

Appendix E

Engagement

March 2026
Bay Area Regional Climate Action Plan

Appendix E- BARCAP Engagement

E.1 Overview of engagement efforts

The Air District led a robust engagement process for the Bay Area Regional Climate Action Plan (BARCAP). Engagement was critical in shaping development of the BARCAP, and design of the engagement efforts reflect the Air District's appreciation for the unique challenge of creating the first-ever regional climate action plan for the Bay Area. The project builds on - without duplicating - over a decade of progress on local climate action and reflects the region's best technical and implementation work. The Air District sought to embed environmental justice throughout the engagement process, and elevated voices from frontline communities and honored them as lived-experience experts. Stakeholders were engaged early and often throughout the process by offering multiple avenues for meaningfully shaping BARCAP measures and key project areas, like the Design Principles.

The Air District engaged over **200** local government staff, **144** frontline community members, **79** technical and implementation experts, **304** public workshop participants, and **675** public survey respondents. Chapter 4 presents the high-level engagement approach and key outcomes while this appendix describes in greater detail the BARCAP engagement process, design, and outcomes.

The Air District led local government engagement, technical stakeholder working groups, and public workshops. An engagement consultant team from InterEthnica and Cascadia Consulting Group (consultant project team) were instrumental in co-leading public and frontline community engagement. Engagement was shaped by the BARCAP Outreach and Engagement Plan, which was co-developed by the consultant project team, the Air District, and several Advisory Working Group (AWG) members.

Figure E-1 shows the overall timeline of BARCAP engagement, with key engagement efforts highlighted.

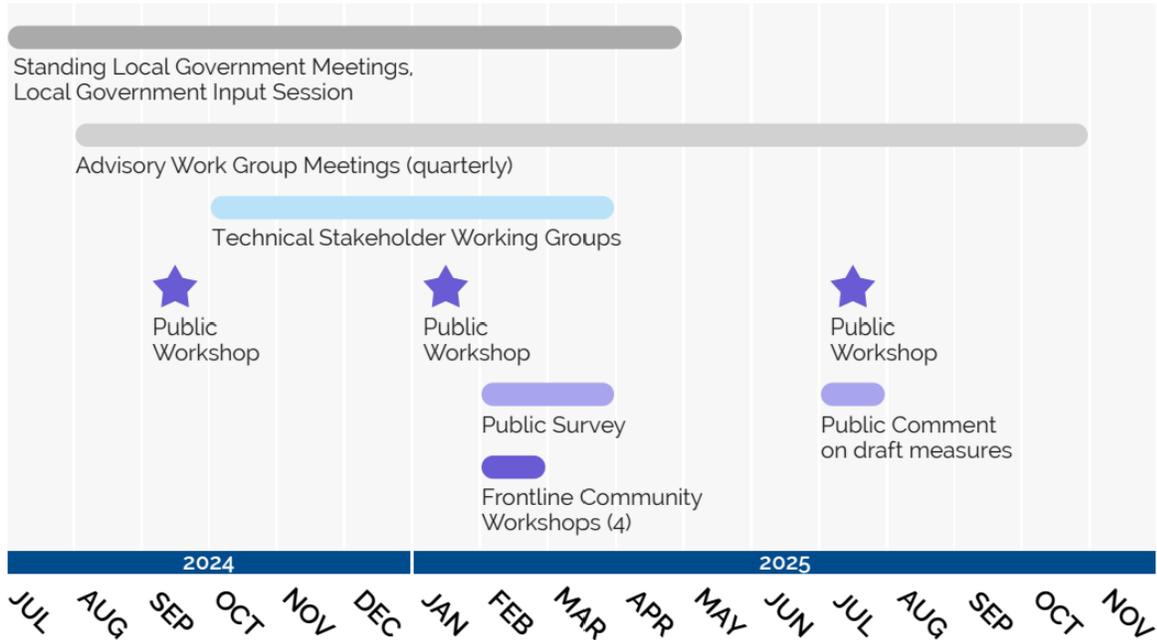


Figure E-1 Timeline of BARCAP Engagement Activities

Figure E-2 highlights the instrumental role engagement played in shaping BARCAP measure development.

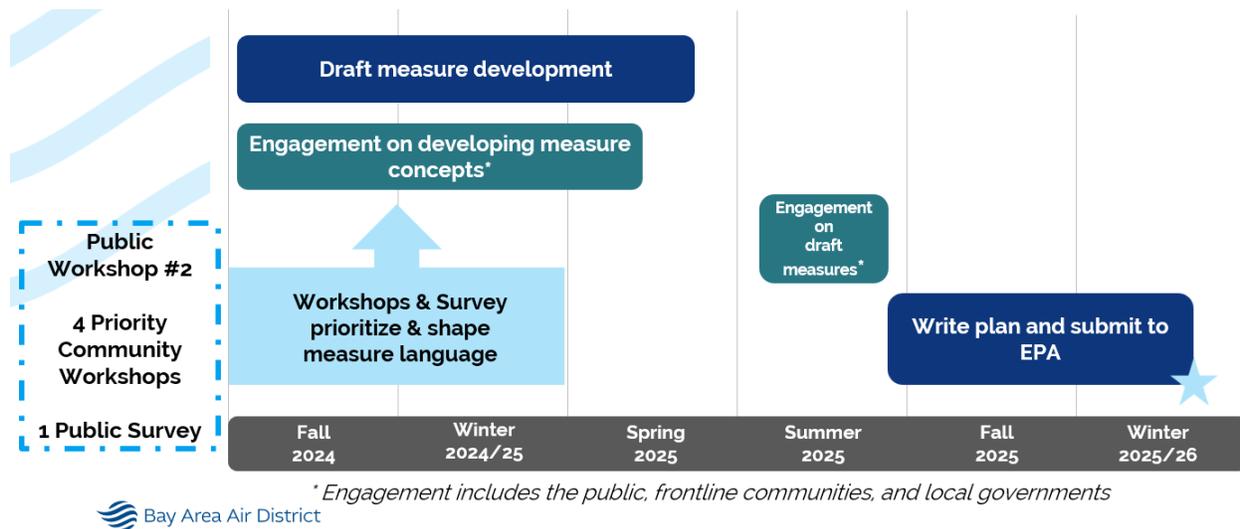


Figure E-2 BARCAP Measure Development & Engagement Timeline

BARCAP Engagement Highlights

- **Advisory Work Group (AWG)**
 - **Role in BARCAP development:** inform decisions on key aspects of the BARCAP, connect the BARCAP to communities and local governments in AWG

- members' jurisdictions, discuss key challenges and important gaps to be addressed, review key deliverables
 - **Engagement approach:** quarterly, five total meetings, 25 total members
 - **Member type:** regional agencies, local governments, community-based organizations (CBOs)
 - **Key value add:** BARCAP-region geographic diversity, local government and community connections and representation
 - **Read more:** E.2 Advisory Work Group
- **Local Government Engagement**
 - **Role in BARCAP development:** identify unique regional opportunities for the BARCAP, serve as key implementation partners, provide insights into local climate action to address obstacles, scale solutions, and avoid duplication
 - **Engagement approach:** one Local Government Input session plus 11 county-led meetings, over 200 local government staff engaged
 - **Participant type:** cities and counties from BARCAP region
 - **Key value add:** local government-scale implementation focus and insights
 - **Read more:** E.3 Local Governments
- **Frontline Community Engagement**
 - **Role in BARCAP development:** update Design Principles, identify key frontline community risks and priorities to address in BARCAP measures, embed environmental justice in BARCAP measures, deepen partnerships with CBOs
 - **Engagement approach:** four subregional workshops, 144 total participants, multilingual workshops, and measure review opportunities
 - **Participant type:** frontline community members as recruited by frontline community-serving CBOs
 - **Key value add:** reflecting values and potential risks of climate action at the local scale, deepen relationships with CBOs to implement workshops and pave the way for future implementation, multilingual engagement
 - **Read more:** E.4 Frontline Community
- **Public Engagement**
 - **Role in BARCAP development:** contribute to BARCAP at key stages, reflect regional perspectives and values on climate action, provide input on measure development.
 - **Engagement approach:** three workshops with 304 total public workshop participants, one public survey with 675 respondents, one online public comment period with 409 public comments
 - **Participant type:** general public
 - **Key value add:** reflecting values and potential risks of climate action as heard from members of the public across the BARCAP-region
 - **Read more:** E.5 Public
- **Technical Stakeholder Working Groups**
 - **Role in BARCAP development:** support development of draft measures and actions for each sector based on subject matter expertise and experience and potential role as implementation partner

- **Engagement approach:** 20 total meetings across five sectors, 79 total members with additional organizations consulted on an ad-hoc basis
- **Participant type:** implementers, technical experts, community-based organizations, and local governments
- **Key value add:** implementation focus and insights
- **Read more:** E.6 Technical Stakeholder Working Groups

E.2 Advisory Work Group

The Air District established an Advisory Work Group (AWG) that met quarterly to help:

- inform decisions on key aspects of the BARCAP,
- connect the BARCAP to the communities and local governments in their jurisdictions and networks,
- discuss key challenges and important gaps to be addressed,
- review key deliverables, including the draft measures and draft plan.

In addition, several AWG members contributed to the development of the BARCAP Engagement Plan. Others served as liaisons between the AWG and the technical stakeholder working groups and attended public workshops and the local government input session described in sections E.2 and E.5, respectively. The Air District leveraged ongoing stakeholder engagement efforts led by AWG members, such as attending standing county-led local government meetings listed in Section E.3. AWG members also provided support for targeted engagement, as needed. For example, Rise South City and Climate Resilience Communities helped recruit community members to attend the Frontline Communities Workshops.

The AWG is composed of representatives from regional agencies (Air District, ABAG/BayREN, BARC, and MTC), two cities named in the federally-designated MSA (City of Oakland and City and County of San Francisco), the counties comprising the MSA (Alameda County, Contra Costa County, Marin County, Napa County, San Mateo County, and the portions of Solano County and Sonoma County that are within the Air District’s jurisdiction), and several community-based and community-serving organizations (Canal Alliance, Climate Resilient Communities, Emerald Cities Collaborative Northern California, Rise South City, and Transform). Members are listed in Table E-1.

Name	Role and Organization	Regional, County, City, Non-profit, or CBO Representative
Aleka Seville	Regional Coordination Advisor, Association of Bay Area Governments/ Bay Area Regional Energy Network (ABAG/BayREN)	Regional
Allison Brooks	Executive Director, Bay Area Regional Collaborative (BARC)	Regional
Avana Andrade	Senior Sustainability Specialist, San Mateo County Sustainability Department, County of San Mateo	County
Carrie Harvilla	Deputy Director, Transform	Non-profit
Chirag Rabari	Assistant Director, Metropolitan Transportation Commission (MTC)	Regional

Cyndy Comerford	Climate Program Manager, SF Environment	City, County
Dana Armanino	Planning Manager, County of Marin	County
Elizabeth Stampe	Senior Climate Action Coordinator, San Francisco Environment Department	City, County
Jamesine Rogers Gibson	Senior Advanced Program Advisor, Bay Area Air District	Regional
Jane Elias	Program Administrator, Bay Area Regional Energy Network (BayREN)	Regional
Jody London	Sustainability Coordinator, Contra Costa County	County
Josh Bradt	Program Coordinator, Bay Area Regional Collaborative (BARC)	Regional
Julio Garcia	Executive Director, Rise South City	CBO
Kim Springer	Transportation Systems Coordinator (retired), City/County Association of Governments of San Mateo County	County
Krute Singa	Principal Regional Planner, Metropolitan Transportation Commission (MTC)	Regional
Megan Leary	Community Engagement and Policy Manager, Emerald Cities Collaborative Northern California	Non-profit
Miya Kitahara	Program Manager, Alameda County Waste Management Authority (StopWaste)	County
Omar Carrera	CEO, Canal Alliance	CBO
Ryan Melendez	Sustainability Planner, Napa County	County
Shayna Hirshfield-Gold	Sustainability Planner and Acting Sustainability Director, City of Oakland	City
Tanya Nareth	Chief Deputy Executive Officer, Sonoma County Transportation Authority/Regional Climate Protection Authority	County
Violet Saena	Founder and Executive Director, Climate Resilient Communities (CRC) and liaison to the Air District's Community Advisory Council	CBO

Table E-1 Advisory Working Group Members

The AWG met five times between August 2024 and January 2026 and discussed the following topics.

AWG Meeting Date	Summary of Discussion
August 24, 2024	<ul style="list-style-type: none"> Members discussed draft priority measure focus areas, defined measure selection criteria, and identified key opportunities to include in the BARCAP: inclusive engagement including multigenerational and frontline community partnership, accelerators for building and transportation electrification, and addressing gaps in

	regional action. Other feedback included: the BARCAP should not duplicate existing local climate action planning or community engagement efforts but instead focus on being additive and complementary.
November 22, 2024	<ul style="list-style-type: none"> Members discussed and provided feedback on priority measure areas and brainstormed funding and financing opportunities for priority measure areas. Other feedback included: the need for neighborhood/community level solutions and regional coordination and examples of successful initiatives that could be effective if scaled up.
March 10, 2025	<ul style="list-style-type: none"> Members discussed and provided feedback on the preliminary measures.
August 26, 2025	<ul style="list-style-type: none"> Members reflected on public comments on draft measures and provided additional feedback, in addition to discussing what success means for implementation. on progress since last meeting
January 2026	<ul style="list-style-type: none"> Members continued the implementation discussion and contributed to the overall implementation framework.

Table E-2 Advisory Working Group Meeting Dates & Topics Covered

E.3 Local Governments

The Air District conducted extensive engagement with local governments, recognizing them as climate leaders in the region. Local government agencies are also key stakeholders that may both benefit from implementation of the BARCAP and serve as key implementation partners.

E.3.1 Local Government Engagement Overview

The Air District met with local governments to understand their specific local needs and challenges that could be addressed at the regional level. Local government staff also helped identify opportunities for the BARCAP to advance local greenhouse gas (GHG) emission reductions. The Air District leveraged existing county-based meetings of cities and provided targeted opportunities to provide input. Local government staff also attended public workshops, participated in the Technical Working Groups, and commented on the draft measures online.

Through these engagement opportunities, local governments provided unique insights into how the BARCAP could support and accelerate local climate action by addressing obstacles and scaling solutions regionally while avoiding duplication of efforts. They also shared important equity and implementation considerations for inclusion in the plan, identified key local government roles for implementation of the BARCAP, and identified potential other implementers. In total, 65 cities and counties provided input to help shape the BARCAP.

The jurisdictions listed below participated in at least one engagement effort related to the BARCAP.

Alameda County	City of Hayward	City of Rohnert Park
City of Alameda	City of Lafayette	City of San Bruno

City of Albany	City of Larkspur	City of San Carlos
City of Antioch	City of Livermore	City and County of San Francisco
Town of Atherton	Marin County	City of San Leandro
City of Belmont	City of Martinez	City of San Jose
City of Berkeley	City of Menlo Park	San Mateo County
City of Brisbane	City of Millbrae	City of San Mateo
City of Burlingame	City of Mill Valley	City of San Pablo
City of Cloverdale	Napa County	City of San Rafael
City of Concord	City of Napa	Santa Clara County
Contra Costa County	City of Newark	City of Santa Rosa
Town of Corte Madera	City of Novato	City of Sausalito
City of Cotati	City of Oakland	City of Sebastopol
City of Dublin	City of Pacifica	Solano County
City of East Palo Alto	City of Palo Alto	Sonoma County
City of El Cerrito	City of Petaluma	City of Sonoma
City of Emeryville	City of Piedmont	City of South San Francisco
Towns of Fairfax & San Anselmo	City of Pinole	City of Union City
City of Foster City	City of Pleasanton	City of Walnut Creek
City of Fremont	City of Redwood City	Town of Windsor
City of Half Moon Bay	City of Richmond	

Table E-3 Local Governments Engaged During BARCAP Development

E.3.1.1 Standing County-Led Local Government Meetings

From July 2024 to July 2025, Air District staff attended regularly occurring local government meetings. Air District staff also met with numerous city and county staff individually for input on BARCAP measures.

Date	Meeting
7/23/24	Regionally Integrated Climate Action Planning Support Program (RICAPS)
8/27/24	RICAPS
9/17/24	StopWaste (Alameda County) Technical Advisory Group (TAG)
9/23/24	Sonoma Regional Climate Protection Authority
10/3/24	Marin Climate and Energy Partnership (MCEP)
10/22/24	RICAPS
11/19/24	StopWaste (Alameda County) TAG
12/5/24	Contra Costa Sustainability Exchange
7/15/25	StopWaste (Alameda County) TAG

Table E-4 Standing County-Led Local Government Meetings Attended by Air District Staff

Through these meetings, local government staff shared specific challenges or obstacles to implementing their local climate action plans, priority policies, programs, and other key new

ideas that might be suitable for regional, rather than local, implementation. They also identified potential opportunities for the BARCAP to help advance local action through a regional approach.

E.3.1.2 Local Government Input Session

The Air District held a virtual local government input session on April 21, 2025, to gather feedback from local government staff on the preliminary draft measures. The discussion focused on measure alignment with city and county efforts, potential local government roles in implementation, and identification of potential implementation challenges. Fifty local government staff attended, representing 27 cities and counties.

The opportunities for regional action and challenges identified by local government staff are summarized below in Table E-5. This table is a representative but not exhaustive list.

Sector	Opportunities	Challenges
Buildings	<ul style="list-style-type: none"> • Learn from and expand existing efforts • Partnering with distributors and manufacturers, schools, and unions • Holistic electrification programs incorporating resilience and building repair • Permit streamlining • Education for low/moderate income communities on financing opportunities and other resources for home electrification • Neighborhood/zonal electrification • Providing examples of electric equipment (e.g. HVAC, water heaters) installations in difficult or space-constrained locations • Renter protections 	<ul style="list-style-type: none"> • Need for workforce training, growth, and support, especially for small and disadvantaged contractors • Difficulties navigating permits, permit timeliness, permit evasion • Concerns about grid reliability and backup power needs • Lack of funding • Difficulties incentivizing landlords to electrify • Affordability concerns when electrifying homes, including the purchase and installation costs of large equipment and electricity rates • Deferred maintenance and health and safety concerns making electrification difficult or expensive
Transportation	<ul style="list-style-type: none"> • Learn from and expand existing efforts • Partnering with other agencies, businesses, CBOs, and CCAs for charging infrastructure • Multi-agency partnership for grant applications 	<ul style="list-style-type: none"> • Operation and maintenance difficulties regarding electric vehicle (EV) chargers • Copper theft from EV chargers • Need for greater electrical capacity and upgrades for EV charging infrastructure

	<ul style="list-style-type: none"> • Permit streamlining • Supporting regional electric vehicle (EV) charging infrastructure • Incentivizing public transportation • Municipal fleet electrification • Safe and protected bike and pedestrian paths • EV education • Creating a program for retiring old internal combustion engine vehicles 	<ul style="list-style-type: none"> • Lack of data on the demand for different vehicles and types of transit • Lack of funding • Noncontiguous bike and pedestrian networks between communities • Limited staff capacity • EV affordability • Complicated logistics when siting EV charging stations on-street and on public and private property • Public skepticism surrounding EVs
Natural and Working Lands	<ul style="list-style-type: none"> • Learn from and expand existing efforts • Current funding for wildfire resilience • Partnering with local organizations for land conservation and urban greening • Urban forest management plans • Utilizing brownfields for solar energy generation 	<ul style="list-style-type: none"> • Lack of urban canopy data • Concerns around gentrification and urban greening • Need for long term funding
Power	<ul style="list-style-type: none"> • Learn from and expand existing efforts • CPUC advocacy • Assisting local governments with technical analysis • Small renewable energy projects (20-30MW) • Long-storage and resilience projects • Community solar • Solar energy generation on brownfields • Identifying optimal sites for renewable energy projects 	<ul style="list-style-type: none"> • Deferred maintenance delaying or inhibiting the addition of solar panels • Land restrictions • Need for emergency backup generation (which can be fossil fuel based) and concerns about related costs • Costs of batteries • Grid reliability concerns • Lack of funding/financing • Affordability concerns • Lack of political will • Equity concerns

Waste	<ul style="list-style-type: none"> • Learn from and expand existing efforts • Using small fees or taxes to fund food recovery and compost operations • Installing green infrastructure to clean waters entering the bay • Require compostable to-go containers and utensils • Including construction and material GHG emissions in mitigation plans • Outreach and education with restaurants regarding appliance electrification and SB1383 implementation 	<ul style="list-style-type: none"> • Lack of CALGreen training and low enforcement • SB1383 compost contamination concerns • Need for long term funding • Need for public education on waste sorting • Storage and use of deconstructed materials concerns • Low compliance for affordable food ware ordinances
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Table E-5 Ideas for Regional Action Identified by Local Governments

E.4 Frontline Community Engagement

The consultant project team, with guidance from the Air District, formed partnerships with community-based organizations to facilitate meaningful engagement with frontline communities. Frontline communities are those that bear the brunt of impacts from fossil fuel dependence and often experience the impacts of climate change “first and worst.” It was critical that the BARCAP engaged with and highlighted these important community voices.

E.4.1 Frontline Community Engagement Overview

Frontline community workshops were strategically hosted within priority areas to ensure that the lived experiences of those most impacted by climate change and fossil fuel pollution informed the development of BARCAP measures in a way that was culturally relevant and equitable. An important goal for this engagement process was to bring new voices into climate action planning in the region, particularly those who have been historically excluded and underrepresented in climate planning conversations.

The Air District and the consultant project team divided up the region into four sub-regions to reflect the local nature of frontline community concerns, while ensuring that engagement was conducted at an early enough stage for community input to shape the drafting of measures. This reflects best practices to engage early in the process, giving participants avenues to provide meaningful input into the drafting of the BARCAP. The four sub-regions were based on the presence of frontline communities, based on the map below in Figure E-3.¹ The sub-regions are further visualized in Figure E-4.

¹ <https://experience.arcgis.com/experience/57bdb412b26e4f2eaf8fa762b735652f/page/Map/>, for more information on how frontline communities were mapped, please click on the ‘About’ tab in the map. As described in Chapter 4-

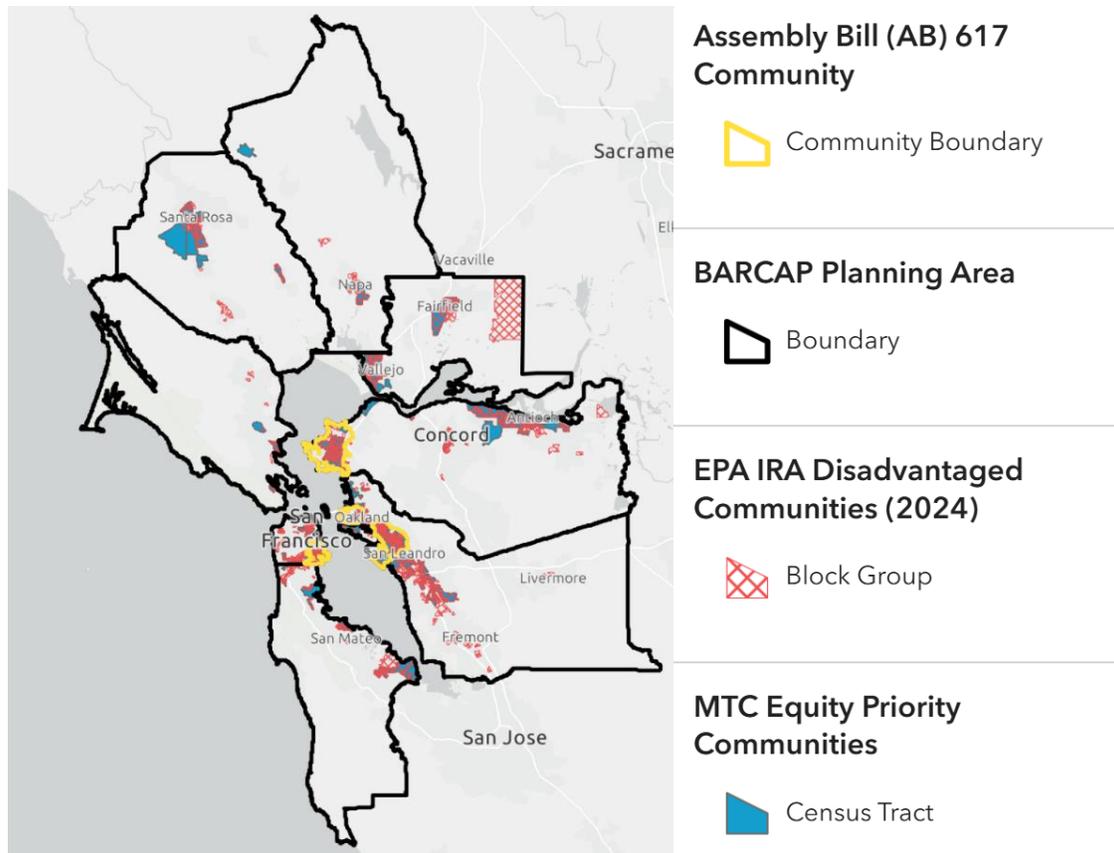


Figure E-3 BARCAP Frontline Communities

Successfully engaging frontline community members requires strong community trust and local knowledge. Community-based organizations are often ‘trusted messengers’ to community members. The consultant project team offered mini grants to CBOs that served as partners on frontline community engagement to compensate them for time spent inviting community members to attend workshops, reviewing workshop materials, and co-hosting workshops.

Criteria for selecting partner CBOs included:

- geography served (match to BARCAP frontline community map),
- connection to frontline community members (e.g. multilingual communities, day labor organizers),
- prior work on environmental justice issues,
- opportunity to deepen existing Air District connections, and build new relationships,
- interest and bandwidth in engaging with the BARCAP project.

Engagement- frontline communities were identified by layering AB 617 Communities, MTC Equity Priority communities, and the EPA Inflation Reduction Act Disadvantaged Communities Tool.

Frontline Community Workshops Subregions	Community-Based Organization Partners
Napa, Marin, Sonoma	North Marin Community Services Graton Day Labor Center
Alameda County	Higher Ground Neighborhood Development Corporation Hayward Community Coalition (HayCoCoa)
Contra Costa and Solano Counties	Citizen Air Monitoring Network Sustainable Solano Sustainable Contra Costa
San Mateo & San Francisco	El Concilio of San Mateo

Table E-6 Community Based Organizations and Frontline Community Workshops

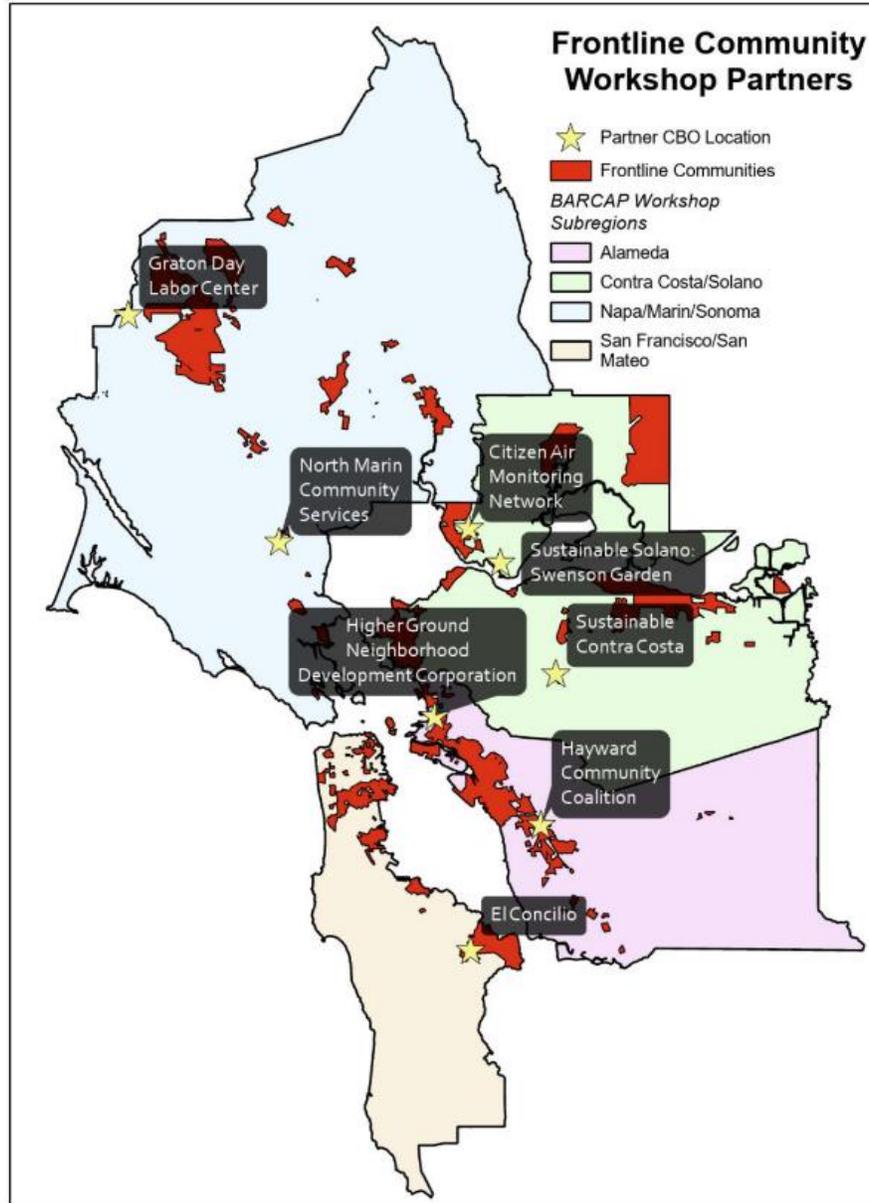


Figure E-4 Locations of Frontline Community Workshop Partner CBOs

E.4.2 Frontline Community Workshop Design

The consultant project team, with guidance from the Air District, partnered with CBOs to co-host the workshops. This approach provided localized expertise and engagement through trusted community leaders. This partnership ensured that facilitation materials were provided in participants' native languages, that materials were culturally and locally relevant (e.g. including location specific environmental justice slides), and small-group breakout discussions could be held in native languages to create comfortable spaces for deeper dialogue.

Best practices for equitable workshop design and participant engagement included:

- workshops held in evenings after workday hours, with options for hybrid or in-person as advocated for by CBOs;
- compensation provided to CBO partners and incentives provided to workshop participants, respectively, for time spent workshopping BARCAP project;
- fully multi-lingual workshops, including participant recruitment, pre-workshop communication;
- connection to community members via trusted messengers (CBOs);
- locally tailored workshop materials to reflect local concerns and conditions, CBO involvement in editing workshop materials;
- communication of climate action areas without jargon or other exclusionary language;
- clear explanation of how feedback would be used to meaningfully shape the BARCAP.

Each workshop began with an overview of the BARCAP and how community input would shape the plan's outcomes, followed by time for participants to ask questions and provide comments on draft design principles. The majority of each workshop was spent in small breakout discussions, where participants received an overview of four key sectors: buildings, transportation, waste, and urban green spaces. Breakout room facilitators then invited participants to discuss the issues that were most relevant to their community, with a focus on how community members perceive potential benefits (e.g. cleaner air) and risks (e.g. higher costs) of key areas for climate action.

Questions posed to workshop participants:

- Do the BARCAP Design Principles resonate with your lived experience and community values?
- How might preliminary areas for climate action affect your daily life (benefits and risks)?
- Are any big ideas missing?

Participants focused on the sectors and subject areas that mattered most to their community. The subregional workshops covered both the opportunities and challenges of proposed climate actions as they relate to the daily lives of frontline communities. Participants shared their communities' biggest needs to improve quality of life, including stories that emphasized **affordability, accessibility, and health**. Examples of small breakout room discussions from the Cantonese and Spanish-language breakout rooms are highlighted in Figure E-5 below.

Workshop participants provided insights that directly shaped the development of BARCAP measures. These workshops created trusted spaces where lived experiences were centered and valued, and where participants were able to openly discuss the many challenges their communities face. The process not only informed the regional climate action planning effort with grounded, community-driven input but also strengthened relationships and elevated voices that are too often left out; these efforts help lay the foundation for more equitable, resilient, and inclusive climate action planning.

A high-level description of each workshop, including participation by Limited English Proficient (LEP) community members, is summarized in the workshop summary table below.

Subregional Workshop	Logistics	CBO Partners	Number of Participants LEP Participants includes Spanish and Cantonese
Alameda County	Fully Virtual Tue, February 4, 2025 6:30 – 8:00pm	HayCoCoa Higher Ground	29 Participants 45% LEP Workshop Languages: Spanish, English
Solano and Contra Costa Counties	Fully Virtual- Wed, February 12, 2025 6:00 – 7:30pm	Citizens Air Monitoring Network Sustainable Solano Sustainable Contra Costa	35 Participants 9% LEP Workshop Languages: Spanish, English
San Francisco and San Mateo Counties	Hybrid Wed, February 19, 2025 6:30 – 8:00pm	El Concilio of San Mateo	36 Participants 92% LEP Workshop Languages: Spanish, Cantonese, English
Napa, Marin and Sonoma Counties	Hybrid Thu, February 27, 2025 6:00 – 7:30pm	North Marin Community Services Graton Day Labor Center	44 Participants 93% LEP Workshop Languages: Spanish, English

Table E-7 Frontline Community Workshop Summary

E.4.2 Frontline Community Workshop Highlights & Local Insights

E.4.2.1 Alameda County

The first workshop was hosted in **Alameda County** in partnership with Higher Ground and Hayward Community Coalition (HayCoCoa). This workshop included attendees from communities in San Leandro, Hayward, Oakland, and unincorporated Alameda County, all areas that are often underrepresented in climate action planning.

In the discussions, participants emphasized the need for more green space and trees, highlighting the scarcity of parks in many neighborhoods and the direct link between green spaces and public health. They believed that by expanding green spaces they would be able to address some of the pollution in their neighborhoods, particularly in Oakland and Hayward, where community members noted that this was a significant issue. In the Spanish-speaking breakout group, they described it as “un grandísimo problema de contaminación” (a huge pollution problem). They emphasized that through community education and engagement, the green spaces can be revived, upkept, and expanded.

When discussing transportation, participants voiced that bike lanes and transit infrastructure must be designed inclusively, ensuring that older adults and people with disabilities can safely navigate streets. They expressed deep concerns about the lack of safety when riding transit, stating that it is not a safe alternative for kids, elders, and families. Participants also raised affordability issues, pointing out the high cost of public transit and financial barriers that prevent families from accessing sustainable transportation options.

Buildings were also a point of discussion; participants raised concerns of affordability if their landlords made the switch to electric appliances in their units. They noted that for this switch to take place, there needs to be tenant protections in place to prevent a surge in rental prices or unexpected fees that they cannot afford. Participants mentioned illegal dumping as a persistent issue in their neighborhoods.

E.4.2.1 Contra Costa and Solano Counties

The second workshop focused on **Contra Costa and Solano Counties**. Sustainable Solano, Citizen Air Monitoring Network, and Sustainable Contra Costa supported this workshop.

Participants emphasized the importance of making required building upgrades affordable and accessible for low-income households and renters, especially given concerns about high utility bills and unhealthy housing conditions. They suggested financial assistance programs to offer support for paying utility bills or stipends to make the required updates, particularly for renters and families who already struggle to make ends meet.

On transportation, community members shared their experiences with long commute times, high fares, especially when traveling as a family with multiple children, and health risks from exposure to refinery pollution while traveling on public transit. Participants expressed interest in introducing reliable electric buses, instead of pushing for electric vehicles that may be unaffordable for their community.

Green spaces were seen as an opportunity to improve health and increase community engagement. Participants requested more trees and parks and suggested involving youth in programs to maintain green spaces and educate their peers on the importance of these areas. Similarly, participants emphasized the importance of community education when it comes to waste. They shared that there are existing food recovery programs that would be great to partner with to avoid reinventing the wheel.

E.4.2.1 San Francisco and San Mateo Counties

The third workshop was hosted for **San Francisco and San Mateo Counties**. El Concilio partnered to engage San Mateo County residents, and InterEthnica recruited Cantonese speakers from the community. The workshop hosted frontline community participants over Zoom and in person at the North Fair Oaks Community Center.

Across building and transportation sectors, participants emphasized the importance of community engagement and education in implementing climate actions. They asked for education on electric vehicles, their environmental impact, and available programs. On buildings, they stressed the need to engage homeowners and landlords to ensure that the costs of upgrades are not passed on to tenants. They expressed the need for tenant protections during retrofits and building upgrades related to climate action to ensure housing remains affordable.

For the waste sector, participants spoke about gaps in recycling and composting systems, particularly in multifamily housing. They noted a lack of understanding and awareness about proper waste separation, with programs being inconsistently implemented across different neighborhoods. They recommended more education and outreach, in multiple languages, as well as stronger enforcement to reduce illegal dumping.

Participants emphasized the importance of increasing the number of trees and park access, particularly in dense urban neighborhoods where green spaces are limited. They asked for more shaded areas, clean and maintained green spaces (e.g. clean sidewalks), and safe green spaces where the community can gather. Participants suggested planting more trees along corridors such as Middlefield Road and ensuring that the green spaces that are developed prioritize frontline neighborhoods. They strongly recommend that community members have a voice in how green space is designed and maintained to avoid investments that do not reflect local needs or contribute to gentrification.

E.4.2.1 Napa, Marin, and Sonoma Counties

The final workshop covered **Napa, Marin, and Sonoma** Counties in partnership with the Graton Day Labor Center and North Marin Community Services. This workshop offered both in-person and virtual participation options.

This workshop brought a unique perspective to the building sector conversation. While more housing continues to be built, there is not enough water or resources in the area to support

existing and new households, according to participants. This was identified as a key risk to long-term sustainability. Across all counties, residents shared that the existing housing infrastructure needs a lot of repairs to be sustainable; this is where resources should be invested.

One key benefit highlighted was the creation of jobs through the transition to electric alternatives. Participants highlighted that there are very skilled workers who can support this work, but this opportunity needs to be open to those who are limited English proficient.

Transportation was lightly touched, participants shared that they are very reliant on their vehicles as transportation options are scarce. They shared that within their community, it is already common practice to bike, walk, or share a car to get to work.

Green space was a significant topic of discussion in this workshop, seen as critical for both environmental health and community safety. Participants suggested planting more trees and more community gardens, while prioritizing fire-resistant landscaping. Fire prevention was a recurring theme. Communities want regular pruning, removal of brush and debris, and safe disposal of plant waste to reduce fires that affect every sector. Participants saw substantial benefits with reforestation, maintenance, and community trainings to build sustainable green spaces.

On the topic of waste, they recommended stronger recycling and illegal dumping regulations, more waste containers, and education to prevent cigarette butts from being thrown out, which can spark fires. Some also suggested monitoring using cameras in remote areas to avoid illegal dumping in their green spaces and neighborhoods.

E.4.4 Frontline Community Workshop Outcomes

The frontline community workshop series resulted in several key updates to the BARCAP. Workshop participants updated draft design principles, shown in Chapter 5. A tracked changes version is shown below in Table A-8 to highlight the changes resulting from workshop participants' input.

As described in Chapter 5, the draft design principles were initially developed in 2023 in partnership with a roundtable of climate justice and equity organizations: Emerald Cities Collaborative Northern California, The Greenlining Institute, PODER, and Transform. The principles were also informed by input from local governments and regional agencies based on what they have heard directly from their communities. Updating these draft principles directly with feedback from frontline communities was an important step in ensuring that BARCAP measures reflect and elevate values from frontline communities across the BARCAP region.

Design Principle and Description + Post-Frontline Community Workshop Updates

Climate equity: Provide direct, meaningful, desired, and assured benefits to frontline communities.

Cooperative: Build upon and integrate existing efforts to expand impact, rather than introduce duplication.

Coordinated: Build cooperation and peer working relationships among local government and community-based organizations, that builds community capacity and empowers community leadership with and across counties, in consultation with community members through culturally relevant, multi-lingual, trusted-messenger-delivered outreach to reach frontline communities, and other vulnerable groups including recent immigrants, Indigenous communities, and youth.

Funding & financing: Increases access to critical financing and funding mechanisms for frontline communities and other key stakeholders (including operations and maintenance) and; identifies alternative financing mechanisms that provide sustained benefits for frontline communities.

Genuine affordability & access: Increase access to housing and transportation, and other community benefits like green spaces, reduces or doesn't increase housing/transportation/energy costs (e.g. housing, transportation, energy) and considers options to expand, and improve access and affordability.

Health & safety: Improve living and/or working conditions (e.g. indoor and outdoor air quality, safety in green spaces, traffic safety, and pedestrian safety), especially in frontline communities.

Housing & community stability: Support people to be housed, especially renters and low-income homeowners, and remain in their homes. Consider how communities use and connect to spaces.

High-quality jobs & local entrepreneurship: Create lasting, high-quality, family-sustaining high-road jobs and other pathways to economic sovereignty in frontline communities.

Resilience: Build resilience especially for frontline communities to withstand changing climate conditions in the near and long term, increasing preparedness to respond to climate-related emergencies.

Table E-8 Design Principles with Track Changes from Workshops

Once updated to reflect feedback obtained through the workshops, the Air District assessed each potential BARCAP measure against the revised design principles to ensure alignment with the underlying concepts. The resulting list of final BARCAP measures in chapters 6-10 describes which design principles are advanced by each measure.

The Air District incorporated findings from the frontline community workshops into preliminary BARCAP measures. The result is measures interwoven with language to center and advance equity, minimize unintended consequences, and amplify values and priorities identified by communities.

Workshop participants provided feedback on key benefits and perceived risks for proposed areas for climate action. This feedback was summarized for each workshop and then combined into a list of recommended edits for each sector’s proposed areas for climate action prior to formal drafting of the measures. This approach ensured that measures reflected viewpoints of frontline community members, guarded against key risks as feasible, and uplifted key quality of life improvements associated with climate action identified by community members, as summarized by the table and figure below.

Feedback Summary & Origin	Measure/ Action Update
<p>Interest in urban green spaces being food hubs/connected to food systems, urban agriculture.</p> <p>Of particular interest to participants who are recent immigrants, acknowledging past ties to land, expertise as growers/land stewards.</p> <p><i>(Public Workshop, Alameda Priority Community Workshop)</i></p>	<p>Specific recognition of food systems as a type of urban green space desired by community members, recognition of food systems as a co-benefit for urban green space climate action.</p>



Figure E-6 Example of Post-Workshop Measure Updates

Some community feedback areas were already included in the preliminary measures (e.g. a focus on the building decarbonization workforce). These measure areas are indicated in the table below with a “*”, which emphasizes that frontline community workshop feedback supports these areas for climate action. Other community feedback points were best suited for updating the overall sector framing (e.g. a new co-benefit), rather than the BARCAP measures themselves. While the priority community workshops did not explicitly focus on power, participants raised important power-related benefits and risks while discussing other sectors.

Sector	Key Measure & Action Updates Reflecting Frontline Community Workshop Feedback
Buildings	<ul style="list-style-type: none"> • Inclusion of affordable housing protections and multifamily building owner outreach and education • Emphasis on workforce diversity and contractor availability/training*
Transportation²	<ul style="list-style-type: none"> • Inclusion of e-commerce driven vehicle miles traveled

² Note that most measures related to land-use changes and active transportation are reflected in Plan Bay Area 2050+ instead of the BARCAP, as articulated in the Transportation Sector Chapter.

	<ul style="list-style-type: none"> • Inclusion of consideration for lowering upfront costs for EV purchase based on affordability concerns • Emphasis on prioritizing public funds to address gaps in EV charging network and address reliability concerns • Inclusion of trusted institutions (e.g. churches, CBOs) for charging sites • Inclusion of outreach and education around range anxiety, EV parts theft, and concerns about perceptions of EV safety • Inclusion of trusted messengers to expand reach of EV rebates*
Natural and Working Lands	<ul style="list-style-type: none"> • Inclusion of explicit mentions of indigenous land stewardship and land management practices • Inclusion of food sovereignty values and opportunities to grow food • Emphasized connections to schools for urban greening efforts • Inclusion of community planning measures to avoid space conflicts, empower communities, avoid unintended gentrification • Inclusion of opportunities for community-lead urban greening and stewardship • Emphasis on benefits for agricultural and land workers, with an emphasis on worker safety
Power	<ul style="list-style-type: none"> • Addition of special consideration for affordability for low-income households (in addition to current frontline communities focus) • Emphasis on crosscutting issues that can include grid reliability* • Emphasis on rate stability and affordability as key regional priorities and highlighting how actions support these goals* • Inclusion of better coordinated outreach and education about demand flexibility programs that can compensate participants* • Inclusion of opportunity presented by resilient energy resources at schools to educate youth about clean power resources and clean energy jobs
Waste	<ul style="list-style-type: none"> • Emphasis on community enthusiasm for food recovery and community-based food systems in general* • Inclusion of multifamily, small- and minority-owned- businesses for outreach and education on food recovery and composting efforts • Emphasis on community concern for lifecycle impacts of construction and building materials* • Inclusion of concern about waste sorting, and support for upstream solutions to reduce plastic waste like reusable foodware • Emphasis that further effective outreach is needed to achieve waste diversion goals, enthusiasm for school outreach

Table E-9 Measure Updates from Frontline Community Workshop Feedback

E.5 Public Engagement

The Air District and the consultant project team offered several avenues of engagement to the general public to learn about and contribute to the development of the BARCAP, including public workshops, a survey, and a public review and comment period. The team sought public

input before, during, and after measures were drafted. Intentions shaping public engagement were to provide a forum for meaningful engagement that was conducted early and often, with multiple avenues for members of the public to influence BARCAP measure development.

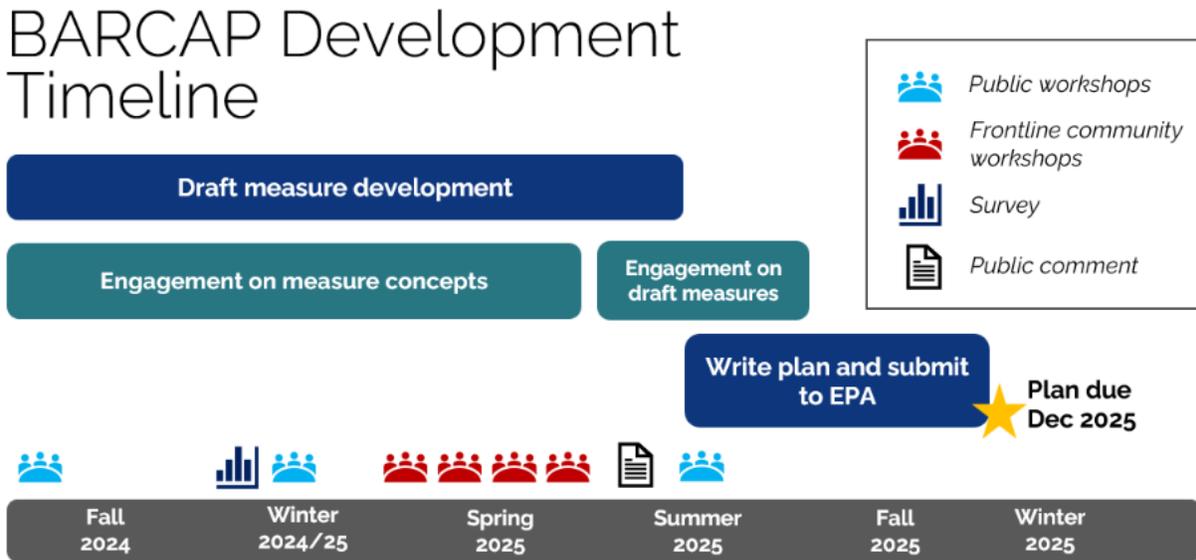


Figure E-7 Public Engagement Timeline Highlight

E.5.1 Public Engagement Overview

Summaries from public engagement, with highlights for multilingual engagement are described below.

Engagement Strategy	# of Participants	Languages Included
Public Workshops (three)	304	English with simultaneous interpretation available upon request In-language facilitation for Spanish and Cantonese were provided for the third public workshop.
Survey	675	English, Spanish
Online Commenting Platform	65 (total 409 comments)	Chinese (Traditional), English, Spanish Comments were received on English and Spanish document versions

Emailed Comments	13	English
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Table E-10 Public Engagement Strategy Highlight

Public Workshop Series – 304 total workshop participants, three workshops

The Air District convened three virtual public workshops throughout the BARCAP project. Public workshops included project updates and interactive brainstorm and engagement opportunities. All workshops were held virtually and after work hours.

Interpretation was offered for all public workshops in Spanish and Cantonese. Additional multilingual facilitation was offered for the third public workshop to allow for deeper engagement during the interactive portions of the workshop. Presentation materials were also made available in Spanish and Cantonese. Additional Spanish-language engagement was conducted through AWG members who serve multilingual populations and partner CBOs from the frontline community workshop series to increase workshop attendance from targeted communities.

Public Survey – 675 survey respondents

To offer a more flexible option for input on measures, and to better understand community values and which benefits of climate action are most important, the Air District and the consultant project team launched an online climate action survey in Spanish and in English. The survey received 675 responses, with ten percent of survey respondents speaking Spanish as their first language.

Public Commenting Period – 409 public comments submitted

The BARCAP draft measures were open for public comment July 2 – 29, 2025. Comments were primarily collected via an online reviewing and commenting platform that made it easy for the public to provide comments. Through the platform, one reviewer could leave multiple comments spread across the document. Comments were also accepted via email and during the third public workshop as alternative ways for the public to provide input. The plan received 409 comments from 78 individuals, as well as verbal and chat comments received during the public workshop. For a detailed breakdown of how comments were integrated into the plan, see the “FAQ” document (link).

The BARCAP draft measures were available in Spanish and Cantonese to increase accessibility and ensure continuity and transparency from earlier multilingual engagement during the frontline community workshop series. Nine comments were received on the Spanish language BARCAP draft version.

E.5.2 Public Workshop Series

The Project team held online public workshops as an interactive, hands-on opportunity for participants to learn about the BARCAP process; share their top priorities, concerns, and feedback; and meet and connect with other community members. This was carried out through BARCAP team presentations, online brainstorming and interactive tools (e.g. Zoom Polling, Mural), and breakout groups.

Workshop # and Topic	Agenda	Workshop Highlights
<p>BARCAP Kickoff Workshop – Workshop #1</p> <p>September 30, 2024</p> <p>5:30-7:00 PM</p>	<ul style="list-style-type: none"> • Project Overview (timeline, progress to date, opportunities for public input) • Visioning exercise: In 2050, I want the Bay Area to be... • Polling to identify key areas for climate action • Breakout rooms envisioning the tangible daily impacts of climate action in our communities 	<ul style="list-style-type: none"> • Attendees from across the BARCAP region identified as activists/advocates, climate professionals, or taking climate action in their everyday lives • Key areas for climate action identified included: walkable communities, solar deployment with batteries, EVs, and improved EV charging reliability • Key benefits of climate action identified included: safer active transportation options, desire for more/better electric vehicle ranges, affordability for key climate technologies (e.g. heat pumps), and high-quality jobs
<p>Preliminary Strategies for Regional Climate Action – Workshop #2</p> <p>February 11, 2024</p> <p>5:30-7:00 PM</p>	<ul style="list-style-type: none"> • GHG inventory draft results, key areas for climate action, and identified benefits and potential risks • Sector-specific preliminary strategies for climate action • Interactive sessions to brainstorm sector-specific climate actions, 	<ul style="list-style-type: none"> • Received public feedback into measure and action updates before they were fully “baked,” on the same timeline as the frontline community workshops • Detailed feedback on measures at the sector level • Key takeaways across sectoral groups included: themes on equitably transitioning off gas at the neighborhood scale, concerns about potential electrical rate increases, support for 24/7 renewable energy, pathways to reduce plastic contamination and ways to boost food access, need for public education and stewardship opportunities for urban greening, emphasis on reducing vehicle miles traveled (VMT) and boosting active transportation
<p>Draft Climate Action Strategies Deep-Dive-Public Workshop #3</p>	<ul style="list-style-type: none"> • Re-introduction of BARCAP project, with highlights on how engagement shaped measure development • Overview of measure development process 	<ul style="list-style-type: none"> • Multilingual promotion and facilitation resulted in the workshop being attended by 17 Spanish and 16 Cantonese speakers • This workshop was designed to provide an alternative to

<p>July 22, 2025 6:00-7:30 PM</p>	<ul style="list-style-type: none"> • Tutorial on how to use the online commenting platform to submit public comments • Deep-dive introduction for drafted BARCAP measures • Q&A with staff leading each sector 	<p>commenting on draft measures online or through email</p> <ul style="list-style-type: none"> • This workshop served as an alternative way for Cantonese and Spanish speakers to contribute, in addition to written options in in-language online documents • Key input included the urgent need to reach carbon neutrality, concerns around costs of electric appliances and vehicles, and the importance of including young people in climate action
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Table E-11 Public Workshop Summary

E.5.3 Public Survey

The Project Team launched an online survey to gather feedback from communities across the eight-county region on priorities and concerns regarding the BARCAP’s goals, strategies, and proposed actions. The survey allowed the team to gather input from as many community members as possible across the wide geographic range of the region. Survey results offer additional insights into regional support for BARCAP actions, while illuminating differences in viewpoint across racial/ethnic groups and income. The survey received 675 responses, and offered an additional, multilingual, and asynchronous option for the members of the public to make their voice heard before BARCAP measures were formally drafted.

The Air District promoted the survey via community and local government networks and contacts established during the Priority Climate Action Plan (PCAP) phase. The survey was available in both English and Spanish, with the English survey opening on January 24th, 2025, and the Spanish survey opening on February 14th, 2025. Both surveys closed on April 7th, 2025.

Key results from the survey’s responses include the following:

- The most popular action that survey respondents reported taking to support the climate and environment is trying to **“save resources by using less energy, water, or reduce waste when they could”** (85%, 575 respondents).
- The most observed local climate, environment, and weather pattern changes were the **“increased frequency of regional wildfires and days affected by wildfire smoke”** (76%, 504 respondents) and **“more frequent or intense heatwaves and hotter days”** (74%, 495 respondents).
- The most popular strategy that survey respondents thought the BARCAP should focus on was to produce **“all/more energy using clean, carbon-free energy sources (e.g., solar, wind, geothermal) for producing electricity”** (59%, 358 respondents). This was followed by **“expand and protect green spaces, urban trees, and natural**

ecosystems” (49%, 299 respondents) and **“shift from driving an automobile to alternative transportation modes (walking, bicycling, transit)”** (42%, 259 respondents).

- Survey respondents chose **“communities that are better able to withstand climate impacts, such as extreme heat and flooding”** (61%, 369 respondents) as the top improvement that GHG emission reductions would have on their lives.
- Lower and middle-income respondents were more supportive of **“promoting local food production and consumption, reducing food waste, and strengthening food security”** than wealthier respondents, and expressed less interest in **“transitioning to electric vehicles”** than any other strategy.
- **“Shift from driving an automobile to alternative transportation modes”** was the most selected strategy by Asian or Asian American respondents (56% support). **“Transitioning buildings away from using natural gas to all-electric”** was also popular with Asian or Asian American respondents (46% support), especially compared to Hispanic, Latino, Latina, or Latinx respondents (only 14% support). Hispanic/ Latinx respondents much preferred **“expanding and protecting green spaces, urban trees, and natural ecosystems,”** as did Black/African American respondents (67% and 48% support, respectively).
- **Climate resilience** and **public health** were the most appealing benefits of climate action for Bay Area residents across a range of socioeconomic classes and races/ethnicities.
- Low-income household respondents expressed more concern about additional **cost burden** created by climate action than wealthier households, especially where that may contribute to **displacement**.

Figure E-8 (below) displays the number of survey respondents who supported each of the 13 actions listed in the survey, with a particular focus on the top five areas for climate action (listed in order of survey respondent preference):

- Produce all/more energy using clean, carbon-free energy sources (e.g. solar, wind, geothermal) for producing electricity (carbon-free energy),
- Expand and protect green spaces, urban trees, and natural ecosystems (urban greening),
- Shift from driving an automobile to alternative transportation modes (walking, bicycling, transit) (active transportation),
- Promote energy resilience, such as through battery storage, clean, carbon-free electricity sources on-site (like solar) for critical facilities, and improvements to the electric grid (energy resilience),
- Transition buildings away from using natural gas to all-electric (building electrification)

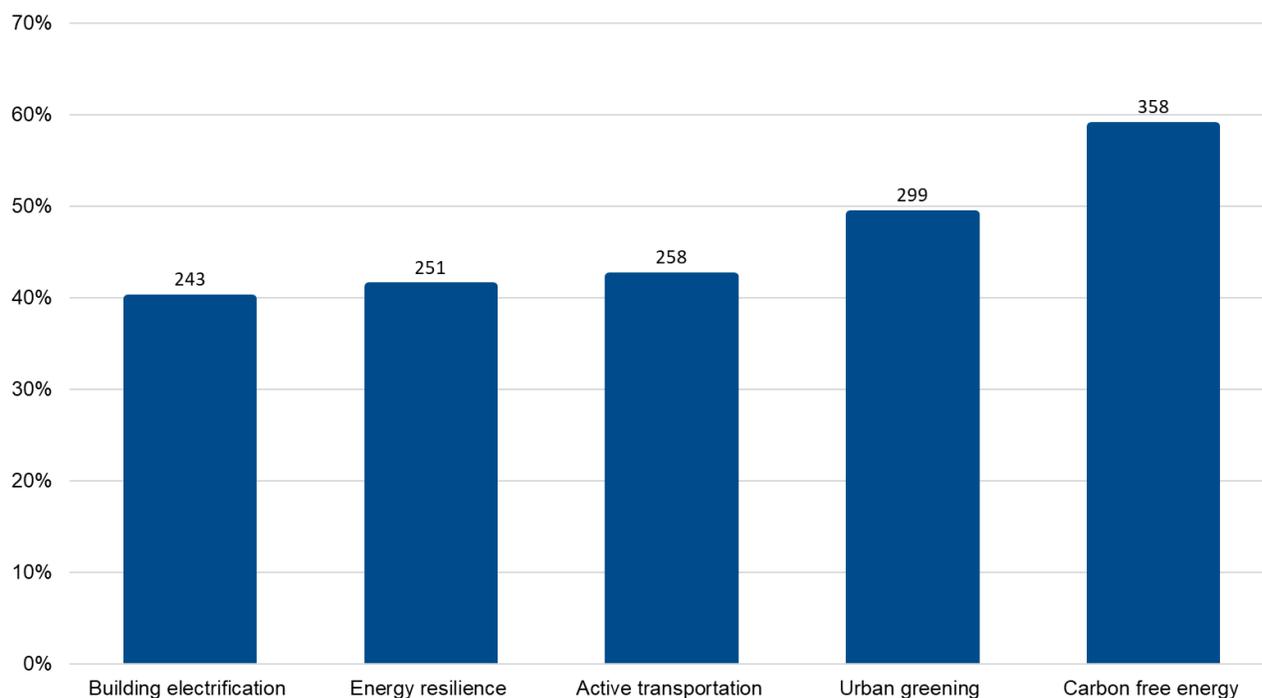


Figure E-8 Top five Strategies for Climate Action (BARCAP Survey)

Figure E-9 shows the ranking of all thirteen areas for climate action by survey respondents. Climate action descriptions are paraphrased, similar to the figure above, to improve graph legibility. It should be noted that there was respondent-wide support for all strategies- even the strategy with the lowest ranking, which promotes climate-beneficial agriculture, still made it into the top five strategies for 21% of respondents.

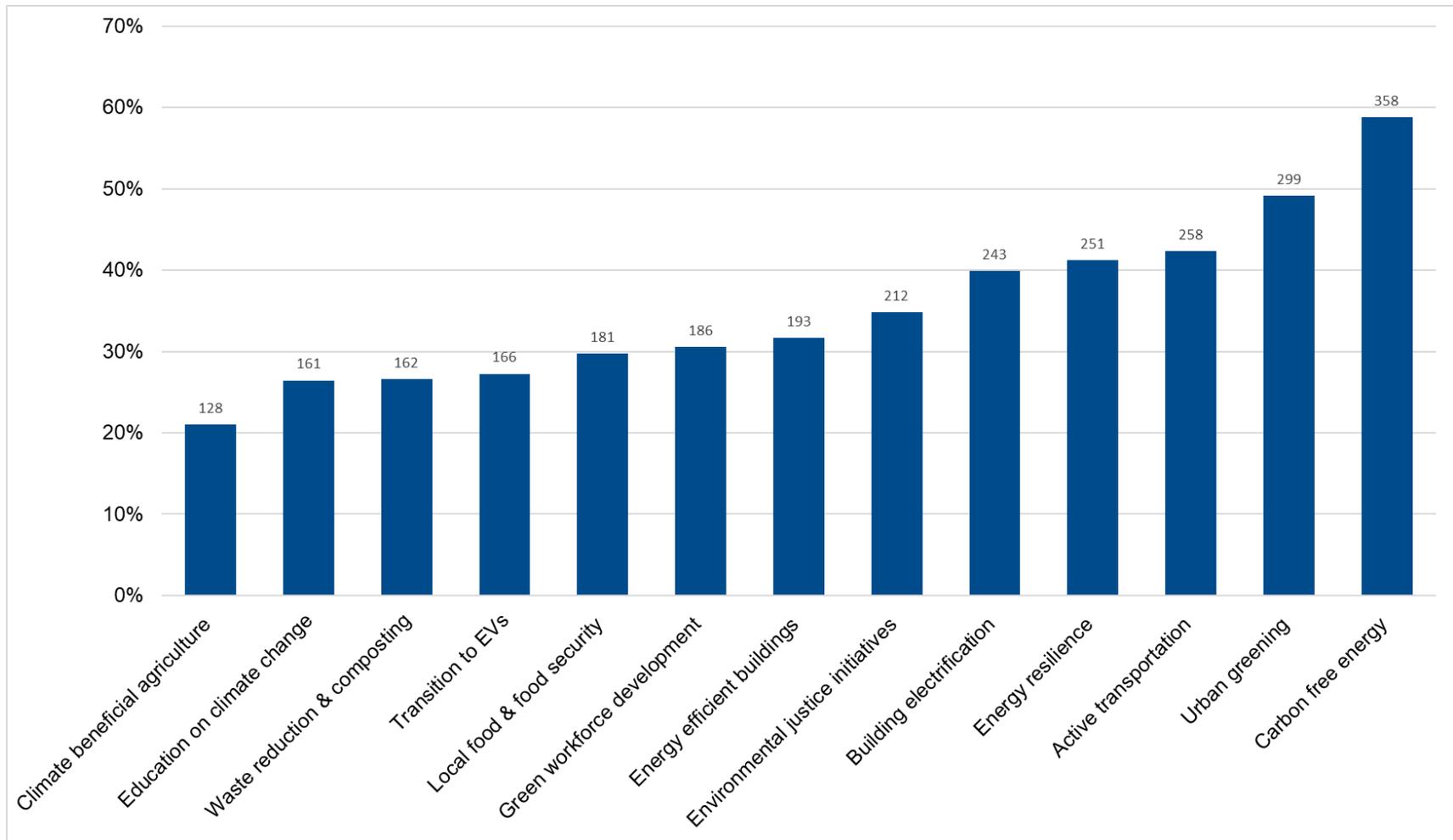


Figure E-9 Complete Ranking of All Survey Strategies for Climate Action

Survey responses to the question “*What strategies do you think the Bay Area Regional Climate Action Plan should focus on? Please choose your top five.*” also highlighted differences in support for climate actions across income levels and race/ethnicity groups, as shown below in Figure E-10 and Figure E-11.

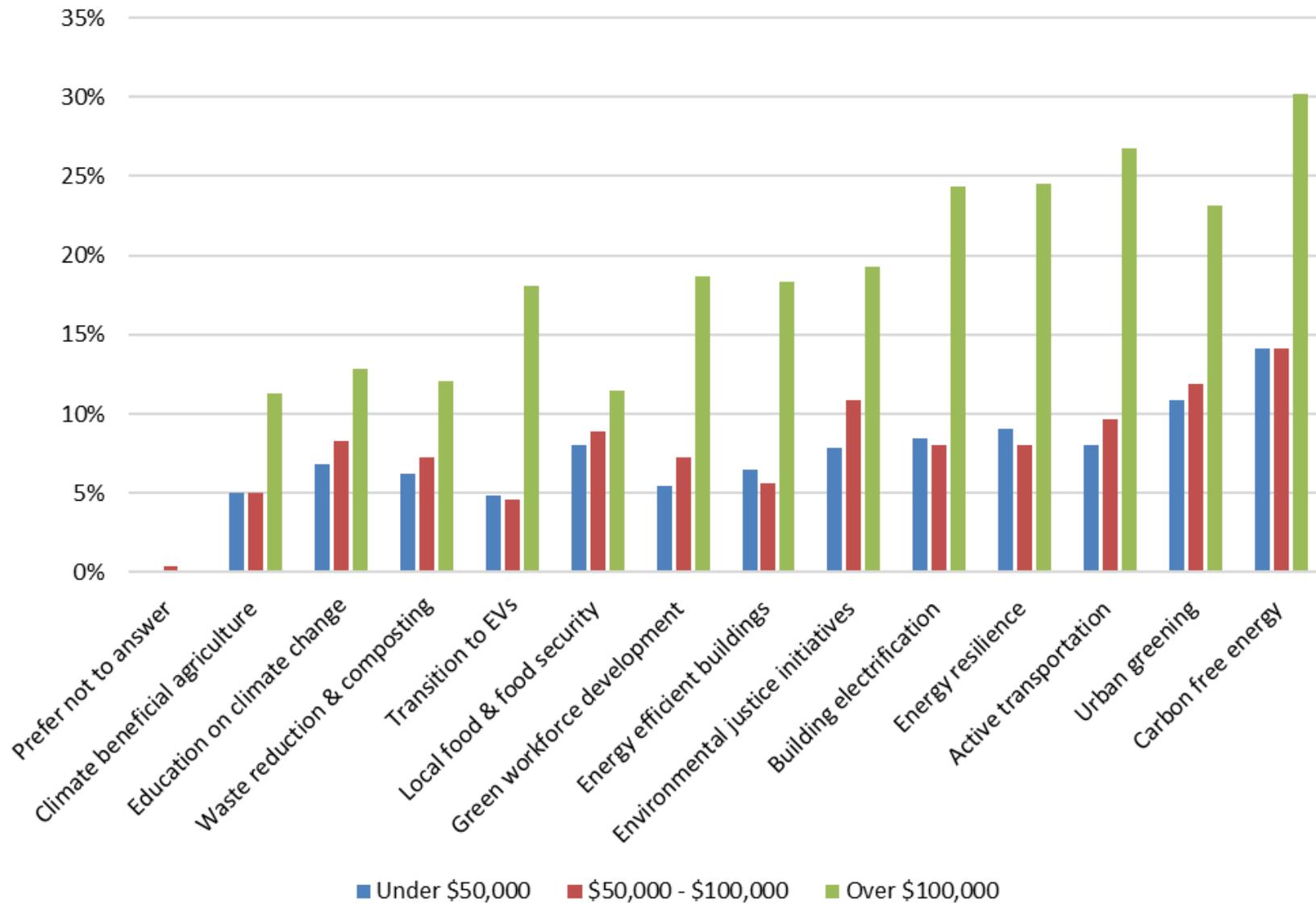


Figure E-10 Top Strategies for Climate Action - Income Results (BARCAP Survey)

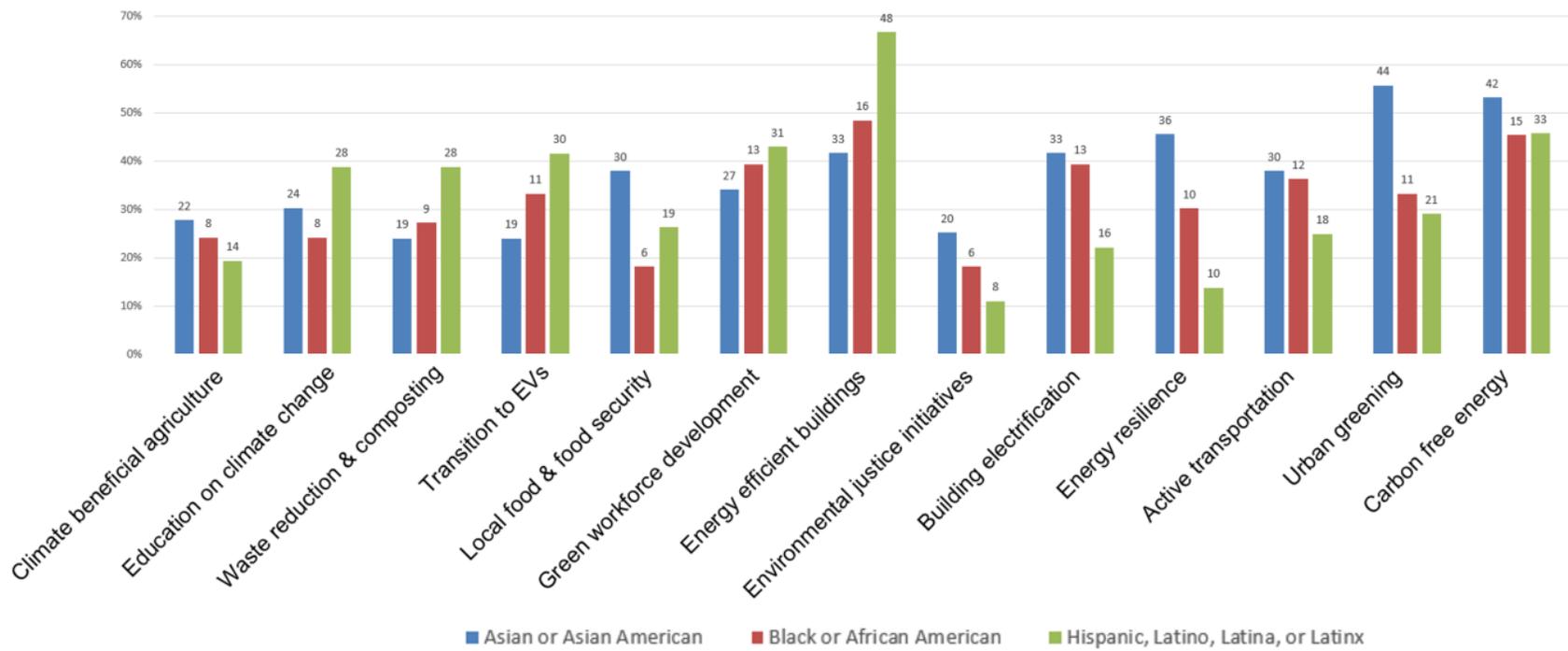


Figure E-11 Top Strategies for Climate Action - Race/ Ethnicity Results

Survey responses organized by race/ethnicity categories showed that support for top five climate actions had not-insignificant differences across Asian or Asian American, Black or African American, and Hispanic, Latino/a/x respondents.³ The strategies with the most varied support were:

- “Transition buildings away from using natural gas to all-electric” received 46% support from Asian or Asian American respondents compared to 30% support from Black or African American respondents and 14% support from Hispanic, Latino, Latina, or Latinx respondents, and 45% support from white/Caucasian respondents.
- “Shift from driving an automobile to alternative transportation modes (walking, bicycling, transit)” received 56% support from Asian or Asian American respondents compared to 33% support from Black or African American respondents and 29% support from Hispanic, Latino, Latina, or Latinx respondents, and 45% support from white/Caucasian respondents.
- “Expand and protect green spaces, urban trees, and natural ecosystems” received 67% support from Hispanic, Latino, Latina, or Latinx respondents compared to 48% support from Black or African American respondents and 42% support from Asian or Asian American respondents and 47% support from white/Caucasian respondents.

Survey findings were used in addition to public workshop and frontline community feedback to update BARCAP measures before they were formally drafted.

E.5.4 Online Commenting Platform

Once draft measures were developed, the Air District launched a one-month public review and comment process, utilizing an interactive online platform. Through this platform, the general public was able to review all the draft measures and provide comments. The plan was made available in English, Spanish, and Traditional Chinese to increase accessibility and ensure non-English proficient individuals had the opportunity to provide feedback. The comment period was open between July 2nd and July 29th, 2025, and a total of 396 comments (387 in English and 9 in Spanish) from 65 individuals were received through the online platform.

The consultant project team, with assistance from the Air District, conducted outreach to frontline community workshop participants, partner CBOs, and AWG members serving multilingual communities to notify them that in-language options to public comment were available. Conducting this follow-on engagement was important for transparency to show

³ Over 60% of respondents reported that they are white or Caucasian. The racial/ethnic groups that was chosen most often after White or Caucasian were Asian or Asian American (14%) and Hispanic, Latino, Latina, or Latinx (12%). Around 6% of respondents reported they were Black or African. Very few respondents reported they were Native American, American Indian, or Alaskan Native (3%) or Middle Eastern, North African, or Arab American (3%) or multiracial (3%). Less than 1% of respondents reported they were Native Hawaiian or other Pacific Islander. There was an over-representation of White or Caucasian survey respondents compared to the racial demographics of Bay Area counties. Per 2020 U.S. Census data, White or Caucasian people make up only 36% of the population in the nine-county area, but made up over 60% of survey respondents who identified their race (The San Francisco Foundation, PolicyLink, and USC Equity Research Institute, 2025). Asian or Asian Americans and Hispanic/Latino/Latina/Latinx peoples, who respectively make up an estimated 28% and 24% of the Bay Area’s population, were under-represented.

workshop participants how their previous feedback was used, and to provide them additional opportunities to contribute to draft measures.



Buildings Sector Draft Measures

1

Overview of the Buildings Sector ¹

The commercial and residential sector of the Bay Area Air District's 2025 greenhouse gas (GHG) inventory⁴ includes direct emissions from homes, commercial businesses, office spaces, places of business, worship, and congregation, entertainment venues, etc., excluding those classified as agricultural and industrial activities. GHG emissions from the sector include fossil fuel combustion for heating, cooling and cooking, leaks of refrigerants from equipment, lawn and garden equipment, etc. ¹ ¹

Regional Greenhouse Gas Emissions (MMTCO₂e)



Figure E-12 Online Viewing and Commenting Platform

Respondents were able to add comments, as seen by the yellow comment bubbles in Figure E-12, directly on the plan document. The online viewing and commenting platform allowed the public to leave comments without needing to reference a page number or section of the plan. In addition, the site allowed commenters to leave comments over time. Respondents would often come back to the document multiple times and leave comments over the span of hours or days. Commenters could also view, “like,” and respond to other comments, reducing duplication and allowing multiple individuals to engage on a single topic. The online platform made it easy for individuals to provide comments without having to write and submit a formal comment letter.

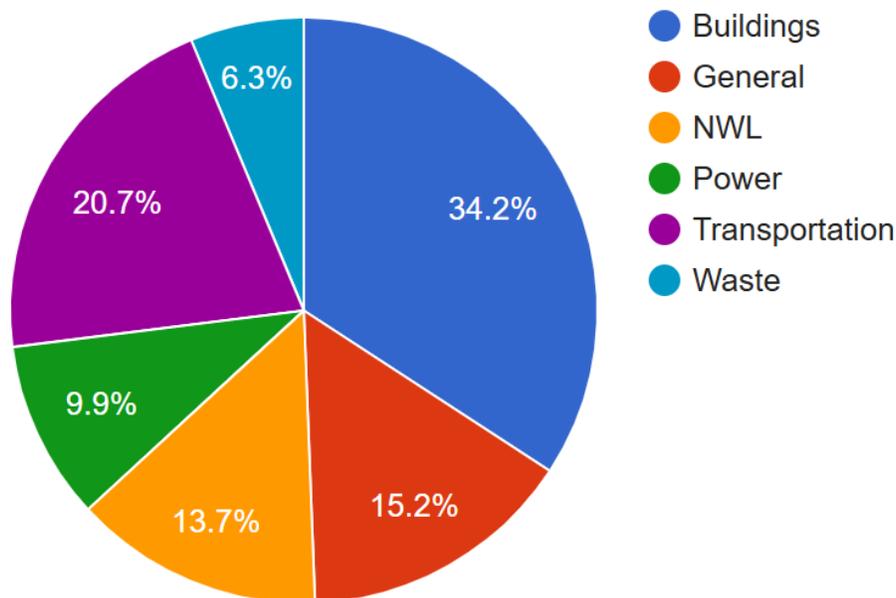


Figure E-13 Pie Chart of Public Comments by Sector

The buildings and transportation sectors received the most comments during the public comment period, accounting for 34% and 21% of the total comments, respectively. For each sector, a few high-level comment themes emerged. In the buildings sector, respondents highlighted affordability and installation challenges of building electrification, suggested additional partners for implementation, and stressed the need for equitable and expansive outreach and education on building electrification for contractors, businesses, homeowners, and renters. In the transportation sector, comments focused on EV charging accessibility challenges for renters and multifamily building residents, EV affordability, alternative fuels, VMT reduction, and concerns regarding airplane travel. Comments in the natural and working lands sector largely focused on centering equity and community engagement in planning green spaces, details for implementation, land use best practices, and the need to strengthen wildfire response. In the power sector, respondents commented on the need to enhance energy resilience and the importance of increasing the amount of local solar and storage. In the waste and materials management sector, comments focused on requiring best practice for sustainable materials in public works projects, creating public awareness and behavioral change around waste and composting, and suggesting implementation partners and resources.

E.5.5 Email Public Comments

The Air District also accepted comments via email. The Air District received 13 emails on the draft BARCAP measures from the public, community-based organizations, and governmental agencies. The organizations and agencies that commented include 350 Bay Area, Communities for a Better Environment, EarthJustice, Rocky Mountain Institute (RMI), Sierra Club, StopOAKExpansion, San Francisco Bay Regional Water Quality Control Board, and White Pony Express.

The Air District considered public comments from the public workshop, online commenting platform, and email when finalizing the BARCAP measures.

E.6 Technical Stakeholder Working Groups

The Air District assembled technical stakeholder working groups for each sector to help develop draft measure concepts. The Air District invited members to the technical stakeholder working groups based on subject matter expertise, their potential role as an implementation partner, and geographic diversity.

These working groups fostered broad-ranging conversations among practitioners that generated key insights and important perspectives to help shape measure development and implementation considerations. They supported the co-development of measures for each sector, basing them in on-the-ground realities and identifying areas to advance regional collaboration and leadership. They identified implementation hurdles and existing projects or programs to consider for scaling across the region, as well as unique opportunities for regional action that can only be achieved at the cross-county level. Follow-up meetings with potential assisting implementers were also scheduled throughout and after the working group meeting series on the recommendation of group members.

The working group process helped ensure that the measures aligned with BARCAP Design Principles, would lead to GHG reductions, achieve equity benefits, build on existing efforts, and were advantageous to implement at the regional scale. The working groups leveraged foundational desktop research conducted by the Air District. This research focused on assessing the existing policy, programmatic, and funding landscape for each sector (e.g., local climate action plans, the 2022 Scoping Plan, relevant state policies and programs), sectoral GHG emission profiles, key equity considerations, and potential sectoral focus areas to help begin identifying gaps and opportunities.

A sector-by-sector description of working group topics, members, and meeting topics is described below.

E.6.1 Buildings

Building Sector Technical Stakeholder Working Group members brought unique and important perspectives gained from direct experience in policy development and implementation, program administration, customer and workforce engagement, and owning and operating deed-restricted affordable housing. Smaller group meetings were also held to further discuss specific actions related to their existing work.

Organization	Organization Type
Association of Bay Area Governments/ Bay Area Regional Energy Network (ABAG/BayREN) (co-lead) (2 members)	Regional Government Agency
San Mateo County	Local Government
City and County of San Francisco	Local Government

Building Electrification Institute	Subject Matter Expert (building decarbonization policy and data)
Rebuilding Together	Community Based Organization
Three CCAs	Community Choice Aggregator
Contra Costa County	Local Government
Energy Solutions (for TECH Clean CA)	Program Administrator
Rebuilding Together	Community Based Organization
Tenderloin Neighborhood Development Corporation	Affordable Housing owner
Tre'Laine	Subject Matter Expert (workforce)
San Francisco Bay Area Planning and Urban Research Association (SPUR)	Community Based Organization
Building Electrification Institute	Subject Matter Expert (building decarbonization policy and data)
Building Electrification Institute	Subject Matter Expert (building decarbonization policy and data)

Table E-12 Building Sector Technical Stakeholder Working Group Members

The Building Sector Technical Stakeholder Working Group identified challenges and opportunities for regional action to address building emissions using policy, incentives, education, outreach and other available tools. Acknowledging the breadth and depth of innovative approaches already taking place in the Bay Area and throughout the state, members coalesced around the importance of the Air District’s zero NOx Building Appliance Rules (9-4 and 9-6) as catalytic regulation that could significantly support shared goals to decarbonize the building stock while addressing critical regional air quality challenges. Additionally, the group considered ways to leverage previous work on Phase 1 of the BARCAP (“Priority Climate Action Plan”) and proposed new actions which built on those concepts to address holistic retrofits of older homes in overburdened communities by combining home repairs with energy efficiency and electrification programs. Finally, the group emphasized the importance of growing the building decarbonization workforce by helping incumbent workers get the training they need on efficient electric appliances and ensuring disadvantaged and new workers have opportunities in this expanding market. The resulting measures and actions described in Chapter 7 - Buildings reflect these key areas: addressing implementation challenges with the zero NOx building appliance rules, supporting low-income and frontline communities in achieving decarbonization and public health goals by integrating electrification home repair and non-energy programs, and providing resources and other support to expand, train, and diversity the building decarbonization workforce.

Building Sector Working Group Meeting Date	Topics Covered
October 18, 2024	<ul style="list-style-type: none"> • Introductions and BARCAP overview • Establish common understanding of sector scope and external input to date • Define success/roles and expectations

	<ul style="list-style-type: none"> Group brainstorm on big ideas, priority focus areas, and needs and opportunities
December 9, 2024	<ul style="list-style-type: none"> Provide example measure and action Confirm priority measure areas and discuss prioritization criteria Apply prioritization criteria and revise draft actions
January 8, 2025	<ul style="list-style-type: none"> In depth discussion on key draft measures and actions: zero NO_x Building Appliance Rule implementation, enhancing existing program integration and delivery, and workforce
March 18, 2025	<ul style="list-style-type: none"> Share and gather input on revised and updated measures Discuss possible implementation roles
April 15, 2025	<ul style="list-style-type: none"> Share revised and updated measures and gather input on timing, funding estimates and metrics Clarify timeline for BARCAP development and additional opportunities for review and input from Buildings Sector Technical Stakeholder Working Group

Table E-13 1Building Sector Meetings & Topics Covered

E.6.2 Natural and Working Lands

Natural and Working Lands Technical Stakeholder Working Group members were selected with special attention paid to unique agriculture and land management types found throughout the region (e.g. viticulture and wetlands).

Organization	Organization Type
Metropolitan Transportation Commission (MTC) / San Francisco Estuary Partnership	Regional Government Agency
Bay Area Regional Collaborative	Regional Government Agency
Solano Resource Conservation District	Special District
MTC (2 members)	Regional Government Agency
Contra Costa Resource Conservation District	Special District
Bay Area Air District	Regional Government Agency
San Mateo Resource Conservation District	Special District
Marin Resource Conservation District	Special District
City and County of San Francisco	Local Government
Napa Firewise	Community Based Organization
Bay Area Regional Collaborative	Regional Government Agency
StopWaste	Local Government
Sustainable Winegrowing Alliance	Community Based Organization
MTC / San Francisco Estuary Partnership	Regional Government Agency
Friends of the Urban Forest	Community Based Organization
Sonoma County Agricultural Preservation and Open Space District (Sonoma Ag+ Open Space)	Local Government
TOGETHER Bay Area	Nonprofit Organization
Carbon Cycle Institute	Nonprofit Organization

Table E-142 Natural and Working Lands Technical Stakeholder Working Group Members

The following organizations were consulted on an ad-hoc basis on the recommendation of the natural and working lands group.

Organization	Organization Type
San Francisco Estuary Institute	Nonprofit
San Francisco Bay Water Quality Control Board	Regional Government Agency
Gold Ridge Resource Conservation District	Special District
University of California Cooperative Extension	Academic Institution
Marin Water	Publicly Owned Water Utility

Table E-15 Additional NWL Meetings

The Natural and Working Lands (NWL) Technical Stakeholder working Group identified key hurdles faced by implementers and opportunities for regional action, as well as key subject matter areas for NWL that offered the greatest opportunities to protect carbon stocks and/or enhance carbon sequestration. They also provided perspectives on key equity challenges encountered in their work, funding and technical gaps, and an assessment of key assets and strengths in advancing nature-based solutions. The resulting measures and actions described in Chapter 10 - Natural and Working Lands reflect these key areas: regional funding and data support for nature-based solutions, protecting and enhancing carbon stocks with a particular focus on wildfire and wetlands, advancing climate-beneficial agriculture, and implementing urban greening with an equity focus, and investment in urban greening operations and maintenance.

Working group members acknowledged that the climate action category of NWL is extremely broad and combines many different areas of specific climate action that have unique technical and implementation considerations. Smaller group discussions were convened to dive into specific topics, including wetland, blue-carbon, and urban greening measures.

NWL Working Group Meeting Date	Topics Covered
October 31, 2024	<ul style="list-style-type: none"> • Kickoff meeting – full group • Project overview and working group role • Main areas for natural and working lands climate action
December 8, 2024	<ul style="list-style-type: none"> • Small-group – land protection and restoration • Key opportunities identified for BARCAP actions: Regional funding approaches, carbon rich nature of Bay Area wetlands, intersection of resilience, recreation and conservation.
December 16, 2024	<ul style="list-style-type: none"> • Small-group – scale up carbon farming • Key opportunities identified for BARCAP actions: Implementer-lead identification of infrastructure bottlenecks and opportunities to share resources, tools, and staff, opportunities to build on existing soil hub regional coordination
January 8, 2025	<ul style="list-style-type: none"> • Small-group – wildfire prevention

	<ul style="list-style-type: none"> Key opportunities identified for BARCAP actions: Need to overcome hurdles to incentivize private landowners to manage wildfire fuels at scale, opportunity to leverage insurance mechanisms, funding gap to implement fuel management goals
February 20, 2025	<ul style="list-style-type: none"> Draft measure review and carbon stock inventory presentation – full group Brainstorm on draft measures, reflection of key equity issues throughout measures Feedback on draft carbon stock inventory

Table E-16 Natural and Working Lands Sector Meetings & Topics Covered

E.6.3 Power

Power Sector Technical Stakeholder Working Group members brought unique and important perspectives gained from direct experience in renewable energy and storage procurement and load flexibility initiatives, customer programs and engagement, policy development and implementation, program administration, and efforts to bring affordable clean energy and storage plus load flexibility to low-income customers. Three community choice aggregators (CCAs) helped the Air District design meeting agendas and reviewed early iterations of the specific focus areas, informational documents, and measure concepts. A CCA also co-facilitated several meetings.

Organization	Organization Type
Four CCAs	Community Choice Aggregator (CCA)
GRID Alternatives	Community Based Organization
San Mateo County	Local Government
Two Municipal Utilities	Municipal Utility
GRID Alternatives	Community Based Organization
City of Hayward (2 members)	Local Government
Investor-Owned Utility	Investor-Owned Utility
Contra Costa County	Local Government
Zero Net Energy Alliance	Subject Matter Expert

Table E-17 Power Sector Technical Stakeholder Working Group Members

The Air District also consulted PSE Healthy Energy about clean resilient power for resilience centers and critical facilities, and developers of community solar and small solar photovoltaic and/or storage projects to understand their perspective on what incentivizes project development in the region. They also spoke with staff at the California Energy Commission (CEC) to understand existing demand flexibility approaches and pilots (including virtual power plants) and their potential for scalability.

The Power Sector Technical Stakeholder Working Group identified key needs and challenges for equitably deploying clean energy generation and storage and a more flexible grid in the region and opportunities for regional action and coordination to offer solutions and accelerate progress. Members recommended prioritizing equitable access to clean energy and storage,

affordability, funding/financing, and reliability and resilience. Several considerations raised by the Air District and the working group shaped the focus of measure development for this sector. Per state law, the Air District is prohibited from regulating CO₂ emissions from power plants and cogeneration facilities that are covered by the state’s Cap-and-Trade program, which includes almost all CO₂ emissions from this sector. Many local climate action plans include actions to encourage resident and business participation in CCAs and to opt for the 100% renewable power option provided by CCAs. Therefore, measures do not focus on power plants or cogeneration facilities or on increasing participation rates in 100% renewable power options at CCAs. Workgroup members shared that CCAs and utilities tend to purchase most new utility-scale renewable power and storage resources from outside the BARCAP region, considering availability, economics, and local goals on climate and carbon emissions. State clean energy policy is helping drive procurement decisions. They also shared that siting large-scale utility projects in the region (versus small- to medium-scale projects) may raise concerns by local governments and others over land that otherwise could be used to meet housing demand or other pressing concerns. Nevertheless, members highlighted the multiple benefits of local clean energy and storage projects and load flexibility for the region, including strengthened regional grid resilience and reduced reliance on centralized generation, long-distance transmission, and fossil-fuel-based back-up generators, lower energy bills (on-site or community solar projects) and downward pressure on rates, job creation potential, and faster integration of new clean energy power and storage resources.

The resulting measures and actions described in Chapter 8 - Power, reflect the hurdles, opportunities, and considerations in the following areas: increasing deployment of small- to medium-sized local clean energy and storage projects (including distributed energy resources and behind-the-meter projects) and expanding customer programs and deploying power system and grid technologies more widely for a more flexible, efficient, resilient, and affordable grid (including virtual power plants and resilient and clean back-up power).

TSWG Meeting Date	Topics Covered
October 23, 2024	<ul style="list-style-type: none"> • Introductions and BARCAP overview • Establish common understanding of sector scope and external input to date • Identify big ideas, needs and opportunities, and priority focus areas
December 11, 2024	<ul style="list-style-type: none"> • Discuss among CCAs and municipal utilities priority focus areas and what they would want to be doing if there was more regional coordination and regional planning • Identify which of these ideas is actionable today
January 8, 2025	<ul style="list-style-type: none"> • Define and agree on what success for measure development looks like • Discuss key results of interim small group meetings • Review and refine updated measure areas and actions • Discuss possible implementers
March 27, 2025	<ul style="list-style-type: none"> • Answer key questions on actions, determine direction of necessary edits • General agreement on revised measure language

	<ul style="list-style-type: none"> • Determine if something key is still missing • Identify potential implementation leads • Prioritize actions for inclusion in BARCAP using criteria
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Table E-18 Power Sector Meetings and Topics Covered

E.6.4 Transportation

Transportation Sector Technical Stakeholder Working Group members represented a broad array of backgrounds in the transportation and land use areas, including members that work on both light-duty electrification and/or medium- and heavy-duty electrification.

Organization	Organization Type
Port of Oakland (2 members)	Local Government
Transform	Community Based Organization
MTC (2 members)	Regional Government Agency
Three CCAs	Community Choice Aggregator
Transportation Authority of Marin	Local Government
City of Berkeley	Local Government
Sonoma County Transit Authority	Local Government

Table E-19 Transportation Technical Stakeholder Working Group Members

Note that other organizations were consulted on an ad-hoc or one-on-one basis to better understand overlap of existing work relevant to transportation measures. These organizations advised in measure development and consultation in addition to the working group members listed above.

Organization	Organization Type
California Energy Commission	State Agency
San Francisco Environment	Local/County Government
San Francisco Municipal Transportation Agency	Local/County Government
Two CCAs	Community Choice Aggregator
Contra Costa County Public Works	County Government
Electric Vehicle Coordinating Council	Peer-to-peer forum
GRID Alternatives	Regional Organization

Table E-203 Additional Transportation Meetings

The Transportation Technical Stakeholder Working Group identified key hurdles faced by implementers and opportunities for regional action, as well as key areas for the transportation sector that offered the greatest opportunities to realize GHG emission reductions in the region. They also provided perspectives on equity challenges encountered in their work, funding and technical gaps, and an assessment of assets and strengths in transitioning away from fossil fuels. The resulting measures and actions described in Chapter 6 - Transportation Sector reflect these key areas: accelerating light-duty electric vehicle adoption, accelerating medium- and heavy-duty vehicle and equipment decarbonization, and accelerating decarbonization of goods movement.

The Transportation Sector Working Group members acknowledged that although there is a lot of work already being done to reduce fossil-fuel use in the sector at various levels of government, there are still opportunities to accelerate this work through regional collaboration. Three main meetings were held to discuss actions for the sector followed by one-on-one meetings with individual members and other stakeholders to discuss specific actions that aligned with the stakeholder's work. Additional follow-up meetings with potential supporting implementers were scheduled after the working group meeting series.

TSWG Meeting Date	Topics Covered
October 31, 2024	<ul style="list-style-type: none"> • Introductions and BARCAP overview • Establish common understanding of sector scope and external input to date • Define and agree on what success for measure development looks like • Introduce and agree on boundaries/focusing factors for GHG reduction measures • Discuss and select key focus areas
January 9, 2025	<ul style="list-style-type: none"> • Clarify input and add to ideas • Share and clarify BARCAP criteria and process for measure prioritization • Begin to discuss implementation options (e.g., funding, agencies, infrastructure)
March 28, 2025	<ul style="list-style-type: none"> • Discuss draft measures and actions • Identify possible implementation partners • Discuss implementation timeframe

Table E-21 Transportation Sector Meetings & Topics Covered

E.6.5 Waste

Waste Sector Technical Stakeholder Working Group members represented county-level local government agencies playing key roles in implementing Senate Bill 1383 for organics waste reduction and key food recovery organization partners identified by those local government implementers.

Organization	Organization Type
San Francisco Environment	Local Government
Zero Waste Marin	Local Government
StopWaste (2 members)	Local Government
Fremont LEAF	Community Based Organization
White Pony Express	Community Based Organization
County of San Mateo (2 members)	Local Government
RecycleSmart (2 members)	Local Government
Zero Waste Sonoma (2 members)	Local Government
Second Harvest of Silicon Valley	Community Based Organization
Joint Ventures Silicon Valley	Nonprofit Organization
ExtraFood	Community Based Organization

Alameda County Community Food Bank	Community Based Organization
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Table E-22 Waste Technical Stakeholder Working Group members

In addition to the Waste Technical Stakeholder Working Group focused on food and organics waste reduction, the waste sector measure on building materials leveraged existing networks including the Bay Area Deconstruction Working Group – a cross-sector convening of practitioners advancing building material reuse – and a meeting of local governments focused on embodied carbon policies for building materials across the Bay Area. Participants in the local government meeting are listed below.

Organization	Organization Type
City and County of San Francisco (2 members)	Local Government
City of Palo Alto	Local Government
Alameda County GSA (2 members)	Local Government
County of San Mateo	Local Government
County of Marin	Local Government
City of Union City	Local Government
City of Pleasanton	Local Government
City of Oakland	Local Government
US Green Building Council (USGBC)	Nonprofit Organization

Table E-23 Bay Area Deconstruction Working Group Meeting Participants

The Waste Sector Technical Stakeholder Working Group identified key hurdles to implementing SB 1383 including edible food recovery from large commercial generators, properly sorting organics waste into streams for commercial composting without contamination and creating markets for the use of compost. Input gathering on the food and organics measure began with one-on-one meetings to hear initial perspectives followed by two group meetings. The first meeting presented the common themes heard in the meetings, received additional ideas and feedback for refinement. The second meeting presented revised actions that were further refined by the working group. The primary obstacle identified was a lack of adequate funding infrastructure for food recovery operations. Actions to remove this obstacle are reflected in Chapter 9 - Waste and Materials’ measure W-1 Enable Food Access and Clean Compost. This measure also reflects the working group’s identified need to coordinate regionally on organics collection best practices and policies implemented at the county scale. Finally, the working group clarified that long-term systemic changes were needed to create a sustainable food system and added an action to continue to explore those bigger picture solutions.

The building materials measure W-2: Advance Low-Carbon Building Materials and Reuse leveraged findings from a four-part series of the Bay Area Deconstruction Working Group held between September – December 2024. The findings from this series included the need for infrastructure for salvaged buildings materials, which includes economic development for reuse market actors, engagement with industry to increase the practice of reuse, and inclusions of building materials in codes and other local and state government policies. These needs are

reflected in measure W-2's actions. The Bay Area Deconstruction Working Group focuses primarily on salvaging and reusing materials from existing buildings, but the strategies are translatable to other low-carbon building materials and practices. To round out the measure to include other materials such as low-carbon concrete and bio-based materials, the draft measure and actions received feedback from a group of local governments that meet to discuss embodied carbon in building materials. Additional meetings with key implementing counties were held to ensure that the actions were aligned with their planned direction.

TSWG Meeting Date	Topics Covered
November 19, 2024	Focus on food and organics <ul style="list-style-type: none"> • Introductions and BARCAP overview • Establish common understanding of sector scope and external input to date • Discuss where there is the most potential for regional/collective action
January 23, 2025	Focus on food and organics <ul style="list-style-type: none"> • Discuss draft measures and actions, checking if the measures are comprehensive and if the actions are realistic • Discuss possible implementation partners
February 7, 2025	Ad hoc meeting of local governments on embodied carbon in building materials <ul style="list-style-type: none"> • Discuss draft building material measure and actions: ask questions, provide suggestions for alternative wording, and identify if anything is missing • Identify potential implementation partners

Table E-24 Waste Sector Meetings & Topics Covered