

# A Guide to Developing a Climate Action Plan Using

# **RICAPS**

**Regionally Integrated Climate Action Planning Suite**

Customizable template \* Recommended measures \* Forecasting and tracking tool

City / County Association of Governments of San Mateo County

Prepared by KEMA, Inc.

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# Table of Contents

Introduction .....	1
Technical assistance.....	2
Creating a qualified CAP .....	2
Guidance and protocols .....	3
Involving the public .....	5
Steps to developing a climate action plan using the CAP Template and Menu of Measures .....	7
STAGE 1: INITIAL PLANNING.....	7
Set up a working group.....	7
Become familiar with the Climate Action Plan Template .....	7
Collect inventory data from 2005 and future years (if applicable).....	8
Host a kick-off meeting .....	8
State broad policy goals and resource conservation goals .....	9
STAGE 2: SET UP HARA CSS TOOL .....	9
Review 2005 inventory data to verify compliance .....	9
Establish users and log-in access for staff.....	10
Upload 2005 inventory data into the Hara ESS Tool.....	10
Evaluate “business as usual” .....	11
Establish a target for greenhouse gas reductions .....	11
STAGE 3: CHOOSE GHG REDUCTION MEASURES.....	11
Develop a draft set of measures .....	12
Prioritize the importance of key factors .....	14
Fill in key assumptions for each measure .....	15
Review and edit additional information .....	16
Assign scores .....	16
Determine final set of measures based on scores .....	17
STAGE 4: INCORPORATING MEASURES INTO THE CAP TEMPLATE .....	18
Section 1.6: Description of efforts already undertaken.....	18
Section 3: Description of measures .....	18
Section 4.1: Categorization of measures .....	18
Section 4.2: Determination of time horizons .....	18
Section 4, Table 9: Meeting the GHG reduction target.....	19
Appendix G: Worksheet for each measure .....	20

STAGE 5: CREATING CHARTS AND GRAPHS.....	21
Upload measures in the Hara CSS Tool.....	21
Adjust measures as needed .....	21
Develop charts and graphs.....	21
Export charts and graphs to Excel or Word .....	21
STAGE 6: FINALIZE THE CAP TEMPLATE .....	21
Incorporate charts and graphs.....	21
Section 4.5: Management of GHG Reduction Strategy.....	21
Section 4.7: Timeline .....	21
Section 5: Monitoring and Improvement .....	22
Section 6: Conclusion and Letter from the Mayor .....	22
STAGE 7: GETTING FINAL BUY-IN/APPROVAL .....	22
Stakeholder comments.....	22
CEQA process.....	22
APPENDIX A: Sample CEQA Checklist .....	24
APPENDIX B: Preparing 2005 Inventory Data for Upload .....	24
APPENDIX C: RICAPS Organizational Data Upload Template.....	24
APPENDIX D: RICAPS Activities Data Upload Template.....	24

# Introduction

Congratulations! Your city has the opportunity to develop your own Climate Action Plan (CAP) using tools developed by the City and County Association of Governments of San Mateo County (C/CAG) in conjunction with KEMA Inc. and Hara. This project was funded by grants from the Bay Area Air Quality Management District (BAAQMD) and Pacific Gas and Electric Company (PG&E). The project is intended to greatly reduce staff time and cost for a city to complete a CAP.

Furthermore, Climate Action Plans developed from these tools will meet BAAQMD's California Environmental Quality Act (CEQA) guidelines for a Qualified Greenhouse Gas Reduction Strategy (Qualified CAP), which are consistent with state GHG reduction goals defined in Assembly Bill 32 (AB 32). Once a Qualified CAP has been adopted by the local government, the Qualified CAP may be used to streamline the environmental review of GHG emissions from community development projects.

This project includes three tools to help cities develop a Climate Action Plan:

1. *Climate Action Plan Template (CAP Template)*. This Microsoft Word file is a written template that contains all of the elements necessary for a Qualified CAP. The actual CAP Template is approximately 40 pages and there are about 20 pages of appendices. The Template can be used as a starting point. All yellow-highlighted sections need to be edited or updated with the city's specific emissions goals, selected measures, and other data. All other text may be left as is or modified at your city's discretion. Some yellow-highlighted sections or paragraphs require significant thought and drafting. For instance, the second page: Acknowledgements, Local Efforts on page 13, or Appendix E. Future Opportunities for Emissions Reductions, will require tailored text written from the City's perspective. Specific instructions have been included within the text to support the CAP writer.
2. *Manual of Calculations of Proposed Measures with Selection Guide (Menu of Measures)*. C/CAG recommends the approximately 40 measures in this Microsoft Excel file because they are effective and measurable for greenhouse gas reduction. Each measure is described on its own worksheet. Once data regarding a set of defined assumptions are entered, the worksheet automatically calculates the GHG emission reductions, and financial costs and benefits expected from the measure. Once data are entered for each measure, it receives a score on a scale of 1 to 5. Cities can use the document as a selection and prioritization tool – it will help you prioritize options and choose the measures that are most appropriate for your community or government operations based on the score that is received by each measure. There is a separate file

for the measures that are expected to be implemented by C/CAG at the County level; these measures are all related to transportation and land use.

3. *Hara Online Calculation and Measurement Tool (Hara CSS Tool)*. Once your city has decided on a set of measures, you can use this tool to input and store the key data and assumptions for each measure, as well as keep track of your baseline inventory data and measure your progress over time. If you find that you're not on course to meet your emissions reduction targets, the tool can help you select additional measures or adjust parameters of existing measures in order to meet your targets. In addition, the tool will help cities learn from each other by recognizing successes and best practices.

The participation of stakeholders is a key aspect of developing a CAP. Any and all of the three tools described above could be shared with stakeholders to gain feedback during the process of developing, implementing, and/or monitoring the CAP. For example, once the emission reduction measures have been selected and prioritized using the Menu of Measures, they may be shared with the appropriate City staff or external stakeholders for review. The City may revise or edit the measures or the prioritization of the measures based on the feedback received from the stakeholders.

## **Technical assistance**

Technical assistance may be available to cities to use the tools described in this project. The technical assistance provider will be available for various stages throughout the process, including review and modifications of the baseline GHG inventory, selection and analysis of emission reduction strategies to be included in the CAP, and support in addressing internal and external comments on the CAP. The technical assistance provider will also provide support by conducting a project kick-off meeting, two mid-project meetings, and generally being available to answer questions as they arise. For more information, please contact C/CAG.

## **Creating a qualified CAP**

The State of California has been a leader in developing and implementing policies and regulations to directly address the risk of severe climate change. In September 2006, the California legislature passed AB 32, which set the goal of reducing GHG emissions back to 1990 levels by 2020. Most subsequent regulation of GHG emissions is tied back to this state-wide GHG reduction goal.

In February 2010, the California Office of Administrative Law approved recommended amendments to the State CEQA Guidelines for addressing GHG emissions. The amendments

were developed to provide guidance to public agencies regarding the analysis, mitigation, and effects of GHG emissions in draft CEQA documents.

The updated CEQA Guidelines impact local governments in two ways:

- 1) As a lead agency, a local government must require development projects within its jurisdiction to consider the GHG emissions in their environmental review documents.
- 2) The City must consider the GHG impacts of any growth described in its General Plan or any Specific Plans.

If a local government develops a Qualified Greenhouse Gas Reduction Strategy (Qualified CAP) as defined and described by BAAQMD, then both impacts listed above are addressed.

According to BAAQMD, if a project is consistent with a Qualified GHG Reduction Strategy, then it can be presumed that the project will not have significant GHG impacts. This approach is consistent with the following State CEQA Guidelines, Section 15183.5.a:

“Lead agencies may analyze and mitigate the significant impacts of greenhouse gas emissions at a programmatic level, such as...a plan to reduce greenhouse gas emissions. Later project-specific environmental documents may tier from and/or incorporate by reference that existing programmatic review. Project-specific environmental documents may rely on an [Environmental Impact Report] containing a programmatic analysis of greenhouse gas emissions.”

Local governments may also consider developing a Qualified CAP concurrently while they are updating their General Plan, or may incorporate their Qualified CAP into their General Plan by reference. According to the guidance provided by BAAQMD, the General Plan would be assumed to have a less than significant impact related to GHG emissions if the lead agency has a qualified GHG Reduction Strategy that is referenced and or integrated within the General Plan.

The tools developed in this project are consistent with BAAQMD guidelines for development of a Qualified CAP, and are also consistent with the CEQA Guidelines, as well as the overall state GHG emission reduction goal provided in AB 32.

## **Guidance and protocols**

Some of the following guidance and protocols were used or referenced when developing this project. These tools are also available for cities to use when developing a CAP:

- The GHG Protocol: A Corporate Accounting and Reporting Standard was developed by the World Resources Institute and the World Business Council for Sustainable Development. The GHG Protocol provides the general framework and overall principles for conducting a GHG inventory. For example, the GHG Protocol provides the definition of different emission “scopes” (scope 1, 2, and 3) and provides direction as to how to choose a boundary when conducting an emissions inventory. The other protocols listed below, such as Local Government Operations Protocol, incorporate the principles that are included in The GHG Protocol.
- The International Council for Local Environmental Initiatives (ICLEI) is an international association of over 1,200 local governments that have made a commitment to sustainable development. ICLEI provides technical consulting, training, and information services to local government members to support sustainable development at the local level. ICLEI has developed the Clean Air Climate Protection (CACP) software, which is designed to assist local governments to quantify GHG emissions; many cities in San Mateo County worked with ICLEI and used the CACP software to develop their baseline GHG inventories.
- The Local Government Operations Protocol (LGOP) was developed by the California Air Resources Board (ARB) in partnership with the Climate Action Reserve (CAR), The Climate Registry (TCR), and ICLEI. The LGOP provides a standardized set of guidelines to assist local governments in developing a GHG emissions inventory for the emissions from their government operations. The GHG inventory for local government operations is a key portion of a CAP and is described in more detail below. The baseline municipal operations inventories conducted by ICLEI for many of the cities in San Mateo County were conducted according to the LGOP.
- The Draft Community-Scale GHG Emissions Accounting and Reporting Protocol (developed by ICLEI). While a protocol for the development of a community-wide GHG inventory is not yet available, this document is a framework for the final protocol, which is expected to be released in 2012. The draft framework provides an overview of the structure and content proposed for the Protocol, and will guide the development of the Protocol between now and its expected release.
- CoolCalifornia.org is a website formed by a collaboration among various California State agencies, which provides resources for individuals, communities, local governments, and businesses to reduce their environmental impact. The local government toolkit includes a funding search tool that identifies financial resources for sustainable projects; local government case studies; a list of tools and calculators available for estimating different types of GHG emissions; and a “cost-saving actions” guide that identifies low- and no-cost strategies for keeping the planet cool.

- The Statewide Energy Efficiency Collaborative (SEEC) is a new alliance to help cities and counties reduce greenhouse gas emissions and save energy. SEEC is an alliance between California’s four investor-owned utilities and three nonprofit organizations: ICLEI, the Institute for Local Government, and the Local Government Commission. SEEC provides education and tools for climate action planning, venues for peer-to-peer networking, technical assistance, and recognition for local agencies that reduce greenhouse gas emissions and energy use. SEEC resources include a community GHG inventory tool, a Climate Action Plan template tool, and various “best practice” guides for local government climate and energy planning. None of the tools provided by SEEC have been evaluated or incorporated into this project.
- The California Air Pollution Control Officers Association (CAPCOA) has published a resource document on Quantifying Greenhouse Gas Mitigation Measures: A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures. The guidance document provides detailed instructions on how to quantify the emission reductions for numerous types of emission reduction measures. Some of the methodologies used to quantify the GHG reductions of the emission reduction measures included in the Menu of Measures were taken from this guidance document.

## Involving the public

Climate action planning should involve a public participation process in order to gain feedback from stakeholders regarding what goals and strategies are most appropriate for the community. Public participation can take many forms and could occur at various times through the climate action planning project. For example, a public workshop that is open to the entire community could occur to gain feedback on the policy goals and resource conservation goals. Surveys and targeted stakeholder meetings with specific groups (i.e. business owners) are other methods often used to gather stakeholder feedback. Each city will need to determine how best to gather and incorporate input from stakeholders within the community, and within city operations. Many cities conduct outreach for other planning processes; determine if your city has an internal outreach expert or coordinator who can provide information on recent outreach efforts, and who can provide ideas on how to best conduct outreach in relation to the CAP.

A general list of steps used to develop a stakeholder outreach campaign is provided below, although the steps listed below may not occur in this exact order:<sup>1</sup>

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<sup>1</sup> These steps are adapted from the following EPA website that provides guidance to states on how to develop a climate action plan: <http://www.epa.gov/statelocalclimate/state/activities/action-plan.html>

1. *Establish an outreach team.* Involve the team throughout the CAP development process. The team could include both internal and external stakeholders.
2. *Identify goals.* Identify goals for the outreach strategy, which are not to be confused with the energy or emission reduction goals developed for inclusion in the CAP. Typical goals include raising awareness, educating the community, and gathering community input. Consider whether the City has engaged in public outreach for other planning efforts in recent years, such as a General Plan update. If so, a public workshop may not be the best method to gather community input if stakeholders have recently participated in multiple workshops. In these cases, targeted outreach to specific stakeholders may be more appropriate than an open public workshop.
3. *Identify your audience.* Consider the particular stakeholder groups that will be targeted in each step of the outreach process, so that outreach materials are developed with the audience in mind. Take into consideration what stakeholder groups will most be affected by the CAP or most interested in the CAP policies and programs.
4. *Establish timeline and identify needs and resources.* The timeline should be realistic, keeping in mind that conducting outreach and incorporating stakeholder feedback can add to the time needed to develop a CAP.
5. *Develop outreach materials.* Outreach materials may include a project website, a fact sheet, or workshop materials. The city may need to provide materials in multiple languages.
6. *Implement the engagement strategy.* Document outcomes from the implementation of the outreach and incorporate feedback into the CAP as appropriate.

The public participation process should be documented and described in detail in Section 4.6 of the CAP Template.

# Steps to developing a climate action plan using the CAP Template and Menu of Measures

## STAGE 1: INITIAL PLANNING

### Set up a working group

In most cities, input from staff from various departments is needed to create a successful Climate Action Plan. To keep everyone working together efficiently, the City should create a climate action planning committee or work group. Departments that are normally represented include Planning, Public Works, Community Development, and Finance; other departments may be involved as well. While you will probably want to identify one person or department to lead the climate action planning project, the larger committee or work group may be convened at regular points throughout the process to provide input.

### Become familiar with the Climate Action Plan Template

Stephen Covey says it's important to "begin with the end in mind." To apply that principle to the CAP development process, the first thing you should do when embarking on this project is familiarize yourself with the Climate Action Plan Template (CAP Template). This is the core text for your climate action plan; you just need to customize it for your city.

The Template consists of the following main sections:

1. *Introduction*: Provides a general overview of the climate action plan from the perspective of a city in San Mateo County. Includes brief descriptions of climate science, expected impacts of climate change in the Bay Area, current state policy and the regulatory context, and a summary of the city's CAP development process, including any public outreach that has occurred.
2. *GHG Inventory and Forecast*: Provides a summary of the baseline GHG inventory, a forecast of emissions to 2020, and a reduction target.
3. *Climate Action Strategies*: Summarizes the emission reduction strategies or measures that will be implemented by the city to reduce emissions, as well as the expected GHG emission reductions, costs, and savings from each strategy.
4. *Implementation*: Includes a prioritization of the measures summarized in the *Climate Action Strategies* section, and an implementation plan, including what staff or

departments within the City may be charged with implementation, and a timeline. Also includes a summary of the public participation process used to develop the CAP.

5. *Monitoring and Improvement:* Provides an outline of how the goals in the CAP will be monitored, and how the CAP may be improved, if needed.
6. *Conclusion:* Provides a summary of the target in the CAP and key changes that may be implemented as the CAP is implemented.
7. *Appendices:* Includes additional information on funding, climate adaptation, ways to reduce your carbon footprint at home, and other topics.

Most portions of the Template are ready for San Mateo County cities to use without any changes; some portions need to be customized (these are highlighted in yellow). In some cases, direction is given on how to customize the text. Often additional analysis needs to be done using the Menu of Measures. More guidance on how to use both the Template and the Menu of Measures is provided below.

### **Collect inventory data from 2005 and future years (if applicable)**

Most cities have conducted a GHG inventory for the calendar year of 2005. These results will be incorporated into the CAP and will serve as the baseline against which goals will be developed, and against which future emission reductions will be measured. The city needs to locate the 2005 inventory, which should be divided into a community-wide inventory and a municipal operations inventory. Specifically, for both the community-wide and municipal operations inventory, the city needs to locate any data files collected for the inventory, as well as summary reports containing the data and results of the inventory.

Data files and inventory results should also be collected for any additional inventories conducted for years past 2005, as long as these inventories were completed according to the LGOP.

### **Host a kick-off meeting**

Prior to the kick-off meeting, the Project Manager should develop a project plan, to include a list of project team members, a project schedule, and an overall description of how the project will be implemented. The purpose of the kick-off meeting is to share the project plan with team members, and to discuss and finalize the contents of the project plan, including roles and responsibilities, a plan for project implementation, and a schedule.

A typical agenda could include:

1. Introductions

2. Project overview and goals
3. Scope of work
  - a. Overview
  - b. List of specific tasks
4. Roles and responsibilities
5. Timeline
6. Next steps

## **State broad policy goals and resource conservation goals**

In order to reach the GHG reduction target, your city should determine broad policy goals. At a minimum, C/CAG recommends that cities should establish a GHG reduction goal for each of the four sectors: energy, transportation, solid waste, and municipal operations. For instance, for the energy sector, a city may commit to “increase penetration of renewable energy” and for the solid waste sector to “increase composting.” These goals will be detailed in Section 3.1.1 and 3.3.1, respectively.

Under each broad policy goal, your city may need to select resource conservation goals. For example, under energy as a broad policy, a city could seek a generation goal for solar PV such as “install 100 MW of solar by 2020”. Under Solid Waste, your city could set a composting goal of “increase customer adoption of organics program to 100% by 2015.” To develop resource conservation goals, your city may draw from goals already developed in other planning efforts, such as a Zero Waste Plan or Water Conservation Plan. If resource conservation goals do not currently exist, then your city may consider what goals are achievable, given the overall GHG emission reduction goal that you have selected.

All goals should be described in Section 3 of the CAP Template. Also, the CAP Template currently includes introductory text for the sectors of Energy, Transportation and Land Use, and Solid Waste. These sections of basic introductory text may be edited by the city, if desired.

## **STAGE 2: SET UP HARA CSS TOOL**

### **Review 2005 inventory data to verify compliance**

In order to become a Qualified CAP, the baseline GHG inventory must be conducted according to guidance issued by BAAQMD. City staff should verify that the inventory is in compliance with the guidance; in most cases, the inventory will be in compliance and only minor modifications

may be needed to bring the baseline inventory into compliance. Technical assistance is available for verifying compliance.

## **Establish users and log-in access for staff**

You will need to receive a username and password from the Hara administrator. Once you are logged into the Hara online tool using your username and password, click on “Configuration” in the upper right hand corner of the screen. Information will be displayed regarding Help topics and FAQ in the center of the screen. Users can also click on “Help” in the upper right hand corner of the screen to download the most recent version of the Hara Configuration Guide (which serves as the Users’ Guide).

## **Upload 2005 inventory data into the Hara ESS Tool**

As noted above, one of the first steps in the CAP development process is to locate the data used for the baseline inventory, as well as the inventory results and final reports. Most cities in San Mateo County have already completed a baseline inventory for calendar year 2005. The inventory probably included quantification of all emissions from city operations, i.e. city buildings, fleet, and other owned assets. The inventory also probably included quantification of all emissions from the community at large. This 2005 inventory data will serve as your city’s baseline in the Hara ESS Tool.

Government operations inventory data will be uploaded using two separate Excel templates:

1. **Organizational Data Upload Template.** Delineates the sites or sources where resources are used. Each site or source is classified by several categories (LGOP category<sup>2</sup>, facility name, address, etc.). Examples of sites are: buildings, water or wastewater pumps, individual or groups of streetlights, garbage service locations, etc.
2. **Activities Data Upload Template.** Itemizes the actual resources used at each site or source (i.e. kilowatt hours of electricity used at a specific facility, fuel used by a specific vehicle or fleet of vehicles, tons of waste disposed by a site such as a park, etc.). The cost of those resources can also be entered.

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<sup>2</sup> The Local Government Operations Protocol (LGOP) is an inventory protocol for local government operations developed by ICLEI and The Climate Registry in collaboration with the California Climate Action Registry and the California Air Resources Board. LGOP details the policy framework, calculation methodologies, and reporting guidance for quantifying GHG emissions from local government operations.

To get started, you will transfer the information from your 2005 inventory spreadsheets into the RICAPS upload templates. Step-by-step instructions on how to format the data are found in Appendix B: Preparing 2005 Inventory Data for Upload – Government Operations.

Community-wide inventory data will be uploaded separately. Contact C/CAG for assistance.

The County administrator will work with you to make sure the templates are formatted properly, and will upload the files for you.

## **Evaluate “business as usual”**

When your city completed its municipal greenhouse gas inventory, you selected a baseline year. Cities using RICAPS will use 2005 as the baseline year (as described in the last section). That baseline year, along with the results of your completed inventory, will be incorporated in the CAP Template in Sections 2.1 and 2.2.

The next step in the process is to develop a forecast of emissions, usually to a target year such as 2020 or 2035. The forecast is based on expected growth factors for each of the various sectors included in the GHG inventory. The results of your city’s forecast of emissions are added to the Template document in section 2.2.5. This section of the Template also includes guidance on how to complete the forecast of emissions.

The baseline emissions along with the forecast to a target year comprise the “business as usual” emissions of your city. The business-as-usual emissions are projected in the absence of any mitigation measures, policies or actions that would reduce emissions over time.

## **Establish a target for greenhouse gas reductions**

For your Climate Action Plan to be “qualified” by BAAQMD, it needs to have an emissions reduction target that is in line with California greenhouse gas reduction policies. The minimum target is 15 percent below current levels by 2020. If your city has not set a GHG reduction target, you can get ideas of what others cities have committed to by searching for “Cool Mayors,” “Cool Counties,” and “Kyoto” on the internet. Your selected target will be incorporated into Section 2.3, Figure 9 and Table 7 of the CAP Template. (The wedge graph in the CAP Template is a sample; you will be able to recreate the graph to reflect your data using the Hara ESS Tool. More details regarding the Hara ESS Tool are provided later in this document.)

## **STAGE 3: CHOOSE GHG REDUCTION MEASURES**

After evaluating the baseline emissions, developing a GHG reduction target, and developing broad policy goals and resource conservation goals, your city will focus on determining its

specific GHG reduction measures. For this stage of the project, your city will be using the Menu of Measures to select, analyze, and prioritize the measures. Your city will continue the climate action planning process by completing the following steps:

## Develop a draft set of measures

Cities should begin by reviewing the Menu of Measures document, which includes approximately forty recommended measures. The measures have varying degrees of difficulty of implementation and/or cost, and may include changes to city codes and standards, the creation of incentives, disincentives, or mandates, or even education and outreach programs.

A complete list of all recommended measures is listed on the “Summary of Measures” worksheet (first tab) in the workbook. The Summary of Measures includes details of each measure, including a metric that may be used to monitor the progress of the measure, a detailed description of the measure and how it might be implemented, and the approach. The measures in the Menu of Measures fall within one of the following approaches:

- Codes and Standards
- Incentives
- Government Program or Policy
- Capital Improvement
- Procurement
- Development Policy
- Mandatory Requirements

Some measures apply to the entire community, such as a measure to incentivize solar installations throughout residential and commercial properties. Other measures apply only to municipal operations, such as a measure to institute a more efficient policy for the municipal fleet. All measures are color-coded. The organization of them is as follows:

<b>Category (color coding)</b>	<b>Community-Wide Measures</b>	<b>Municipal Measures</b>
Energy (green)	EC1 – EC8	EM1 – EM7
Transportation and Land Use (orange and yellow)	TL1 – TL5	TM1 – TM4
Waste (brown)	WC1-WC4	WM1-WM2
Water (blue)	EW1-EW2	None
All Sectors (purple)	A1-A2	none

Note that there are also four measures relating to transportation and land use that will be implemented by C/CAG for the entire county. These measures will be included in the C/CAG CAP and relate to county-level programs that are already in place or planned for the future. Cities will not include these measures or quantify the results from them in their Climate Action Plans.

In order to develop a draft set of measures, cities may want to gather input from their Climate Action Plan Committee or Work Group and other City staff. In addition to being listed on the Summary of Measures tab altogether, each measure is described in detail on its own tab. Cities should also review other efforts in the jurisdiction that may be relevant to the CAP.

Examples include other previous climate planning efforts or memberships, such as involvement in the U.S. Mayor's Climate Protection Agreement. Other examples to be reviewed and documented include separate planning or sustainability programs, such as recent updates to the General Plan, and any planning or projects related to energy, water conservation, and recycling. These previous or currently ongoing efforts should help inform which measures may be most appropriate for the city. All local efforts should be documented in Section 1.6 of the CAP Template.

Cities should choose as many measures as are needed to reach their emission reduction target, although it is expected that most cities will choose to include 15 to 20 measures in their CAP. Cities should choose at least one measure to help achieve each broad policy goal. Cities should choose measures that support their current policies and programs, and the new direction the city would like to take.

If your city is already implementing one or more of the measures on the list, these measures should be included in the CAP as long as the city started implementing them after the baseline inventory year. In addition to the measures listed in the Menu of Measures, cities may also develop their own measures, and/or use one of the "Future Opportunities" listed on the "Summary of Measures" worksheet of the Menu of Measures. Since these additional measures won't have calculation methodologies set up in the Menu of Measures, cities will need to put extra time and effort into developing the calculations for them.

Once your city has determined the draft list of measures to consider, go to the worksheet called "Selection of Measures" and enter a "Yes" for those measures that are selected, and a "No" for the measures that have not been selected.

## Prioritize the importance of key factors

Although C/CAG recommends the measures listed in the Menu of Measures because they are proven and measurable, you will need to evaluate them to determine which ones are the best fit for your city. The Menu of Measures can help cities evaluate measures via a numerical scoring system. The first step in this evaluation is to indicate the level of importance of several key factors.

Which factors are most important to your city? Ultimate benefit, cost to implement, or ease of implementation? When you first open the Menu of Measures and go to the “Weightings” tab, you’ll see that each of those three categories has been given equal importance (weighted at 33% each in the scoring system), but you have the opportunity to alter the weighting to help with your decision making.

Under each of the three major categories, the subcategories can be weighted, as well. We call these “key performance indicators” (KPIs). These KPIs are sometimes quantitative, such as “estimated GHG reduction in metric tons,” and sometimes qualitative, such as “probability of community support or opposition.”

The following is a summary of the categories and KPIs:

- **Category 1: Benefits**

*KPIs:*

- Annual GHG reduction in metric tons
- Annual resource savings
- Annual government dollar savings
- Annual business dollar savings
- Co-benefits (such as reduced air pollution, increased employee productivity, increased energy independence, and increased transportation options.)

- **Category 2: Costs**

*KPIs:*

- Government capital costs
- Additional government operating costs
- Staff time
- Residential costs
- Business costs
- Length of payback period

- **Category 3: Implementation and Feasibility**

*KPIs:*

- Length of measure implementation

- Probability of community support or opposition
- Requirements for new codes or ordinances
- Synergies with existing initiatives and partnerships
- Outside funding availability

To change the weighting from the default settings, go to the “Weighting” tab and look at the cells shaded green. Currently, all categories are weighted equally (33% each) and all KPIs are weighted equally (20% each when there are five subcategories, 17% each when there are six).

To walk you through an example, the benefits category has five KPIs, each weighted at 20% each by default. If your city wants to place more emphasis on GHG reduction (KPI #1 under the Benefits category), you can adjust that percentage higher, from 20% to 40%. Since the spreadsheet doesn’t automatically rebalance the other cells, you’ll need to manually reduce the percentages of the remaining KPIs under Benefits so the total equals 100%. The percentages on this worksheet apply to all the measures in the document, so once you’ve indicated the issues that are important to your city on this tab, you don’t need to do it elsewhere.

Now that the draft measures have been chosen, and the weightings for each category and KPI have been assigned, your city will need to use the Menu of Measures to estimate the costs, benefits, and GHG emission reductions for each measure. Once this information has been calculated, you can compare the cost/benefit performance of each measure to help your city make its final selection of measures.

## **Fill in key assumptions for each measure**

Each measure has a separate worksheet, called the Benefit-Cost Analysis worksheet. (Note that the worksheets for the measures that were not chosen do NOT need to be deleted from the workbook. The measures that are not selected should automatically receive a score of zero in the Final Analysis.) The workbook is designed so that when your city enters data regarding key assumptions into the worksheet for each measure, the estimated costs and benefits (including GHG emission reductions) are automatically calculated based on those assumptions.

The calculation methodologies for each measure are documented and shown at the bottom of each worksheet. Please note that all the calculations are *example* calculations. The city may review the calculation methodology and may prefer to alter the methodology or use another methodology.

To get started, find the section labeled “Key Assumptions for Example Calculations Below” located at the upper left of each measure worksheet. Enter your city’s data for each of the key assumptions into the green cells. Two things to note: 1. The numbers preloaded in the green cells are sample data. You should replace it with your own data. 2. You should only enter data

into the green cells in the Menu of Measures document. Anything shaded blue should not be edited.

In some cases, the city may need to conduct additional research or gather additional data to enter the key assumptions. For example, one assumption for measure EC1 is the amount of new construction in the commercial building sector by 2020, in square feet. The city's General Plan may contain these data, or the city may need to consult building permits from recent years to determine the average amount of new construction expected in each year. In some cases, your city will also need to decide on the "depth" of commitment it is willing to undertake for some measures, such as the amount of solar to be installed on government buildings, or the number of street lights to be retrofitted with more energy efficient fixtures.

## **Review and edit additional information**

Each measure worksheet also contains a section at the bottom for the following information. This should be reviewed and edited by the city as appropriate:

- *Implementation actions* – The city should list the agency responsible for implementing the measure and the next steps.
- *Notes* – The city can write in notes, ideas, and/or anything else related to the measure analysis.
- *References and links* – Listings of additional sources of information that will help the city with implementation should be listed. here.
- *Calculation methodology and equations* – The equations used to automatically calculate the KPIs for each measure are listed here. The city may wish to review and alter the calculation methodology.

## **Assign scores**

On each measure spreadsheet, below the "Key Assumptions for Example Calculations Below" section, you'll see a gray bar for each of the three categories: Benefits, Costs, and Implementation and Feasibility. The KPIs for each category are listed below the gray bar.

When the key assumptions data are entered for each proposed measure at the top of the worksheet, the quantifiable costs and benefits (including GHG reductions) are automatically calculated by the spreadsheet. The results of the calculations appear next to the relevant KPI below (look for the blue cells in Column C). For example, the first KPI under "Benefits" is the

Annual GHG Reduction (in metric tons CO<sub>2</sub>E); once the key assumptions are entered, the total GHG reduction appears next to this KPI.

The results for KPIs that are automatically calculated are shown in blue cells. Other KPIs are not quantitative and/or are not automatically calculated. The data for these KPIs are shown in green cells and must be edited by each city. You'll see that the Menu of Measures has already filled in a standard answer in the green cells for each of these KPIs; cities should check that the standard answer is appropriate for their city.

Now that you can see the results for each KPI, your city needs to make a judgment call on how you rate the performance for each one. You should assign each KPI a score, on a scale of 1 to 5, with 1 being the worst (least desirable performance) and 5 being the best (most desirable performance). To help you determine what constitutes a 1, 2, 3, etc. for each KPI, the spreadsheet gives recommendations (see "Scale for Scoring" cells in Columns D-H). You can modify the scales as appropriate for your city, however. You should enter the final score for each KPI in the green cell for scores on the right side of each KPI's section (Column I). Two things to note: 1. The numbers preloaded in the green cells are sample scores. You should replace it with your own scores. 2. You can see how each KPI is weighted in Column J. If you'd like to make a change to how the KPIs are weighted, don't change it here. Go back to the "Weighting" tab and make the change there. It will change the weighting for all measures at once.

## **Determine final set of measures based on scores**

Once you have given all of the KPIs for a particular measure a score in Column I, the worksheet automatically calculates a score for each of the three categories and a total measure score. You'll find these final scores at the top right of each measure's worksheet.

How are these scores calculated? The category scores are based on their individual KPI scores multiplied by their weighting. The total measure score is the sum of the category scores multiplied by their weighting.

Once you've gone through this process for all of the measures in your draft set of measures, it's time to compare them against each other to determine the final set your city wants to commit to. The final score for each measure is listed on the "Scoring" tab. You can click on the arrows for each column to sort them in different ways. For instance, to determine the measures with the highest scores, you can sort Column D from "largest to smallest." These results will be entered into Section 4.1 of the CAP Template, "Prioritizing Measures for Action."

Please note that measures not chosen by the city will automatically receive a score of zero in the Scoring worksheet.

## **STAGE 4: INCORPORATING MEASURES INTO THE CAP TEMPLATE**

### **Section 1.6: Description of efforts already undertaken**

Section 1.6 includes a description of other efforts in the jurisdiction that may be relevant to the CAP. Examples include other previous climate planning efforts or memberships, such as involvement in the U.S. Mayor’s Climate Protection Agreement. Other examples to be reviewed and documented include separate planning efforts, such as recent updates to the General Plan, and any sustainability planning or projects related to energy, water conservation, and recycling.

### **Section 3: Description of measures**

Section 3 of the CAP Template includes a description of the major contributors to greenhouse gas emissions: Energy, Transportation and Land Use, and Waste. For each sector, the city will list the measures they plan to implement to reduce emissions.

The information from the Benefit-Cost Analysis worksheets in the Menu of Measures will be helpful as you write an explanation of each measure you’ve chosen. For instance, the city will include the amount of emissions and resources (energy, gallons of gas, etc.) that could be annually reduced, estimate the cost to implement the measure, and describe co-benefits. The city should also include any other information it feels readers of the climate action plan should know about the policy.

### **Section 4.1: Categorization of measures**

Section 4 in the CAP Template describes the city’s implementation strategy for the climate action plan. In Section 4.1 in the CAP Template should contain a table with the final score for each measure. The information for this table comes from the “Scoring” tab in the Menu of Measures.

### **Section 4.2: Determination of time horizons**

Section 4.2, the city will indicate that measures will be implemented in the near-term, mid-term, and long-term time horizon. This information should also be entered in the “Timeline” tab of the Menu of Measures.

Measures that scored the highest should be categorized as “near-term implementation.” Measures in the middle should be “medium-term implementation”. The remaining measures should be for “long-term implementation”. Some measures may already be implemented, or implementation is currently in progress; these measures could be placed in a category for “immediate implementation.” Cities may choose to more or less divide their measures equally

into each of these buckets. Another option would be to develop a scale such as measures scoring a 3.0 and above are near term, 2.0 – 2.9 medium term, and less than 2.0, longer term. A sample scale is provided in the “Timeline” worksheet of the Menu of Measures.

## Section 4, Table 9: Meeting the GHG reduction target

The final step in using the Menu of Measures is to review the “Final Analysis” worksheet. This worksheet lists all the measures, identifies the measures that have been selected, and provides the following for each measure:

- Total score
- GHG savings (annual metric tons [MT] of carbon dioxide equivalents [CO<sub>2</sub>e])
- Number of years in effect (based on the total score, and the scoring system developed on the “Timeline” worksheet)
- Savings by 2020 (MT CO<sub>2</sub>e): equal to the annual GHG savings multiplied by the number of years in effect

This worksheet also calculates the total GHG reductions to be achieved by all the measures by 2020 in cell J2, measured in MT CO<sub>2</sub>e.

Section 4.3 in the CAP Template demonstrates that the emissions policies, when implemented, will meet the established emissions reduction target. Table 9 (reproduced below) is a final tally of the emissions reductions achieved by state and the municipal CAP measures.

**Table 9: Meeting the 2020 Target (representative)**

State Initiative	Sector	% Reduction from 2020 GHG Inventory (do we need to go through 2035?)	Reduction in City's Emissions
AB 1493 (Pavley)	Transportation	19.7%	(ER1)
LCFS	Transportation	7.2%	(ER2)
33% RPS	Electricity (Energy)	21%	(ER3)
A. Total Statewide Initiative Emissions Reductions			(ER_state)
B. Total City Climate Action Plan Reduction Measures			(ER_city)
C. Total Expected Emissions Reductions by 2020 (A+B)			(ER_CAP_total)
D. City of [City Name] Emissions Reduction Requirement for 2020			ER_needed
E. Meets / exceeds state goals?			Yes/No

AB1493, known as the “Pavley Bill” is a fuel efficiency standard for new vehicles sold in California. It is projected to reduce emissions by 19.7% from the transportation sector. To

determine the amount this will reduce your city's emissions (ER1), multiply your city's business-as-usual projection for transportation for 2020 by -19.7%.

The Low Carbon Fuel Standard (LCFS) is a carbon content standard for fuels sold in California. It is projected to reduce emissions by 7.2% from the transportation sector. To determine the amount this will reduce your city's emissions (ER2), multiply your city's business-as-usual projection for transportation for 2020 by -7.2%.

The 33% Renewable Portfolio Standard (RPS) requires the state's electric utilities to procure 33% of their delivered electricity from clean renewable resources. It is projected to reduce emissions by 21% from the energy sector. To determine the amount this will reduce your city's emissions (ER3), multiply your city's business-as-usual projection for energy for 2020 by -21%.<sup>3</sup>

Line item A sums all the metric tons of GHG emissions reductions from the three statewide initiatives (E1+E2+E3).

Line item B is a sum of the GHG emissions reductions associated with each of the measures to come up with a total GHG emission reduction for the CAP, to be achieved by 2020. This number is the total emissions reduction calculated in the "Final Analysis" worksheet of the Menu of Measures in cell J2.

Line item C sums up line item A and B to get the total expected emission reductions by 2020.

Line item D is the emissions reduction requirement in 2020 based on the emissions reduction target.

Line item E. If the estimated emissions reductions (line item C) are greater than the reduction target (line item D), then the CAP measures are sufficient to meet the emission target. If so, say "Yes." (Congratulations!) If they're not, the city needs to go back to the Menu of Measures to choose additional measures or make deeper commitments in current ones in order to meet the target.

## **Appendix G: Worksheet for each measure**

The worksheet for each measure in the Menu of Measures, which shows all assumptions and calculations of energy and GHG emission reductions, as well as costs and benefits, should be converted into a PDF and included in Appendix G.

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<sup>3</sup> Bay Area Air Quality Management District. CEQA Guidelines Update. Proposed Thresholds of Significance (May 3, 2010). Page 17.

## **STAGE 5: CREATING CHARTS AND GRAPHS**

### **Upload measures in the Hara CSS Tool**

A complete description will be available with the new Hara ESS release in Summer 2012.

### **Adjust measures as needed**

A complete description will be available with the new Hara ESS release in Summer 2012.

### **Develop charts and graphs**

A complete description will be available with the new Hara ESS release in Summer 2012.

### **Export charts and graphs to Excel or Word**

A complete description will be available with the new Hara ESS release in Summer 2012.

## **STAGE 6: FINALIZE THE CAP TEMPLATE**

### **Incorporate charts and graphs**

A standard template for the charts and graphs to be included in the CAP Template is attached to this document. Cities should insert their 2005 baseline data into the template, and then will copy and paste the graphs and charts into the CAP Template.

### **Section 4.5: Management of GHG Reduction Strategy**

The city's CAP Committee or Work Group will need to discuss ongoing resource allocations for CAP implementation in order to fill out Section 4.5, which is concerned with roles and responsibilities related to the CAP measures.

### **Section 4.7: Timeline**

The timeline in Section 4.7 is meant to document the CAP planning process, as well as determine how the CAP will continue to be implemented and how often future GHG inventories will be conducted.

## **Section 5: Monitoring and Improvement**

Section 5 in the CAP Template describes the monitoring and improvement procedures that a city has in place and/or plans to implement. A comprehensive monitoring plan is critical to measure progress towards the targets and to improve the effectiveness of the CAP. This section establishes the key actions, schedule, and designated person(s) or positions responsible for routinely tracking progress and improving the CAP document.

## **Section 6: Conclusion and Letter from the Mayor**

The conclusion in Section 6 and the Letter from the Mayor at the beginning of the CAP Template are concise summaries of the CAP document and the key goals included therein. Draft text for both sections is provided in the CAP Template, and should be reviewed and edited.

## **STAGE 7: GETTING FINAL BUY-IN/APPROVAL**

### **Stakeholder comments**

If it has been identified as part of the stakeholder outreach process, cities will establish a public review period during which stakeholders and community members will have an opportunity to comment on the CAP. The final stage of CAP development is to incorporate comments from the public review period into the final CAP document, to the greatest extent possible. Resolution  
Once the final CAP document is developed, the city will need to formally adopt the document through a City Council Resolution. C/CAG will be developing a sample Staff Report and Resolution of Adoption.

### **CEQA process**

BAAQMD is available to conduct a courtesy review of the final CAP and provide comments, although this step is not required in order to have a Qualified CAP. Contact information for the BAAQMD is as follows:

Abby Young  
Principal Environmental Planner, BAAQMD  
415- 749-4754  
ayoung@baaqmd.gov

A city's Qualified CAP may be used to streamline the environmental review of GHG emissions from community development projects in CEQA documents. Once the CAP is final and has

been adopted by a City Resolution, it should be posted on the city's website. To streamline review of GHG emissions, some cities are providing a CEQA project checklist, which would also be posted on the website and available to project developers for use as they conduct analysis needed for CEQA documents. A sample checklist developed by the City of San Francisco is provided in Appendix A.

## **APPENDIX A:**

### **Sample CEQA Checklist**

See separate document: RICAPS\_Users Guide\_v1\_Appendix A  
“San Francisco Planning Department: Compliance Checklist Table for Greenhouse Gas Analysis”

## **APPENDIX B:**

### **Preparing 2005 Inventory Data for Upload**

See separate document: RICAPS\_Users Guide\_v1\_Appendix B  
These instructions will walk you through the process of extracting and reformatting the government operations data from your 2005 inventory to prepare it for uploading into the Hara online tool.

## **APPENDIX C:**

### **RICAPS Organizational Data Upload Template**

See separate document: RICAPS\_Org Template\_Gov Ops.xlsx  
This template delineates the sites or sources where resources are used. Government operations data from the 2005 GHG inventory are input into this document to set up the structure for the Hara ESS tool.

## **APPENDIX D:**

### **RICAPS Activities Data Upload Template**

See separate document: RICAPS\_Activites Template\_Gov Ops.xlsx  
This template itemizes the actual resources used at each site or source (i.e. kilowatt hours of electricity used at a specific facility, fuel used by a specific vehicle or fleet of vehicles, tons of waste disposed by a site such as a park, etc.).