California Air Resources Board

Co-benefit Assessment Methodology
Climate Adaptation Questionnaire

California Climate Investments
Greenhouse Gas Reduction Fund

The tables on the following pages are excerpted from the Climate Adaptation Co-benefit Assessment Methodology for California Climate Investments. The questionnaire is converted into fillable tables for ease of use. Guidance on how to answer each question is provided in Section C of the full methodology available at: www.arb.ca.gov/cci-cobenefits.

California Climate Investments that result in climate adaption co-benefits generally address one of the following six topic areas covered by this questionnaire: extreme heat, drought, sea level rise and inland flooding, agricultural productivity and conservation, species habitat, and wildfire. A single California Climate Investments project may provide benefits in multiple topic areas. In such cases, users should evaluate the project using the assessment methods outlined for each relevant topic area to estimate the total climate adaptation co-benefit.

California Climate Investments that result in climate adaptation co-benefits reduce vulnerabilities posed by climate change through climate adaptation oriented improvements to homes, communities, natural and working lands, and infrastructure.

Overall, the methods for assessing the climate adaptation co-benefits are qualitative, involving a checklist for each topic area that will record the presence or absence of an expected outcome (a "yes/no" approach). This approach enables users to identify whether a project is contributing to a positive or negative climate adaptation co-benefit, but does not characterize the magnitude of that contribution. "Not applicable" options are also available for measures that are not relevant to the project.

Based on the responses to the questions, the project will be classified as providing "climate adaptation co-benefits," "high climate adaptation co-benefits," or "exceptional climate adaptation benefits."

Topic Area 1. Extreme Heat

Table 1. Potential measures for extreme heat effects moderation	
Measure	**Assessment (Y/N)**
Is the project planting trees that will provide shade to buildings, homes, sidewalks, streets, or parking lots?	☐ Yes ☐ No ☐ N/A
Is the project enhancing insulation of homes?	☐ Yes ☐ No ☐ N/A
Is the project installing cool roofs?	☐ Yes ☐ No ☐ N/A
Is the project reducing electrical grid demand and household costs associated with cooling?	☐ Yes ☐ No ☐ N/A
Is the project preventing conversion of agricultural lands (croplands, rangelands, or pasturelands) or natural land cover (trees, grasslands, shrublands, watersheds, or wetlands) to pavement or buildings?	☐ Yes ☐ No ☐ N/A
Is the project adding permeable land cover?	☐ Yes ☐ No ☐ N/A
Is the project replacing agricultural lands (croplands, rangelands, or pasturelands) or natural land cover (trees, grasslands, shrublands, watersheds, or wetlands) with pavement or buildings? *(negative co-benefit)*	☐ Yes ☐ No ☐ N/A

Topic Area 2. Drought

Table 2. Potential measures for drought effects moderation	
Measure	**Assessment (Y/N)**
Is the project setting up an ongoing mechanism to conserve water?	☐ Yes ☐ No ☐ N/A
Is the project promoting improved soil health, soil quality, or soil stability?	☐ Yes ☐ No ☐ N/A
Is the project restoring wetlands, watersheds, or riparian buffers?	☐ Yes ☐ No ☐ N/A
Is the project planting native, drought-tolerant vegetation?	☐ Yes ☐ No ☐ N/A
Is the project changing permeable surfaces to paved surfaces? *(negative co-benefit)*	☐ Yes ☐ No ☐ N/A
Is the project increasing water use? *(negative co-benefit)*	☐ Yes ☐ No ☐ N/A

Topic Area 3. Sea Level Rise and Inland Flooding Adaptation

Table 3. Potential measures for sea level rise and inland flooding adaptation	
Measure	**Assessment (Y/N)**
Does the project include floodplain restoration or protection?	☐ Yes ☐ No ☐ N/A
Does the project include forest/tree restoration or protection in a flood-prone or flood hazard area?	☐ Yes ☐ No ☐ N/A
Does the project include improved soil health in a flood-prone or flood hazard area?	☐ Yes ☐ No ☐ N/A
Does the project include rainwater capture and/or infiltration systems as part of urban green efforts in a flood-prone or flood hazard area?	☐ Yes ☐ No ☐ N/A
Does the project include additional infrastructure, including natural infrastructure, to protect against flooding in a flood-prone or flood hazard area?	☐ Yes ☐ No ☐ N/A
Is the project mitigating the effects of sea level rise/flooding in a region at risk for sea level rise/flooding?	☐ Yes ☐ No ☐ N/A
Is the project developing buildings or structures in floodplains? *(negative co-benefit)*	☐ Yes ☐ No ☐ N/A

Topic Area 4. Agricultural Productivity and Conservation

Table 4. Potential measures for agricultural productivity	
Measure	**Assessment (Y/N)**
Is the project conserving Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Grazing Land, or Farmland of Local Importance?	☐ Yes ☐ No ☐ N/A
Is the project promoting improved soil health, soil quality, or soil stability?	☐ Yes ☐ No ☐ N/A
Is the project reducing on-farm water consumption?	☐ Yes ☐ No ☐ N/A
Is the project converting Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Grazing Land, or Farmland of Local Importance to urban or other development? *(negative co-benefit)*	☐ Yes ☐ No ☐ N/A

Topic Area 5. Species Habitat

Table 5. Potential measures for species habitat	
Measure	**Assessment (Y/N)**
Is the project restoring or conserving habitat that contains Species of Greatest Conservation Need, including threatened or endangered species?	☐ Yes ☐ No ☐ N/A
Is the project restoring or conserving historical habitat for Species of Greatest Conservation Need, including threatened or endangered species?	☐ Yes ☐ No ☐ N/A
Is the project constructing or conserving wildlife corridors and/or habitat connectivity?	☐ Yes ☐ No ☐ N/A
Is the project disturbing wetlands, waterways, tidelands, or wildlife corridors? *(negative co-benefit)*	☐ Yes ☐ No ☐ N/A
Is the project developing land, or otherwise disturbing habitat, that contains threatened or endangered species? *(negative co-benefit)*	☐ Yes ☐ No ☐ N/A

Topic Area 6. Wildfire

Table 6. Potential measures for wildfire mitigation	
Measure	**Assessment (Y/N)**
Does the project involve fuels management work to maintain ecosystem health in a high priority landscape?	☐ Yes ☐ No ☐ N/A
Does the project involve rehabilitation work in a high priority landscape impacted by wildfire?	☐ Yes ☐ No ☐ N/A
Does the project involve fire hazard prevention work to mitigate wildfire threats to communities?	☐ Yes ☐ No ☐ N/A
Is the project implementing other types of forest or other ecosystem management treatments to reduce wildfire intensity or reduce potential impacts of wildfires?	☐ Yes ☐ No ☐ N/A
Is the project implementing other fire mitigation or prevention measures for non-forested habitats that may be impacted by wildfire?	☐ Yes ☐ No ☐ N/A
Does the project involve new construction in a high priority landscape for reducing or preventing wildfire threats? *(negative co-benefit)*	☐ Yes ☐ No ☐ N/A

Assessment

To determine the overall Climate Adaptation Co-benefit, users will assess the checklist responses within each topic area and across the six project topic areas.

First, tally the number of "yes" responses in each topic area checklist. Each positive co-benefit will count as +1 and each negative co-benefit will count as -1. The negative co-benefits are labeled for clarity. If there is a net positive of at least 1 for the topic area, then the project is considered as providing "climate adaptation co-benefits" for that topic area.

Topic Area 1. Extreme Heat   _____

Topic Area 2. Drought   _____

Topic Area 3. Sea Level Rise and Inland Flooding Adaptation   _____

Topic Area 4. Agricultural Productivity and Conservation   _____

Topic Area 5. Species Habitat   _____

Topic Area 6. Wildfire   _____

Next, determine how many of the topic areas have a net positive number of climate adaptation co-benefits.

☐   If at least one topic area has net positive climate adaptation co-benefits, the overall classification is "**Climate Adaptation Co-benefits**."

☐   If two or three topic areas have net positive climate adaptation co-benefits, the overall classification is "**High Climate Adaptation Co-benefits**."

☐   If four or more topic areas have net positive climate adaptation co-benefits, the overall classification is "**Exceptional Climate Adaptation Co-benefits**."