there is a very selfish element here and really expressing that sadness in seeing her go.

But again, we know that there is a strong ARB team in place, through your leadership, through Lynn's leadership in developing that team. We are confident we're going to be able to continue that relationship moving forward.

Good luck, Lynn, in your retirement. Have a great retirement. We know you're not really going to stay away from work, just given your personality. But good luck with that.

CHAIRPERSON NICHOLS: Good luck. Thank you.

That was great.

Dr. Sherriffs, did you have a presentation also or just a remarks?

BOARD MEMBER SHERRIFFS: Yes. I think we want to get some photographs with Shamir and Lynn and myself. But
in a minute.

CHAIRPERSON NICHOLS: Why don't we finish all of our speaking roles and then we can do photo ops.

BOARD MEMBER SHERRIFFS: I can read this and would love to, but the points have been made. The San Joaquin Valley represents some very unique challenges. Everybody talks about the meteorology and geography. But it's unique in terms of poverty and ag and land use and really in terms of culture, which really should probably be the cultures.

And over and over, as I read the whereases, you know, over and over, it's not just the flexibility but, indeed, it is the creativity looking for solutions, the sincerity, the honesty, the hard work, the goal-oriented partnership that Lynn has presented and always looking to find common ground.

And most important, I think it recognizes the commitment to finding the science and the money for the science to make good decisions.

So Lynn, this is the least controversial meeting I've been to since I've been on the Board. I think it's the first time every Board member has been at one of the meetings I've been to. And --

CHAIRPERSON NICHOLS: We're missing one.

BOARD MEMBER SHERRIFFS: It's a brave group.
It's not that they avoid controversy. But here they are all are. And I have to think it's really to recognize your mere 29 years of contributions. And really modeling what it means to be somebody working in the public sector to being a public servant and the best of all of that. So thank you.

CHAIRPERSON NICHOLS: Thank you.

Dr. Balmes.

BOARD MEMBER BALMES: Well, I have to take this opportunity to personally thank Lynn. I started working with her before she became a member of the Board, going way back to accepting an invitation to speak on environmental justice issues at a meeting I was organizing. And I want to say in particular I appreciated your efforts to deal with health disparities of air pollution impacts strongly on environmental justice issues. And I think so highly of your political skills that I was asked by the people putting together the Obama administration who might be a good candidate for Mary's old job as their Division Chief and I suggested you. But in fact, I'm glad that you didn't get the job because I got to continue to work with you here. So I wish you the best in your retirement.

CHAIRPERSON NICHOLS: It's possible that Lynn gets equal time. So okay.
Sandy, did you want to --

BOARD MEMBER BERG: I also would like to take just one moment to say thank you, Lynn. When I started in August of 2004, I honestly had no idea what I was getting into, other than it was such an honor to be asked so I said yes.

My first meeting was a mere four weeks later in September of 2004 in Los Angeles as we were adopting the Pavely greenhouse gas regulation for the vehicles. I had no idea. I was just barely understanding that CARB stood for California Air Resources Board. And so Lynn, I'm positive, was assigned to make sure to meet me at the elevator because she did every morning. And she was assigned to me I'm fairly certain at breaks to make sure that I would come back. And she kept escorting me to assure me that I would be fine. I understood this. I could do it. Get up there. Go, girl. You can handle it.

And then she said to me and I'll never forget this, "And our meetings are not always like this."
Ten years later, I've reminded her several times they're more like this than not.

But you have been just exactly as Chairman Nichols outlined, the role model for all of us, but especially the women. It's been an honor to work with you in every way and we will miss you.
I think I told you that I've been in total denial thinking if I just didn't acknowledge that you were leaving, that maybe it would go away. But I couldn't be happier for you. This is well deserved. Thank you very much for not only your 29 years of service, but your friendship and your help for me over the last ten years. It's been a pleasure. Thanks.

CHAIRPERSON NICHOLS: Great. Excuse me.

Supervisor Roberts.

BOARD MEMBER ROBERTS: I'll be brief. It's a bittersweet moment because Lynn is, first of all, you know, when you've been on this Board for a lot of years, you see a lot of coming and going. And Lynn's been like the stability here for a while. It seems like we had a lot of rookies here now, with all due respect.

But I also appreciate the way Lynn has handled herself and her assignment and has been -- I can't ever remember a time when the answer to a question didn't give me confidence in the full answer and helping me to better understand. So we are going to miss you. I guess we have to break in everybody else for a few more decades and then we'll be okay.

CHAIRPERSON NICHOLS: We'll whip them into shape I'm sure.

BOARD MEMBER ROBERTS: Thank you for your
BOARD MEMBER RIORDAN: Lynn, let me also express my appreciation to you for all these wonderful years. I don't remember when Lynn wasn't here to help us, and that's quite a long time.

But what I think is most important, that little part of the Resolution, we laugh, but there were some 17 big cartoons of SIPs that went to wherever they went to.

DEPUTY EXECUTIVE OFFICER TERRY: They went to Mary.

CHAIRPERSON NICHOLS: Exactly.

BOARD MEMBER RIORDAN: I hope you read every single one.

CHAIRPERSON NICHOLS: Just like I read every page of every Regulation.

BOARD MEMBER RIORDAN: The important thing was that was the first. That was the first. And I think we as Californians ought to be very proud of that and say thank you to Lynn because that was no easy task. And that's why you should have read every page, because it was not an easy task to bring California along, everybody along, and get that together.

So, Lynn, we say thank you for that and you enjoy this retirement.

(Applause)
CHAIRPERSON NICHOLS: I think that may be it for
the official presentation. And we'll just enjoy a little
social time upon adjournment. So we are adjourned. Thank
you everybody.

(Whereupon the Air Resources Board meeting
adjourned at 11:44 AM)
CERTIFICATE OF REPORTER

I, TIFFANY C. KRAFT, a Certified Shorthand Reporter of the State of California, and Registered Professional Reporter, do hereby certify:

That I am a disinterested person herein; that the foregoing hearing was reported in shorthand by me, Tiffany C. Kraft, a Certified Shorthand Reporter of the State of California, and thereafter transcribed into typewriting.

I further certify that I am not of counsel or attorney for any of the parties to said hearing nor in any way interested in the outcome of said hearing.

IN WITNESS WHEREOF, I have hereunto set my hand this 2nd day of December, 2014.

______________________________
TIFFANY C. KRAFT, CSR, RPR
Certified Shorthand Reporter
License No. 12277