

ALAMEDA COUNTY CLIMATE ACTION PLAN

FOR GOVERNMENT SERVICES AND OPERATIONS THROUGH 2020

EXECUTIVE
SUMMARY

2010





MESSAGE FROM THE ALAMEDA COUNTY BOARD OF SUPERVISORS

Investing in our future is not a luxury, but an imperative. With this in mind, the *Alameda County Climate Action Plan for Government Operations and Services* focuses our efforts on the highest-leverage actions that address climate change and other County priorities.

We are committed to implementing this Plan because the result will be wise investments of taxpayer dollars for long-term savings, improved services, promotion of the local green economy, and, ultimately, improved quality of life for County residents.

Therefore, on May 4, 2010, the Board of Supervisors unanimously passed a resolution that established 16 Commitments to Climate Action, set greenhouse gas reduction targets, and adopted this Plan. The Plan was the result of a multi-year collaborative process involving all County agencies.

Meeting the goals of this Plan will require the leadership and support of each County agency and employee. Working together, we can develop creative and breakthrough solutions that not only address climate change but also are investments in the County's future.

Alice Lai-Bitker
President of the Board



Scott Haggerty
District 1 Supervisor



Gail Steele
District 2 Supervisor



Alice Lai-Bitker
District 3 Supervisor
President



Nate Miley
District 4 Supervisor
Vice-President

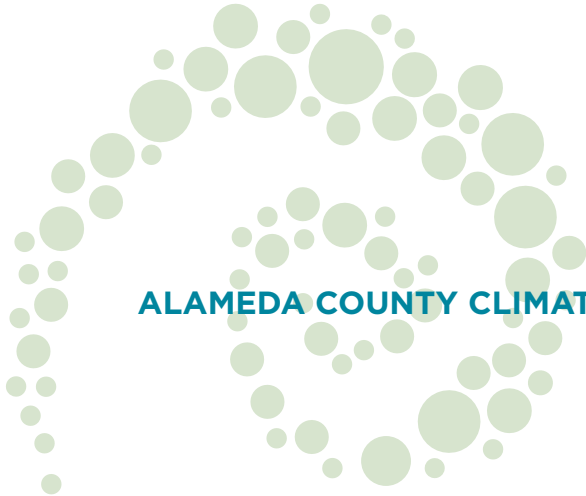


Keith Carson
District 5 Supervisor



Susan S. Muranishi
County Administrator

County Mission: To enrich the lives of Alameda County residents through visionary policies and accessible, responsive, and effective services.
County Vision: Alameda County is recognized as one of the best counties in which to live, work, and do business.



ALAMEDA COUNTY CLIMATE ACTION PLAN FOR GOVERNMENT SERVICES AND OPERATIONS

The impacts of climate change make action a necessity. The *Alameda County Climate Action Plan for Government Operations and Services* shapes this necessity into an opportunity to address other key needs. As outlined in this Executive Summary, the Plan will support the County government's efforts to use taxpayer resources efficiently, harness renewable energy to power facilities sustainably, provide convenient access to services, and reduce and recycle waste. By taking these actions, we can save taxpayer money, keep dollars in our local economy, support new jobs, and improve local air quality.

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1. WHAT IS THE CLIMATE ACTION PLAN FOR GOVERNMENT SERVICES AND OPERATIONS?

The County of Alameda has a long history of taking action to preserve natural resources for current and future generations and is committed to sustainability. Today global climate change is one of the most significant threats facing the County, one that will have far-reaching impacts on the entire community and affect the County's ability to deliver services. By acting now, the County can reduce the severity of these impacts as well as take advantage of the opportunity to rethink how government services are provided in the twenty-first century. Climate actions to increase energy efficiency, reduce fossil fuel use, and implement cleaner technologies reduce operating costs and encourage more efficient service delivery.

The Board of Supervisors has shown strong leadership on this issue by passing resolutions that commit the County to address climate change. The *Alameda County Climate Action Plan for Government Services and Operations* creates a blueprint for key actions to reduce the County's greenhouse gas emissions by building on existing successful County initiatives.

The Plan was created through an inclusive process involving all County agencies. Sixteen broad Commitments to Climate Protection backed up by specific measures were developed to meet the County's greenhouse gas (GHG) reduction targets. These will be carried out through a balance of Countywide initiatives and agency-led actions. The Plan will improve the effectiveness and efficiency of County service by engaging employees to actively address this environmental issue through their everyday choices.



ABOUT THE PLAN

SCOPE OF THE PLAN

The *Alameda County Climate Action Plan for Government Operations and Services* (the Plan) recommends specific actions for reducing the GHG emissions that County government emits while providing services to its residents and through its own operations. A sister document, the *Alameda County (Unincorporated Areas) Community Climate Action Plan*, provides guidance for reducing emissions from the unincorporated communities within the County's jurisdiction. The full versions of these plans are available at the websites listed on the back cover.

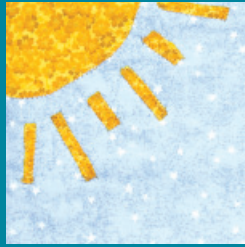
PLAN TIMELINE

The Plan, adopted by the Board of Supervisors in May 2010, focuses on the actions that need to be taken within the next decade to achieve the County's goals for reducing its GHG emissions.

WHAT THE PLAN IS NOT

The Climate Action Plan is not a detailed implementation plan that spells out every action that will need to be taken. Although the Plan does provide implementation guidance and suggests next steps for implementing the emissions reduction measures, additional planning will be needed to successfully launch new programs.

The Plan is not a plan for adapting to the impacts of climate change: It focuses on reducing emissions as this is the most time-sensitive need. However, recognizing that some level of impact is inevitable, the Plan does advise looking at strategies for adapting to these impacts. In addition, many emissions reduction measures will make the County's operations more resilient to the impacts of climate change, such as by reducing the impact of heat waves or water shortages.



CLIMATE ACTION POLICY DIRECTIVES

Alameda County's Strategic Vision (2008) identifies Environment and Sustainability as a key priority for the County to address as it strives to create one of the best communities in which to live, work, and do business. The Climate Action Plan was developed in accordance with the goals outlined in the Strategic Vision, specifically to “ensure that the County’s operations and services are consistent and comprehensive in prioritizing environmental protection” and to “demonstrate a commitment to environmental stewardship in County policies.” The Plan also incorporates several of the Strategic Vision’s environmental strategies as measures to reduce greenhouse gas emissions.

Recognizing the magnitude of the challenges posed by global climate change, the Board of Supervisors adopted the **Climate Change Leadership Strategy Resolution (R-2006-204)** and signed onto the **Cool Counties Climate Stabilization Declaration (R-2007-336)**. Together these resolutions require the County to:

- Reduce GHG emissions 80% by 2050;
- Collaborate across agencies and jurisdictions to reduce emissions;
- Consider climate change and its impacts in budgets, plans, and other processes; and
- Develop a Climate Action Plan to meet the County’s greenhouse gas reduction targets.



THE PLAN'S GREENHOUSE GAS REDUCTION TARGETS

SHORT-TERM: 15 TO 30% BY 2020

A measurable reduction of 15% in the GHG emissions associated with providing government services is the minimum level of action necessary to put the County on track towards its long-term 2050 target of 80% reductions. By carrying out at a basic level all the measures recommended in the Plan, the County will achieve the 15% target as well as establish the groundwork necessary for ramping up reductions after 2020.

However, to gain the momentum needed to reach this long-term target, the County should start strong in the next ten years and aim to exceed the minimum 15% target, striving for reductions as high as 30%. The County can achieve 30% reductions through a combination of expanding on the implementation of measures recommended in the Plan and by adopting new technologies and ideas as they become available over the next decade.

LONG-TERM: 80% BY 2050

This Climate Action Plan focuses on the next 10 years and also sets in place organizational and policy changes needed to achieve greater emissions reductions beyond 2020. An 80% reduction by 2050 is deemed necessary by the international scientific community and was set as the County's goal by the Board of Supervisors in the 2007 Cool Counties Climate Stabilization Declaration. Meeting the goal of 80% by 2050 will require strong leadership, creativity, and innovation as agencies work together to reinvent the way the County provides services to its residents.

ALIGNED WITH OTHER LOCAL TARGETS AND STATE RECOMMENDATIONS

These emissions reduction targets are in line with those adopted by other local governments in the region, including those in the *Alameda County (Unincorporated Areas) Community Climate Action Plan*. They also correspond to the State of California's recommendation that local governments achieve a 15% reduction in emissions by 2020 and support the State's overall emission reduction goals.



A BLUEPRINT FOR ACHIEVING GHG REDUCTIONS

The Climate Action Plan outlines how the County will meet its 2020 emissions reduction target and creates a foundation for longer-term GHG reductions. The Plan is guided by 16 Commitments to Climate Protection. These Commitments provide a common vision and high-level policy direction for the actions the County will take over the next decade. They lay out the broad structures, targets, and programmatic areas in which action needs to occur.

Fulfilling these commitments will require comprehensive, Countywide action. Therefore, the Plan contains 80 recommended emissions reduction measures that each supports the fulfillment of at least one of the Commitments. Figure A shows the overall climate action framework.

The Commitments and measures address six major action areas:

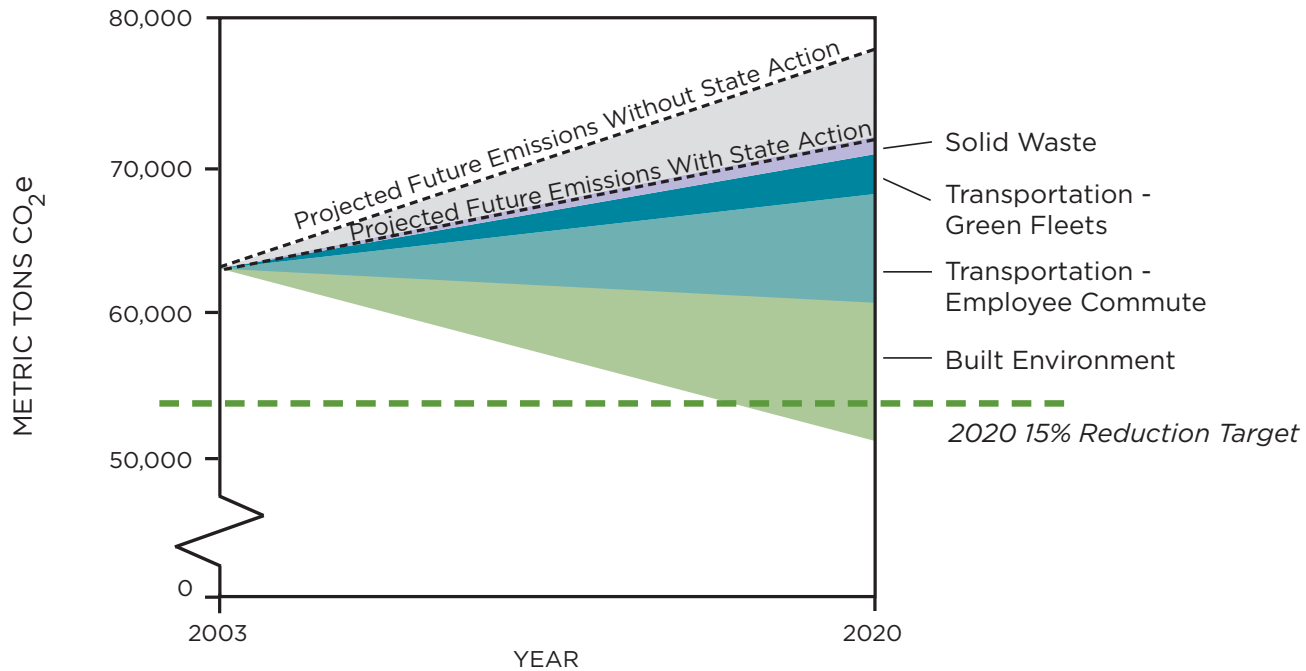
- **Climate Protection Leadership:** Create foundational, structural, and long-term policies critical for meeting the County's climate protection targets;
- **Cross-Cutting Measures:** Carry out overarching measures that reduce GHG emissions from multiple sources and facilitate the emissions reductions sought in other action areas;
- **Built Environment:** Reduce GHG emissions from the County's physical infrastructure of buildings and facilities;
- **Transportation:** Reduce GHG emissions from employees' work-related travel and commute trips;
- **Solid Waste:** Reduce, reuse, and recycle to minimize the GHG emissions associated with waste generation and disposal; and
- **Beyond Reductions:** Take steps to remove GHGs from the atmosphere after they have been released and to prepare for the impacts of climate change.

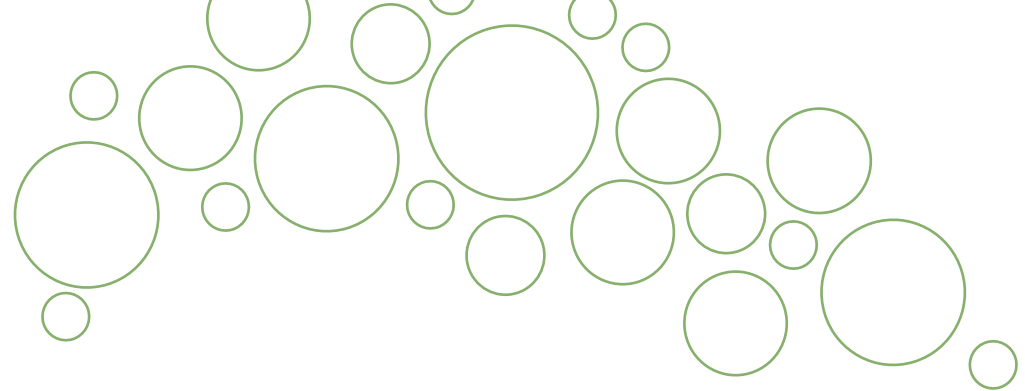
Figure B shows that the GHG reduction measures in the Plan are sufficient to offset projected emissions growth and achieve an emissions level that meets or exceeds the 2020 reduction target of 15%. The reductions shown are grouped into the major areas in which action will occur. Measures in the Climate Protection Leadership and Cross-Cutting Strategies areas are accounted for within these major areas or will add additional reductions. The figure also indicates the importance of advocating for the full implementation of state programs such as Renewable Portfolio and Low Carbon Fuel Standards.

Figure A. Climate Action Framework



Figure B. Projected Greenhouse Gas Emissions Reductions





ALAMEDA COUNTY'S COMMITMENTS TO CLIMATE PROTECTION

In order to promote climate protection and advance the County's efforts towards achieving our greenhouse gas emissions reduction goals, the County of Alameda commits to the following:

CLIMATE PROTECTION LEADERSHIP

1. Establish a directed cross-agency climate team to coordinate and guide the implementation of greenhouse gas reduction measures.
2. Develop performance-based sustainability indicators and provide the Alameda County Board of Supervisors with regular updates on progress towards meeting the County's climate protection goals.
3. Integrate full-cost financial analysis and greenhouse gas considerations into the County's capital planning and budget processes; decisions surrounding master planning and the location of government services; and operational policies, plans, and decisions.
4. Conduct a review of policies, programs, and procedures to remove barriers to climate protection efforts and ensure that employee participation in these efforts is convenient and efficient.

CROSS-CUTTING STRATEGIES

5. Develop a Countywide employee education and communications strategy on climate change and incorporate climate protection into the County's public education and outreach programs.
6. Establish a comprehensive integrated purchasing policy that considers the environmental impacts of the manufacturing, use, transport, and disposal of products.
7. Advance an accessible, technologically-innovative, government service model that features green IT, electronic record keeping and service delivery, and virtual meeting and workspace technologies.

BUILT ENVIRONMENT

8. Reduce water use 20% by 2020 through implementing a comprehensive efficiency strategy for facilities and irrigation systems.
9. Increase the total share of renewable power being used by the County to 40% by 2020.
10. Establish an energy use reduction strategy to implement the behavior changes required for energy conservation as well as necessary equipment and operational efficiencies.
11. Update the County's green building policies to ensure use of the latest environmental standards for materials and systems in all owned and leased facilities, new construction, and renovations.

TRANSPORTATION

12. Implement a comprehensive suite of green fleet policies and programs to promote efficiency, alternative fuels, and the infrastructure needed to promote alternative travel modes.
13. Shift 20% of County employees' commute trips from "drive alone" to other options by 2017 through advancing policies and programs that encourage alternative commute options and work arrangements.

SOLID WASTE

14. Meet the County's 75% waste reduction goal, and develop an implementation and outreach plan that strives to achieve "zero waste" at County facilities by 2020 through paper reduction, waste prevention, and waste diversion programs.

BEYOND REDUCTIONS

15. Take advantage of opportunities to capture and store carbon on County property and throughout the unincorporated communities (e.g., tree cover, wetlands, and salt ponds).
16. Convene a climate adaptation workgroup to assess the County's vulnerability to climate change and develop recommendations to minimize those risks.

2. WHY IS THE COUNTY TAKING ACTION TO PROTECT THE CLIMATE?



CLIMATE CHANGE IS A SCIENTIFIC REALITY AND A GLOBAL CRISIS

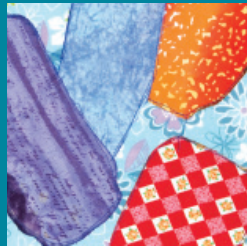
The Earth's atmosphere contains a variety of greenhouse gases (GHGs) that trap heat close to the surface of the planet. Since the beginning of the Industrial Revolution, human activities have been releasing an excess of carbon dioxide and other GHGs into the atmosphere, causing global average surface temperature to rise (global warming) and altering global climate patterns (climate change). These disrupted climate patterns will have an impact on public health, social and economic systems, and the environment, which local, regional, and national governments will have to address.



CLIMATE CHANGE IMPACTS COUNTY SERVICES

Alameda County is responsible for assisting vulnerable populations (such as the elderly, low-income, and disabled), protecting public health and safety, promoting economic vitality, and improving the quality of life of its residents. The predicted and already-observed effects of climate change in California and around the world will add additional challenges to carrying out these responsibilities.

The effects of global climate change will directly impact the operations of County agencies and departments, such as the County's fire protection and other emergency services, flood control and public works projects, health care services, and community development programs. Property losses due to sea-level rise and storm events will also impact land-use plans and the County's tax base. Unfortunately, these impacts will be disproportionately felt by the most vulnerable communities and populations, resulting in additional demands on the social services system.



CLIMATE CHANGE IMPACTS AFFECTING ALAMEDA COUNTY

- **Declining air quality** as warmer temperatures increase the rate of smog formation;
- Increased **threats to human health** as the range of pests and diseases expand, air quality declines, and the potential for weather-related disasters increase;
- Increases in length, duration, and frequency of **summer droughts**;
- Increased **fire risk** posed by warmer, drier conditions;
- Increased **stress on local water systems** caused by declining snowpack in the Sierra Nevada Mountains, increased demand for water, and sea-level rise;
- More frequent and intense **extreme weather** events leading to flooding, storm damage, and landslides in the winter rainy season;
- Greater **risks to coastal infrastructure** as sea-level rises and storm surges increase flood frequencies, extend floodplains inland, and stress existing levee infrastructure; and
- **Disruptions of natural ecosystems** and agricultural activities.



ALAMEDA COUNTY IS A CONTRIBUTOR TO CLIMATE CHANGE

County government releases GHG emissions in the course of providing services to the community. The County relies on fossil fuels to operate its buildings and fleets and discards the waste it produces into landfills. Burning fossil fuels – like coal, gasoline, and natural gas – to produce electricity, power vehicles, or heat buildings releases carbon dioxide, the most common GHG. When waste decomposes in a landfill, it produces methane, another powerful GHG.

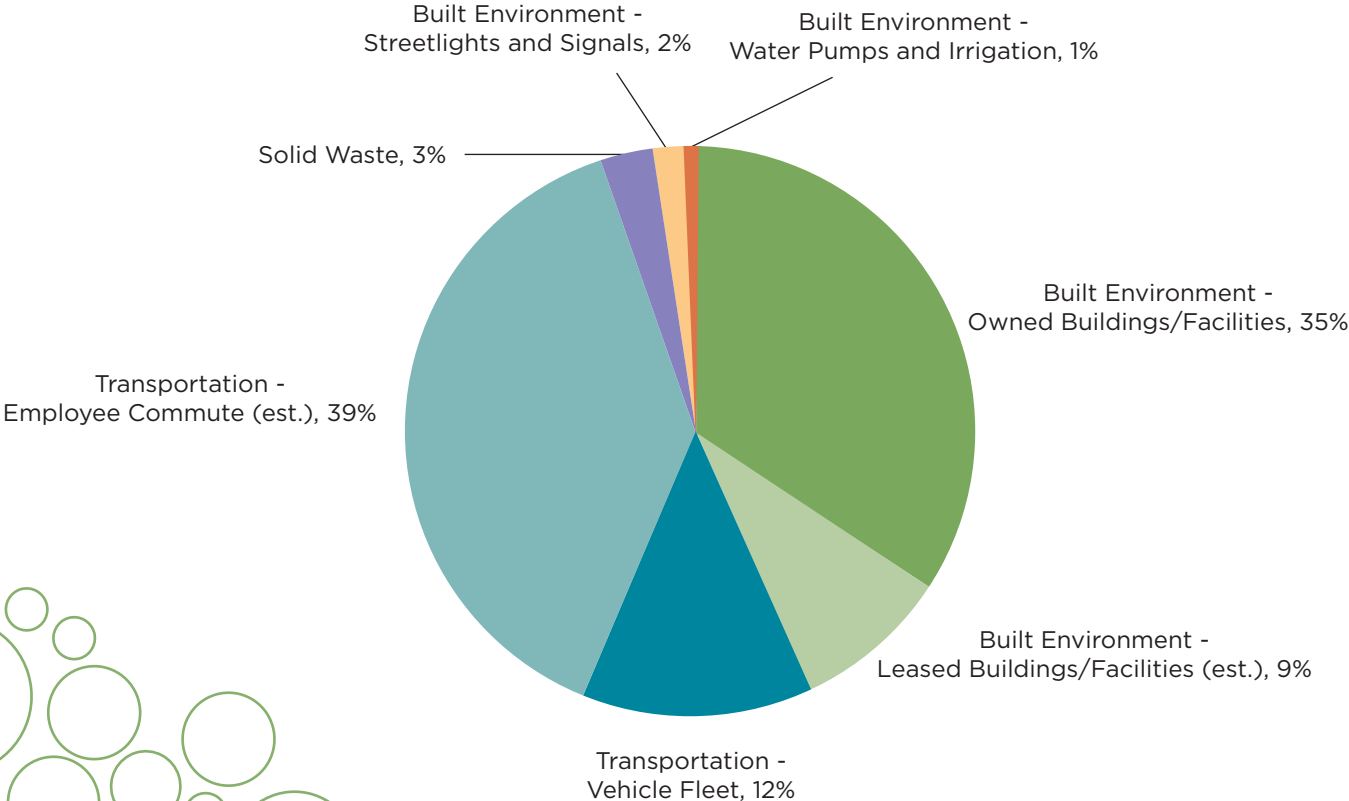
The County has identified its major sources of GHG emissions to measure its contribution to climate change. This analysis provides a baseline level against which future changes in emissions can be measured. In 2003, the baseline year, approximately 63,000 tons of carbon dioxide equivalent units (CO₂e), were released as a result of activities related to County services and operations. (CO₂e is a measurement unit that allows for combining multiple types of GHGs based on their relative impact on climate change.) These GHG emissions levels are similar to those seen in other county governments in the region.

As is shown in Figure C, transportation, including employee commutes and work-related travel in County vehicles (though not including public travel to County facilities or the use of personal vehicles on County business), was the largest source of emissions at 51%. The next largest source of emissions was facilities, such as buildings and bridges, at 44%. Other sources, such as waste decomposition in landfills, powering streetlights and traffic signals, and operating water pumps and irrigation controllers, comprised the remainder.

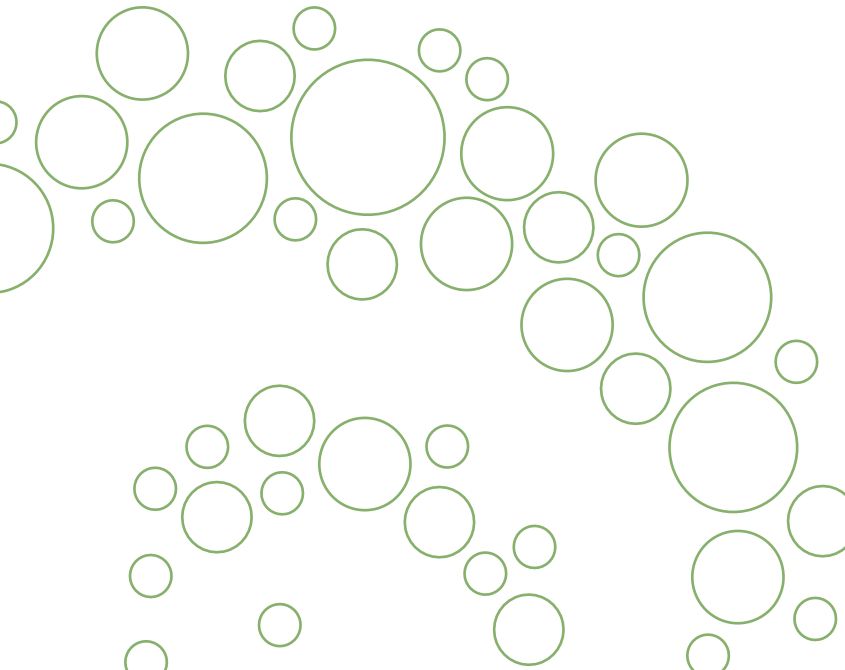
As is shown in Figure B, GHG emissions from government services and operations are projected to increase between 2003 and 2020 if no actions to reduce emissions are taken during that period. This forecast is based on historic changes in the number of County employees and related factors. This means that the County must not only work to reduce its current emissions but also prevent increases from future growth if it is to reach its targets.



Figure C. Greenhouse Gas Emissions from Government Services and Operations (2003)



Total: 62,997 metric tons CO₂e





3. HOW WAS THE PLAN DEVELOPED?



ALL COUNTY AGENCIES INVOLVED

The Climate Action Plan was developed through an inclusive process involving input from every County agency. A team of 24 Agency Climate Coordinators, representing 19 County agencies, was involved in every aspect of the Plan's development. Agency Climate Coordinators were involved in identifying and refining the list of emissions reduction measures, providing data, prioritizing the measures for implementation, and reviewing the final drafts of all documents produced. The Coordinators provided valuable insight into their agencies' operations, reported back to their agencies, and helped create a plan that is responsive to their agencies' unique situations.

The development process was guided by the Climate Executive Committee, which includes the County Administrator and the directors of the General Services, Community Development, and Public Works Agencies. Staff from the General Services Agency's Sustainability Program managed the day-to-day aspects of developing the Plan, quantified the impacts of the recommended emissions reduction measures, and provided updates to the Agency Climate Coordinators, Executive Committee, and other key County staff.



DEVELOPING THE COMMITMENTS AND GHG EMISSIONS REDUCTION MEASURES

Ideas for the greenhouse gas (GHG) emissions reduction measures were generated from a wide variety of sources including:

- County policies, plans, and other existing efforts (such as the Strategic Vision, Real Estate Master Plan, agency business plans, and current programs);
- The State of California's climate action and adaptation plans;
- Climate plans prepared by other jurisdictions, regional agencies, and local government associations;
- Best practices guides prepared by non-profits and business groups;
- Personal interviews with the Agency Climate Coordinators and employees who are experts in key subject areas; and
- County employees from every agency – over 500 ideas were submitted through the County intranet, employee health fairs, Agency Climate Coordinators, staff meetings, and in-person contacts.

The initial list of potential measures was vetted and refined by the Climate Executive Committee, the Agency Climate Coordinators, and employee experts in key subject areas. The final list of 80 measures was selected to maximize reductions of GHG emissions in ways feasible for implementation in the County. The County's Commitments to Climate Protection were then drafted to encompass the broad themes and overarching goals that arose out of the final list of GHG reduction measures.



ANALYZING AND PRIORITIZING MEASURES

The recommended measures were analyzed for potential costs and benefits. This analysis was based on County-specific data, when available, as well as the experiences of other jurisdictions and generally-accepted methods for quantifying GHG impacts.

Estimates of GHG emissions reductions were conservative, based on levels of implementation that can be extrapolated from existing plans, goals, and programs. Additionally, the impacts of some measures were not calculated due to a lack of reliable information. The results of this conservative approach indicate that the County should be able to meet and exceed the 15% reduction target for 2020.

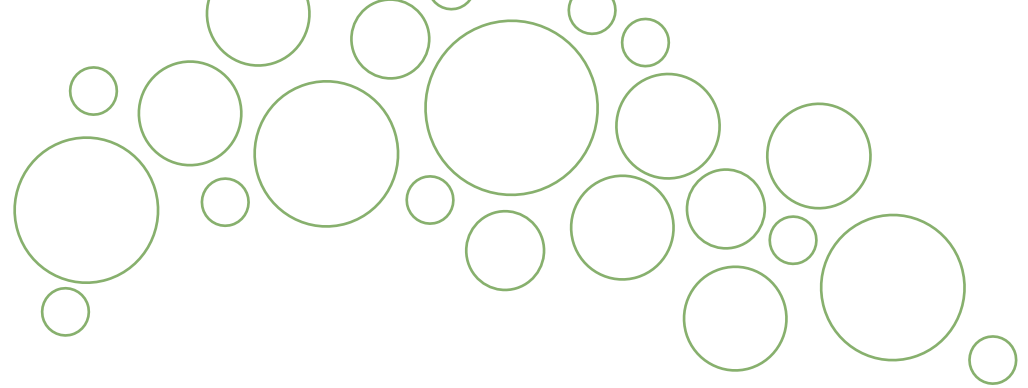
Each measure was then ranked into one of three priority levels: first, second, or third tier. The measures are ranked within (not across) each of the six action areas, reflecting the need for agencies and departments to implement projects in each action area simultaneously. Although all of the measures listed will have to be implemented to meet the 2020 emissions reduction target, this prioritization indicates where the County should first direct its efforts, resources, and focus. The prioritization took into consideration the anticipated:

- GHG reductions and other benefits;
- Potential financial savings, as well as monetary and staff resources required for implementation; and
- Practicality for implementation, defined as a measure's importance in laying a foundation for other actions, how it fits with existing priorities, and its ease of implementation.

The list of the final 80 measures is provided in the final section of this document. A complete description of each measure, including prioritization, anticipated benefits, and suggestions for implementation, is included in the full *Alameda County Climate Action Plan for Government Services and Operations*.



Alameda County employees celebrate reducing greenhouse gas emissions by biking to work



4. HOW WILL THE PLAN BE IMPLEMENTED?



PROVIDING FLEXIBILITY WHILE COORDINATING EFFORTS

The structure of the Plan and implementation strategies outlined below strike a balance between a top-down approach, which maximizes greenhouse gas (GHG) reductions by rolling out actions Countywide, and a grassroots approach, which provides agencies the flexibility to choose when and how to implement each action. Certain measures will be rolled out Countywide so that the County benefits from collaboration and economies of scale and creates consistent policies and programs across its operations. At the same time, agencies will receive the tools, information, and models they need to roll out additional measures of their choice and address agency-specific needs.

All of the actions recommended in this Plan need to be implemented over the next ten years to put the County on a path towards meeting its short- and long-term emissions reduction goals. However, some measures may require the identification of additional financial resources, further research and analysis, and the involvement of multiple departments and employee organizations.

Other actions may surface that achieve similar outcomes. Although the recommended measures are considered sound steps along the path to reducing emissions, implementation of additional actions is encouraged. The Plan will be reviewed and updated periodically as new information and technologies emerge and the characteristics of the County change.



EVERYONE'S INVOLVEMENT IS NEEDED

Meeting the County's GHG reduction goals will require the participation of all agencies, departments, and employees. The anticipated roles of County staff and decision-makers in implementing the Plan are outlined below.

The Board of Supervisors: The Board will provide direction through the adoption of the County's 16 Commitments to Climate Protection and other related policies. In addition, the Board of Supervisors will consider resource allocations for accomplishing specific initiatives, where needed.

The Climate Executive Committee: The Climate Executive Committee, with the inclusion of additional lead agencies, will continue to provide leadership and guide implementation, set priorities, develop the scope of work, identify resources, and monitor progress.

The Agency Climate Coordinators: The Agency Climate Coordinators will continue to meet quarterly, acting as liaisons to their agencies to coordinate actions, replicate successful efforts, identify stakeholders, share information, and reach out to fellow employees.

Agency and Department Heads and Staff: Agency and department heads and staff will review the Climate Action Plan; examine their operations and select measures to implement, beginning with the high-priority items; coordinate with other agencies taking similar actions; and participate in – or lead – Countywide initiatives.

Core Agencies: Those agencies that have responsibility over, or expertise in, a particular area will provide other County agencies with the programs and tools (such as policies, procedures, templates, and outreach campaigns) needed to facilitate the implementation of measures Countywide.

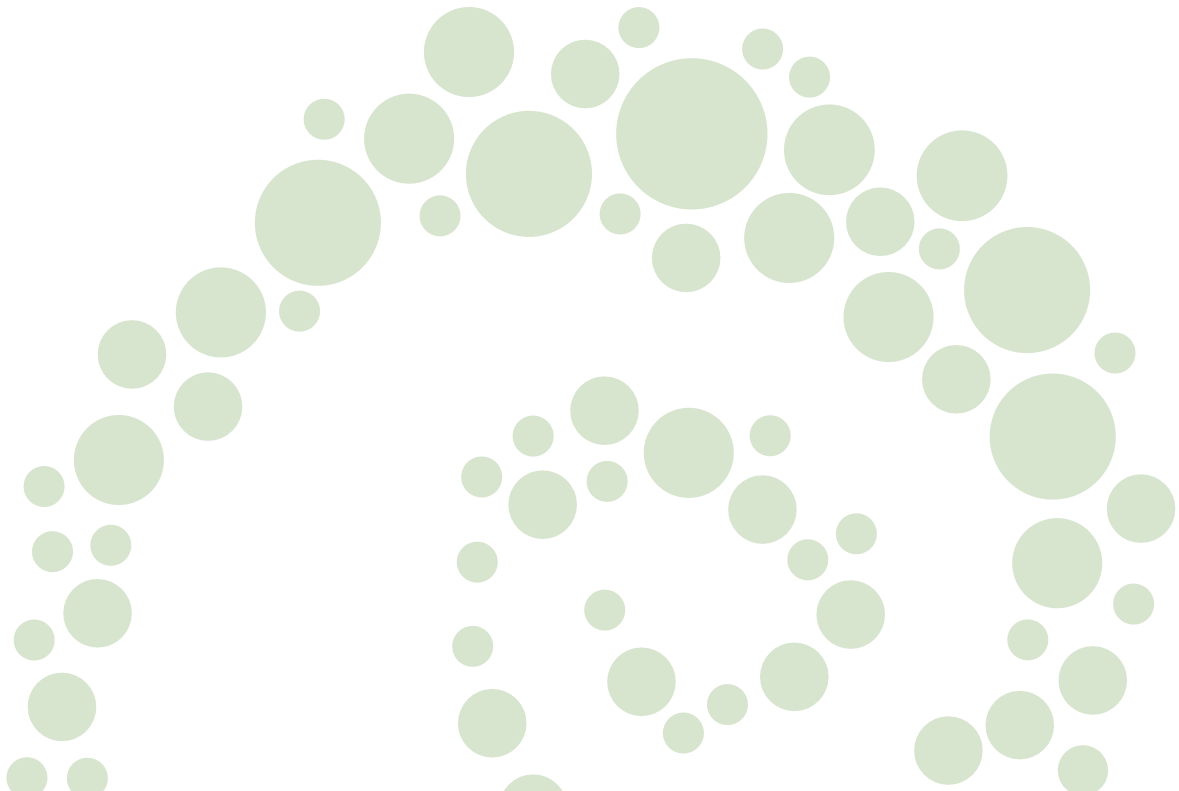
Individual Employees: Individual employees will identify opportunities to reduce GHG emissions, support Countywide and agency programs, and take action to reduce emissions. Many significant GHG reductions in the Climate Action Plan require new choices to be made by individuals during their daily activities.



TRACKING IMPLEMENTATION AND MEASURING SUCCESS

To remain relevant, the Climate Action Plan must be revisited and updated regularly to take advantage of the most current information and technologies. Implementation will be accompanied by a system for monitoring and reporting to ensure that progress continues to be made and that reductions are being achieved. At a minimum this will consist of:

- Annual agency reports on programs implemented, progress, and results;
- A centralized system for tracking the results in each action area;
- Regular climate protection reports to the Board of Supervisors and the public on progress towards meeting the County's emissions reduction targets; and
- A re-inventory of GHG emissions approximately every three years to ensure that real reductions are occurring.





5. WHAT DOES THE PLAN MEAN TO THE COUNTY AND ITS EMPLOYEES?



CONTINUING ON THE PATH OF INNOVATION

Alameda County is a recognized leader in implementing innovative actions to reduce greenhouse gas (GHG) emissions. Its past experiences illustrate that innovation can yield financial savings and other benefits while maintaining or enhancing existing levels of service. The Climate Action Plan builds on these past successes: Many of the recommended actions are an expansion and replication of programs that have already been implemented by individual agencies.

Meeting the County's GHG emissions reduction target will also require innovation and the adoption of new programs. The County will have to take action early, build on its successes, and examine all aspects of how government operates to ensure that services are being delivered as efficiently and effectively as possible. The cumulative effect of making changes to current procedures will lead to a transformation in the County's operations to systems that are more effective, resilient, and sustainable.



DAY-TO-DAY CHANGES

The Climate Action Plan will lead to changes in the way County departments and employees conduct business, such as:

- Integrating consideration of greenhouse gas emissions when making major decisions such as location of government services;
- Revising guidelines for day-to-day decisions such as purchasing office supplies;
- Increasing outreach to employees about daily choices like turning off lights at the end of the day or recycling and reusing equipment and materials;
- Increasing use of technologies to make climate-friendly behaviors easier, like defaulting print settings to double-sided;
- Increasing use of electronic record-keeping and virtual workspace technologies;
- Exploring options for getting to work in ways other than driving alone; and
- Providing updates on environmental initiatives and input on barriers to implementing climate-friendly actions.





OPPORTUNITY TO IMPROVE SERVICES

The measures identified in the Plan will provide the County with additional non-environmental benefits. Other municipalities that have implemented climate protection measures have found that their efforts can improve operational efficiency and save money in the long run. Most measures are simply good business practices that promote financial savings, high quality service, and operational efficiencies. These practices help promote the County's shared goals and values through:

- Investing today to realize long-term financial savings through the efficient use of energy and resources;
- Providing citizens with easy access to the highest possible quality of service;
- Promoting the economic vitality of our local economy and creating green jobs;
- Fostering safe, healthy, and resilient communities and work environments that increase productivity and reduce health costs;
- Providing employees with the tools needed to excel in a modern work environment;
- Creating a highly desirable work environment that attracts and retains high-performing employees; and
- Increasing openness and accountability.



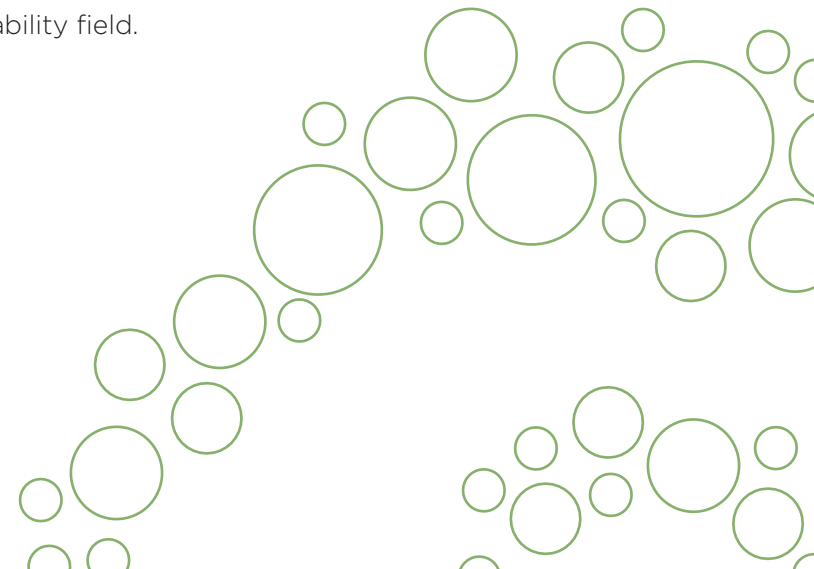


BUDGET IMPACT

Implementation choices – and, ultimately, whether the County meets or exceeds its emissions reduction goals – will be determined by funding opportunities and decisions surrounding investments in the measures. The financial impacts of the Climate Action Plan will vary depending on how, when, and the extent to which action is taken when a measure is implemented.

The recommended measures were prioritized to promote long-term cost savings and efficiencies. Many measures can be carried out by existing staff and through shifts in how current processes are completed rather than through creating new workloads or new processes. Prior to implementation, each measure will receive additional analysis of its financial implications to ensure that its implementation would be both fiscally sound and consistent with County policy. If so, existing channels for analyzing and approving new projects and expenditures will be followed.

Although additional funding will need to be identified to fully implement the Plan, economic conditions will change and new opportunities will become available over the ten-year implementation period. Taking action to protect the climate can even create new opportunities: Grants are becoming available for innovative projects that are part of an adopted climate action plan. Alameda County has a successful track record of securing funding and rebates for projects, which can be expected to continue as the County remains a leader and innovator in the sustainability field.





WORKING TOGETHER TO SOLVE A GLOBAL ISSUE



Just as meeting the County's emissions reductions targets will require the support of all employees, departments, and agencies, meeting the challenge of global climate change requires partnership. Collaboration, coordination, and action will be necessary throughout the community and at all levels of government.

This Plan focuses on reducing emissions from County services and operations as part of a broader initiative to reduce GHG emissions. The *Alameda County (Unincorporated Area) Community Climate Action Plan* addresses emissions from the unincorporated communities within the County. Each city in Alameda County is engaged in creating and implementing plans for its own community. Additionally, the County, cities, and regional agencies are coordinating climate protection activities at a regional scale, and the County is working with other counties statewide. The County's participation in these collaborations leverages partnerships and maximizes the impact of the County's efforts.

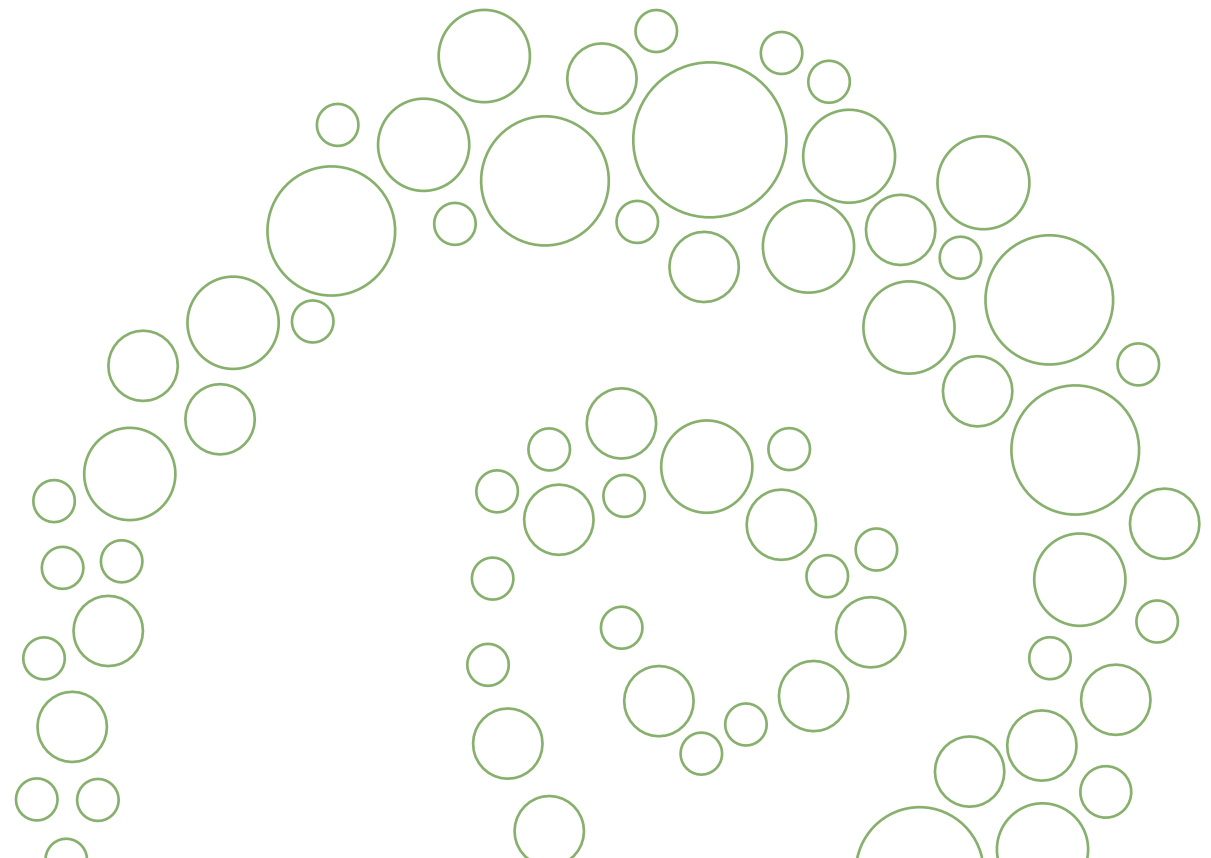
The County is one of over 1,000 local governments around the world that have committed to improving community sustainability through climate protection. The cumulative effects of local action taken throughout the region, nation, and world will have a significant impact, and the County has the opportunity to be a leader in this global movement.

6. WHAT ARE THE GREENHOUSE GAS REDUCTION MEASURES?



INTRODUCTION TO THE MEASURES

This section contains sets of emissions reduction measures organized into the six major action areas in which the County will achieve greenhouse gas (GHG) reductions. Each action area supports one or more of the 16 Commitments to Climate Protection, as noted.



CLIMATE PROTECTION LEADERSHIP

This action area contains measures critical for meeting Alameda County’s long-term climate protection targets for operations and government services, addressing Commitments 1, 2, 3, and 4.

Climate Protection Leadership (CPL) - Internal Organization

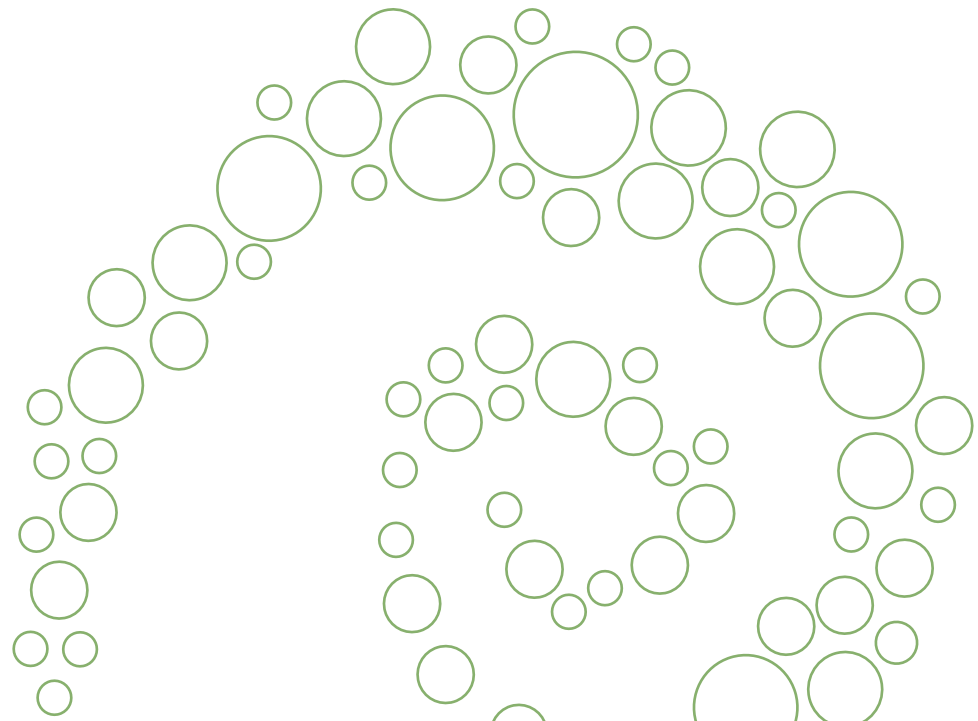
CPL-1	Establish an ongoing cross-agency climate and sustainability team to guide the County’s greenhouse gas reduction activities
CPL-2	Establish a cross-agency Climate Coordinator position to oversee implementation of the Climate Action Plan
CPL-3	Promote the establishment of agency-level Green Teams
CPL-4	<p>Incorporate sustainability principles into job duties</p> <ul style="list-style-type: none"> a. Identify and assess management competencies (e.g., skills, abilities, knowledge) to promote sustainability initiatives b. Review classifications and modify job descriptions to include sustainability duties, as appropriate

Climate Protection Leadership - Monitoring and Reporting

CPL-5	<p>Develop sustainability indicators and internal reporting mechanisms to track progress towards meeting the County’s emissions reductions goals and inform the decision-making process</p> <ul style="list-style-type: none"> a. Develop performance metrics that each agency reports on annually b. Provide agencies and building occupants with regular reports on energy and resource use c. Provide sustainability indicator updates to employees in an accessible format (e.g., online)
CPL-6	Address sustainability in each agency’s annual budget process and business plans
CPL-7	Conduct periodic re-inventories of the greenhouse gas emissions associated with County operations and service delivery
CPL-8	Produce a sustainability report card for the Board of Supervisors and citizens that provides an update on County progress towards meeting its climate protection and sustainability goals
CPL-9	Develop a County operations database of sustainability initiatives that agencies regularly update with their green practices

Climate Protection Leadership – Foundational Policies and Practices

CPL-10	Develop financial analyses that capture the full costs and benefits of decisions and practices, including lifecycle costs and environmental benefits	CPL-15	Establish mechanisms to identify and address County polices, programs, and procedures that create barriers to emissions reduction
CPL-11	Establish funding mechanisms to implement climate protection projects that improve operational or resource efficiencies, generate greenhouse gas reductions, or lead to long-term cost savings	CPL-16	Foster local and regional partnerships to maximize the impacts of the County's emissions reduction efforts
CPL-12	Consider greenhouse gas emissions and climate change impacts when evaluating capital projects		
CPL-13	Develop a legislative platform to influence state and federal climate protection discussions		
CPL-14	<p>Evaluate opportunities to reduce greenhouse gas emissions from sources in areas where the County has influence but not direct control (e.g., purchasing goods and services, investing)</p> <ol style="list-style-type: none"> a. Consider lifecycle emissions in greenhouse gas analyses b. Assess the greenhouse gas impacts resulting from public access to County services when making decisions on how services are delivered (e.g., paper use, vehicle trips) c. Review the County's investment strategies to identify opportunities to invest with companies that reflect the County's commitment to climate protection and sustainability 		



CROSS-CUTTING STRATEGIES

This action area contains measures whose impacts reduce greenhouse gas emissions from more than one of the other action areas (e.g., built environment, transportation, waste reduction), addressing the goals set forth in multiple Commitments, including 5, 6, and 7.

Cross-Cutting Strategies (CC) – Education and Outreach

CC-1	<p>Develop a Countywide employee education and communications strategy on climate change and sustainability to support emissions reduction actions</p> <ul style="list-style-type: none"> a. Survey employees on their level of knowledge, suggestions for current programs, and needs b. Integrate sustainability into new employee orientations and trainings c. Expand the sustainability Intranet site to create a one-stop-shop for employee green resources d. Develop mechanisms for establishing an ongoing dialogue with County employees on sustainability and greenhouse gas emissions reduction e. Establish a climate protection innovator awards program
CC-2	<p>Incorporate climate protection and sustainability into the County’s existing community education and outreach programs (e.g., adult and youth leadership academies, library programs)</p>

Cross-Cutting Strategies – Sustainable Purchasing

CC-3	<p>Establish and implement an integrated purchasing policy that considers the environmental impacts of the manufacture, transport, use, and disposal of products</p> <ul style="list-style-type: none"> a. Develop product specifications that promote the purchase of resource- and energy-efficient items b. Investigate the feasibility of using lifecycle cost assessments in purchasing decisions c. Consider establishing a price preference for environmental criteria for procurement of goods and services d. Ensure that contractors and vendors apply the County’s green purchasing standards to products and services purchased, manufactured, or built in fulfillment of County contracts e. Ensure new equipment is set up with the highest appropriate resource- and energy-efficiency settings f. Work with vendors to minimize the packaging associated with County purchases g. Arrange for vendors and producers to take back and properly dispose of products at the end of their useful life
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Cross-Cutting Strategies – Technological Innovation and Communications

CC-4	<p>Standardize Green IT efforts across agencies Countywide</p> <ul style="list-style-type: none"> a. Expand cross-agency communication on Green IT opportunities and advancements b. Standardize purchasing specifications for computers c. Develop purchasing standards for electronic equipment (e.g., computer peripherals, printers, copiers, fax machines) d. Establish default settings for all new and existing computers and electronic equipment to maximize efficiency and resource conservation (e.g., power management settings) e. Institute the use of centralized power management software in all agencies 	CC-6	<p>Transition to technologies that facilitate flexible work arrangements</p> <ul style="list-style-type: none"> a. Make remote network access (e.g., laptops and network tokens, virtual desktop) standard for employees whose job duties require computer access b. Investigate network virtualization c. Implement virtual workspace technology (e.g., VOIP, softphones) as practicable
CC-5	<p>Expand efforts to transition to electronic record keeping and service delivery</p> <ul style="list-style-type: none"> a. Invest in digital document management software and equipment for Countywide use b. Launch a comprehensive standardized records digitization effort c. Coordinate digitization efforts with non-County agencies that make use of County records, filings, and reports d. Conduct an agency-by-agency assessment of opportunities to offer web-based services, and provide online services where appropriate 	CC-7	<p>Promote, and provide training on, virtual meeting technologies</p> <ul style="list-style-type: none"> a. Modernize, utilize, and share video- and web-conferencing capabilities across agencies b. Provide all agencies with access to tele-conferencing equipment either in-house or shared between agencies c. Actively promote the use of tele-, video- and web-conferencing to reduce trips



Cross-Cutting Strategies – Greening Events and Operations

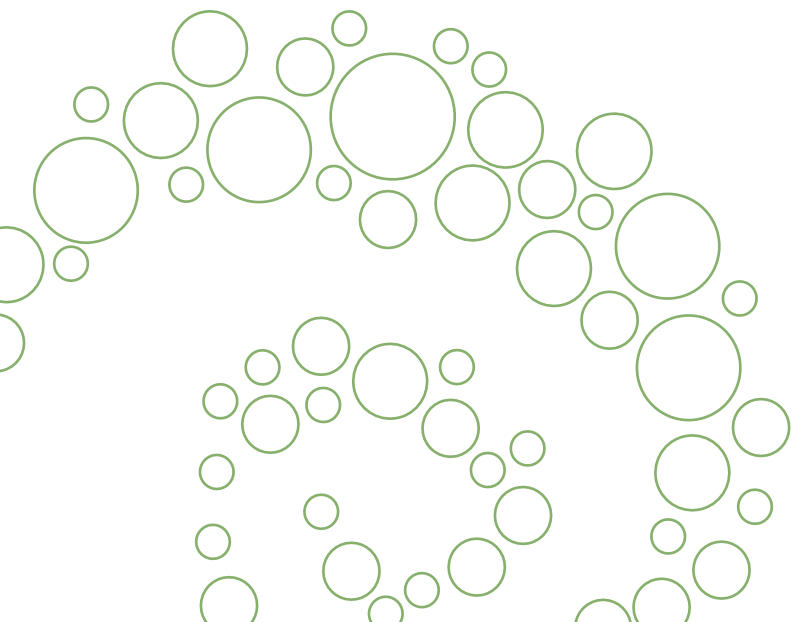
CC-8	<p>Take steps to green all County-sponsored events (both internal events and public meetings)</p> <ul style="list-style-type: none"> a. Develop a checklist of green event practices for use throughout the County b. Establish zero waste guidelines for County events (e.g., avoid single-use beverage containers and disposable packaging, dishes, and utensils) c. Locate events close to transit and provide directions for attending via public transportation d. Encourage the provision of locally grown and locally produced food
CC-9	<p>Pursue official Bay Area Green Business recognition for County agencies, departments, and facilities</p>

BUILT ENVIRONMENT

This action area contains measures aimed at reducing greenhouse gas emissions from the County’s physical infrastructure, addressing Commitments 8, 9, 10, and 11.

Built Environment (BE) – Efficiency and Conservation

BE-1	<p>Encourage operational and behavioral changes that decrease the demand for energy and water in County facilities</p> <ul style="list-style-type: none"> a. Issue Countywide guidelines and recommendations on ways employees can maximize energy efficiency through individual actions b. Develop and implement a policy on the use of desktop equipment and personal appliances c. Institute facility walk-throughs at the end of the day to turn off equipment d. Increase participation in peak-load management, demand-response, and smart metering programs e. Provide energy-efficiency training for maintenance staff and employees f. Evaluate building use patterns and work schedules to maximize conservation g. Promote the building maintenance hotline for employee use to report energy and water inefficiencies at County facilities
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Built Environment - Efficiency and Conservation

BE-2	<p>Conduct comprehensive building performance evaluations (retro-commissioning) to ensure major systems (e.g., mechanical, HVAC, lighting, controls) are operating at optimal efficiency</p> <ul style="list-style-type: none"> a. Perform retro-commissioning on targeted County facilities and implement recommendations b. Assess the feasibility of expanding the retro-commissioning project to include additional facilities c. Develop long-term plan for retro-commissioning all prioritized facilities 	BE-5	<p>Tune up or replace inefficient equipment (e.g., boilers, motors)</p> <ul style="list-style-type: none"> a. Implement boiler audit recommendations b. Continue programs for regular equipment maintenance upgrading to more efficient models
BE-3	<p>Implement comprehensive energy reduction measures at the data center and other high-energy-use facilities</p>	BE-6	<p>Continue utilizing efficient indoor lighting strategies in County facilities</p> <ul style="list-style-type: none"> a. Make use of natural lighting in County facilities b. Continue to implement efficient indoor lighting technologies
BE-4	<p>Establish a procedure to ensure that County buildings continue to operate at optimal efficiency</p> <ul style="list-style-type: none"> a. Conduct regular evaluations of building performance and conditions b. Install advanced energy and environmental controls as appropriate c. Provide facility managers with the support they need to maximize building operation efficiency 	BE-7	<p>Optimize thermostat settings and set a Countywide building temperature standard</p>
		BE-8	<p>Install high-efficiency outdoor area lighting (e.g., streetlight) technologies as practicable</p>
		BE-9	<p>Investigate building envelope (e.g., windows, walls, roofs) upgrades to County buildings to minimize heating and cooling needs</p> <ul style="list-style-type: none"> a. Assess potential for utilizing cool (highly reflective and emissive) or green roofs on new and existing facilities b. Investigate weatherization opportunities for County facilities (e.g., windows, duct work, insulation)

Built Environment – Water Conservation

BE-10	<p>Develop and implement a comprehensive water conservation and efficiency program</p> <ul style="list-style-type: none">a. Identify preventive maintenance measures to address water leakage in County facilities and water systemsb. Install water conservation devices and efficient fixtures as practicalc. Use native plants and low-water landscaping at County facilitiesd. Utilize the most water-efficient technologies practical where irrigation is needede. Provide employee outreach and training to promote water conservation through operational and behavioral changesf. Investigate opportunities for utilizing greywater and reclaimed water in new construction and major retrofits
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Built Environment – Green Power

BE-11	<p>Actively expand the County’s use of renewable energy to meet the 40% green power target</p> <ul style="list-style-type: none">a. Focus on developing new sources of on-site generationb. Investigate potential for green power purchasingc. Purchase green tags or renewable energy certificates as necessary to reach the renewable power targetd. Evaluate financial models that enable rapid adoption of renewable energy
BE-12	<p>Investigate the utilization of advanced technology energy systems (e.g., fuel cells, smart grid systems)</p>
BE-13	<p>Investigate and implement solar thermal water heating as appropriate</p>

Built Environment – Green Building

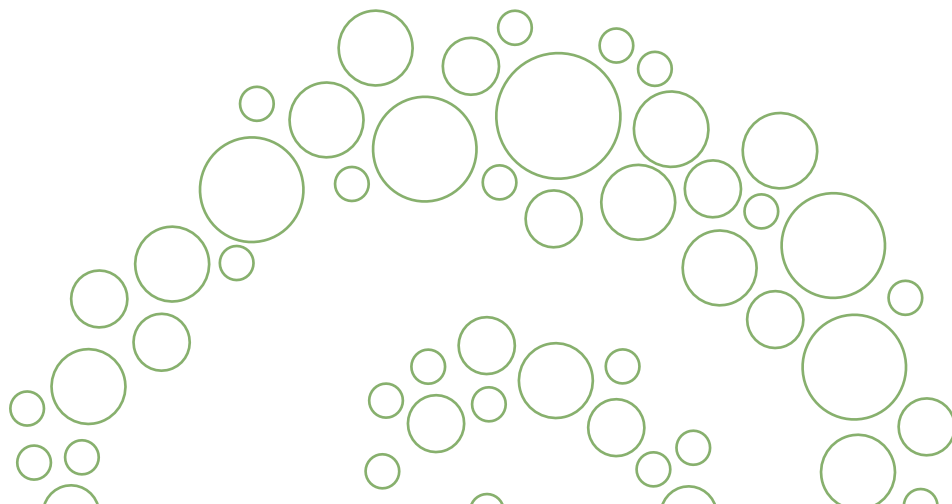
BE-14	<p>Routinely evaluate, review the effectiveness of, and update the County’s municipal Green Building Ordinance to ensure that it meets or exceeds the industry’s best practices and progressive standards</p> <ul style="list-style-type: none"> a. Expand the Green Building Ordinance to apply to built-to-suit buildings (constructed to meet the County’s needs as a long-term tenant), leased properties, tenant improvements, and the purchase of existing buildings b. Develop mechanisms to ensure compliance with the Green Building Ordinance’s procedures for small projects c. Adopt green building standards for existing facilities (e.g., LEED for Existing Buildings) 	BE-17	<p>Set standards for efficient use of facility space</p> <ul style="list-style-type: none"> a. Consider options for more efficient space utilization in new and existing facilities b. Investigate opportunities for utilizing alternative workspace strategies (e.g., hoteling, leveraged work stations)
		BE-18	<p>Develop and integrate technical specifications and standards for green building materials and systems into project design, standard construction documents, and all construction-related contracts</p>
		BE-19	<p>Upgrade and retrofit fire stations with green features</p>
BE-15	<p>Develop green lease language for use in the County’s standard lease agreement</p>	BE-20	<p>Examine the physical location of County departments and services to reduce employee and customer vehicle travel</p>
BE-16	<p>Continue to implement green building practices at Santa Rita Jail</p> <ul style="list-style-type: none"> a. Implement comprehensive landscaping water conservation at Santa Rita Jail b. Develop a strategy and timeline for the jail to become net zero emissions 	<ul style="list-style-type: none"> a. Implement strategies to locate services throughout the County and in proximity to target populations b. Co-locate agencies that work closely together or provide related services c. Make proximity to transit a priority when making infrastructure investments d. Investigate new opportunities for providing distributed services (e.g., e-government kiosks, mobile services) 	

TRANSPORTATION

This action area contains measures aimed at reducing greenhouse gas emissions from employees' work-related travel and commute trips, addressing Commitments 12 and 13.

Transportation (T) – Non-Motorized Transport

T-1	<p>Promote bicycling and walking as alternatives to single-occupancy vehicle travel to and from County facilities</p> <ul style="list-style-type: none">a. Provide outreach on the health benefits of walking and bikingb. Provide practical resources to encourage walking and biking (e.g., maps and routes, lists of local services, distances, and travel times between facilities)c. Provide pre-tax commuter benefits for bicycle commuters as allowed by federal law	T-2	<p>Increase the infrastructure available to facilitate biking and walking as viable options for accessing County facilities</p> <ul style="list-style-type: none">a. Arrange for secure bicycle parking for employees at all County campuses or facilitiesb. Provide public bicycle parking at County facilitiesc. Create a bicycle fleet for use by County employees in lieu of County vehiclesd. Consider options for making showers available in facilities or through local partnershipse. Partner with jurisdictions and agencies to ensure appropriate non-vehicular infrastructure exists to access County facilities (e.g., sidewalks, bike lanes, bus stops)
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Transportation – Commuter Programs

T-3	<p>Develop a comprehensive employee education and outreach strategy on commute alternatives</p> <ul style="list-style-type: none"> a. Provide comprehensive information on commute alternatives to all employees b. Actively promote existing commuter benefits c. Review current commuter benefits claims and reimbursement system for opportunities to improve and streamline 	T-6	<p>Develop and promote shuttles (or similar services) to connect major County facilities with transit systems</p> <ul style="list-style-type: none"> a. Assess the opportunity to offer shuttles to County campuses (e.g., JJC and Fairmont, Hayward, downtown Oakland, Santa Rita Jail) b. Explore opportunities to partner with transit providers to expand services to County facilities
T-4	<p>Expand employee commuter benefits program</p> <ul style="list-style-type: none"> a. Establish a carpool matching service for County employees b. Coordinate with transit providers to provide employees with discount transit passes c. Investigate and provide additional incentives to encourage using transit, biking, walking, and carpooling 	T-7	<p>Adjust parking policies to de-emphasize single-occupancy vehicle commutes</p> <ul style="list-style-type: none"> a. Offer preferential parking for carpools, vanpools, and alternative fuel and high-efficiency vehicles at all facilities b. Institute parking fees for all public and employee parking provided at County facilities c. Revise the pre-tax parking benefit to emphasize parking at transit facilities
T-5	<p>Implement and promote a comprehensive Countywide flexible work arrangements program to achieve 20% employee participation within five years</p> <ul style="list-style-type: none"> a. Develop standardized telecommute, compressed work week, and flextime policies and implementation guidance b. Create guidelines for assessing positions' suitability and performance expectations for participating in flexible work arrangements c. Provide training for managers and supervisors on performance-based staff management in a flexible work environment 	T-8	<p>Establish a Commute Trip Reduction Coordinator position to develop, monitor, and guide the implementation of a comprehensive commute trip reduction program</p>

Transportation – Commuter Programs

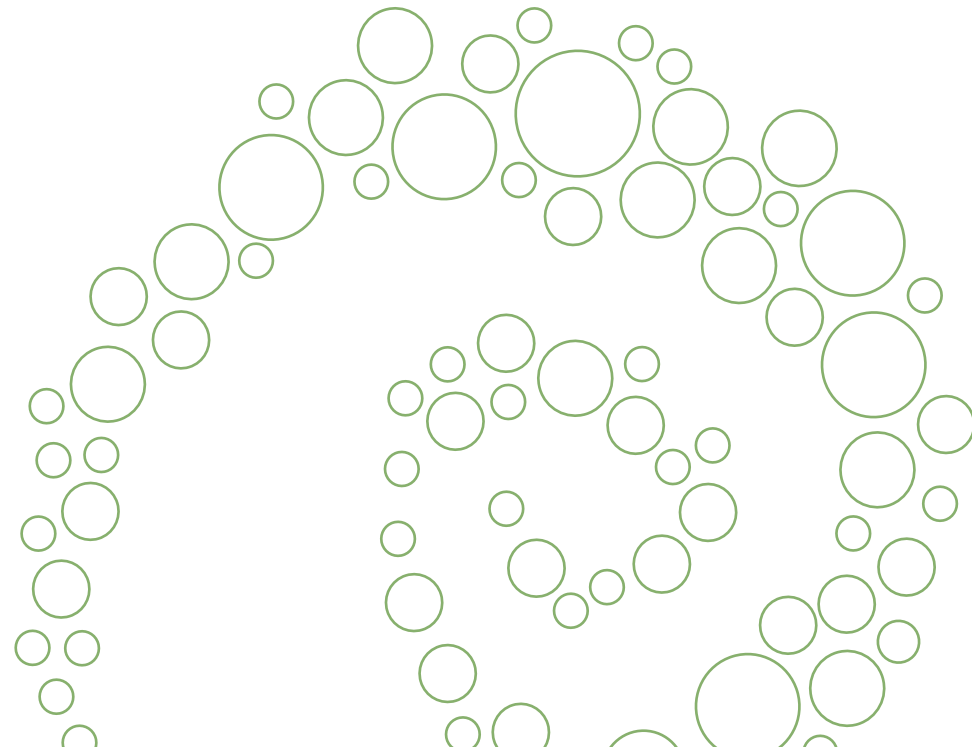
T-9	<p>Develop remote workspaces to facilitate interagency collaboration and minimize business and commute travel</p> <ul style="list-style-type: none"> a. Provide open workspaces with phones and computers for County employees to use at other County agencies' offices b. Develop relationships with neighboring counties and other jurisdictions to offer remote workspaces for employees
T-10	<p>Initiate a standard compressed work week schedule (where appropriate) with full building shut-downs</p>
T-11	<p>Develop a fee-based car-share program that allows personal use of County fleet vehicles for errands or carpooling</p>
T-12	<p>Investigate opportunities for reducing employee commute distances</p> <ul style="list-style-type: none"> a. Consider home location when assigning office location b. Research possibilities to make incentives available to minimize vehicle travel between home and work

Transportation – Green Fleets

T-13	<p>Adopt fleet management policies and standards that promote efficiencies and minimize transportation-related emissions</p> <ul style="list-style-type: none"> a. Determine the most appropriately sized vehicles to purchase for the intended use b. Purchase the most efficient vehicles within the necessary vehicle size classes c. Investigate opportunities to limit growth in the number of fleet vehicles and retire underutilized fleet vehicles d. Ensure that older and less-efficient vehicles are phased out of the fleet
T-14	<p>Implement advanced fleet management technologies to measure and improve fleet efficiency</p> <ul style="list-style-type: none"> a. Establish decentralized vehicle pools at County facilities and online reservation systems to improve the efficiency of vehicle usage and minimize the fleet size b. Utilize Global Positioning System (GPS) technology and route efficiency software to minimize fuel use
T-15	<p>Promote alternative travel modes for business travel</p> <ul style="list-style-type: none"> a. Make transit passes available to employees for use on work trips b. Review County policies to ensure easy reimbursement procedures for employees who use public transportation for County business c. Emphasize rail as an option for regional travel (e.g., to Sacramento)

Transportation - Green Fleets

T-16	<p>Expand the use of high-efficiency and alternative fuel vehicles in all County fleets</p> <ul style="list-style-type: none"> a. Purchase hybrids or equally efficient vehicles for pool vehicles b. Expand the use of alternative fuels as appropriate (e.g., compressed natural gas, biodiesel blends like B50) c. Integrate electric and plug-in hybrid vehicles into County fleets and expand opportunities for electric vehicle recharging at County facilities d. Utilize non-motorized and electric vehicles for specialized applications and intra-campus travel e. Continue to pilot the use of clean fuel and advanced technology vehicles f. Investigate low-emission options (e.g., fuels, technologies) for heavy duty and off-road vehicles 	T-17	<p>Adopt operational and maintenance best practices to promote vehicle efficiency (e.g., tire inflation, low-friction engine oil)</p>
		T-18	<p>Expand and enforce anti-idling policies on all County vehicles</p>
		T-19	<p>Integrate information on the costs and fuel use associated with using personal vehicles for County business into transportation-related decisions</p>
		T-20	<p>Develop enhanced driver training classes on safety, efficient driving, and alternative fuel vehicles</p>



SOLID WASTE

This action area contains measures aimed at reducing greenhouse gas emissions associated with waste generation and disposal, addressing Commitment 14.

Solid Waste (SW) – Waste Prevention and Diversion

SW-1	<p>Expand programs to divert waste generated at County facilities from landfills</p> <ul style="list-style-type: none"> a. Provide comprehensive recycling services b. Integrate composting (e.g., food scraps, green waste, other organic materials) into County waste diversion programs c. Increase recycling in public areas at County facilities d. Work with landlords to provide recycling and composting at leased facilities 	SW-5	<p>Continue and expand the use, reuse, and recycling of materials generated or collected from County-maintained right-of-ways and public spaces</p> <ul style="list-style-type: none"> a. Recycle appliances, e-products, scrap metals, and batteries collected on County right-of-ways b. Compost and mulch wood chips and leaves c. Recycle asphalt grindings to create road base d. Use recycled paint from Household Hazardous Waste for graffiti abatement
SW-2	<p>Develop and monitor construction and demolition waste plans for all construction projects</p>	SW-6	<p>Evaluate opportunities in the County’s materials reuse programs to maximize waste diversion and minimize waste generation</p> <ul style="list-style-type: none"> a. Increase the visibility and accessibility of existing programs (e.g., create online catalog of items available for reuse) b. Investigate opportunities to increase the efficiency of handling hard-to-process items (e.g., cubicle walls)
SW-3	<p>Continue to investigate and implement actions to reduce waste generation at detention facilities (e.g., waste sort, recycling, eliminating single-use items)</p>		
SW-4	<p>Increase efforts to prevent waste from being generated at County facilities</p> <ul style="list-style-type: none"> a. Consider waste generation and end-of-life disposal in purchasing decisions b. Avoid bottled water use in the workplace and provide information on the health and environmental impacts of bottled water c. Promote the use of reusable dishes and cutlery in offices and at meetings d. Replace disposable batteries with rechargeable batteries 		

Solid Waste – Waste Prevention and Diversion

SW-7

Advance programs that increase employee participation in the County’s waste reduction and diversion efforts

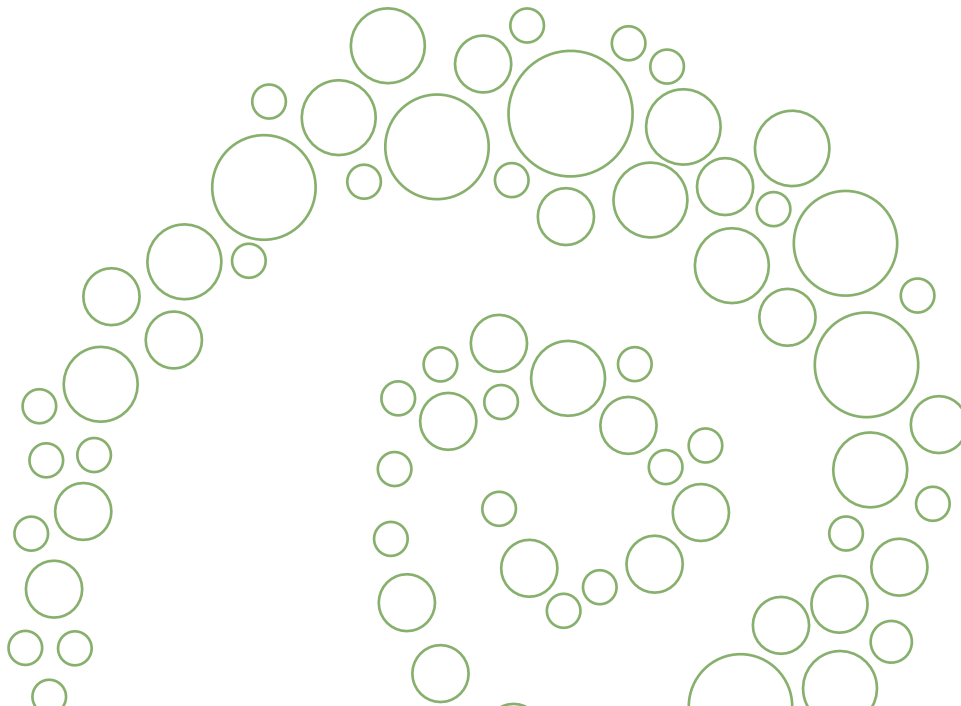
- a. Minimize or eliminate desk-side garbage bins in favor of central garbage collection
 - b. Provide ongoing waste reduction training for County employees
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Solid Waste – Paper Waste Reduction

SW-8

Develop and implement a comprehensive paper waste reduction policy that includes specific reduction targets

- a. Ensure key agencies (i.e., agencies providing centralized services and agencies whose work is paper-intensive) are involved in designing comprehensive paper reduction policies and standards
 - b. Minimize paper-based communication to employees
 - c. Reduce paper towel use
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BEYOND REDUCTIONS

This action area contains measures that focus on either removing greenhouse gases from atmosphere after they have been released or helping the County prepare for the future impacts of a changing climate, addressing Commitments 15 and 16.

Beyond Reductions (BR) – Carbon Capture and Storage

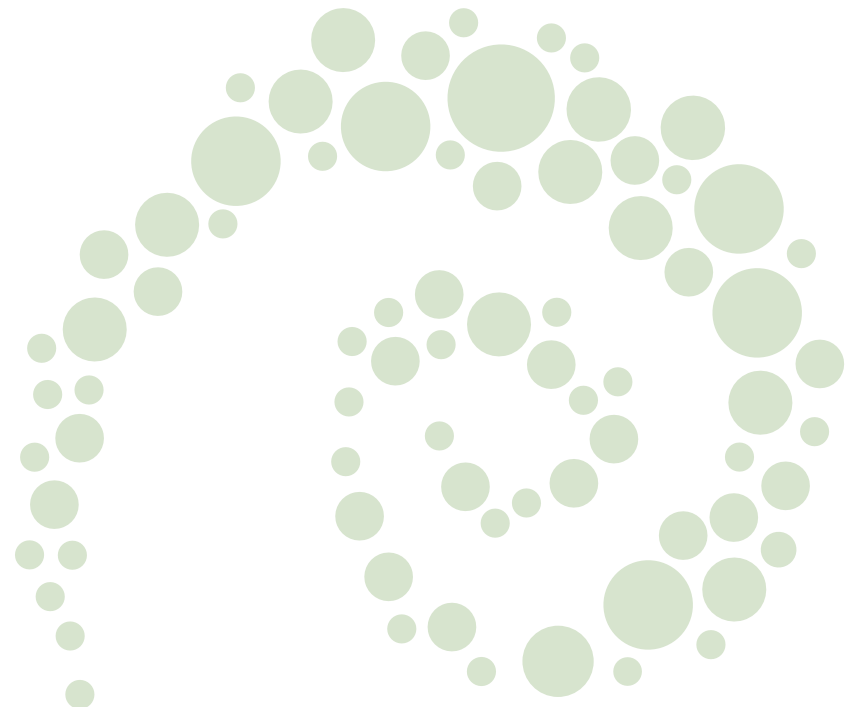
BR-1	<p>Restore and protect the ability of natural ecosystems to capture and store carbon</p> <ul style="list-style-type: none"> a. Assess opportunities for carbon sequestration projects on County property (e.g., wetlands, salt ponds) b. Continue to expand the tree planting and other carbon capture projects on County property and in the unincorporated areas
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Beyond Reductions – Climate Change Adaptation

BR-2	<p>Convene a climate adaptation workgroup to plan for the impacts of a changing climate</p>
BR-3	<p>Conduct a vulnerability assessment of the greatest risks posed by climate change to the County, including risks to public health and impacts to vulnerable populations</p>
BR-4	<p>Develop a County Climate Adaptation Plan based on the vulnerability assessment</p>
BR-5	<p>Integrate climate change considerations into County facility and infrastructure planning</p> <ul style="list-style-type: none"> a. Consider the impacts that climate change will have on infrastructure b. Avoid locating facilities in areas at risk from flooding, sea-level rise, storm surges, erosion, or temperature and precipitation changes c. Identify and protect vulnerable infrastructure that has significant economic, cultural, or social value

Beyond Reductions – Climate Change Adaptation

BR-6	<p>Integrate the impacts of climate change into agency plans for operations and service delivery</p> <ul style="list-style-type: none">a. Integrate climate change impacts into the strategic and business plans of departments that will be affectedb. Update hazard mitigation and emergency operation plans to consider potential climate change related hazards
BR-7	<p>Integrate climate change considerations into community planning processes</p> <ul style="list-style-type: none">a. Amend general plans to avoid potential climate impacts, develop risk reduction strategies, and avoid development in areas that cannot be adequately protectedb. Expand protected areas and update land and water management practices to minimize adverse effects from climate change on sensitive ecosystems and habitatc. Consider climate change impacts on new development as required by California Environmental Quality Act (CEQA) guidelines



CREDITS

Artwork: The *Recycling and the Environment Quilt Project* was completed by 22 boys aged 15 to 18 at the youth detention facility within the Alameda County Juvenile Justice Center (JJC) in early 2010, under the guidance of teaching artist Marion Coleman. After learning about environmental issues affecting the local and global community, participating teens worked individually or in small groups to design and machine-stitch the 24-inch by 18-inch quilts.

The Project is an initiative of the Alameda County Arts Commission's Arts Education Program that aims to empower young people to make positive changes in their lives, families, and communities. The Arts Education Program is managed by the Arts Commission in partnership with the Probation Department, Alameda County Office of Education's Butler Academic Center, the Alameda County Alliance for Arts Learning Leadership and the Foundation for the Arts in Alameda County.

Photographs: All photographs copyright Alameda County. Photographs of *Recycling and the Environment Quilt Project* by Sibila Savage Photography. Photographs of waste-vegetable-oil-powered car and drought-tolerant landscaping by Alameda County Sheriff's Office. Photographs of the awarding of Senator Barbara Boxer's Conservation Champion Award by Rahman Batin.

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SPECIAL THANKS

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David Macdonald Registrar of Voters
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Yolanda Baldovinos Social Services
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ACCESS RELATED RESOURCES ONLINE:

Alameda County Climate Action Plan for Government Services and Operations
<http://www.acsustain.org>

Alameda County (Unincorporated Area) Community Climate Action Plan
<http://www.acgov.org/cda/planning/>

Alameda County Strategic Vision
<http://www.acgov.org/strategic.htm>

Information on Alameda County sustainability initiatives
<http://www.acsustain.org>