Bay Area Regional Collaborative

Meeting Agenda - Final

375 Beale Street
Suite 700
San Francisco, California
94105

Bay Area Regional Collaborative

Friday, May 20, 2022 | **10:05 AM** | **REMOTE (In person option available)**

In light of Governor Newsom's State of Emergency declaration regarding the COVID-19 and in accordance with the recently signed Assembly Bill 361's (Rivas) provisions allowing remote meetings, this meeting will be accessible via webcast, teleconference, and Zoom for all participants.

A Zoom panelist link for meeting participants will be sent separately to committee members.

Meeting attendees may opt to attend in person for public comment and observation at 375 Beale Street, Board room (1st Floor). In-person attendees must adhere to posted public health protocols while in the building.

The meeting webcast will be available at:
https://barc.ca.gov/whats-happening/meetings/live-webcast

Please click the link below to join the webinar:
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Detailed instructions on participating via Zoom are available at:
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Committee members and members of the public participating by Zoom wishing to speak should use the "raise hand" feature or dial "*9". In order to get the full Zoom experience, please make sure your application is up to date.

Members of the public may participate by phone or Zoom or may submit comments by email at info@bayareametro.gov by 5:00 p.m. the day before the scheduled meeting date. Please include the committee or board meeting name in the subject line. Due to the current circumstances there may be limited opportunity to address comments during the meeting. All comments received will be submitted into the record.

The BARC Governing Board may act on any item on the agenda.
The meeting is scheduled to begin at 10:05 a.m.
Agenda, roster, and webcast available at https://barc.ca.gov
For information, contact Clerk of the Board at (415) 778-5218.

Governing Board Members
ABAG—Jesse Arreguin, David Hudson, David Rabbitt, Belia Ramos
BAAQMD—Teresa Barrett, David Haubert, John J. Bauters, Mark Ross
BCDC—John Gioia, Dave Pine, Brad Wagenknecht, Zack Wasserman
MTC—Alfredo Pedroza, Jim Spering, Amy Worth

1. Call to Order / Roll Call / Confirm Quorum

2. Governing Board Member Announcements

3. Chair's Report

22-0636 BARC Governing Board Chair's Report for May 20, 2022

Action: Information

Presenter: Chair Worth

4. Consent Calendar

4.a 22-0637 Approval of the minutes of the April 15th BARC GB Meeting

Action: Approval

Presenter: Clerk of the Board

Attachments: BARC GB Minutes 20220415 Draft.pdf

4.b 22-0638 Resolution No. 007 Providing for Remote Meetings Pursuant to AB 361

Action: Approval

Presenter: Clerk of the Board

Attachments: 4b BARC Resolution No. 007 on AB 361.pdf

5. BARC Member Agency Executive Director Updates

5.a 22-0639 Bay Area Air Quality Management District Report for May 20, 2022

Action: Information

Presenter: Sandy Crockett

5.b 22-0640 Association of Bay Area Governments and Metropolitan Transportation Commission

Action: Information

Presenter: Therese W. McMillan

5.c 22-0641 San Francisco Regional Water Quality Board

Action: Information

Presenter: Lisa McCann

5.d 22-0642 California State Coastal Conservancy

Action: Information

Presenter: Amy Hutzel

5.e 22-0643 San Francisco Bay Conservation and Development Commission

Action: Information

Presenter: Larry Goldzband

6. BARC Shared Work Plan

6.a 22-0644 BARC Governing Board Shared Work Plan

Action: Approval

Presenter: Allison Brooks

Attachments: Item 6a. BARC Shared Work Plan Final Draft 05202022.pdf
Item 6a. BARC Shared Work Plan Presentation 05_20_22.pdf

7. Report on Updated CEQA Guidelines by BAAQMD

7.a 22-0645 Update of the Bay Area Air Quality Management District's CEQA Guidelines

Action: Information

Presenter: Henry Hilken, Planning Director of BAAQMD

Attachments: Item 7. BARC GB MEMO BAAQMD CEQAGHGTs 05202022.pdf
Item 7. BARC GB PPT BAAQMD CEQAGHGTs 05202022.pdf
Item 7. BARC GB Justification Report Final BAAQMD 5202022.pdf

8. Public Comment

9. Adjournment/Next Meeting

The next meeting of the Bay Area Regional Collaborative will be held Friday June 17, 2022 at 10:05 a.m.

The Governing Board may take action on any item listed in the agenda.

This meeting is scheduled to end promptly at 12:00 p.m. Agenda items not considered by that time may be deferred.

The public is encouraged to comment on agenda items by completing a request-to-speak card and giving it to BARC staff or the chairperson.

Although a quorum of the Governing Board may be in attendance at this meeting, the Governing Board may take action only on those matters delegated to it. The Governing Board may not take any action as the Bay Area Regional Collaborative Governing Board unless this meeting has been previously noticed as a Bay Area Regional Collaborative Governing Board meeting.

375 Beale Street, Suite 800
San Francisco, CA 94105

Metropolitan Transportation Commission

Bay Area Regional Collaborative

Legislation Details (With Text)

File #:	22-0636	**Version:**	1	**Name:**	
Type:	Report			**Status:**	Informational
File created:	3/24/2022			**In control:**	Bay Area Regional Collaborative
On agenda:	5/20/2022			**Final action:**	
Title:	BARC Governing Board Chair's Report for May 20, 2022				
Sponsors:					
Indexes:					
Code sections:					
Attachments:					

Date	Ver.	Action By	Action	Result

Subject:
BARC Governing Board Chair's Report for May 20, 2022

Presenter:
Chair Worth

Recommended Action:
Information

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San Francisco, CA 94105

Metropolitan Transportation Commission

Bay Area Regional Collaborative

Legislation Details (With Text)

File #:	22-0637	**Version:**	1	**Name:**	
Type:	Minutes			**Status:**	Committee Approval
File created:	3/24/2022			**In control:**	Bay Area Regional Collaborative
On agenda:	5/20/2022			**Final action:**	
Title:	Approval of the minutes of the April 15th BARC GB Meeting				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	BARC GB Minutes 20220415 Draft.pdf				

Date	Ver.	Action By	Action	Result

Subject:
Approval of the minutes of the April 15th BARC GB Meeting

Presenter:
Clerk of the Board

Recommended Action:
Approval

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Bay Area
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375 Beale Street
Suite 700
San Francisco, California
94105

Meeting Minutes - Draft

Bay Area Regional Collaborative

Friday, April 15, 2022 | **10:05 AM** | **REMOTE (In person option available)**

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Webinar ID: 878 2748 1334
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SIP: 87827481334@zoomcrc.com

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The BARC Governing Board may act on any item on the agenda.
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Governing Board Members
ABAG—Jesse Arreguin, David Hudson, David Rabbitt, Belia Ramos
BAAQMD—Teresa Barrett, David Haubert, John J. Bauters, Mark Ross
BCDC—John Gioia, Dave Pine, Brad Wagenknecht, Zack Wasserman
MTC—Alfredo Pedroza, Jim Spering, Amy Worth

1. Call to Order / Roll Call / Confirm Quorum

Chair Worth called the meeting to order at around 10:02 a.m. Quorum was achieved at 10:05 a.m

Present: 12 - Arreguin, Bauters, Haubert, Hudson, Pine, Rabbitt, Ramos, Ross, Spering, Wagenknecht, Wasserman, and Worth

Absent: 3 - Barrett, Gioia, and Pedroza

2. Governing Board Member Announcements

There were no Governing Board Member Announcements

3. Chair's Report

The Chair gave the report

22-0547 Chair's Report for April 15, 2022

Consent Calendar

Upon the motion by Wagenknecht and the second by Bauters, the Consent Calendar was approved. The motion passed by the following vote:

Aye: 12 - Arreguin, Bauters, Haubert, Hudson, Pine, Rabbitt, Ramos, Ross, Spering, Wagenknecht, Wasserman and Worth

Absent: 3 - Barrett, Gioia and Pedroza

4a. 22-0548 Approval of BARC Governing Board Minutes of March 18, 2022

4b. 22-0549 Resolution No. 006 Providing for Remote Meetings Pursuant to AB 361

5. Public Comment

There was no public comment

6. Adjournment/Next Meeting

The meeting adjourned at 10:11 a.m. The next meeting of the BARC Governing Board will be May 20, 2022

Bay Area
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Metropolitan Transportation Commission

375 Beale Street, Suite 800
San Francisco, CA 94105

Legislation Details (With Text)

File #:	22-0638	**Version:**	1	**Name:**	
Type:	Action Item			**Status:**	Committee Approval
File created:	3/24/2022			**In control:**	Bay Area Regional Collaborative
On agenda:	5/20/2022			**Final action:**	
Title:	Resolution No. 007 Providing for Remote Meetings Pursuant to AB 361				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	4b BARC Resolution No. 007 on AB 361.pdf				

Date	Ver.	Action By	Action	Result

Subject:
Resolution No. 007 Providing for Remote Meetings Pursuant to AB 361

Presenter:
Clerk of the Board

Recommended Action:
Approval

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Bay Area Regional Collaborative

DATE: May 20, 2022

TO: BARC Governing Board

FROM: Allison Brooks, BARC Executive Director

RE: Approval of Resolution No. 007 Pursuant to AB 361

Background: The recently-enacted bill, AB 361, provides for continuing availability of remote meetings during the pandemic-related state of emergency in California. In order to invoke this option, governing boards of Brown Act bodies, or their authorized designated committees must make certain findings in support of remote meetings within 30 days of the first meeting occurring after October 1, 2021, and every 30 days thereafter. Attached for your review and approval is a resolution invoking AB 361 and providing for remote meetings prospectively for 30 days following the BARC Governing Board's action.

Issues: Findings in support of Resolution No. 007 are found in the attached. Given the continuing state of public health emergency and the improved public access afforded by holding public meetings of regional bodies in a virtual setting, the resolution under AB 361 is supportable.

Recommended Action: The BARC Governing Board is requested to adopt Resolution No. 007, authorizing its committees and related entities, to meet remotely pursuant to the provisions of AB 361.

Attachments:

- Attachment A: BARC Resolution No. 007

Allison Brooks

Date: May 20, 2022
Referred By: BARC Governing Board

ABSTRACT

Resolution No. 007

This resolution makes findings pursuant to AB 361 to continue virtual public meetings for the BARC Governing Board, its related entities and committees during the COVID-19 State of Emergency.

Further discussion of this subject is contained in the BARC Governing Board Memo dated May 20, 2022.

Date: May 20, 2022
Referred By: BARC Governing Board

RE: Findings Pursuant to AB 361 to Continue Virtual Public Meetings for the BARC Governing Board, With its Related Entities and Committees, During the COVID-19 State of Emergency

BARC GOVERNING BOARD
RESOLUTION NO. 004

WHEREAS, on March 4, 2020, the Governor of the State of California declared a state of emergency, as defined under the California Emergency Services Act, due to the COVID-19 pandemic; and

WHEREAS, the State of Emergency remains in effect; and

WHEREAS, beginning in March 2020, the Governor's Executive Order N-29-20 suspended Brown Act requirements related to teleconferencing during the COVID-19 pandemic provided that notice, accessibility, and other requirements were met, and the public was allowed to observe and address the legislative body at the meeting; and

WHEREAS, Executive Order N-08-21 extended the previous order until September 30, 2021; and

WHEREAS, the BARC Governing Board and its related entities and committees have conducted their meetings virtually, as authorized by the Executive Order, since March 17, 2020; and

WHEREAS, on September 16, 2021, the Governor signed into law AB 361, an urgency measure effective upon adoption, that provides flexibility to government bodies, allowing them to meet virtually without conforming to the Brown Act teleconferencing rules if: (i) the legislative body holds a meeting during a proclaimed state of emergency, and state or local officials have imposed or recommended measures to promote social distancing; (ii) the legislative body holds a meeting during a proclaimed state of emergency for the purpose of determining, by majority vote, whether, as a result of the emergency, meeting in person would present imminent risks to the health or safety of attendees; or (iii) the legislative body holds a meeting during a proclaimed state of emergency and has determined, by majority vote, that, as a

result of the emergency, meeting in person would present imminent risks to the health or safety of attendees; and

WHEREAS, although applicable social distancing requirements are currently no longer in effect, the San Francisco Public Health Department continues to recommend measures to promote social distancing in combination with other safety precautions when activities occur in shared indoor spaces to mitigate the risk of COVID-19 transmission; and

WHEREAS, in the last few months, the Delta variant has surged in the United States and become the predominant COVID-19 variant, the Delta variant is believed by medical experts to be twice as contagious as previous variants, and data has shown the variant has increased transmissibility even among some vaccinated people; and

WHEREAS, due to uncertainty and concerns about the Delta variant and current conditions, many workplaces that had announced a return to regular in-person operations have pushed back the full return date until later in the year or next year; and

WHEREAS, virtual meetings have not diminished the public's ability to observe and participate and have expanded opportunities to do so for some communities; and

WHEREAS, given the heightened risks of the predominant variant of COVID-19 in the community, holding meetings with all members of the legislative body, staff, and the public in attendance in person in a shared indoor meeting space would pose an unnecessary and immediate risk to the attendees;

NOW, THEREFORE, BE IT RESOLVED, that the BARC Governing Board hereby determines that, as a result of the emergency, meeting in person presents imminent risks to the health or safety of attendees; and be it further

RESOLVED, that in accordance with AB 361, based on the findings and determinations herein, meetings of the BARC Governing Board, its related entities and its committees will be held virtually, with Brown Act teleconferencing rules suspended; and be it further

RESOLVED, that this resolution shall be effective upon adoption and remain in effect for 30 days in accordance with AB 361.

BARC GOVERNING BOARD

_____

Amy Worth, Chair

The above resolution was entered into by the BARC Governing Board at a duly called and noticed meeting held in San Francisco, California and at other remote locations, on May 20, 2022.

Bay Area
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Metropolitan Transportation Commission

375 Beale Street, Suite 800
San Francisco, CA 94105

Legislation Details (With Text)

File #:	22-0639	**Version:**	1	**Name:**	
Type:	Report			**Status:**	Informational
File created:	3/24/2022			**In control:**	Bay Area Regional Collaborative
On agenda:	5/20/2022			**Final action:**	
Title:	Bay Area Air Quality Management District Report for May 20, 2022				
Sponsors:					
Indexes:					
Code sections:					
Attachments:					

Date	Ver.	Action By	Action	Result

Subject:
Bay Area Air Quality Management District Report for May 20, 2022

Presenter:
Sandy Crockett

Recommended Action:
Information

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San Francisco, CA 94105

Metropolitan Transportation Commission

Bay Area Regional Collaborative

Legislation Details (With Text)

File #:	22-0640	**Version:**	1	**Name:**	
Type:	Report			**Status:**	Informational
File created:	3/24/2022			**In control:**	Bay Area Regional Collaborative
On agenda:	5/20/2022			**Final action:**	
Title:	Association of Bay Area Governments and Metropolitan Transportation Commission				
Sponsors:					
Indexes:					
Code sections:					
Attachments:					

Date	Ver.	Action By	Action	Result

Subject:
Association of Bay Area Governments and Metropolitan Transportation Commission

Presenter:
Therese W. McMillan

Recommended Action:
Information

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Legislation Details (With Text)

File #:	22-0641	**Version:**	1	**Name:**	
Type:	Report			**Status:**	Informational
File created:	3/24/2022			**In control:**	Bay Area Regional Collaborative
On agenda:	5/20/2022			**Final action:**	
Title:	San Francisco Regional Water Quality Board				
Sponsors:					
Indexes:					
Code sections:					
Attachments:					

Date	Ver.	Action By	Action	Result

Subject:
San Francisco Regional Water Quality Board

Presenter:
Lisa McCann

Recommended Action:
Information

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Legislation Details (With Text)

File #:	22-0642	**Version:**	1	**Name:**	
Type:	Report			**Status:**	Informational
File created:	3/24/2022			**In control:**	Bay Area Regional Collaborative
On agenda:	5/20/2022			**Final action:**	
Title:	California State Coastal Conservancy				
Sponsors:					
Indexes:					
Code sections:					
Attachments:					

Date	Ver.	Action By	Action	Result

Subject:
California State Coastal Conservancy

Presenter:
Amy Hutzel

Recommended Action:
Information

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San Francisco, CA 94105

Metropolitan Transportation Commission

Bay Area Regional Collaborative

Legislation Details (With Text)

File #:	22-0643	**Version:**	1	**Name:**	
Type:	Report			**Status:**	Informational
File created:	3/24/2022			**In control:**	Bay Area Regional Collaborative
On agenda:	5/20/2022			**Final action:**	
Title:	San Francisco Bay Conservation and Development Commission				
Sponsors:					
Indexes:					
Code sections:					
Attachments:					

Date	Ver.	Action By	Action	Result

Subject:
San Francisco Bay Conservation and Development Commission

Presenter:
Larry Goldzband

Recommended Action:
Information

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Bay Area
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Metropolitan Transportation Commission

375 Beale Street, Suite 800
San Francisco, CA 94105

Legislation Details (With Text)

File #:	22-0644	**Version:**	1	**Name:**	
Type:	Action Item			**Status:**	Committee Approval
File created:	3/24/2022			**In control:**	Bay Area Regional Collaborative
On agenda:	5/20/2022			**Final action:**	
Title:	BARC Governing Board Shared Work Plan				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	Item 6a. BARC Shared Work Plan Final Draft 05202022.pdf Item 6a. BARC Shared Work Plan Presentation 05_20_22.pdf				

Date	Ver.	Action By	Action	Result

Subject:
BARC Governing Board Shared Work Plan

Presenter:
Allison Brooks

Recommended Action:
Approval

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Bay Area Regional Collaborative

Bay Area Regional Collaborative
Draft Shared Work Plan

Association of Bay Area Governments

SAN FRANCISCO BAY CONSERVATION & DEVELOPMENT COMMISSION

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Coastal Conservancy
STATE of CALIFORNIA

CALIFORNIA Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

METROPOLITAN TRANSPORTATION COMMISSION

SAN FRANCISCO ESTUARY PARTNERSHIP

Caltrans
District 4

May 20, 2022

Acknowledgements

BARC Staff Team: Allison Brooks, Lucian Go, Alhad Dighe

ARUP Team: Kate White, Katrina Von Burg, Jack Hogan, Casie Venable, Karuna Phillips

Thank you to Executive Leadership and participation of staff from:

Association of Bay Area Governments (ABAG)
Bay Area Air Quality Management District (BAAQMD)

The San Francisco Bay Conservation & Development Commission (BCDC)

Metropolitan Transportation Commission (MTC)

San Francisco Estuary Partnership (SFEP)

California State Coastal Conservancy

San Francisco Bay Regional Water Quality Control Board (Water Board)

BARC Governing Board Members

ABAG - Association of Bay Area Governments

Jesse Arreguin, Vice Chair
David Hudson
Belia Ramos
David Rabbitt

BAAQMD - Bay Area Air Quality Management District

Teresa Barrett
John Bauters
David Haubert
Mark Ross

BCDC – Bay Conservation & Development Commission

John Gioia
Dave Pine
Brad Wagenknecht
Zack Wasserman

MTC - Metropolitan Transportation Commission

Amy R. Worth, Chair
Alfredo Pedroza
James P. Spering

Non-Voting Members

Caltrans District 4

Dina El-Tawansy, Director

San Francisco Bay Regional Water Quality Control Board

Lisa McCann, Assistant Executive Officer

State Coastal Conservancy

Amy Hutzel, Executive Officer

DRAFT

Table of Contents

DRAFT

Bay Area Regional Collaborative (BARC) Shared Work Plan

May 20, 2022

Introduction

Addressing the challenge of climate change with any level of success requires an “all-hands-on-deck” approach in the San Francisco Bay Area. It requires partnership and collaboration among people and communities, among public agencies and private organizations, and across all levels of government to ensure the plans, policies, projects and investments made to mitigate and adapt to climate change are equitable, fair and meaningful. Everybody has a role to play! The keys are to map out who is best positioned to do what, and then to generate the resources needed so everyone can perform their roles and meet their responsibilities.

The Bay Area Regional Collaborative (BARC) Shared Work Plan outlines several initiatives to ***better understand and optimize the roles of specific regional agencies*** - and state agencies with Bay Area districts - in meeting the climate

emergency. Building off work in which the seven participating agencies already are engaged, the Shared Work Plan aims to foster both greater coordination and an inclusive environment in which the agencies' work can be continually informed, enriched and improved.

A full understanding of roles to be played by regional agencies must also be informed by the stakeholders who will benefit from a strong, coordinated, and focused regional role in climate adaptation and mitigation. These include cities, counties, special districts, community-based organizations, and many others who lead the charge at the local level.

Background

BARC was created through state statute (**SB 849, Torlakson, 2004**)[1] to foster the coordination of the Association of Bay Area Governments (ABAG), the Bay Area Air Quality Management District (BAAQMD), the San Francisco Bay Conservation and Development Commission (BCDC) and the Metropolitan Transportation Commission (MTC) to address issues of regional significance. Joining this consortium as non-voting members (voluntarily participating, but not yet written into the legislation) are Caltrans District 4, the California State Coastal Conservancy, and the San Francisco Water Quality Control District.

BARC operates under the premise that there is value in regional agencies exercising a strong role in helping to address climate change and other issues of regional significance, and that coordination among regional and state agencies will:

- Model good governance by eliminating the duplication of efforts.
- Ensure the respective policies, programs and investments of each agency are aligned as much as possible, and not working at cross purposes.
- Support the leadership, best practices and innovation advanced by local jurisdictions and other critical stakeholders, and help bring them to scale.
- Allocate resources in a fair, equitable and level-setting manner to ensure the Bay Area's low-income, frontline communities of color have the capacity to lead in local and regional problem solving.

In September 2021, the BARC Governing Board approved the **Joint Resolution to Address Climate Change (Appendix A)**. The Resolution is an urgent call for action by the BARC member agencies to work together measurably to reduce the harmful

[1] https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=200320040SB849

DRAFT

contributors to and the impacts from climate change in the Bay Area, particularly for people and communities at the frontlines of risk.

As stated in the Resolution, the BARC member agencies will *"work together to strategically align planning and regulatory actions in order to accelerate the implementation of strategies that advance climate mitigation and adaptation goals."* The Draft BARC Shared Work Plan is designed as a mechanism by which the agencies will do just that, outlining three ambitious initiatives to produce measurable results within the next one to five years to equitably reduce greenhouse gas emissions and advance a strategic regional approach to adapting to climate change:

1. Regional Adaptation Plan
2. Regional Adaptation Technical Assistance
3. Zero-Emission Transit Infrastructure.

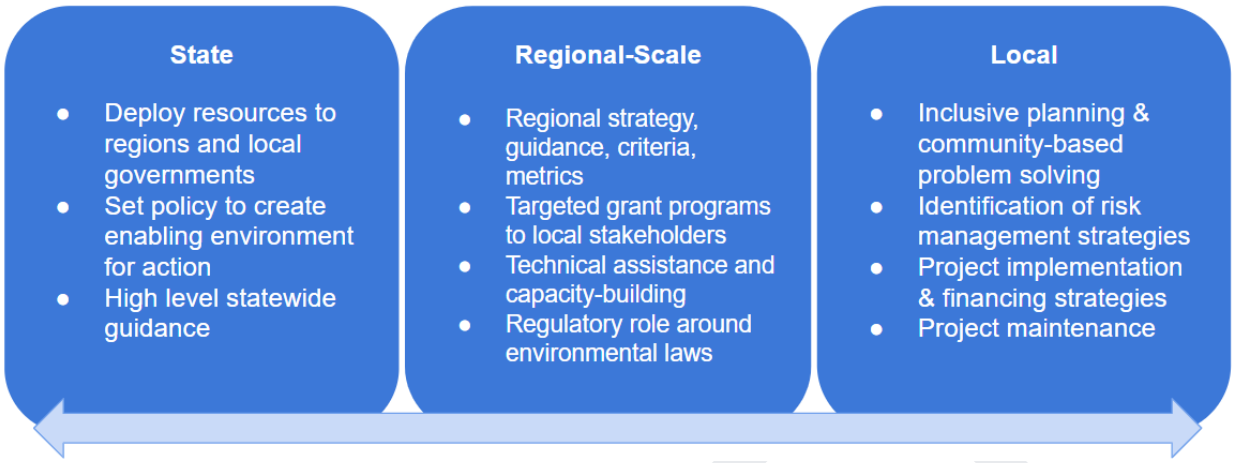
The tasks developed for each initiative will involve participation of staff from two or more member agencies, and will be shaped by engagement with partners and stakeholders outside the agencies themselves. Partnerships with stakeholder groups will be critical to fostering a productive and ongoing dialogue, and to developing effective strategy. Because the scale and types of engagement necessarily will be informed by available resources, the agencies will work together to avoid overlap of activities and efforts.

While in most cases a specific agency takes the lead role in any BARC effort, we are reminded of the mantra "No one agency or entity can solve climate change alone!". By working together, the agencies can avoid duplication, communicate a clear and coordinated approach to problem solving, and use everybody's time and resources most efficiently.

Underlying each initiative is a commitment to advancing social equity, ensuring projects contribute to improving quality of life measures in low-income, frontline communities. The BARC Shared Work Plan also has a primary focus on amplifying the clear value-added roles the regional and state agencies can play in supporting the leadership of cities, counties, special districts and community-based leaders in implementing strategies and actions on the ground. Also important is creating strong linkages to state and federal programs and investments such as the AB 32 Climate Change Scoping Plan, California Climate Adaptation Strategy and the federal Infrastructure Investment and Jobs Act (IIJA).

DRAFT

Roles of Public Sector at Different Scales:



Process for Developing BARC Shared Work Plan

Development of the Initial Draft of the BARC Shared Work Plan was facilitated by BARC staff from January 2022 to May 2022, and informed by guidance from the Governing Board, executive leadership, and two Working Groups composed of staff from across the member agencies with particular subject matter expertise. The timeline was driven by opportunities to better position the Bay Area to compete for emerging state and federal funding for regional-scale adaptation and resilience planning, and for the electrification of buildings and vehicles.

From March to May 2022, the BARC Shared Work Plan was further refined through a Public Comment Period, as well as through discussions with Working Group members and agency leadership. The written comments received are included in **Appendix B.** This final draft also incorporates input provided by various agencies, groups and individuals after receiving an overview of the Work Plan from the BARC Executive Director.

The scale and breadth of each initiative will be shaped by resources provided by each participating agency, and by any additional funding that can be secured through state and federal programs over the next year. The BARC Budget for FY22-23 will be oriented toward filling gaps and enhancing work underway.

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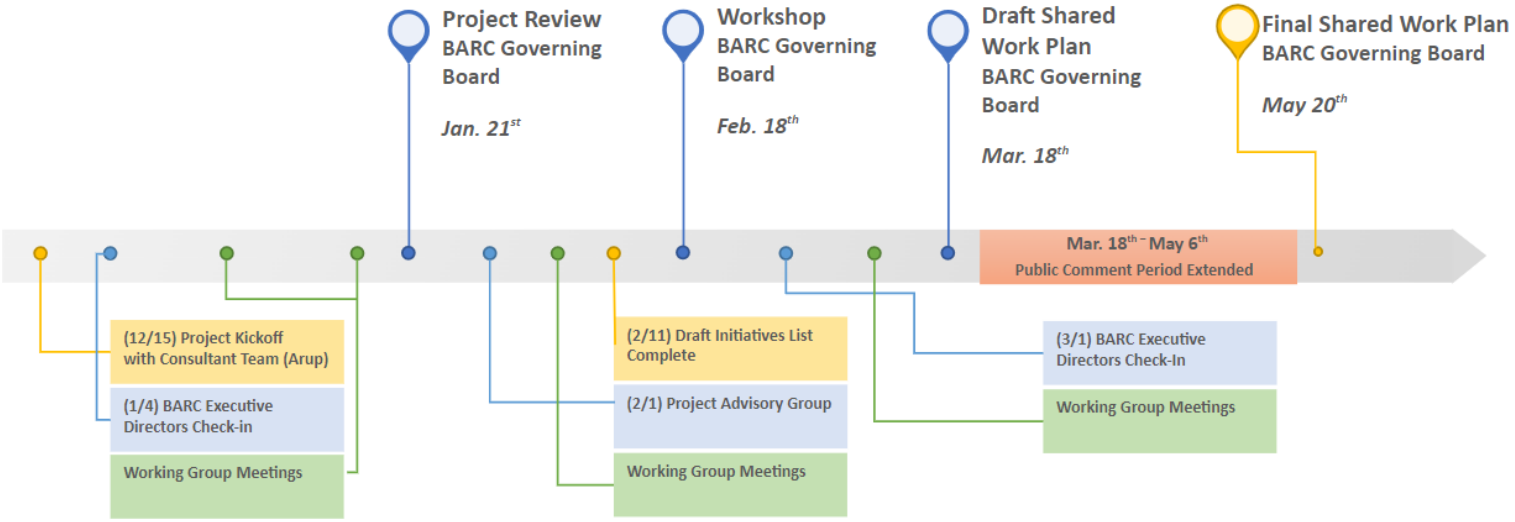
Timeline



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Focus Area One: Climate Adaptation

1	Regional Adaptation Plan	Develop a Regional Multi-Hazard Adaptation Plan
2	Regional Technical Assistance	Establish a regional technical assistance program to support local governments in advancing shared approach to adaptation planning and project implementation

Initiative 1: Regional Multi-Hazard Climate Adaptation Plan

Description: *Work with partners and stakeholders to develop a Regional Multi-Hazard Adaptation Plan that supports the deployment of effective risk management strategies and equitable, multi-benefit climate adaptation projects at the appropriate geographic scale across the San Francisco Bay Area.*

The Bay Area faces threats from a variety of hazards including sea level rise, coastal and inland flooding, extreme heat, drought, wildfire, as well as earthquakes. There has been progress in advancing climate adaptation and resilience planning to address

these hazards, with cities, counties and special districts taking the lead in helping to move concepts forward and developing new governance models. A focus on flooding and sea level rise has led to efforts like the San Francisquito Creek Joint Powers Authority mitigating flood risks for communities adjacent to the creek and the Bay in East Palo Alto and Menlo Park, and the consolidation of agencies to create the San Mateo County Flooding and Sea Level Resiliency District (One Shoreline). The four North Bay counties — Marin, Napa, Solano and Sonoma — are working together with Caltrans, MTC and environmental stewards to advance strategies to address flooding and sea level rise along the State Route 37 corridor. The South San Francisco Bay Shoreline Project is a multi-million dollar sea level rise protection project underway - many years in the making - led by Valley Water, the California State Coastal Conservancy, US Army Corps of Engineers and US Fish and Wildlife to protect the vulnerable community of Alviso in San Jose and surrounding areas.

There are other important nature-based and multi-benefit projects advancing through investments from the San Francisco Bay Restoration Authority and other granting agencies that indicate the Bay Area region is building forward momentum to address flooding and sea level rise risks. But the Bay Area needs more than just a portfolio of disparate projects.

Expanding the portfolio and making sure high quality planning and projects are occurring in the places that need them most requires a high level of coordination and resources. Additionally, understanding the geography through which different hazards and risks should be managed - and by whom - and making sure all the stakeholders are at the table to determine the best risk management strategies to employ is essential to reaching equitable regional-scale resilience.

Engaging in this collective problem-solving in vulnerable places across the region requires significant resources; access to a clearinghouse of reliable data and science; guidance on effective approaches, strategies and governance models; and people with the skills, expertise and job description to move ideas into reality on the ground. The needs listed above illustrate why the San Francisco Bay Area could benefit from a Regional Adaptation Plan - not as a top down directive telling cities and counties what to do — but, rather, as a mechanism by which our region can work together to ensure communities have access to the resources and tools necessary to implement a range of strategies to manage risk and to get these resources to the places that need them most.

Managing the development such a Plan, with extensive input from interested stakeholders, is something for which the regional agencies that comprise the BARC consortium are well suited. Ensuring that a Regional Adaptation Plan is oriented

towards delivering specific, measurable outcomes that are equitable, fair and effective in managing risk is something in which every interested stakeholder should be involved.

The BCDC-led effort to develop a Regional Shoreline Adaptation Strategy will be a core component of the Regional Adaptation Plan, helping to outline potentially similar approaches to other hazards like extreme heat, drought, flooding, and wildfires. The participating agencies will work together through this initiative to help inform BCDC's effort while at the same time conducting outreach, analysis, and research to better understand how different hazards can best be captured and approached in a Regional Adaptation Plan. An important feature of this effort will be to understand the role regional agencies play (or not) related to different hazards, as well as to understand the potential relationships between a regional multi-hazard adaptation plan and local hazard mitigation plans. Additionally, the coordination provided by BARC staff can be helpful in aligning public outreach and engagement across the participating agencies, considering overlapping issues, and addressing issues related to regional governance, funding and prioritization. The involvement of Caltrans District 4 as an active member of BARC, for example, will help local and regional priorities for vulnerable transportation infrastructure sync up with state planning requirements, state and federal funding agencies, and state infrastructure adaptation needs and vulnerability data.

Counties, cities and special districts have leading roles to play in facilitating adaptation planning and project implementation to address different hazards in their communities. Many Bay Area counties already are leading on this front, with the county being a manageable scale over which to conduct planning and project development. The regional agencies, in turn, can be helpful in lifting up the best practices being advanced by cities and counties, and to help build capacity and consistency in efforts across the region. As BCDC identified through the Bay Adapt process, there are challenges Bay Area faces in adapting to flooding and sea level rise that are likely applicable to managing other hazards. These include:

- Inconsistent content and approach in local plans and projects
- Competition for funding with no agreement on priorities
- Inconsistent progress on plans and projects
- No comprehensive understanding of adaptation needs and interventions (and their impact) along the shoreline.

A Regional Adaptation Plan can help navigate these deficiencies and inconsistencies, identifying where more capacity and support is needed, while at the same time helping to advance good projects at the local or sub-regional level. Additionally, the Plan can

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help synthesize the components of other related regional planning efforts into an overarching set of strategies, priorities, and tools. These include MTC/ABAG's Plan Bay Area 2050, adopted in October 2021, which involves strategies to adapt to sea level rise and manage risks. BCDC's Bay Adapt Joint Platform lays out a high-level action plan to protect people and the built environment from rising sea levels, with the BARC Shared Work Plan as an example of agencies taking the lead to help implement Bay Adapt actions. Furthermore, the San Francisco Estuary Partnership (SFEP) just completed its 2022 Update to the Estuary Blueprint, mapping out regional actions needed for a healthy and resilient San Francisco Estuary.

In 2022, the Bay Area has a prime opportunity to build upon work done to date and to generate the resources needed to develop the Regional Adaptation Plan through a robust and inclusive engagement process. The Governor's Office of Planning and Research (OPR) has expanded funding to the tune of $250 million statewide over the next several years. This commitment is well suited to support the development of a Regional Multi-Hazard Adaptation Plan, as well as the technical assistance that can support local capacity building, planning and project implementation. At the federal level, the PROTECT program established by the Infrastructure, Investment and Jobs Act of 2021 provides appropriated funds ($630 million to California) and competitive grant programs ($1.4 billion nationally) over the next five years to advance transportation resilience planning and implementation. The IIJA creates incentives for states and MPOs to adopt a Resilience Improvement Plan (RIP) by waiving a portion of local cost shares for appropriated funds, and prioritizing competitive grant proposals that advance RIP priorities. Based on initial estimates, integration of a RIP into Plan Bay Area could result in over $11 million in value for the region.

Goals

- Establish an engagement process by which stakeholders will work together to develop a Regional Multi-Hazard Adaptation Plan that supports strong coordination among regional agencies, counties, cities, special districts and community leaders to manage climate hazard risks and positions the region to receive state and federal funding to support shared goals and priorities.
- Outline and understand the distinct role(s) of regional agencies and those of other levels of government in managing different climate hazards such as drought, heat, wildfire, sea level rise and flooding, as well as any potential interaction with seismic vulnerability.

Participating BARC Agencies

Association of Bay Area Governments (ABAG), Bay Conservation and Development Commission (BCDC), Bay Area Air Quality Management District (BAAQMD), Caltrans

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District 4, Metropolitan Transportation Commission (MTC), California State Coastal Conservancy (SCC), San Francisco Bay Regional Water Quality Control Board, San Francisco Estuary Partnership.

Key Stakeholders & Partners

cities, counties, special districts, community-based organizations, nonprofits, academic and scientific institutions, state agencies, federal agencies. Membership organizations and networks: Bay Area Climate Adaptation Network (BayCAN), Coastal Hazards Adaptation Resiliency Group (CHARG)

Year One Priorities and Tasks

- Outline landscape of powers, authorities and responsibilities among regional agencies related to multiple hazards and relationship to federal, state and local/community roles and responsibilities. (BARC supported, consultant, partners)
- Understand permitting and regulatory landscape and impact on speed at which multi-benefit climate adaptation projects can bet approved and implemented, including green, gray and hybrid projects. (BARC supported, consultant, partners)
- Work to expand support for frontline community capacity building and build partnerships (various mechanisms, including BCDC grant program, partners)
- Support MTC/ABAG (or other appropriate agency) grant application to OPR for regional planning in Fall 2022
- Kick-off Regional Shoreline Adaptation Strategy (led by BCDC, muti-year efforts)
- Development of Sea Level Rise Funding and Investment Strategy (led by MTC/ABAG and BCDC)
- Early development of Resilience Improvement Plan (MTC/ABAG, Caltrans D4)
- Identify and pursue opportunities for legislative advocacy to promote climate adaptation efforts at local and regional scales, and help secure further resources for community capacity building.

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Initiative 2: Regional Climate Adaptation Technical Assistance

Description: *Work with partners and stakeholders to develop a regional climate adaptation technical assistance program to support local adaptation planning and project implementation.*

Climate adaptation and resilience planning and projects will most often need to happen at the local and/or sub-regional level, with regional and state agencies best positioned to provide needed support, resources, and guidance. Across the Bay Area's nine counties and 101 municipalities, local governments have highly variable levels of capacity and resources available to conduct adaptation planning and develop risk management strategies. Additionally, a special focus must be given to historically underserved Black, Indigenous and People of Color (BIPOC) communities who are at the frontlines of risk and already are battling challenging environmental conditions in their neighborhoods.

As noted in the public comments on the initial draft of the BARC Shared Work Plan, managing risks like flooding and sea level rise raises many complications related to jurisdictional responsibilities and property ownership, and differing views on the mission and responsibilities of any one entity or organization. "These aspects are hard to grasp (especially for staff without deep experience in Bay Area

government/regulatory setting) and there is no central resource to show who is responsible for what. Could this objective be tied to some sort of a deliverable that outlines the roles played by different government entities, coalitions, and associations and the “levers” that they control.

A coordinated Regional Climate Adaptation Technical Assistance program can identify the most effective ways in which regional agencies can support cities, counties, special districts and community-based organizations in conducting actionable adaptation planning and project implementation. It can help to map out the authorities and responsibilities of different stakeholders in climate adaptation, and provide governance and decision-making models to help bring clarity to what is currently a somewhat murky area, especially in terms of bringing project implementation to scale across the region. A goal can include providing a centralized source for adaptation standards, data and guidance from across the regional agencies that is coherent and easily accessible to local governments and in publicly led planning processes.

The Regional Climate Adaptation Technical Assistance initiative will involve staff from multiple agencies working together in a coordinated manner, along with other key stakeholders, to find the most effective support and to advance high-quality adaptation planning efforts in localities across the region. These efforts would inform and be tracked through BCDC’s Regional Shoreline Adaptation Strategy and through the development of a broader, multi-hazard Adaptation Plan.

Goals

- Clarify who is in charge of different aspects of climate adaptation at different scales.
- Develop a clearinghouse or “storefront” of adaptation data, standards, and guidance (explore options for where it can live and/or intersect, including existing tools such as ABAG Technical Assistance Portal, OPR Clearinghouse)
- Develop easy-to-access technical assistance for local governments and community-based organizations. This can include grant-writing services (especially for limited-capacity jurisdictions and stakeholders), one-on-one assistance, facilitated services for specific cohorts of jurisdictions and stakeholders facing similar challenges. Identify agencies best suited to provide different types of assistance.

Participating BARC Agencies

Association of Bay Area Governments (ABAG), Bay Conservation and Development Commission (BCDC), Bay Area Air Quality Management District (BAAQMD), Caltrans District 4, Metropolitan Transportation Commission (MTC), California State Coastal

Conservancy (SCC), San Francisco Bay Regional Water Quality Control Board, San Francisco Estuary Partnership.

Key Stakeholders & Partners

Cities, counties, special districts, community-based organizations, nonprofits, academic and scientific institutions, state agencies, federal agencies. Membership organizations and networks: Bay Area Climate Adaptation Network (BayCAN), Coastal Hazards Adaptation Resiliency Group (CHARG), others.

Year One Priorities and Tasks

- Conduct analysis to capture types of technical assistance regional and state agencies are providing, identify gaps in service and support, understand lay of the land in terms of technical support needs, and who is best positioned to do what at all scales. (BARC supported, in partnership with stakeholders, tie in and align with other projects where appropriate)
- Outreach/Engagement/Survey to determine needs for technical assistance by local stakeholders (BARC supported, BCDC and MTC/ABAG, partners)
- Outline oversight responsibilities for each hazard (including funding), regulatory environment and general lay of the land; provide analysis and best practices on leadership and coordination issues related to managing risks at the appropriate scale and financing adaptation projects.

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Focus Area Two: Greenhouse Gas (GHG) Emissions Reduction

1	Zero Emission Transit Bus Infrastructure	Accelerate Zero-Emission Transit Bus (ZEB) deployment by supporting coordinated expansion of infrastructure and modernized facilities across the region. Position the region to capture significant federal and state funds to do so.
	Low-Carbon, High-Equity Neighborhoods	*Align agency activities focused on affordable housing, building decarbonization, EV charging, trip reduction and resilience for a holistic approach to create affordable, healthy, zero-emission neighborhoods.*

Initiative 3: Zero-Emission Transit Bus Infrastructure

Description: *Accelerate Zero-Emission Transit Bus (ZEB) deployment by supporting coordinated expansion of reliable charging infrastructure across the Bay Area region.*

Context and Opportunity

Buses play a critical role in meeting transportation demand, reducing single-passenger trips and climate impacts, especially for people who depend and rely on public transit to get where they need to go, a large proportion being low-income residents. Considerable state and federal funding for transportation infrastructure, including the Infrastructure, Investment and Jobs Act (IIJA), provide an unprecedented opportunity for the Bay Area to secure funding for decarbonizing our transit systems in the next year. In fiscal year 2022, $1.47 billion in grants will be available from the Federal Transit Administration to modernize bus fleets and facilities, including $1.1 billion (a tenfold increase) in the FTA's Low or No Emission (Low-No) Grant Program and $372 million through the Bus and Bus Facilities Grant Program.

Furthermore, the California Air Resources Board's Innovative Clean Transit Rule requires 25% of large operators' bus purchases be zero-emission by 2023, and 100% by 2029. In total, approximately 2,500 new buses will need to be replaced in the Bay Area over the next decade, putting new demands on bus depots and utilities to support the demand. Depending on planning, coordination, and approach this could equate to more than 250 megawatts of additional grid capacity, billions in cost and increased fleet space requirements. There is a need to think ahead to help mitigate the impacts of massive conversion of buses to zero-emission so that it can be as seamless as possible.

To help facilitate the investment in zero-emission buses, MTC is leading a Bay Area Transit Zero-Emission Transition Strategy, working closely with the Bay Area Partnership Board (see March 30, 2022 Bay Area Partnership Board Agenda Item 4a)[2]. As outlined, MTC's proposed transition strategy will focus on the following elements:

- **Cost and Funding** analysis to develop an updated regional cost estimate and funding framework for programming decisions and advocacy efforts.
- **Policy Guidance & Best Practices** in technology, compatibility, and shared infrastructure/vehicles, at the regional, subregional, and/or local level
- **Facilitation of Early Coordination Efforts** to support highest-impact investment of resources
- **Analyze Submitted and Developing Rollout Plans** to identify opportunities for coordinated investments

[2] https://mtc.ca.gov/meetings-events/bay-area-partnership-board-2022-03-30t200000

- **Evaluate and Manage** Risk including areas of technology choice and performance, energy provision to facilities, cost of buses and facilities, and emergency response.

To support this effort, the BARC Shared Work Plan through its involved agencies and partners will focus on coordination among stakeholders (including equipment manufacturers and utilities) that are essential to creating a robust charging infrastructure to support the expansion of electric bus fleets and potentially other municipal vehicles. Both BAAQMD, MTC/ABAG are engaged in efforts to coordinate with the region's 27 transit agencies in the deployment of grant resources for ZEB buses and infrastructure. The BARC initiative can facilitate data sharing from ZEB pilots already underway so operators can avoid unnecessary analysis. Procurement of charging equipment on a large scale can maximize cost savings and streamline engagement with manufacturers. Identifying the appropriate point of contact for utilities across operators could streamline delivery of power infrastructure.

Goals

- All Bay Area buses are zero-emission (EV or hydrogen) by 2040
- ZEB charging infrastructure capacity increased to support new power demands
- Data sharing across operators on ZEB pilot lessons learned
- Simplified grantmaking across agencies to support shared outcomes Identify opportunities to link regional grantmaking to ZEB technologies and infrastructure standards for region's 27 transit agencies
- Help align city and transit operators' efforts to scale up ZEB
- Establish relationships between regional agencies, operators, manufacturers, and energy utilities to meet the new power demand.

Key Stakeholders

MTC/ABAG, BAAQMD, Bay Area Partnership Board (Bay Area transit agencies), cities, counties, manufacturers, utilities, community choice aggregators (CCAs).

Year One Priorities and Tasks

- Facilitate coordination between BAAQMD and MTC on grantmaking to support ZEB charging infrastructure
- Create overview and diagram the key players in this space, along with the challenges and opportunities in both near and long term.
- Explore opportunities for shared transit/municipal charging infrastructure
- Explore/analyze near-term and long-term obstacles around charging infrastructure and power grid w/ utilities, cities, counties, etc.

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Exploratory Area: Low-Carbon, High-Equity Neighborhoods

Description

Align different but interrelated agency programs to develop a more holistic approach to fostering affordable, healthy, zero-emission neighborhoods. These programs include those supporting affordable housing development, building decarbonization, electric vehicle charging, active transportation, single-occupancy vehicle trip reduction, commuter benefits and climate resilience.

Context and Opportunity

MTC/ABAG and BAAQMD are pursuing a number of separate, yet interrelated activities to decarbonize how Bay Area residents live and commute. These include: technical assistance and financing for building decarbonization through the Bay Area Regional Energy Network (BayREN); the Bay Area Healthy Homes Initiative (BAHHI) led by BAAQMD; affordable housing development through the newly-established Bay Area Housing Finance Authority (BAHFA); guidance on local housing elements and climate resilience through MTC/ABAG's Regional Planning Program; as well as updated CEQA guidelines and thresholds, building retrofits, and incentives for electric vehicles and trip reduction through both agencies.

Evaluated through the lens of social equity and the opportunity to foster affordable, healthy, carbon-free neighborhoods, these focus areas could potentially have more impact if integrated into a more strategic and holistic approach. For example, moving away from supporting EV single-occupancy vehicle ownership for low-income people to a strategy of supporting EV car sharing at the neighborhood or building scale. BARC will work with agency partners to explore this complex topic, learning from the three Initiatives that are kicking off this next year to determine how best to approach this topic through a future initiative. A potential idea to explore is the development of a "Local Innovation Challenge Grant Program" that would support local governments, nonprofits and community-based organizations, affordable housing developers, and others in developing creative, innovative approaches at the neighborhood or district scale. A great example to learn from and build upon is the current *Zero Emissions Neighborhood Pilot Program* led by the City of San Jose that is focused on bringing "climate action to life at the neighborhood scale in an equitable way by co-creating neighborhood-level improvement plans in partnership with residents in disadvantaged residents".

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Conclusion & Next Steps

Underlying the initiatives outlined in the BARC Shared Work Plan is the mantra "*No one agency or entity can solve climate change alone"*. BARC was created through state statute as a mechanism through which regionally-oriented agencies can do the hard work of collaborating and aligning efforts to have greater impact. Nowhere in the statute does this say this is easy! Regional agencies don't operate in a vacuum; they operate in a complex and diverse region of stakeholders operating at different scales, at different capacities, and with different roles and authorities. As evidenced in the comment letters to the initial draft of the BARC Shared Work Plan, the commitment and passion of different stakeholders in addressing the climate change emergency is palpable. There is no shortage of work to do and everyone has a role to play.

There are more resources becoming available than ever before for climate mitigation and adaptation. We need to work together to ensure this new money can deliver the greatest benefit for people and communities, the Bay Area ecology, the economy and future generations. We need to work together to ensure resources are landing in the places that need them the most, particularly the Bay Area's frontline, BIPOC communities.

The BARC Shared Work Plan initiatives are complex, multi-layered efforts that involve multiple tasks and activities that bleed into each other. In most cases these tasks are led by specific agencies but require the active participation of other agencies and stakeholders. By working together, the agencies can avoid duplication, communicate a clear, holistic and coordinated approach to problem solving, and use everybody's time and resources in a productive manner towards shared outcomes. Focusing on the most effective roles the regional agencies can play – whether individually or collectively – to address climate change is a key feature of the BARC Shared Work Plan.

To that point, this is an iterative process. BARC must develop a more detailed scope of work for each initiative that will include specific roles for participating agencies and stakeholder partners, and a visual representation of the interplay and relationship of different efforts and how they feed into outcomes. For next steps, BARC staff will work with participating agency staff and leadership, as well as other stakeholders where appropriate, to develop the following:

- Identification of "official" work groups for each initiative (year one)
- Detailed scope of work for each initiative that includes further clarity on goals, staff roles, relationship of existing efforts, intended outcomes for each task, budget and resource needs, identification of lead agencies where needed.
- Outline of engagement strategy for each initiative, developed in partnership with stakeholders.

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BARC staff expects this work to reasonably take two to three months, given all the stakeholders involved.

Recommendation

The recommendation is that the BARC Governing Board approve the BARC Shared Work Plan with the condition that staff will bring forward further details for each initiative by the September 16, 2022, meeting. BARC staff will regularly report on progress of the initiatives at future meetings, enlisting the help of agency staff and partners in that endeavor.

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Appendices

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Appendix A: **BARC September 2021 Joint Resolution**

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Appendix B: Public Comment Period: Comment Letters

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Bay Area Regional Collaborative
Final
Draft Shared Work Plan

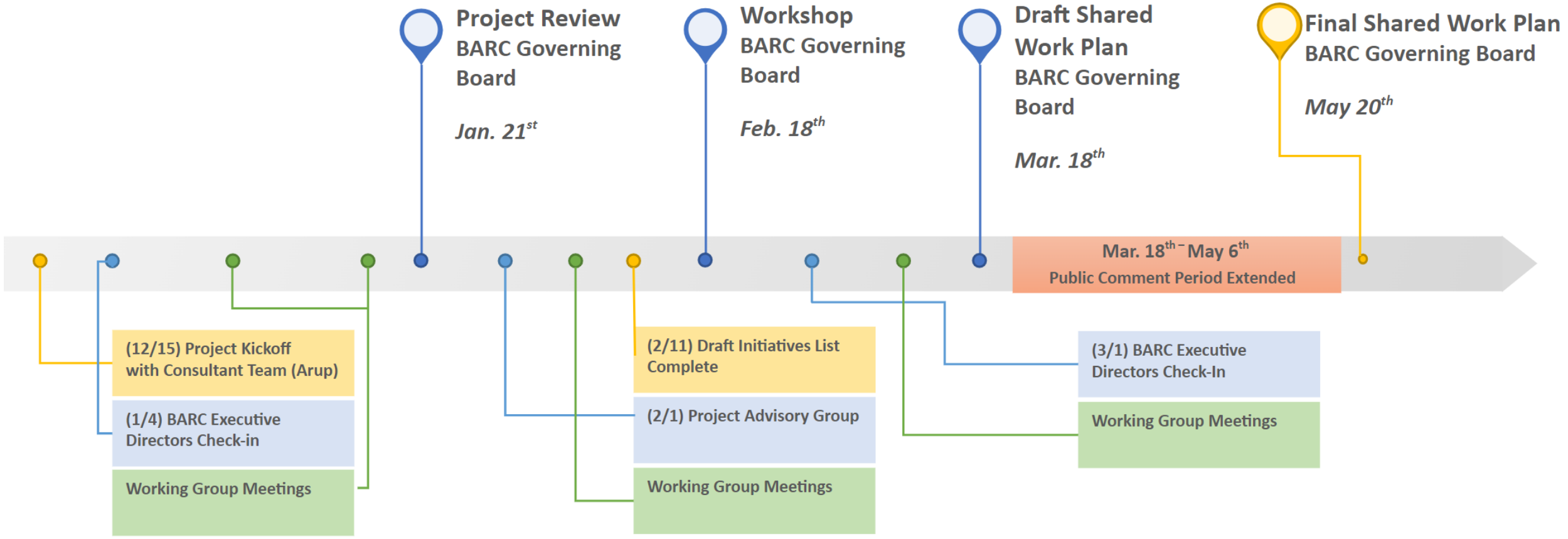
Allison Brooks
BARC Executive Director

Bay Area Regional Collaborative

BARC Governing Board

May 20, 2022

Timeline for Development of Draft Shared Work Plan



Public Comment Period

- Helpful input and feedback from stakeholders
- Identification of potential partners and opportunities for coordinated action
- Further refinement of Initiatives with agency staff, alignment with existing efforts, value-add created by working together

Shared Work Plan Goals

Identify	Identify actions that advance high priority shared climate goals in 1-5 years and accelerate cross-agency alignment
Commit	Commit to devoting appropriate staff time and resources in Fiscal Year 22-23
Prioritize	Prioritize social equity, justice, and inclusion across projects
Develop	Develop a coordinated technical assistance program to support local action and innovation
Evaluate	Evaluate and monitor Initiative progress through appropriate metrics

Bay Area **Regional Collaborative**

Bay Area **Regional Collaborative**

Joint Resolution to Address Climate Change

September 17, 2021

WHEREAS, according to the recent United Nations Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), catastrophic climate change impacts, including extreme droughts, severe heat waves and flooding, will continue to worsen for at least the next 30 years across the globe, while global sea levels will continue to rise at least for centuries[1]; and

WHEREAS, the increasingly frequent and severe impacts of climate change in the Bay Area do not conform to jurisdictional boundaries or the planning and regulatory authorities of any one agency or organization, and are creating overlapping risks to public health and safety that necessitate an integrated approach to air pollution mitigation and climate resilience; and

WHEREAS, scientific estimates project that California could experience as much as seven feet of sea level rise by the end of the century[2], with the San Francisco Bay estimated to experience two-thirds of the flood impacts projected for the state[3]; and

WHEREAS, increasingly frequent and severe wildfires are creating air quality impacts that represent a public health crisis for Bay Area residents, while undermining progress on reducing greenhouse gas emissions. In 2020, wildfires released an estimated 112 million metric tons of CO_2 into the atmosphere[4]; and

WHEREAS, warming temperatures and prolonged drought increasingly stress the Bay's estuarine ecosystem and the ecological processes that it supports, while threatening the water supplies of communities around the region and throughout the state; and

WHEREAS, the Bay Area region's most socioeconomically vulnerable frontline communities are at great risk of exposure to climate threats and have limited access to the resources needed to reduce risks and increase the resilience necessary to recover from disasters; and

WHEREAS, by practicing an advanced form of coordination and strategic integration across the planning, investments, and regulatory activities of its member agencies, BARC aims to measurably and equitably improve the resilience, adaptive capacity,

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[1] Intergovernmental Panel on Climate Change. (2021, August). *Climate Change 2021: Summary for Policymakers*. https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf
[2] California Legislative Analyst's office. (2020, August). *What Threat Does Sea-Level Rise Pose to California?* https://lao.ca.gov/Publications/Report/4261#California_Will_Experience_Rising_Seas_and_Tides
[3] Barnard, P.L., Erikson, L.H., Foxgrover, A.C. *et al.* Dynamic flood modeling essential to assess the coastal impacts of climate change. *Sci Rep* 9, 4309 (2019). https://doi.org/10.1038/s41598-019-40742-z
[4] California Air Resources Board. (2021). *Frequently Asked Questions: Wildfire Emissions.* https://ww2.arb.ca.gov/resources/documents/frequently-asked-questions-wildfire-emissio

Initiatives Evaluation Criteria

Effectiveness & Impact

- Is it ambitious enough to meet regional goals and the climate emergency?
- Does the initiative support alignment of related activities across multiple agencies to deliver a stronger outcome?
- Is there value-add in this being tackled at the regional level?

Enthusiasm & Consensus

- How much interest do BARC member agencies demonstrate for this initiative?

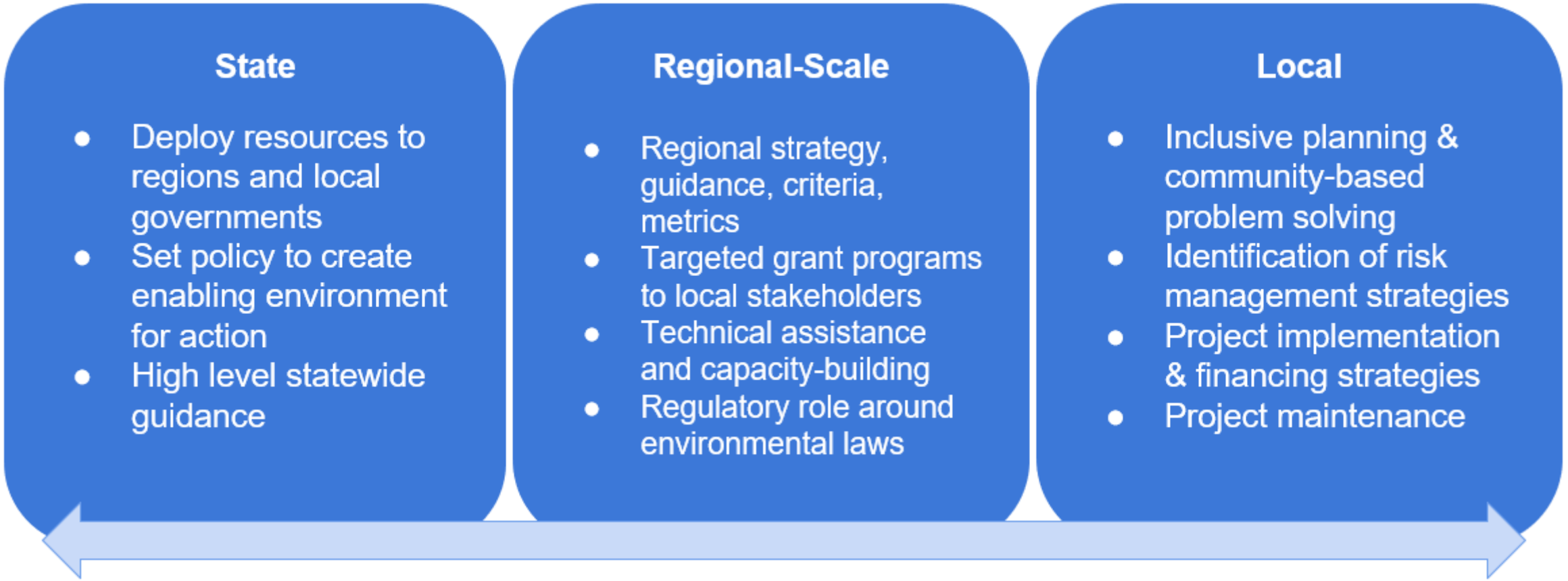
Feasibility & Capacity

- How realistic is it to implement in the next 1-5 years?
- Do the lead and partner agencies have the resources to deliver?
  If not, can BARC help identify and secure needed resources?

Positive Equity Outcome

- How does the initiative measurably improve quality of life outcomes for black, indigenous, people of color (BIPOC) and frontline communities, and advance fair and inclusive processes?

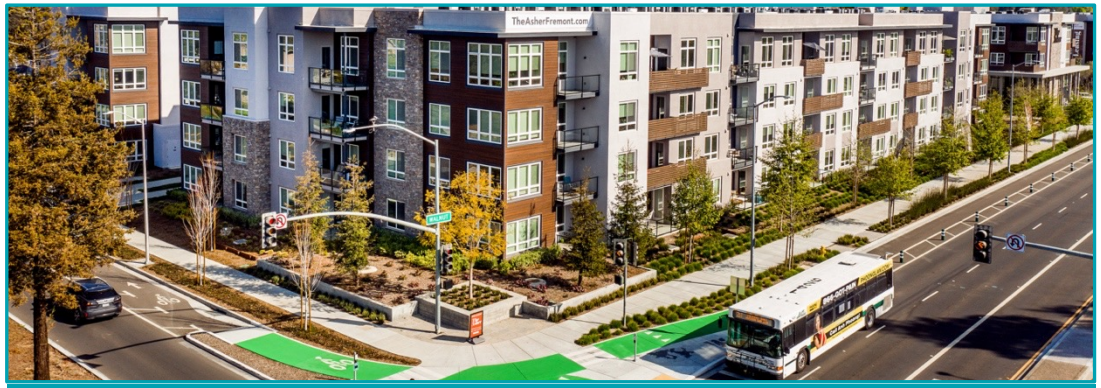
Key Question: *What is the optimal role regional agencies can play?*



Shared Work Plan Initiatives

Climate Adaption

1. Regional Adaptation Plan
2. Regional Technical Assistance



GHG Reduction

3. Zero Emission Transit Bus Infrastructure

Low-Carbon, High-Equity Neighborhoods

Climate Adaptation Initiatives

1	Regional Adaptation Plan	Develop a Regional Multi-Hazard Adaptation Plan
2	Regional Technical Assistance	Establish a regional technical assistance program to support local governments in advancing shared approach to adaptation planning and project implementation

Initiative 1:
Regional Multi-Hazard Adaptation Plan

Challenge Statement: The Bay Area faces increasing risks from climate hazards including sea-level rise, coastal and inland flooding, extreme heat, drought, and wildfires. The current lack of standardized and coordinated adaptation approaches across the region creates individualized local actions and disjointed approaches to managing risk. This environment also creates competition for funding and disparate resilience preparedness throughout the Bay, often leaving those most at risk at a further disadvantage.

Initiative 1: Regional Multi-Hazard Adaptation Plan

Description: *Work with partners and stakeholders to develop a Regional Multi-Hazard Adaptation Plan that supports the deployment of effective risk management strategies and equitable, multi-benefit climate adaptation projects at the appropriate geographic scale across the San Francisco Bay Area.*

Goals:

- Establish an engagement process by which stakeholders will work together to develop a Regional Multi-Hazard Adaptation Plan that supports strong coordination among regional agencies, counties, cities, special districts and community leaders
- Outline and understand the distinct role(s) of regional agencies and those of other levels of government in managing different climate hazards such as drought, heat, wildfire, sea level rise and flooding, as well as any potential interaction with seismic vulnerability.

Initiative 2:
Regional Technical Assistance

Challenge Statement: Local governments have different levels of capacity and resources available to conduct adaptation planning and develop risk management strategies — especially those at the frontlines of risk and most in need of early interventions.

Initiative 2: Regional Climate Adaptation Technical Assistance

Description: *Work with partners and stakeholders to develop a regional climate adaptation technical assistance program to support local adaptation planning and project implementation.*

Goals:

- Clarify who is in charge of different aspects of climate adaptation at different scales.
- Develop a clearinghouse or “storefront” of adaptation data, standards, and guidance
- Develop easy-to-access technical assistance for local governments and community-based organizations.

GHG Reduction: Potential Initiatives

3	Zero Emission Transit Bus Infrastructure	**Accelerate Zero-Emission Transit Bus (ZEB) deployment by supporting coordinated expansion of infrastructure and modernized facilities across the region. Position the region to capture significant federal and state funds to do so.**
	Low-Carbon, High-Equity Neighborhoods	**Align different but interrelated agency programs to develop a more holistic approach to fostering affordable, healthy, zero-emission neighborhoods.**

Initiative 3: Zero Emission Transit Bus Infrastructure

Challenge Statement: The California Air Resources Board's Innovative Clean Transit Rule requires 25% of large operators' bus purchases be zero-emission by 2023, and 100% by 2029. Coordination among stakeholders (including equipment manufacturers and utilities) is essential to creating a robust charging infrastructure to support the expansion of electric bus fleets and potentially other municipal vehicles.

Initiative 3: Zero Emission Transit Bus Infrastructure

Description: *Accelerate Zero-Emission Transit Bus (ZEB) deployment by supporting coordinated expansion of reliable charging infrastructure across the Bay Area region.*

Goals:

- Enhance MTC-led Bay Area Transit Zero-Emission Transition Strategy
- ZEB charging infrastructure capacity increased to support new power demands
- Simplified grantmaking across agencies to support shared outcomes
- Help align city and transit operators' efforts to scale up ZEB
- Establish relationships between regional agencies, operators, manufacturers, and energy utilities to meet the new power demand.

Exploratory Area: Low-Carbon, High-Equity Neighborhoods

Align different but interrelated agency programs to develop a more holistic approach to fostering affordable, healthy, zero-emission neighborhoods. These programs include those supporting affordable housing development, building decarbonization, electric vehicle charging, active transportation, single occupancy vehicle trip reduction, commuter benefits and climate resilience.

Recommendation & Next Steps

Recommend approval of the BARC Shared Work Plan with the condition that staff will bring forward further details on each Initiative to Governing Board by September 2022

Next Steps:

- Identification of work groups for each Initiative (year one)
- Detailed scope of work for each Initiative
- Outline of engagement strategy for each Initiative, developed in partnership with stakeholders

barc.ca.gov

Bay Area Regional Collaborative

Bay Area
Regional
Collaborative

Metropolitan Transportation Commission

375 Beale Street, Suite 800
San Francisco, CA 94105

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Date	Ver.	Action By	Action	Result

Subject:
Update of the Bay Area Air Quality Management District's CEQA Guidelines

Presenter:
Henry Hilken, Planning Director of BAAQMD

Recommended Action:
Information

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BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chairperson Amy Werth and Members
of the Bay Area Regional Collaborative

From: Alexander "Sandy" Crockett
Interim Acting Executive Officer/APCO

Date: May 13, 2022

Subject: Bay Area Air Quality Management District Recommended CEQA Thresholds of Significance for Climate Impacts

RECOMMENDED ACTION

None. Information only.

BACKGROUND

The California Environmental Quality Act (CEQA) requires that California public agencies study and disclose the environmental impacts of proposed development projects and plans, and limit those impacts to the extent feasible. These environmental impacts include climate change (through greenhouse gas [GHG] emissions) and air quality, as well as impacts not directly related to the Air District's purview, such as transportation, water quality, and biological resources, among others.

Greenhouse gas emissions from land use development can occur directly, e.g., emissions from combustion devices such as boilers and generators, and indirectly, e.g., from transportation activity associated with a project. Although Air District permits protect public health by assuring that stationary sources of air pollution comply with all applicable Air District regulations, the Air District does not have authority to issue permits for GHG emissions from local land use development. City or county land use permits determine whether and where a GHG-emitting project may be located, and local land use permits sometimes do not adequately consider GHG emissions. Air District air quality permits for stationary sources may result in GHG co-benefits, but Air District permits do not address GHG emissions from transportation, fossil fuel combustion, or other activities. As such, the Air District's ability to influence GHG emissions from land use projects is limited. And while many land use developments result in public concern, with calls for the Air District to take action, limited authority with respect to local land use decisions limits our options.

The Air District's CEQA Thresholds of Significance for Climate Impacts and the associated Justification Report are tools the Air District employs to further its and the State's goals of meeting GHG emissions reduction targets. The Air District's CEQA Thresholds of Significance for Climate Impacts and Justification Report are intended to assist cities, counties, and other lead agencies in analyzing and reducing climate impacts of local projects and plans. The thresholds provide lead agencies with recommended benchmarks for determining whether a project's or

plan's GHG emissions rise to a level of significance. The associated Justification Report *"CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans"* (Justification Report) provides the rationale and substantial evidence supporting the Thresholds of Significance for Climate Impacts. Air District staff is also developing updated CEQA Guidelines that will provide additional support to project developers and lead agencies in implementing the thresholds; the updated CEQA Guidelines are expected in Spring 2022.

Substantive changes have occurred with respect to the data and assumptions underlying the analytical methodologies, thresholds, and guidance since the Air District's last update of its GHG thresholds in June 2010. In addition, the State has taken strong legislative and programmatic action to achieve GHG reductions beyond 2020. Further, noteworthy court decisions related to CEQA litigation have occurred since 2010, creating new parameters that influence how climate impacts due to GHG emissions can be determined and mitigated under CEQA. Accordingly, Air District staff conducted a thorough research and community engagement process to update the Air District's CEQA GHG thresholds to reflect current State legislation, policy guidance and GHG reduction targets, new and revised requirements in the State CEQA Guidelines, case law, improved analytical methodologies, and updated GHG reduction strategies and technologies.

DISCUSSION

Staff investigated proposed updates to the CEQA Thresholds of Significance for Climate Impacts due to GHG emissions. Key motivations of this effort include the need to update the recommended thresholds to align with the latest State GHG reduction targets for 2030 and 2045, and to support local planning efforts. The previous thresholds were outdated, based on the State's 2008 Scoping Plan and 2020 GHG reduction target, and required updating to reflect current statewide policy, targets and time horizons. Staff developed updated Thresholds of Significance for Climate Impacts for: 1) Land-use Projects, and 2) Local Plans.

1) Land-use Projects

For a land-use project's GHG emissions to be determined to be less than significant, the project must: a) include certain project design elements, *or;* b) be consistent with a local GHG Reduction Strategy. Project design elements include aspects of the project that are within the control of the project developer and that have the potential to "lock in" GHG emissions for the duration of the project-life. The design elements included in the proposed thresholds address GHG emissions from building operations and transportation.

Alternatively, the evaluation of a land-use development project's GHG impacts could focus on a demonstration that the project is consistent with a local GHG Reduction Strategy, such as a climate action plan, which in turn conforms to State and Air District guidance. Criteria for a GHG Reduction Strategy that supports this type of streamlining is specified in the State CEQA Guidelines (section 15183.5(b)). In addition, the Air District is developing further supportive guidance for local GHG Reduction Strategies on how to reflect consistency with the State Guidelines. This supportive guidance will be included in the Air District's CEQA Guidance to be released later this Spring. The proposed thresholds for land use development projects are summarized in the following table.

Thresholds for Land Use Projects (Must Include A or B)
A. Projects must include, at a minimum, the following project design elements: 1. Buildings a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development). b. The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines. 2. Transportation a. Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA: i. Residential projects: 15 percent below the existing VMT per capita ii. Office projects: 15 percent below the existing VMT per employee iii. Retail projects: no net increase in existing VMT b. Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.
B. Projects must be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

2) Land-use Development Plans

For long-term communitywide planning documents (e.g., general plans, climate action plans) to be determined to have a less-than-significant climate impact, they must demonstrate that GHG emissions in the jurisdiction will decline consistent with California's GHG reduction targets of 40 percent below 1990 levels by 2030 and carbon neutrality by 2045. A local jurisdiction that plans to develop in a manner that reflects those targets will support the State's ability to achieve its climate goals and thus would be considered to have a less-than-significant impact on GHG emissions. If a jurisdiction has adopted a climate action plan that meets the criteria for a GHG Reduction Strategy under the State CEQA Guidelines and the Air District's guidance, it can use that climate action plan to provide the basis for demonstrating that the jurisdiction's GHG emissions will meet the 2030 and 2045 targets when it adopts a general plan update and similar long-range planning document. The threshold for plans is summarized in the table below.

Thresholds for Land-use Development Plans (Must Include A or B)
A. Meet the State's goals to reduce emissions to 40 percent below 1990 levels by 2030 and carbon neutrality by 2045; or
B. Be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

Air District staff prepared a report to explain and support the recommended thresholds. This report, *"CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans,"* is included as Attachment 1. This Justification Report provides the substantial evidence to support adoption of these thresholds by the Board of Directors, as well as the substantial evidence needed by Lead Agencies that choose to use these thresholds to make significance determinations.

The Air District Board of Directors adopted the thresholds at their April 20, 2022 meeting. The thresholds are now in effect, and are recommended to be used for projects that have not yet initiated an Initial Study/Notice of Preparation. Air District staff is meeting with lead agencies and other interested parties to support implementation.

Attachment 1: *CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans, April 2022*

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Air District CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans

Bay Area Regional Collaborative
May 20, 2022

Henry Hilken
Director, Planning & Climate Protection
hhilken@baaqmd.gov

Presentation Outline

- Background and context for the thresholds update
- Updated thresholds of significance
- Next Steps

Air District Roles in CEQA

- Prepare, review and comment on CEQA documents
  - **Lead agency** when we have the primary authority to implement or approve a project
  - **Responsible agency** when we have limited discretionary authority over a portion of a project
  - **Commenting agency** when we have concerns about air quality or greenhouse gas impacts of a proposed project
- Support lead agencies with CEQA
  - Establish recommended **thresholds** of significance for air quality and greenhouse gases
  - Providing **guidance** on methodology and best practices
  - Developing **data and tools** to assist practitioners with analyses

Air District Goals for Local Development

The Air District encourages local jurisdictions to:

- Build mixed-use, infill, transit-oriented development
- Avoid locating sensitive land uses near pollution sources
- Provide adequate levels of housing and minimize automobile use
- Support Air District goals for air quality and climate
- Support Plan Bay Area goals for housing and transportation
- Align with aggressive statewide goals for reducing GHG emissions

What is Driving This CEQA Thresholds Update?

- New State GHG Targets
  - AB 32's 2020 targets replaced by SB 32 target for 2030
  - Executive Order B-55-18: Carbon neutrality as soon as possible; no later than 2045
  - 2022 Scoping Plan update sets pathway to 2030 and 2045 targets
- Evolving case law
- Local governments are asking us to update our GHG thresholds to support their planning

Thresholds for Land Use Projects

Focus on Buildings & Transportation

Identify Design Elements/Best Practices

Thresholds for Land Use Projects (cont.)

Must include A or B:

A. Projects must include, at a minimum, the following project design elements:

   1) Buildings

      a) The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).

      b) The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.

B. Projects must be consistent with a local GHG Reduction Strategy that meets the criteria under the CEQA Guidelines section 15183.5(b)

Thresholds for Land Use Projects (cont.)

Must include A or B:

A. Projects must include, at a minimum, the following project design elements

   2) <u>Transportation</u>

      a) Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted SB 743 VMT target, *and*

      b) Achieve compliance with electric vehicle charging requirements in the most recently adopted version of CALGreen Tier 2

B. Be consistent with a local GHG Reduction Strategy that meets the criteria under the CEQA Guidelines section 15183.5(b)

Threshold for Local Plans

Must include A or B:

A. Meets State's goals to reduce emissions to 40% below 1990 levels by 2030 and carbon neutrality by 2045.

B. Is consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

Justification Report

- Provides rationale and evidence to support the use of the CEQA thresholds by the Air District and other Lead Agencies
- In order to have a less than significant climate impact:
  - Land use projects must be built so they can be carbon neutral by 2045
  - Community-wide plans guide community to being carbon neutral by 2045
- Land use projects
  - How to determine a project's "Fair Share" in achieving State's climate goals
  - How the design elements connect to the State's 2030 and 2045 climate goals
- Community-wide plans
  - Reinforce need for local climate action plans aligned with State goals

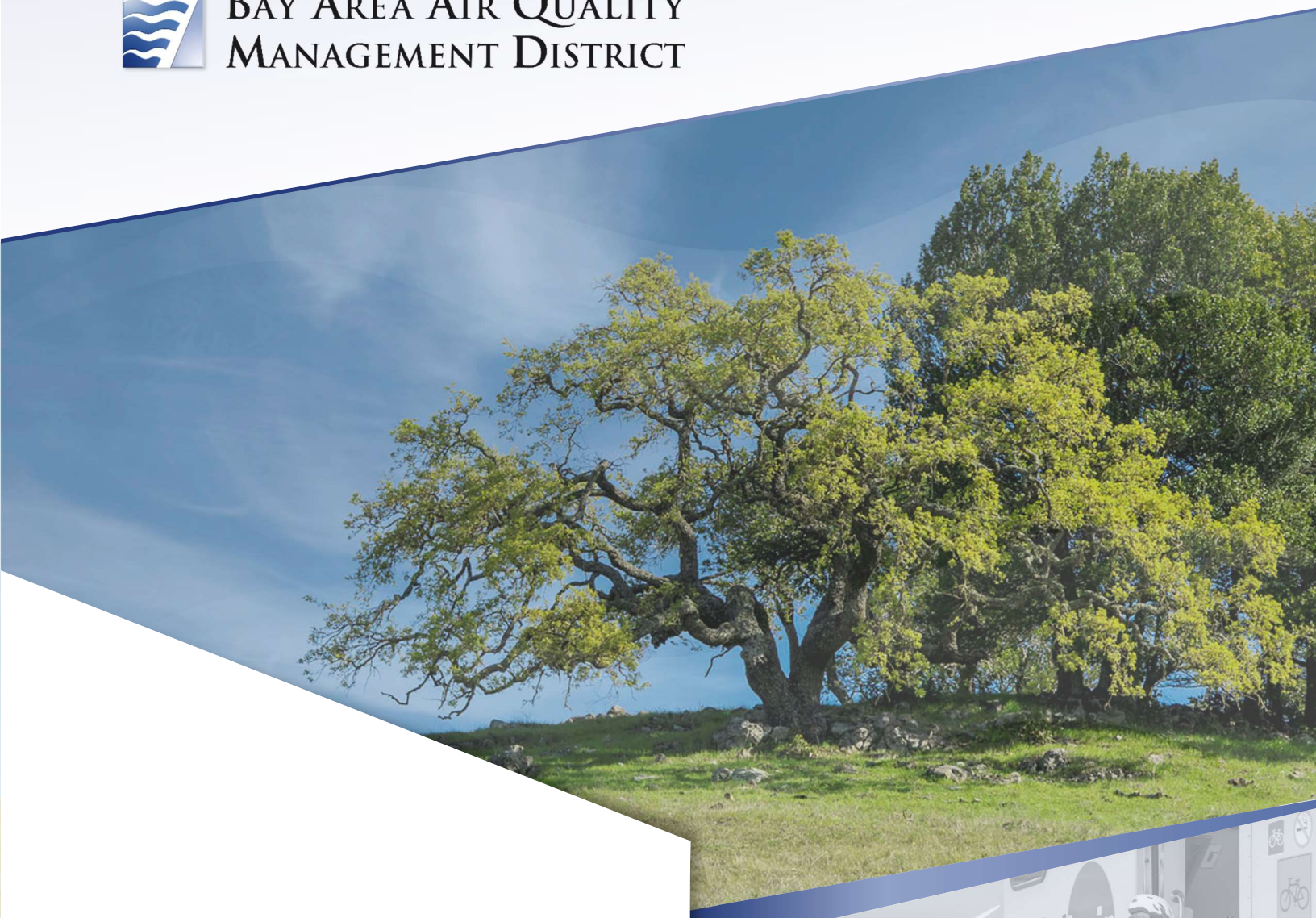
Stakeholder Engagement and Outcome

- Nine Focus Groups w/ subject matter experts (August – November, 2021)
- Two Public Workshops (December 2021 and March 2022) and public comment period (February – March 2022)
- Presentations to Air District Board committees (Sept. 2021, March 2022)
- Overall broad support, with some questions and concerns regarding certain elements
- Air District Board of Directors adopted thresholds April 20, 2022

Next Steps

- Thresholds are in effect, recommended to apply to projects initiating an Initial Study
- Air District staff meeting with local staff, practitioners to support implementation
- Air District staff launching review of other CEQA thresholds
  - Air quality thresholds, especially for local exposure to fine particulate ($PM_{2.5}$)
  - GHG thresholds for stationary sources

Bay Area Air Quality Management District



Justification Report:

CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans

April 2022

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Justification Report

CEQA Thresholds for Evaluating the Significance of Climate Impacts

Veronica Eady
Senior Deputy Executive Officer

Damian Breen
Senior Deputy Executive Officer

Greg Nudd
Deputy Air Pollution Control Officer

Adan Schwartz
Acting District Counsel

PRINCIPAL CONTRIBUTORS:

Henry Hilken
Director of Planning and Climate Protection

Alexander "Sandy" Crockett
Acting Senior Assistant Counsel

Abby Young
Climate Protection Manager

Wendy Goodfriend, Ph.D.
Air Quality Planning Manager

Jakub Zielkiewicz
Senior Advanced Projects Advisor

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
375 Beale Street, Suite 600
San Francisco, CA 94105
415.749.5000

TECHNICAL ASSISTANCE FROM:

ASCENT

Honey Walters
Principal-in-Charge

Poonam Boparai
Principal

Hannah Kornfeld, AICP
Project Manager

April 2022

TABLE OF CONTENTS

Figures

Tables

LIST OF ABBREVIATIONS

ºC	degrees Celsius
AB	Assembly Bill
Air District	Bay Area Air Quality Management District
CALGreen	California Green Building Standards Code
CARB	California Air Resources Board
CEC	California Energy Commission
CEQA	California Environmental Quality Act
DC	direct current
EIR	environmental impact report
EV	electric vehicle
GHG	greenhouse gas
HCD	California Department of Housing and Community Development
OPR	Governor's Office of Planning and Research
RPS	Renewables Portfolio Standard
SB	Senate Bill
VAC	voltage of alternating current
VMT	vehicle miles traveled
ZEV	zero-emission vehicle

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1 INTRODUCTION AND EXECUTIVE SUMMARY

This report presents the Bay Area Air Quality Management District's (Air District's) recommended thresholds of significance for use in determining whether a proposed project will have a significant impact on climate change. The Air District recommends that these thresholds of significance be used by public agencies to comply with the California Environmental Quality Act (CEQA).

Evaluating climate impacts under CEQA can be challenging because global climate change is inherently a cumulative problem. Climate change is not caused by any individual emissions source but by a large number of sources around the world emitting greenhouse gases (GHGs) that collectively create a significant cumulative impact. CEQA requires agencies in California to analyze such impacts by evaluating whether a proposed project would make a "cumulatively considerable" contribution to the significant cumulative impact on climate change. (See CEQA Guidelines Sections 15064[h] and 15064.4[b].)[1] But CEQA does not provide any further definition of what constitutes a cumulatively considerable contribution in this context. These thresholds of significance are intended to assist public agencies in determining whether proposed projects they are considering would make a cumulatively considerable contribution to global climate change, as required by CEQA.

The Air District's recommended thresholds of significance are summarized below, with a detailed discussion of the basis for the thresholds presented in the remainder of this report. The information provided in this report is intended to provide the substantial evidence that lead agencies will need to support their determinations about significance using these thresholds. This information also provides the substantial evidence to support adoption of these thresholds by the Air District's Board of Directors. (See CEQA Guidelines Section 15064.7 [thresholds must be adopted by the Board of Directors through a public review process and be supported by substantial evidence].)

1.1 THRESHOLDS FOR LAND USE PROJECTS

For land use development projects, the Air District recommends using the approach endorsed by the California Supreme Court in *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) (62 Cal.4th 204), which evaluates a project based on its effect on California's efforts to meet the State's long-term climate goals. As the Supreme Court held in that case, a project that would be consistent with meeting those goals can be found to have a less-than-significant impact on climate change under CEQA. If a project would contribute its "fair share" of what will be required to achieve those long-term climate goals, then a reviewing agency can find that the impact will not be significant because the project will help to solve the problem of global climate change (62 Cal.4th 220–223).

[1] The 2021 State CEQA Guidelines, including Appendices F and G, can be found at the following website: https://www.califaep.org/docs/CEQA_Handbook_2021.pdf.

Applying this approach, the Air District has analyzed what will be required of new land use development projects to achieve California's long-term climate goal of carbon neutrality[2] by 2045. The Air District has found, based on this analysis, that a new land use development project being built today needs to incorporate the following design elements to do its "fair share" of implementing the goal of carbon neutrality by 2045:

Thresholds for Land Use Projects (Must Include A or B)
A. Projects must include, at a minimum, the following project design elements: 1. Buildings a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development). b. The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines. 2. Transportation a. Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA: i. Residential projects: 15 percent below the existing VMT per capita ii. Office projects: 15 percent below the existing VMT per employee iii. Retail projects: no net increase in existing VMT b. Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.
B. Projects must be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

If a project is designed and built to incorporate these design elements, then it will contribute its portion of what is necessary to achieve California's long-term climate goals—its "fair share"—and an agency reviewing the project under CEQA can conclude that the project will not make a cumulatively considerable contribution to global climate change. If the project does not incorporate these design elements, then it should be found to make a significant climate impact because it will hinder California's efforts to address climate change. These recommended thresholds for land use projects are discussed in more detail in Section 4.

[2] "Carbon neutrality" is defined in Executive Order B-55-18 as the point at which the removal of carbon pollution from the atmosphere meets or exceeds carbon emissions. Carbon neutrality is achieved when carbon dioxide and other GHGs generated by sources such as transportation, power plants, and industrial processes are less than or equal to the amount of carbon dioxide that is stored, both in natural sinks and mechanical sequestration.

1.2 THRESHOLDS FOR GENERAL PLANS AND RELATED PLANNING DOCUMENTS

The Air District recommends a similar approach for cities and counties adopting general plans and related planning documents that will guide long-range development in their jurisdictions. The Air District recommends that cities and counties evaluate such plans based on whether they will be consistent with California's long-term climate goal of achieving carbon neutrality by 2045. To be consistent with this goal, these plans should reduce GHG emissions in the relevant jurisdiction to meet an interim milestone of 40 percent below the 1990 emission levels by 2030, consistent with Senate Bill (SB) 32, and to support the State's goal of carbon neutrality by 2045. Cities and counties planning to develop in a manner that is not consistent with meeting these GHG reduction targets will have a significant climate impact because they will hinder California's efforts to address climate change.

Thresholds for Plans (Must Include A or B)
A. Meet the State's goals to reduce emissions to 40 percent below 1990 levels by 2030 and carbon neutrality by 2045; or
B. Be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

The Air District also strongly recommends that cities and counties adopt climate action plans to document specific strategies and implementation measures to achieve these 2030 and 2045 goals. Robust climate action plans that meet the requirements of CEQA Guidelines Section 15183.5(b) can provide such jurisdictions with a number of benefits. If properly developed, they will provide the substantial evidence a jurisdiction needs to demonstrate that its general plan updates and related planning documents will not have a significant climate impact as outlined in the preceding paragraph. In addition, a jurisdiction can use a qualified climate action plan to evaluate individual land use projects under CEQA. This gives the local jurisdiction the flexibility to tailor requirements for land use projects in its community to the specific circumstances of that community rather than use the Air District's general thresholds for land use projects described above. In addition, a jurisdiction can adopt a climate action plan immediately, without having to wait for its next general plan update cycle.

Thresholds for general plans and related planning documents are discussed in more detail in Section 5. Guidance from the Air District on how to develop and adopt a comprehensive climate action plan that satisfies the detailed requirements of CEQA Guidelines Section 15183.5(b) is set forth in Appendix C to the Air District's Air Quality Guidelines.

1.3 Important Considerations for Using These Thresholds

The Air District has developed these thresholds of significance based on typical residential and commercial land use projects and typical long-term communitywide planning documents such as general plans and similar long-range development plans. As such, these thresholds may not be appropriate for other types of projects that do not fit into the mold of a typical residential or commercial project or general plan update.

Lead agencies should keep this point in mind when evaluating other types of projects. A lead agency does not necessarily need to use a threshold of significance if the analysis and justifications that were used to develop the threshold do not reflect the particular circumstances of the project under review. Accordingly, a lead agency should not use these thresholds if it is faced with a unique or unusual project for which the analyses supporting the thresholds as described in this report do not squarely apply. In such cases, the lead agency should develop an alternative approach that would be more appropriate for the particular project before it, considering all of the facts and circumstances of the project on a case-by-case basis.

In addition, lead agencies should keep in mind that the science of climate change – and California's regulatory and policy responses to it – are constantly evolving. As the technical and policy considerations on which these thresholds of significance are based advance in the future, lead agencies may need to make adjustments to the thresholds as set forth herein to be consistent with the most current information. As the California Supreme Court has explained, lead agencies are required to "ensure that CEQA analysis stays in step with evolving scientific knowledge and state regulatory schemes" (*Cleveland National Forest Foundation v. SANDAG* (2017) 3 Cal.5th 497, 519). Making appropriate adjustments to these thresholds in light of future developments will ensure that lead agencies comply with this important CEQA mandate.

2 FRAMEWORK FOR ANALYZING IMPACTS UNDER CEQA

The central requirement of the CEQA environmental analysis is to determine whether implementing a project will result in any significant adverse impact on the environment, either individually or cumulatively.

This mandate requires the reviewing agency first to evaluate whether the project will have a significant impact by itself and then to consider whether the project may contribute to a significant cumulative impact in conjunction with other past, present, and reasonably foreseeable future projects that also contribute to the impact.[3]

In the cumulative context, the analysis has two parts. To evaluate cumulative impacts, the agency must assess (1) whether the overall cumulative impact will be significant and, (2) if the overall impact is significant, whether the incremental contribution that the individual project under review will add to the overall cumulative problem will be cumulatively considerable. As Section 15064(h)(1) of the CEQA Guidelines states:

> When assessing whether a cumulative effect requires an EIR [environmental impact report], the lead agency shall consider whether the cumulative impact is significant and whether the effects of the project are cumulatively considerable. An EIR must be prepared if the cumulative impact may be significant and the project's incremental effect, though individually limited, is cumulatively considerable.

Both parts of this test must be met for a project's impact to be treated as significant under CEQA. If the overall cumulative impact does not rise to the level of a "significant" impact, or if the project's incremental

[3] A cumulative impact is the change in the environment that results from the incremental impact of the project under review in conjunction with other past, present, and reasonably foreseeable probable future projects (CEQA Guidelines Section 15355).

contribution is not cumulatively considerable, then the project's impact is not treated as significant. (See *San Francisco Baykeeper, Inc. v. State Lands Commission* [2015] [242 Cal.App.4th 202, 222] [project not significant if "the cumulative impact is insignificant or if the project's incremental contribution to the impact is not cumulatively considerable"]; see also CEQA Guidelines Sections 15130[a][3] and 15064[h].)

Cumulatively considerable means that the incremental effect of the specific project under review will be significant when viewed in the context of the overall cumulative problem (CEQA Section 21083[b][2]). CEQA does not require that any incremental addition to a significant cumulative impact, no matter how small, must necessarily be treated as cumulatively considerable. The statute does not require a so-called "one additional molecule" standard, and some projects' incremental contributions would be so minor that their impact does not have to be treated as significant even though the projects would add an additional amount to the significant cumulative impact (*Communities for a Better Environment v. California Resources Agency* [2002] [103 Cal.App.4th 98, 120]; see also CEQA Guidelines Section 15064[h][4].) The level at which the incremental addition becomes cumulatively considerable will depend on the nature of the particular cumulative impact being evaluated. The ultimate test is whether any additional amount should be considered significant in the context of the existing cumulative effect. (CEQA Section 21083[b][2]).)

Applying these principles, the environmental impact analysis under CEQA is a four-step process:

- Step One: **Determine the level at which an impact on the environmental resource under consideration becomes "significant."** This is the touchstone for assessing whether the project may have a significant impact individually or may contribute to a cumulative impact that is significant. The level at which the impact becomes significant will depend on the nature of the environmental resource being evaluated.
- Step Two: **Evaluate whether the project under review would degrade the environmental resource to such an extent that there would be an impact exceeding the "significant" level determined during Step One**. If implementing the project would cause an impact to exceed that level all by itself, then the project's impact is treated as significant under CEQA and the project requires preparation of an EIR, implementation of feasible mitigation measures to reduce the impact to a less-than-significant level, and consideration of alternatives that would avoid or lessen any significant impacts. If the project under review would not degrade the environmental resource to such an extent that there would be a significant impact, the analysis proceeds to Step Three.
- Step Three: **Determine whether the contribution of the project combined with the contributions of all other past, present, and reasonably foreseeable future projects would exceed the "significant" level determined during Step One.** If implementing the project would not cause a significant impact by itself, it still must be evaluated to determine whether it would make a cumulatively considerable contribution to a significant cumulative impact. The first element of that analysis is to assess the overall cumulative impact caused by the project in conjunction with other past, present, and reasonably foreseeable future projects affecting the same resource. If the overall cumulative impact exceeds the "significant" level determined during Step One, then the project would contribute to a significant cumulative impact, and the analysis proceeds to Step Four to determine whether that contribution is cumulatively considerable.

- Step Four: **Determine whether the project's incremental contribution is cumulatively considerable.** The final step is to determine whether the project's incremental contribution is cumulatively considerable in light of the overall cumulative impact. If implementing the project would make a cumulatively considerable contribution to a significant cumulative impact, the impact is considered significant under CEQA and the agency must prepare an EIR, impose feasible mitigation measures to bring the incremental contribution below the cumulatively considerable level, and consider alternatives.

The CEQA analysis applies this four-step process to evaluating climate impacts just as it does for all other impacts.

3 ANALYZING IMPACTS ON GLOBAL CLIMATE CHANGE

CEQA requires agencies to consider a project's impacts on global climate change in the same manner that they consider impacts on other areas in the environmental review document. Climate change is unique, however, given the global nature of the problem.

Step One in the analysis requires determining the level at which climate change becomes a "significant" environmental problem. There is a general consensus that we need to limit the warming of the planet to no more than 1.5 degrees Celsius (ºC) in order to maintain a sustainable global climate. Aiming to limit global warming to 1.5ºC is a goal recognized by the Paris Agreement on Climate Change and in California's Executive Order B-55-18, and the Intergovernmental Panel on Climate Change (IPCC) has documented the serious adverse consequences that are expected if the climate warms by more than that amount (IPCC 2018). A 1.5ºC rise in global temperatures is therefore an appropriate measure of the level at which climate change will become significant. A global temperature increase of more than that amount will constitute a significant climate impact.

Proceeding to Step Two in the analysis, it is clear that no individual project could have a significant climate impact all by itself, because no project by itself could cause the global temperature to rise by 1.5ºC. Indeed, it is difficult to conceive of any project whose GHG emissions would cause global temperature to change in any detectable way. The California Supreme Court acknowledged this situation in its *Center for Biological Diversity* decision, explaining that "an individual project's emissions will most likely not have any appreciable impact on the global problem by themselves, but they will contribute to the significant cumulative impact caused by greenhouse gas emissions from other sources around the globe" (*Center for Biological Diversity v. Department of Fish & Wildlife* [2015] 62 Cal.4th 204, 219 [citation omitted]).

Moving on to the cumulative analysis, Step Three asks whether the project would contribute to a significant cumulative impact in conjunction with all other past, present, and foreseeable future projects that are contributing to the same impact. With respect to climate change, clearly the answer is yes. Climate change is a cumulative problem caused by millions or billions of individually minor sources all around the globe contributing to the global impact, and it is unquestionably a significant cumulative problem.[4] The

[4] CEQA requires the cumulative analysis to consider the contributions from all projects that contribute to the impact (i.e., all projects that contribute to the degradation of the environmental resource being evaluated). (See *City of Long Beach v. Los Angeles Unified School Dist.* [2009]

global climate has already warmed by approximately 1.0ºC compared to a preindustrial baseline, and IPCC projects that continued growth in GHG emissions will cause that warming to reach 1.5 ºC by 2030–2053 if nothing is done to limit it (IPCC 2018).

The analysis therefore focuses on Step Four: determining whether the project's GHG emissions would make a cumulatively considerable contribution to the significant problem of global climate change. As the Supreme Court noted in its *Center for Biological Diversity* decision, the question is "whether the project's incremental addition of greenhouse gases is 'cumulatively considerable' in light of the global problem, and thus significant" (*Center for Biological Diversity v. Department of Fish & Wildlife* [2015] 62 Cal.4th 219). This is the challenge that has faced lead agencies in undertaking the CEQA analysis: how to determine the level at which a project becomes cumulatively considerable.

4 THRESHOLDS FOR LAND USE DEVELOPMENT PROJECTS

4.1 THE SUPREME COURT'S "FAIR SHARE" ANALYSIS AND CONSISTENCY WITH CALIFORNIA'S LONG-TERM CLIMATE GOALS

The crucial question in the CEQA climate impact analysis is whether the project under review would make a cumulatively considerable contribution to the significant cumulative problem of global climate change. For land use development projects, the Air District recommends using the approach endorsed by the California Supreme Court in the *Center for Biological Diversity* decision, discussed above, which focuses on determining whether the project would be doing its "fair share" to implement California's ambitious long-term climate goals. This approach evaluates whether a project's GHG emissions are cumulatively considerable based on "their effect on the state's efforts to meet [those] goals…." (*Center for Biological Diversity v. Department of Fish & Wildlife* [2015] 62 Cal.4th 221.) If a new land use project would serve California's pressing need to provide housing, jobs, and related infrastructure in a manner that supports achieving those climate goals, then it would help to solve the climate change problem, and its GHG emissions should not be treated as cumulatively considerable. As the Supreme Court held, "consistency with meeting [those] statewide goals [is] a permissible significance criterion for project emissions" (*Center for Biological Diversity v. Department of Fish & Wildlife* [2015] 62 Cal.4th 220), and an agency's "choice to use that criterion does not violate CEQA" (*Center for Biological Diversity v. Department of Fish & Wildlife* [2015] 62 Cal.4th 223).

This approach is based on the principle inherent in CEQA that an individual project would make a less-than-cumulatively-considerable contribution if it would do its part to address the cumulative problem. As the Supreme Court explained, "if a plan is in place to address a cumulative problem, a new project's incremental addition to the problem will not be 'cumulatively considerable' if it is consistent with the plan

[176 Cal.App.4th 889, 907], *Bakersfield Citizens for Local Control v. City of Bakersfield* [2004] [124 Cal.App.4th 1184, 1219 fn. 10], and *Kings County Farm Bureau v. City of Hanford* [1990] [221 Cal.App.3d 692, 720]). In the context of global climate change, this means considering all sources of GHG emissions around the globe that contribute to the global problem. Given the large number of sources involved, the analysis needs to use the "summary of projections" method to assess the magnitude of the total cumulative impact, not the "list of projects" method. (See CEQA Guidelines Section 15130[b].)

and is doing its fair share to achieve the plan's goals" (*Center for Biological Diversity v. Department of Fish & Wildlife* [2015] 62 Cal.4th 223). No individual project needs to solve the entire cumulative problem by itself. Indeed, no individual project could, given that the problem is the result of such a large number of diverse emission sources. But each individual project does need to do what is required of it to ensure that the overall solution is implemented, and if it does that, then its impact on climate change can be treated as less than cumulatively considerable. As the Supreme Court put it in the climate context, "[t]o the extent a project incorporates efficiency and conservation measures sufficient to contribute its portion of the overall greenhouse gas reductions necessary [to achieve the State's climate goals], one can reasonably argue that the project's impact is not cumulatively considerable, because it is helping to solve the cumulative problem..." (*Center for Biological Diversity v. Department of Fish & Wildlife* [2015] 62 Cal.4th 220 [internal quotation marks omitted]).

4.2 USING THE EXECUTIVE ORDER B-55-18 AND THE 2045 CARBON NEUTRALITY GOAL IN THE "FAIR SHARE" ANALYSIS

The *Center for Biological Diversity* case was decided in 2015, and it specifically addressed only the Assembly Bill (AB) 32 goal of attaining 1990 emission levels by 2020 statewide, not the longer-term goal for 2045. However, we are now past the 2020 milestone. At this point, the focus has shifted to the longer-term goals and ultimately to carbon neutrality by 2045. Moreover, the Supreme Court has recognized the necessity and appropriateness of using these longer-term goals as the touchstone for the CEQA analysis. As it held in *Cleveland National Forest Foundation v. SANDAG*, these longer-term goals express "what scientific research has determined to be the level of emissions reductions necessary to stabilize the climate by midcentury and thereby avoid catastrophic effects of climate change" (*Cleveland National Forest Foundation v. SANDAG* [2017] 3 Cal.5th 497, 513). They represent "the scientifically-supported level of emissions reduction needed to avoid significant disruption of the climate and [are] used as the long-term driver for state climate change policy development" (*Cleveland National Forest Foundation v. SANDAG* [2017] 3 Cal.5th 497, 513 (citation omitted)[5]).

The consistency analysis approved by the Supreme Court in *Center for Biological Diversity* can be applied to these longer-term goals in the same way it was applied to the AB 32 2020 goal. If a project would be consistent with meeting these long-term State climate goals, then its climate impact can be seen as less than cumulatively considerable "because it is helping to solve the cumulative problem of greenhouse gas emissions as envisioned by California law" (*Center for Biological Diversity v. Department of Fish & Wildlife* [2015] 62 Cal.4th 220 (citation omitted)).

Moreover, although the 2045 goal is set forth in an executive order and not in a statute, as with the 2020 AB 32 goal that the Supreme Court addressed in *Center for Biological Diversity*, the Executive Order B-55-18 goal is appropriate to use for developing a threshold of significance given the science supporting it. The Supreme Court explicitly rejected the argument that an executive order cannot be used for this purpose because it has not been adopted by statute in the *SANDAG* case. It explained that the executive order at

[5] These statements were referring to the older Executive Order S-3-05, which included an 80-percent reduction target by 2050, but they apply with equal force to the more recent Executive Order B-55-18.

issue there "expresses the pace and magnitude of reduction efforts that the scientific community believes is necessary to stabilize the climate. This scientific information has important value to policymakers and citizens in considering the emission impacts of a project…" (*Cleveland National Forest Foundation v. SANDAG* [2017] 3 Cal.5th 515). Agencies are required to design their CEQA analyses "based to the extent possible on scientific and factual data," and if an executive order best embodies the current state of the scientific and factual data, an agency may use it as the basis for its CEQA analysis (*Ibid*. (quoting CEQA Guidelines Section 15064[b]).

4.3 DETERMINING A LAND USE PROJECT'S "FAIR SHARE" FOR GETTING TO CARBON NEUTRALITY BY 2045

The "fair share" analysis looks at how a new land use development project needs to be designed and built to ensure that it will be consistent with the goal of carbon neutrality by 2045. This is California's current articulation of what will be required to achieve long-term climate stabilization at a sustainable level, as articulated in Executive Order B-55-18. If a land use project incorporates all of the design elements necessary for it to be carbon neutral by 2045, then it will contribute its portion of what is needed to achieve the State's climate goals and will help to solve the cumulative problem. It can therefore be found to make a less-than-cumulatively-considerable climate impact.

A land use project's "fair share" will not necessarily include everything that will need to happen in order to achieve carbon neutrality by 2045. There will likely be certain aspects of achieving carbon neutrality that are beyond the scope of how a land use project is designed and thus cannot reasonably be allocated to its "fair share." For example, becoming carbon neutral by 2045 will require California's electrical power generators to shift to 100-percent carbon-free energy resources, which is not something that can be controlled through the design of new land use projects. But for those aspects that can be controlled or influenced by how such projects are designed, projects need to address those aspects in order to contribute their "fair share" of what is needed to attain carbon neutrality. If a project is not designed and built to ensure that it can be carbon neutral by 2045, then it will impede California's ability to achieve its long-term climate goals and should be treated as making a cumulatively considerable contribution to global climate change.

To determine the "fair share," the analysis should therefore focus on the design elements that need to be incorporated into the project in order to lay the foundation for achieving carbon neutrality by 2045. As GHG emissions from the land use sector come primarily from building energy use and from transportation, these are the areas that need to be evaluated to ensure that the project can and will be carbon neutral. With respect to building energy use, this can be achieved by replacing natural gas with electric power and by eliminating inefficient or wasteful energy usage. This will support California's transition away from fossil fuel–based energy sources and will bring the project's GHG emissions associated with building energy use down to zero as our electric supply becomes 100 percent carbon free. With respect to transportation, projects need to be designed to reduce project-generated VMT and to provide sufficient electric vehicle (EV) charging infrastructure to support the shift to EVs. As explained below, the Air District recommends using a threshold of a 15-percent reduction in project-generated VMT per capita compared with existing

levels (or other, more current percentage to the extent further analysis shows that a different level of reduction is needed) and providing EV charging infrastructure as specified in the California Green Building Standards Code (CALGreen) Tier 2 standards. If a land use project being designed and built today incorporates the design elements necessary for the project to be carbon neutral by 2045, then it will contribute its "fair share" to achieving the State's climate goals. A lead agency can therefore conclude that it will make a less-than-cumulatively-considerable climate impact.

There is no proposed construction-related climate impact threshold at this time. Greenhouse gas emissions from construction represent a very small portion of a project's lifetime GHG emissions. The proposed thresholds for land use projects are designed to address operational GHG emissions which represent the vast majority of project GHG emissions.

The following sections provide a more detailed discussion of the framework for evaluating the design elements necessary for a project to be consistent with California's long-term climate goals. The Air District recommends that lead agencies use the design elements as the threshold of significance for land use projects under the Supreme Court's "fair share" approach discussed above.

Thresholds for Land Use Projects (Must Include A or B)
A. Projects must include, at a minimum, the following project design elements: 1. Buildings a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development). b. The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines. 2. Transportation a. Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA: i. Residential projects: 15 percent below the existing VMT per capita ii. Office projects: 15 percent below the existing VMT per employee iii. Retail projects: no net increase in existing VMT b. Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.
B. Be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

4.3.1 Building Energy Use

Energy used in residential and nonresidential buildings in California comes primarily from natural gas and electricity, the generation and consumption of which can result in GHG emissions. Natural gas usage emits GHGs directly when it is burned for space heating, cooking, hot water heating and similar uses, whereas electricity usage emits GHGs indirectly to the extent that it is generated by burning carbon-based fuels. For the building sector to achieve carbon neutrality, natural gas usage will need to be phased out and replaced with electricity usage, and electrical generation will need to shift to 100-percent carbon-free sources. To support these shifts, new projects need to be built without natural gas and with no inefficient or wasteful energy usage.

ELECTRICITY

Eliminating GHG emissions associated with building electricity usage will be achieved by decarbonizing California's electrical generation infrastructure. California has committed to achieving this goal by 2045 through SB 100, the 100 Percent Clean Energy Act of 2018. SB 100 strengthened the State's Renewables Portfolio Standard (RPS) by requiring that 60 percent of all electricity provided to retail users in California come from renewable sources by 2030 and that 100 percent come from carbon-free sources by 2045.

The land use sector will benefit from RPS because the electricity used in buildings will be increasingly carbon-free, but implementation does not depend (directly at least) on how buildings are designed and built. RPS will be implemented by the generators that produce and sell the electricity, not by the end users of that electricity. Implementing SB 100 is therefore not part of the "fair share" that falls to land use development projects to ensure that California reaches its 2045 carbon neutrality target.

Nevertheless, land use projects do have an important role to play on the demand side to ensure that SB 100 can feasibly be implemented. Inefficient electricity usage will hinder the shift to renewable power generation by requiring additional carbon-free generating resources to be developed, increasing the cost of shifting to renewables and other carbon-free energy sources, and delaying full implementation longer than necessary. Thus, to the extent that new land use projects have a role to play in ensuring that SB 100 is successfully implemented, that role is to maximize the efficiency with which they use electricity and to eliminate any wasteful or unnecessary usage. If a new land use project maximizes efficiency and eliminates wasteful and unnecessary usage, then it will implement its "fair share" in this area, consistent with achieving the State's long-term climate goals. Conversely, if a project is not designed to use electricity in an efficient manner, then it will hinder the successful implementation of SB 100 and the State's long-term climate goals.

CEQA requires lead agencies to evaluate a project's potential for wasteful, inefficient, or unnecessary energy usage under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines, along with State CEQA Guidelines Appendix F and Appendix G, Section VI. The Air District recommends using the results of this analysis to determine whether the project will implement its "fair share" with respect to supporting the implementation of SB 100. If the energy analysis required under CEQA Section 21100(b)(3) shows that a project will not result in any wasteful, inefficient, or unnecessary electrical usage, then it will

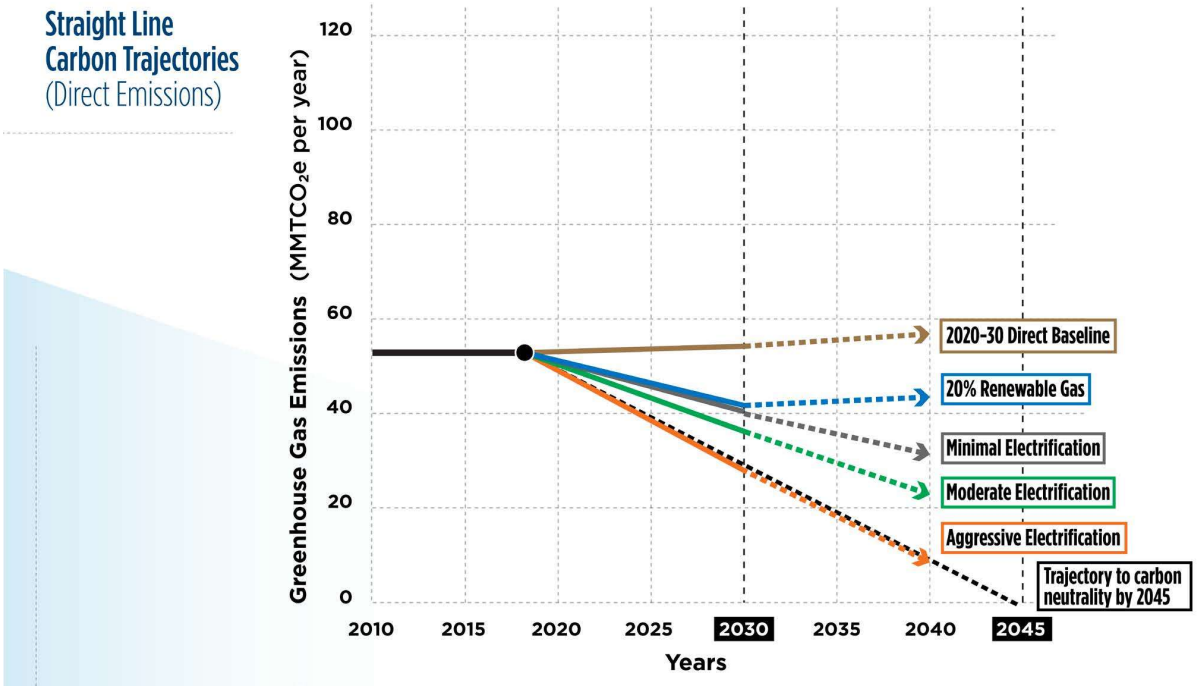
be consistent with implementing SB 100 and will not make a cumulatively considerable climate impact with respect to building electrical usage. If the project is found to involve wasteful, inefficient, or unnecessary electrical usage, then the lead agency should conclude that it will make a cumulatively considerable impact and treat it as significant in this regard.

NATURAL GAS

Regarding natural gas usage, new land use development projects must be built without any natural gas infrastructure in order to be consistent with achieving the 2045 carbon neutrality goal. There is no practical way to eliminate the GHG emissions that are generated by burning natural gas, so the land use sector will need to fully eliminate natural gas usage in buildings in order to achieve the goal of carbon neutrality. Given the difficulty of retrofitting existing buildings to replace the use of natural gas with the use of electricity, California needs to stop building natural gas infrastructure in new buildings if it is going to be able to achieve full electrification by the 2045 target date. Retrofitting an existing building to replace natural gas infrastructure with electrical service is far more difficult and expensive than simply building a new all-electric building (CEC 2021a; E3 2019). For California to successfully eliminate natural gas usage by 2045, it will need to focus available resources on retrofitting existing natural gas infrastructure. This task will become virtually impossible if we continue to build more natural gas infrastructure that will also need to be retrofit within the next few years.

This need to eliminate natural gas in new projects in order to achieve carbon neutrality in buildings by 2045 is demonstrated by analyses conducted by the California Energy Commission (CEC) in its California Building Decarbonization Assessment (CEC 2021a). CEC published the California Building Decarbonization Assessment primarily in response to the requirements of AB 3232, which required CEC to evaluate how the State can reduce GHG emissions from its residential and commercial building stock by at least 40 percent below 1990 levels by 2030. But CEC went beyond just analyzing that 2030 goal and evaluated what will be necessary to achieve the longer-term goal of carbon neutrality by 2045. The analysis considered a number of different scenarios and projected the total GHG emissions from residential and commercial buildings under each of them. The results of CEC's analysis are shown graphically in Figure 1.

Figure 1 Effectiveness of CEC-Modeled Electrification Scenarios at Achieving Carbon Neutrality by 2045



Source: CEC 2021a:14

The CEC's analysis shows that only the most aggressive electrification scenario will put the building sector on track to reach carbon neutrality by 2045. Anything that hinders such aggressive efforts will jeopardize California's chances of achieving full building decarbonization by 2045 and impair the state's ability to reach its long-term climate goals. Installing natural gas infrastructure in new buildings will do so because it will add even more infrastructure that will need to be retrofit with electricity between now and 2045. New projects therefore need to eliminate natural gas in order to implement their "fair share" of achieving the long-term 2045 carbon neutrality goal. If a project does not use natural gas in its buildings, then a lead agency can conclude that it is consistent with achieving the 2045 carbon neutrality goal and will not have a cumulatively considerable impact on climate change. If a project does use natural gas, then it will hinder California's ability to decarbonize its building sector. In that case, the lead agency should conclude that it will make a cumulatively considerable impact and treat it as significant.

4.3.2 Transportation

The second principal source of GHG emissions associated with land use comes from transportation. Decarbonization of the transportation infrastructure serving land use development will come from shifting the motor vehicle fleet to EVs, coupled with a shift to carbon-free electricity to power those vehicles. Land use projects cannot directly control whether and how fast these shifts are implemented, but they can and do have an important indirect influence on California's transition to a zero-carbon transportation system.

New land use development can influence transportation-related emissions in two areas related to how it is designed and built. First, new land use projects need to provide sufficient EV charging infrastructure to serve the needs of project users who will be driving EVs. If project users cannot find the charging

infrastructure they need to charge their vehicles at the residential, commercial, and other buildings they frequent, they will be discouraged from switching to an EV. But if those buildings provide sufficient charging infrastructure to make driving an EV easy and efficient, then users will find it easy to choose to drive an EV, and the rate of EV penetration will be accelerated. It is therefore very important for land use projects to provide the EV charging infrastructure needed to support growing EV usage.

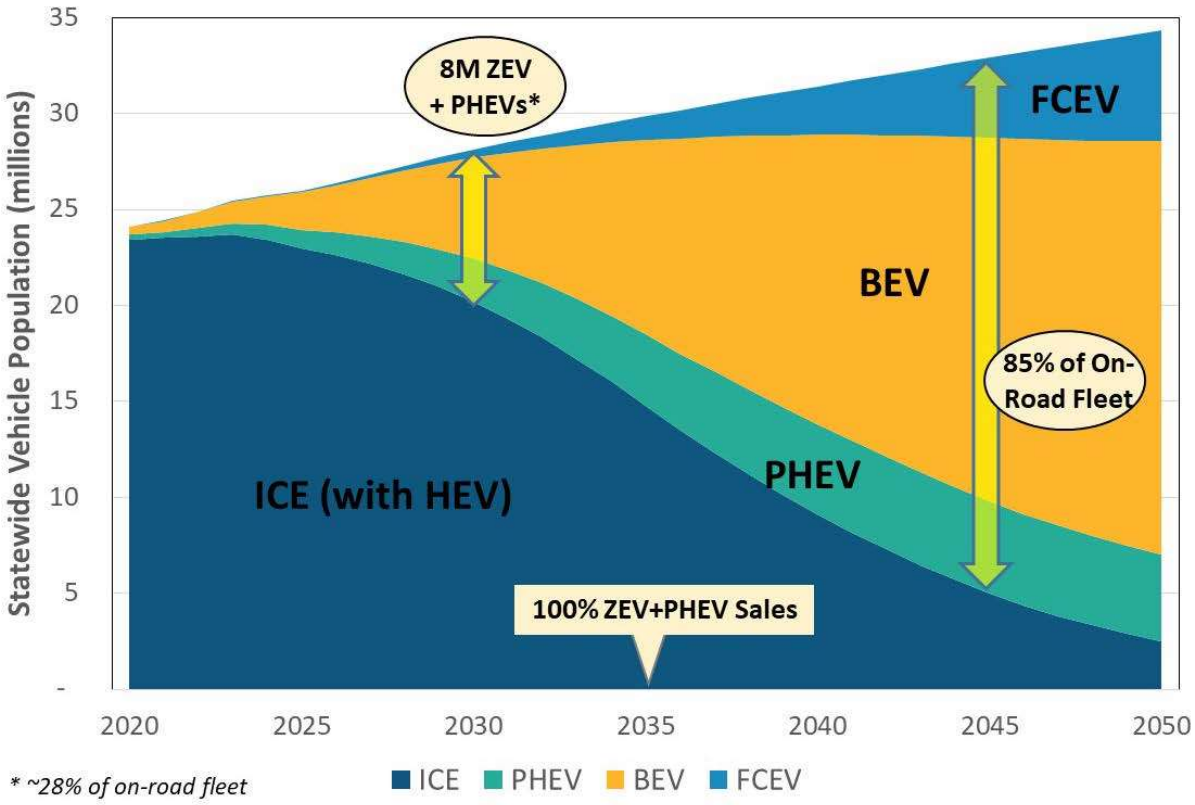
Second, new land use projects can influence transportation-related GHG emissions by reducing the amount of VMT associated with the project. Motor vehicle transportation does not need to be eliminated entirely in order for the land use sector to achieve carbon neutrality, as carbon-free vehicle technology can be used (e.g., EVs powered by carbon-free electricity sources). But for that goal to be realistically implemented by 2045, California will need to reduce its per-capita VMT. How land use development is designed and sited can have a significant influence on how much VMT the project will generate. New land use projects need to provide alternatives to motor vehicle–based transportation such that VMT per capita can be reduced to levels consistent with achieving carbon neutrality by 2045.

The design elements that new land use projects need to incorporate to address these two areas are outlined below.

EV CHARGING INFRASTRUCTURE

To implement the decarbonization of California's motor vehicle transportation, the California Air Resources Board (CARB) has adopted a comprehensive Mobile Source Strategy incorporating a suite of policies to promote the shift away from fossil fuel–powered vehicles (CARB 2021b). These policies include aggressive targets for EV penetration, including Executive Order B-16-12's goal of 1.5 million zero-emission vehicles (ZEVs) on the road by 2025 and Executive Order N-79-20's call for all new light-duty vehicles sold in California to be battery electric or plug-in hybrid by 2035. CARB's modeling projects that these efforts will result in as many as 8 million light-duty EVs in the statewide fleet by 2030 and that 85 percent of the on-road fleet will be EVs by 2045 (CARB 2021b:94–95). The results of CARB's modeling for its 2020 Mobile Source Strategy scenario are shown in Figure 2, below.

Figure 2 Statewide Light-Duty Vehicle Technology Penetration in the On-Road Fleet



Source: CARB 2021b

Notes: BEV = battery electric vehicle; FCEV = fuel cell electric vehicle; HEV = hybrid electric vehicle; ICE = internal combustion engine vehicle; PHEV = plug-in electric vehicle; ZEV = zero emission vehicle.

Implementing this widespread shift to EVs will require the installation of extensive EV charging infrastructure, and new development will need to provide its "fair share" of that infrastructure. Indeed, new development has an especially important role to play, as installing EV charging infrastructure in new buildings is far less expensive than retrofitting existing buildings. CARB has found that installing EV charging infrastructure in a new building can save an estimated $7,000–$8,000 per parking space compared with retrofitting it later (CARB 2019a:19).

The requirements for EV charging infrastructure in new land use development projects are governed by the CALGreen regulatory standards. These standards are set forth in Title 24 of the California Code of Regulations, and they are regularly updated on a 3-year cycle. The CALGreen standards consist of a set of mandatory standards that are legally required for new development, as well as two more aggressive sets of voluntary standards known as Tier 1 and Tier 2. Although the Tier 1 and Tier 2 standards are voluntary, they often form the basis of future mandatory standards adopted in subsequent updates.

The CalGreen standards have recently been updated (2022 version) and will be in effect from January 1, 2023, through December 31, 2025. The 2022 CALGreen standards seek to deploy additional EV chargers in various building types, including multifamily residential and nonresidential land uses. They include requirements for both EV capable parking spaces and the installation of Level 2 EV supply equipment for multifamily residential and nonresidential buildings. The 2022 CALGreen standards go beyond previous

iterations and include requirements for both EV readiness and the actual installation of EV chargers. As with previous iterations, the 2022 CALGreen standards include both mandatory requirements and more aggressive voluntary Tier 1 and Tier 2 provisions.

The 2022 CALGreen mandatory standards were adopted based on what will be required to serve anticipated EV charging demand through the year 2025. CARB evaluated what will be required to serve demand through 2025 as part of its role in ensuring that the CALGreen standards support California's long-range climate goals pursuant to AB 341 (Health and Safety Code Section 18930.5[b]). CARB suggested a number of necessary revisions for the 2022 iteration of the standards, including an increase in the percent of parking spaces in certain types of projects that must be EV-capable from the earlier 6 percent to the current 10 percent. These revisions were based on CARB's assessment of the level of EV infrastructure that will be required to support the Executive Order B-16-12 target of 1.5 million ZEVs on the road by 2025. CARB conducted this analysis in 2019 using the Electric Vehicle Infrastructure Projection model (EVI-Pro) developed by the National Renewable Energy Laboratory and the California Energy Commission. Using EVI-Pro, CARB projected the amount of EV charging infrastructure required by 2025 and then calculated the amount of infrastructure expected by 2025 under existing mandatory codes and standards. The results of this analysis showed a gap between what would be achieved under existing codes and standards and what will be needed as of 2025 (CARB 2019a). The revised 2022 CALGreen mandatory standards adopted for the current 2023–2025 cycle are intended to close this gap and ensure that the charging infrastructure needs of 2025 will be met.

However, providing EV charging infrastructure to meet expected demand as of 2025 will not be sufficient to support the much more extensive level of EV penetration anticipated farther into the future. As shown in Figure 2, the number of EVs on the road is projected to grow exponentially, and the demand for EV charging infrastructure will increase accordingly. If a project provides only enough infrastructure to satisfy 2025 demand, it will fall well short of what project users will need as the State progresses toward 2045. The Air District therefore recommends using the more aggressive Tier 2 CALGreen standards to evaluate whether new land use development projects will provide their "fair share" of EV charging infrastructure. This approach is also consistent with CARB's assessment that the Tier 2 standards will need to be made mandatory in CALGreen to support the exponential increase in EV adoption rates as we move past 2025 (CARB 2019a:16).

Looking toward a post-2025 horizon is also appropriate because land use development projects have a long lifetime and will be in use in future years when extensive EV penetration is projected. To be consistent with implementing California's 2045 climate goals, such projects cannot simply provide a level of infrastructure aimed at 2025 levels of EV use, as is reflected in the current CALGreen mandatory standards. A new land use development project will need to implement the more aggressive Tier 2 CALGreen standard for its impact to be less than significant in this area.

VEHICLE MILES TRAVELED

With respect to VMT, CARB studies have shown that California will not be able to achieve its long-term climate goals if we continue our current high level of VMT per capita. The State will need to significantly reduce its VMT per capita in order to attain the goal of carbon neutrality by 2045 (CARB 2021b:105–126).

New land use projects have an important role to play in doing so, as the way a project is sited and designed can significantly affect how the people who use the project will get around. For example, project siting and design can affect whether project users will be forced into making long car trips on a regular basis or whether they will be able to take advantage of alternative transportation options for their daily travel needs. New land use projects will need to be built with reduced levels of VMT per capita in order to implement their "fair share" of what it will take to eliminate GHG emissions from the transportation sector.

CARB has developed an analytical methodology for determining the level of VMT reduction that will be necessary to achieve California's long-term GHG emissions goals. This methodology calculates the total statewide VMT that California can accommodate and still hit its emissions targets and then divides that total statewide VMT by the State's projected population as of the target year. This calculation gives the amount of VMT per capita that the State can accommodate consistent with achieving the target. CARB's methodology then compares this targeted VMT-per-capita number with current VMT per capita to establish the reduction from current baseline levels necessary in order to hit the target.

CARB developed this methodology in conjunction with the VMT-per-capita threshold that the Governor's Office of Planning and Research (OPR) adopted for evaluating transportation impacts pursuant to SB 743 (see CEQA Guidelines Section 15064.3). SB 743 required lead agencies to abandon the old "level of service" metric for evaluating a project's transportation impacts, which was based solely on the amount of delay experienced by motor vehicles. This metric was criticized for prioritizing motor vehicle transportation and disincentivizing alternative modes, such as public transit, walking, and biking. SB 743 tasked OPR with developing an alternative metric to assess transportation impacts, and it directed OPR to base its alternative metric on factors such as reducing GHG emissions and developing multimodal transportation networks (CEQA Section 21099[b][1]). OPR concluded that the VMT-per-capita metric was the most appropriate for this purpose, and it published new Guidelines Section 15064.3 in November 2017.

CARB applied its methodology in support of OPR's VMT-per-capita metric to determine the appropriate level of VMT reduction that would allow the State to attain its long-term emissions goals, looking initially to the 2050 long-term target of an 80-percent reduction in GHG emissions compared to 1990 levels (CARB 2019b). CARB found that total statewide VMT would need to be limited to 1,035 million miles driven per day in order to achieve that target, consisting of 908 million light-duty-vehicle miles and 127 million heavy-duty-vehicle miles. With the State's population projected to grow to 49 million people by 2050, this works out to a per-capita VMT of 18.51 miles per day for light-duty vehicles and 21.09 miles per day for all vehicle types combined.[6] Given current baseline per-capita VMT levels of 22.24 miles per day for light-duty vehicles and 24.61 miles per day for all vehicle types, the reductions needed to achieve the 2050 goal are 16.8 percent for light-duty vehicles and 14.3 percent for all vehicle types combined. CARB's calculations are summarized in Table 1.

[6] Statewide population projections are provided by the California Department of Finance, and VMT projections are provided by CARB's scenario planning tool, Vision (CARB 2019b:5).

Table 1 Per-Capita VMT Reductions Necessary to Attain 2050 GHG Reduction Target

	Light-Duty Vehicles	All Vehicle Types
Baseline VMT/capita	22.24 miles per day	24.61 miles per day
2050 VMT/capita	18.5 miles per day	21.09 miles per day
Reduction needed	**16.8%**	**14.3%**

Based on this analysis (as well as other factors), OPR recommended using a 15-percent reduction in per-capita VMT as an appropriate threshold of significance for evaluating transportation impacts, as this level of VMT addresses transportation and corresponds to what would be needed to attain the State's 2050 climate target (OPR 2018).[7]

CARB is currently updating this analysis for the 2045 carbon neutrality target in connection with its 2022 Scoping Plan Update. Although that work is ongoing and CARB has not finalized its revised analysis, CARB has suggested that it will use the same 15-percent-per-capita VMT reduction threshold that it derived in connection with the 2050 target. Specifically, in October 2021, CARB updated its Mobile Source Strategy, an important constituent of the Scoping Plan, using the same 15-percent reduction target as used in previous plans (CARB 2021b:105). The Air District therefore recommends that lead agencies use OPR's 15-percent per-capita VMT reduction threshold for evaluating land use projects (OPR 2018). Alternatively, to the extent CARB determines that a different threshold would be more appropriate for purposes of the 2045 carbon neutrality target in connection with its work on the 2022 Scoping Plan Update, lead agencies should use that 2045-specific threshold instead. If a land use project is designed and built so that its associated VMT per capita is reduced to the extent determined to be necessary by CARB, then it will implement its "fair share" of the VMT reductions needed to attain the State's long-term climate goals and can be found to have a less-than-significant climate impact.

Finally, it is worth noting that some local jurisdictions may have developed their own VMT-per-capita thresholds for use in CEQA transportation analyses pursuant to SB 743. If such a jurisdiction-specific VMT-per-capita threshold is available and applicable, the Air District recommends that lead agencies use it in their climate impact analyses, provided that it was established based on what it will take to achieve California's long-term climate goals in a manner akin to the analysis outlined above. If an SB 743 transportation threshold is not established at a level commensurate with achieving those climate goals, then it would not be appropriate to use it to evaluate climate impacts. But if it is based on the level of VMT necessary for the local jurisdiction to attain climate neutrality by 2045, then a lead agency can use it to evaluate whether a project is doing its "fair share" with respect to ensuring that VMT is reduced sufficient to achieve the State's climate goals.

OPR has provided guidance to local jurisdictions on choosing appropriate local VMT reduction thresholds in its Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR 2018). The advisory contains technical recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures. It specifies recommended thresholds of significance for residential, office, and retail projects,

[7] The 15-percent reduction is compared to existing VMT per capita measured as either regional VMT per capita or city VMT per capita (OPR 2018:15).

which are reflected in the "Thresholds for Land Use Projects" section on page 10 of this document. These types of projects reflect the vast majority of land use projects implemented in the Bay Area. For other types of projects, lead agencies should follow the guidance provided in the OPR advisory. OPR may update or supplement this advisory in the future in response to new information and advancements in modeling and methods, so lead agencies should continue to track the development of the advisory and always use the most recent version.

5 THRESHOLDS FOR GENERAL PLANS AND SIMILAR LONG-TERM COMMUNITY-WIDE PLANNING DOCUMENTS

Local governments are essential partners in achieving California's goal to reduce GHG emissions. Local governments not only approve specific land use development projects but have primary authority to plan for and zone how and where land is developed within their jurisdiction to accommodate population growth and the changing needs of their communities. CEQA also applies to these planning decisions, and local governments are required to evaluate the climate impacts when adopting such plans.

Thresholds for Plans (Must Include A or B)
A. Meet the State's goals to reduce emissions to 40 percent below 1990 levels by 2030 and carbon neutrality by 2045; or
B. Be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

5.1 REDUCING GHG EMISSIONS TO MEET GHG REDUCTION TARGETS

For long-term communitywide planning documents (e.g., general plans, long-range development plans, climate action plans) to have a less-than-significant climate impact, they must demonstrate that GHG emissions from the jurisdiction will decline consistent with California's GHG reduction targets of 40 percent below 1990 levels by 2030 and carbon neutrality by 2045. A city or county that plans to develop in a manner that will cause emissions to exceed these targets will hinder the State's ability to achieve its climate goals and thus will have a significant climate impact. Conversely, a city or county that will develop in a way that will meet those targets will support the State's ability to achieve its climate goals and thus will have a less-than-significant impact on GHG emissions. Therefore, a communitywide long-term plan must demonstrate that the community will have GHG emissions 40 percent below its 1990 levels by 2030 and support the State's goal of carbon neutrality by 2045.

5.2 CLIMATE ACTION PLANS

The Air District encourages local jurisdictions to develop climate action plans as a means of demonstrating that their communities—including existing and new buildings and infrastructure—will develop in accordance with meeting the statewide GHG reduction targets. A robust climate action plan identifies a land use design, a transportation network, goals, policies, and implementation measures that will achieve

the required GHG emissions targets of 40 percent below 1990 levels by 2030 and support the State's goal of achieving carbon neutrality by 2045. If a jurisdiction adopts such a climate action plan, it can then use that plan when it adopts its general plan updates and similar long-range planning documents to provide the basis for demonstrating that the jurisdiction's GHG emissions will decline consistent with the State's 2030 and 2045 targets. This demonstration will allow the jurisdiction to make the required CEQA determination that its general plan and similar planning documents will not have a significant climate impact, as discussed in Section 5.1, above.

Furthermore, a robust climate action plan developed and adopted in accordance with the requirements for a "plan for the reduction of greenhouse gas emissions" set forth in CEQA Guidelines Section 15183.5 will provide additional benefits related to approving specific development projects. Guidelines Section 15183.5(b)(2) provides that if a jurisdiction has adopted a climate action plan that satisfies all of the Section 15183.5 requirements, the jurisdiction can find that a project that is consistent with the plan will not make a cumulatively considerable contribution to global climate change under CEQA. Adopting a climate action plan with requirements and implementation measures governing specific types of projects—and what those projects must do to ensure that the jurisdiction's GHG emissions achieve the required targets—can provide a great deal of certainty for project applicants and agency decision makers. A proposed project that complies with all the specified requirements and implementation measures will not be found to be significant under Guidelines Section 15183.5(b)(2). Local jurisdictions also will be able to tailor the applicable requirements and mitigation measures to their specific communities rather than rely on the Air District's general thresholds for evaluating land use projects, discussed in Section 4, above.

CEQA Guidelines Section 15183.5(b)(1) lays out the specific criteria to be included in local GHG reduction strategies that can enable CEQA streamlining benefits for future land use projects. Such plans must:

- quantify GHG emissions, both existing and projected over a specified period, resulting from activities in a defined geographic area;
- establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable;
- identify and analyze the GHG emissions resulting from specific actions or categories of actions anticipated in the geographic area;
- specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;
- establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels; and
- be adopted in a public process following environmental review.

These requirements are somewhat vague in some cases, and the Air District cautions jurisdictions developing climate action plans to take care that their plans are comprehensive and fully satisfy the letter and the spirit of the Section 15183.5 process. Climate action plans that do not satisfy all of these required

elements will not be eligible for use in approving later projects under Guidelines Section 15183.5(b)(2), and they will not provide the substantial evidence necessary to demonstrate that the jurisdiction's general plan updates and related long-range planning documents will have a less-than-significant impact as outlined in Section 5.1.

The Air District has published guidance on how a jurisdiction can develop a climate action plan that satisfies the requirements of Guidelines Section 15183.5(b)(1), which is included as Appendix C to the CEQA Air Quality Guidelines document. Jurisdictions developing climate action plans should refer to and follow that guidance to strengthen their plan's ability to comply with all Section 15183.5(b)(1) requirements and allow it to be used to evaluate climate impacts under Section 15183.5(b)(2).

The Air District strongly encourages jurisdictions to adopt local GHG reduction strategies—either as a stand-alone climate action or sustainability plans or as a part of the general plan—that meet the Section 15183.5(b)(1) criteria. Adopting a robust GHG reduction strategy that satisfies these requirements can bring many benefits to the community:

- It will identify measures that the city or county will need to take to ensure that its GHG emissions will be consistent with the statewide climate protection targets, that the jurisdiction can then use to make the consistency determination for its general plan updates.
- The city or county will be able to use the Section 15183.5(b)(1)–compliant GHG reduction strategy to approve specific land use development projects that are consistent with the strategy. This will provide a method for analyzing projects under CEQA that is tailored to the specific needs and policy goals of the individual jurisdiction, and it will allow the city or county to use that tailored methodology instead of the more general thresholds approach developed by the Air District for use regionwide.
- Cities and counties can develop Section 15183.5(b)(1) GHG reduction strategies immediately, without waiting for their next general plan update cycle.

This approach to local climate planning, tied to the SB 32 and carbon neutrality goals, promotes reductions on a plan level without impeding the implementation of GHG-efficient development, and recognizes the initiative of many Bay Area communities that have already developed or are developing a GHG reduction plan. A qualified climate action plan will provide the evidentiary basis for making CEQA findings that development consistent with the plan will result in feasible, measurable, and verifiable GHG reductions consistent with broad State goals such that projects approved under the plan will achieve their "fair share" of GHG emission reductions.

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