COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: March 27, 2013

TO: Planning Commission

FROM: Planning Staff

SUBJECT: EXECUTIVE SUMMARY: Consideration of the San Mateo County Energy Efficiency Climate Action Plan, amendments to the San Mateo County General Plan, and an Environmental Impact Report for the entire project.

RECOMMENDATION

Consider the project as an **information item**, take public comment and provide Commission input on the entire project and the Draft Environmental Impact Report (DEIR), and continue the item for consideration at a public hearing date after the end of the public comment period on the DEIR.

SUMMARY

The specific project documents for consideration at today's hearing are:

- General Plan Amendment, Chapter 17
- Associated Amendments to Other Chapters of the General Plan
- Energy Efficiency Climate Action Plan (EECAP)

The General Plan Amendment: Energy and Climate Change Chapter
The overall Goals for reducing GHG emissions and for adapting to climate change are summarized below:

1. Promote policies to reduce GHG emissions
2. Maximize energy efficiency in development
3. Promote the use of renewable energy supplies
4. Promote policies to reduce vehicle miles traveled
5. Encourage the use of clean, low-emissions vehicles and equipment
6. Promote policies to achieve zero waste
7. Support sustainable agricultural practices
8. Promote policies to reduce water use
9. Identify and prepare for climate change impacts
10. Enhance the adaptive capacity of natural and man-made systems

Each Goal has at least one Policy, and each Policy has at least one Implementing Strategy. While the EECAP has measurable and quantifiable targets, the General Plan policies are less specific and are not necessarily intended to be quantified.

Amendments to Other Chapters of the General Plan

In addition to the new chapter to the General Plan, the amendment also includes changes or additions to other parts of the existing General Plan. This is necessary to update the other chapters of the General Plan with regard to issues related to energy efficiency and climate change, and to make the Plan internally consistent.

The EECAP

The EECAP includes a Greenhouse Gas (GHG) inventory as well as a number of strategies for reducing GHG emissions. In addition, the EECAP includes chapters on vulnerability, adaptation, and implementation. The EECAP implements the General Plan amendment with regard to energy efficiency and climate change.

Based on the GHG inventory and 17% GHG reduction target below 2005 levels for 2020, the EECAP describes (1) a set of implementation measures intended to achieve the reduction target, with a quantifiable reduction in GHG attached to each measure; (2) a set of "co-benefits," beneficial outcomes that would be generated by these measures, in addition to GHG reduction; and (3) a set of "supportive measures."

The EECAP contains implementation measures that can be taken to reach the GHG reduction target. These are grouped into the following topic areas:

1. Residential Energy Efficiency
2. Commercial Energy Efficiency
3. Green Building Regulations
4. Renewable Energy
5. Transportation
6. Alternative Fuels
7. Waste Diversion
8. Water Conservation
9. Sustainable Agriculture
10. Off-Road Technologies
11. Sequestration

For each of these above areas, each Implementation Measure details the amount of projected GHG reduction attributed to it, identifies the responsible implementing County department or agency, and categorizes co-benefits.

Vulnerability and Adaptation: The Impact of Climate Change on San Mateo County

This part of the EECAP proposes adaptation measures grouped around topic areas that will likely be impacted by the aforementioned changes in climate, including:

1. Agriculture and forestry;
2. Wildland fire;
3. The built environment;
4. Natural resources;
5. Water; and
6. Public health.

DEIR

A DEIR has been prepared for this project. After comments on the DEIR are received and reviewed, staff will prepare revised documents for the Planning Commission's consideration for recommendation to the Board of Supervisors.

MAT:fc – MATX0210_WFU.DOCX

COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: March 27, 2013

TO: Planning Commission

FROM: Planning Staff

SUBJECT: Consideration of the San Mateo County Energy Efficiency Climate Action Plan, an amendment to the San Mateo County General Plan adding Chapter 17, Energy and Climate Change Element, and other associated amendments, and an Environmental Impact Report for the entire project.

County File Number: PLN 2011-00310

RECOMMENDATION

Consider the project as an **information item**, take public comment and provide Commission input on the entire project and the Draft Environmental Impact Report (DEIR), and continue the item for consideration at a public hearing date after the end of the public comment period on the DEIR.

BACKGROUND

Report Prepared By: Matt Seubert, Senior Planner, Telephone 650/363-1829

Location: Unincorporated San Mateo County

Applicant: San Mateo County Planning and Building Department

Environmental Review: A Draft Environmental Impact Report has been prepared for this project. The public review period for this DEIR began on February 21, 2013 and ends on April 8, 2013. Please see the Environmental Review Section of this report for more discussion.

In August of 2009, the County was initially awarded a grant from the Federal Department of Energy's Energy Efficiency and Conservation Block Grant (EECBG) program. Although the bulk of this grant was allocated to the County Public Works Department and other programs, a $350,000 portion of this grant was allocated to the Planning and Building Department for the development of an update to the General Plan and a Climate Action Plan (CAP). In late 2009, the details of the grant were negotiated between the County and the Department of Energy. In 2010, the County Planning Department developed the scope of work for the project. In late 2010, the County issued a Request for Proposals (RFP) for a consultant to complete much of the

work for this project, including technical research, a baseline Greenhouse Gas (GHG) inventory, assisting with public engagement, writing the draft CAP and General Plan amendment, and writing the EIR. The County received seven proposals and ultimately selected PMC (formerly Pacific Municipal Consultants) as its project consultant. On February 8, 2011, the Board of Supervisors (Board) approved a contract with PMC in the amount of $300,000 for work on the project. The term of the initial contract ran through December 31, 2012. However, the project was delayed in late 2012 due to federal funding requirements and it became necessary to extend the contract in order to complete the project. Consistent with the authorizations in the contract, the Community Development Director has extended the term of the contract with PMC until June 30, 2013.

With the assistance of PMC, County staff has prepared a draft Energy Efficiency Climate Action Plan (EECAP or CAP), a General Plan amendment, and a DEIR for the entire project. These work products are discussed in greater detail later in this report.

PUBLIC PARTICIPATION

The entire project has been guided by a lengthy and extensive public outreach and engagement process, which has included the following components:

Steering Committee. The project Steering Committee convened regularly to discuss local priorities, to provide direction to the project team for the development of the GHG inventory and the EECAP policies, and to review work products. It includes stakeholders from environmental, building, real estate, agriculture, labor, energy, transportation and other interest groups, including representatives from the Committee for Green Foothills, Sierra Club, Building Trades Council, San Mateo County Association of Realtors (Samcar), Farm Bureau, PG&E, SamTrans, and Planning Commission. It has met nine times between 2011 and 2013.

Technical Advisory Committee. Development of the work product has also been assisted by a Technical Advisory Committee (TAC), consisting of County staff from various departments, including Planning and Building, Public Works and Parks, Health, and Fire. It has met several times during the process to discuss and review preparation of the work product, sometimes at joint meetings with the Steering Committee.

Vulnerability Assessment Working Group. The project also included a Vulnerability Assessment and an adaptation component, for which the project team convened a Vulnerability Assessment Working Group. This group included County staff, as well as stakeholders from public agencies and non-governmental public interest organizations. This group overlapped somewhat with the Steering Committee and the TAC, but included other agencies such as staff from the Coastal Commission, the Bay Conservation and Development Commission (BCDC) and others. This group participated in development of the Vulnerability Assessment, convening to identify vulnerability topics and adaptation priorities. This working group convened five times using a webcast or webinar presentation and comment approach. In addition, the second public workshop (see below) also focused on vulnerability issues.

Public Workshops. Public outreach also included three public workshops to solicit input during the earlier stages of the project. Planning staff publicized the first and second workshops with postcard mailings to all homeowners associations in the unincorporated County as well as all stakeholders identified in the Planning Department's list of agencies and organizations that follow planning issues. Notice of workshops was also publicized in the San Mateo Times and Half Moon Bay Review newspapers.

1. The first workshop was held in North Fair Oaks in August 2011, and gave the public an opportunity to provide input on priorities for energy efficiency and sustainability. It was well attended and included presentations, discussions, and small group activity.

2. The second workshop was held on the Midcoast in November 2011, and provided an opportunity for the public to provide input on vulnerability and adaptation to climate change. It was attended mostly by Coastside residents and included presentations, discussion, and comment boards.

3. The third workshop was held in Redwood City in April 2012 and featured the presentation of the draft CAP implementation strategies. This workshop was attended by many residents who had attended one of the first two workshops and included a presentation, open house, and live polling.

Survey. During the initial stages of developing the project, the project webpage featured a survey on energy efficiency and climate change issues. About 20 people responded to the survey. Their responses were used to help identify energy reduction strategies and to prioritize implementation measures.

Communication and Webpage. The project webpage was used as a means of disseminating project information to interested parties, collecting information from the public via surveys, and developing a notification list for project updates. The project webpage can be accessed at:
http://www.co.sanmateo.ca.us/planning/rechargesmc/index.html

Although the project team strove to incorporate all comments and viewpoints from the committees and at the workshops, and although the committees were broadly supportive of the overall project goals and policies, there was not unanimous agreement on every detail of every aspect of the project. The composition and roles of these committees, as well as further explanation of the public engagement workshops and process, are discussed in more detail in Chapter 1 of the EECAP.

A. PROJECT OVERVIEW

The specific project documents for consideration at today's hearing are attached to the end of this report and/or are available at the links listed below on the Documents page of the project webpage:

- General Plan Amendment, Chapter 17
  http://www.co.sanmateo.ca.us/planning/rechargesmc/pdf/docs/SanMateoCounty-EE-Climate-Element_PublicDraft.pdf

- Associated amendments to other chapters of the General Plan
  http://www.co.sanmateo.ca.us/planning/rechargesmc/pdf/docs/SanMateoCounty_GPA-Proposed_PublicDraft_TrackChanges.pdf

- Executive Summary of the EECAP
  The entire EECAP is several hundred pages in its entirety, so is not reproduced in full as an attachment to this report; however, the full text is available at the following link: *http://www.co.sanmateo.ca.us/planning/rechargesmc/pdf/docs/SanMateoCounty_EECAP_PublicDraft.pdf*

- DEIR
  The DEIR, including the Executive Summary, is included in the packet to Planning Commission members only. The Executive Summary only is also included as an attachment to this report. Both the Executive Summary and the full DEIR are available upon request from staff, and also on the project webpage at:
  http://www.co.sanmateo.ca.us/planning/rechargesmc/docs.html

In general, this staff report provides brief summaries of the documents above, as well as information regarding project background, context, and how the projects are integrated and comply with each other and with other County regulations and efforts. The executive summaries of these documents, which are not terribly lengthy, provide excellent overviews of the components of the project.

1. <u>The General Plan Amendment</u>

   <u>Context: The Existing County General Plan</u>

   The County General Plan dates from 1986, when there was little consideration given to energy conservation, and none to climate change. The General Plan amendment will add a new Chapter (Chapter 17) to the General Plan that includes policies regarding energy efficiency and climate change. The amendment also includes changes to other chapters of the General Plan so that the entire Plan will now address energy efficiency and climate change, and so that it will be internally consistent with regard to these issues.

   This amendment to the General Plan is part of the County's ongoing effort to update the General Plan. Other recent amendments include the Housing Element (2011), the North Fair Oaks Plan (2011), and several recent amendments to the Local Coastal Program (LCP), including the Midcoast Update (2012). County staff intends to continue to prepare updates to portions of the General Plan as need dictates and resources allow.

Chapter 17: Energy and Climate Change Element

Chapter 17 begins with a summary of this new General Plan element and its relationship to the implementing EECAP. This new chapter serves as a link between the General Plan and the EECAP. The chapter demonstrates the County's commitment to implement state and regional guidance for greenhouse gas emissions. It provides a brief overview of the State of California regulatory context, potential impacts of climate change on San Mateo County and particular vulnerabilities within the unincorporated County. It also contains a summary of the GHG inventory, and provides definitions for terms used in the element. The format for this chapter is somewhat different than many of the existing chapters in the Plan, and is organized using the format of Goal, Policy, and Implementing Strategy. The eight Goals for reducing GHG emissions are summarized on page 15 of the Chapter, and are also listed below:

1. Promote and implement policies and programs to reduce community-wide greenhouse gas emissions.

2. Maximize energy efficiency in new and existing development.

3. Promote the expansion of the use of renewable energy supplies.

4. Promote and implement policies and programs to reduce vehicle miles traveled by all vehicles traveling in the unincorporated County.

5. Encourage the use of clean, low-emissions vehicles and equipment.

6. Promote and implement policies and programs with the goal of achieving zero waste.

7. Support sustainable agricultural practices, and

8. Promote and implement policies and programs to reduce water use.

The amendment also includes two Goals specific to adaptation to climate change impacts:

9. Identify and prepare for climate change impacts, and

10. Enhance the adaptive capacity of natural and man-made systems.

For all of these Goals, each has at least one Policy, and each Policy has at least one Implementing Strategy. For example, Goal 4: "Promote and implement policies and programs to reduce vehicle miles traveled by all vehicles traveling in the unincorporated County," is to be achieved partly through Policy 4.1: "Expand transit-oriented and mixed-use development that reduces reliance on vehicular travel." This Policy is in turn implemented in part through Implementing Strategy 4.1.C: "Evaluate options to reduce minimum parking requirements and promote a variety of transportation choices in new development."

The Implementing Strategies in the General Plan roughly correspond with the Implementation Matrix in the EECAP. However, the EECAP has measurable and quantifiable targets, while the General Plan policies are less specific and are not necessarily intended to be quantified. Part of the reason for this is that the General Plan policies are not intended to be frequently updated, whereas the EECAP, which is the implementation document, may be updated more frequently.

Amendments to Other Chapters of the General Plan

In addition to the new Chapter 17 amendment to the General Plan, the amendment also includes changes or additions to other parts of the existing General Plan. It is necessary to update the other related chapters of the General Plan with regard to issues related to energy efficiency and climate change, and to make the Plan internally consistent with the new Chapter 17. These amendments include changes to Chapter 1 on Vegetative, Water, Fish and Wildlife Resources, Chapter 4 on Visual Quality, Chapter 6 regarding Parks, Chapter 8 regarding Urban Land Use, Chapter 10 regarding Water, Chapter 12 regarding Circulation, and Chapter 15 on Natural Hazards.

These changes include adding definitions not included in the existing Plan, for example, "distributed energy resources," referencing climate change in appropriate parts of the General Plan, and adding reference to climate change vulnerability as a natural hazard. The amendment adds new language encouraging transit-oriented development and mixed-land use in appropriate locations, as well as complete streets. The amendment also includes several changes and additions to the Circulation Chapter including new policy language regarding complete streets. Policies related to complete streets will encourage the use of transportation choices and alternatives to driving, which will help reduce GHG emissions. These policies will also make the County's General Plan compliant with MTC requirements that Complete Streets policies must be included in General Plans in order to remain eligible for grant funding for upcoming One Bay Area Grant (OBAG) grant program funding cycles.

2. The EECAP

Context and Overview

The Energy Efficiency Climate Action Plan (EECAP or CAP) begins by providing an introduction to the project, and putting the project in context with current scientific knowledge. The EECAP also puts the project in context with Federal, State, and regional government regulations, including SB 375 and AB 32. One of the purposes of adopting the EECAP is to adopt a plan consistent with the Bay Area Air Quality Management District's (BAAQMD) standards for a Qualified Greenhouse Gas Reduction Strategy. Based on BAAQMD guidance, a lead agency may use a Qualified Greenhouse Gas Reduction Strategy to streamline project review under CEQA. The County may review projects under CEQA using the EECAP, and if the County deems projects consistent with the EECAP, projects would thus also be considered consistent with BAAQMD standards for GHG emissions as relates to CEQA. Such projects would be eligible to tier from the DEIR that the County prepared for the EECAP, for purposes of greenhouse gas emissions. Further discussion of the DEIR is provided below.

The EECAP also includes a GHG inventory as well as a number of strategies for reducing GHG emissions. In addition, the EECAP includes chapters on vulnerability and adaptation, implementation, as well as a glossary, and other supplemental materials. The EECAP implements the General Plan amendment with regard to energy efficiency and climate change. The EECAP may be updated periodically, whereas the General Plan is not intended to be amended frequently.

Greenhouse Gas (GHG) Inventory and GHG Reduction Target

As an important early step in the development of the EECAP, County staff and consultants conducted a Greenhouse Gas (GHG) Inventory. This inventory is used to establish a baseline figure for GHG emissions in the County, against which future targeted reduction levels can be measured. The GHG baseline used is the year **2005**. Although this is obviously not the same as today's actual 2013 GHG level, 2005 is used as the baseline for several reasons. First, as explained more fully in the EECAP Executive Summary, the State's goal under AB 32 is to reduce GHG emissions to 1990 levels by 2020, and the State translates this goal as a 15% reduction target for 2020 compared to the "current year" or baseline, at the time of AB 32's adoption. AB 32 was enacted in 2006, and the "current year" or baseline is thus considered to be 2005 for purposes of measuring progress toward this 2020 target. Second, because of AB 32, 2005 is used as a standard baseline year in many jurisdictions, and thus provides a good benchmark for the County to compare itself to targets used by the State and other jurisdictions. Finally, because of the adoption of AB 32, a significant amount of GHG data for 2005 has been collected by the State and by local

jurisdictions, providing more robust and extensive comparative data for that year than for any subsequent year.

As explained in the EECAP Executive Summary, the largest GHG contributor by far in the unincorporated County is the transportation sector, and this is mostly due to emissions produced by single-occupant vehicles. Other significant contributors are commercial, industrial, and residential energy usage. Off-road vehicles, solid waste, agriculture, water and wastewater contribute much smaller percentages of GHGs. GHGs are measured in terms of metric tons of carbon dioxide emitted per year or its equivalent ($MTCO_2e$). For the baseline year, the total calculated GHG emissions from these sectors in the unincorporated County were over 780,000 $MTCO_2e$.

The GHG Inventory is used to calculate emissions in the unincorporated County for the baseline year (2005). Based on this inventory, the EECAP then establishes measurable targets and timelines for reducing greenhouse gas emissions within the lands of the unincorporated County, to achieve the desired GHG reduction by the target year (2020). These timelines and targets in the EECAP are, in part, dictated by State law (AB 32 and SB 375). However, the targets established in the EECAP are more aggressive than those mandated by the State. The Steering Committee and staff selected a 17% reduction target below baseline 2005 emissions by 2020, although the State requirement is only 15% below baseline emissions. As the EECAP was developed, the Steering Committee and project staff felt it important that the targets and goals be significant, but also realistically achievable within the timeframes established. Based on the baseline inventory, the 2020 target is approximately 650,000 metric tons.

Based on the inventory and 17% reduction target, the EECAP describes (1) a set of implementation measures intended to achieve the 17% reduction target, with a quantifiable reduction in GHG attached to each measure; (2) a set of “co-benefits,” beneficial outcomes that would be generated by these measures, in addition to GHG reduction; and (3) a set of “supportive measures” that would reduce GHG, but for which the amount of GHG reduction cannot be quantified, either because there is no existing baseline data for these measures, or simply because the amount of reduction for the individual measure cannot be calculated. These supportive measures are described in the EECAP, but are not included in the calculation of GHG reduction to achieve the target.

It is important to note that if some GHG reduction measures currently included in the EECAP are deemed infeasible or inadvisable and are proposed for deletion, the ability to achieve the targeted reduction might be compromised. Achieving the target would thus require some combination of new measures and/or strengthening of other proposed measures, or, alternatively, the target would have to be lowered.

Implementation Measures

Much of the reduction in GHGs will be due to State programs or requirements, particularly in the transportation sector. However, the EECAP contains local implementation measures and an implementation matrix detailing measures that can be taken to reach the GHG reduction target. These are grouped into the following topic areas:

1. Residential Energy Efficiency
2. Commercial Energy Efficiency
3. Green Building Regulations
4. Renewable Energy
5. Transportation
6. Alternative Fuels
7. Waste Diversion
8. Water Conservation
9. Sustainable Agriculture
10. Off-Road Technologies
11. Sequestration

Similar to the format of the Chapter 17 amendment to the General Plan, each of these Goals contains at least one Implementation Measure, and each Measure contains at least one specific Action Item. Each Implementation Measure details the amount of projected GHG reduction attributed to it, identifies the responsible implementing County department or agency, and categorizes co-benefits. Co-benefits include:

1. energy conservation;
2. improved air quality;
3. improved public health;
4. supporting the local economy;
5. reducing water usage;
6. providing educational opportunities;
7. saving money;
8. improving mobility;
9. promoting equity; and
10. protecting natural resources.

As an example, as part of topic area #5 above (Transportation), Goal #7 is to “Develop Efficient Parking Practices.” To achieve this Goal, one Implementation Measure is to amend the outdated County Parking Ordinance. This Implementation Measure is projected to reduce GHG by 1,170 metric tons, and would be implemented by the Planning Department via several Action Items including reducing minimum parking requirements in appropriate circumstances. However, although the EECAP is a declaration of County policy, the EECAP by itself does not allocate funding or staffing resources to any particular Implementation Measure.

Although most GHG emissions in the County are transportation-related, State programs and mandates will provide much of the projected GHG reduction in this topic area. In terms of local efforts, the most significant GHG reductions will be generated by: waste diversion, improving commercial and institutional energy efficiency, green building incentives, and development of renewable energy.

A number of Implementation Measures have been already or are being undertaken. For example, the Green Building Ordinance has been in place since 2008 and has been recently strengthened. Other measures have been implemented in County government operations, but these measures are not necessarily included in the EECAP's calculated GHG reduction target for unincorporated County lands. This is because some County-owned facilities, including the County Government Center, are located within incorporated cities, and reduction measures in these locations do not count toward the unincorporated County's GHG targets. Nonetheless, these supportive projects demonstrate the County's continued commitment towards improving energy efficiency and reducing GHG emissions. For example, the County parking structure was recently retrofitted with solar panels on the top level. These provide much of the energy needed to run 555 County Center.

Achieving the GHG reduction goal for the unincorporated County is complicated somewhat by the dispersed land use and transportation patterns and networks in the unincorporated County. For example, given that the most significant contributor to greenhouse gases in the unincorporated County is the transportation sector, and given that the County's relatively dispersed land use patterns result in transportation utilization that is especially reliant on the private automobile, it becomes challenging to reduce greenhouse gas emissions from the transportation sector, particularly given that this reliance on the automobile is likely to remain for the foreseeable future. Effectuating a modal shift away from cars and towards alternative transportation modes in the unincorporated County is less realistic than it would be in a more urbanized location, such as Redwood City or the City of San Mateo. That said, there are proposed policies in the General Plan amendment and the CAP to promote greater transportation choice, such as the Complete Streets policy.

<u>Vulnerability and Adaptation: The Impact of Climate Change on San Mateo County</u>

The Pacific Institute has calculated (2009) that the largest economic impacts of climate change in California will be felt by Orange and San Mateo Counties. In the case of San Mateo County, much of the potential economic impact would be due to rising sea levels along the relatively flat San Francisco Bay shoreline areas. These areas are almost entirely within the incorporated cities of the County, and within the unincorporated San

Francisco Airport area. The County does not have land use authority over the incorporated cities, and the SFO airport is under the jurisdiction of the City and County of San Francisco. Nevertheless, there are areas of the unincorporated County that are indeed vulnerable to sea level rise, particularly on the Pacific Ocean coast, for example the Princeton harbor area. In addition, rising sea level may contribute to other economic and environmental impacts, such as coastal bluff erosion and retreat, salt-water intrusion, negative impacts on roads, utilities and other infrastructure, and impacts on wildlife and ecosystems.

Climate change will have other impacts on the County, which were explored in the Vulnerability Assessment part of this project. In addition to sea level rise and its indirect impacts, climate change is expected to result in increased temperatures and more variable precipitation patterns and possibly more extreme storm events. These changes in climate will result in a number of specific impacts, several of which were explored in greater depth by the Vulnerability Assessment Working Group and at the public workshop on Vulnerability and Adaptation held in Half Moon Bay. Adaptation is addressed in Chapter 5 of the EECAP. This chapter focused on the following topic areas that will likely be impacted by the aforementioned changes in climate:

1. agriculture and forestry;
2. wildland fire, including along the urban-rural interface;
3. the built environment, including infrastructure and roads;
4. natural resources;
5. water; and
6. public health.

The specific climate change impacts on each of these topic areas are more fully explained in Chapter 5 of the EECAP, Adaptation. For each of these topic areas, several adaptation issues or measures are proposed. For example, under the built environment topic area, one proposed adaptation measure is to create a shoreline and coastal protection strategy that favors natural solutions.

Implementation

Chapter 6 of the EECAP focuses on implementation and aims to make this a useful and updatable document for the project timeframe and beyond. It is recommended that staff provide a progress report on the EECAP to the Board of Supervisors every two years, and that the EECAP be updated and major revisions approved by the Board every five years. This chapter also includes action items related to monitoring and reporting, updating the GHG Inventory and the CAP, developing collaborative partnerships for implementation, and securing funding for project implementation. The Implementation Matrix summarizes all GHG reduction measures, projected GHG reduction

amounts, performance targets for each measure, community cost and savings, responsible implementing agency, and applicability to type of development. In addition, Appendix E presents the Adaptation Matrix, a framework of strategies for responding to vulnerability and adaptation issues identified in Chapter 5. This matrix was developed with the involvement of the Steering Committee. It includes identification of asset categories and vulnerabilities from Chapter 5, lead agencies, a range of tools, and possible implementation actions.

3. Related Climate Action Planning Efforts in San Mateo County

County Planning and Department of Public Works staff has worked to coordinate this project with the Regionally Integrated Climate Action Planning Suite (RICAPS). This is a separate but related Countywide effort coordinated by C/CAG to provide technical support, tools, coordination, and a CAP template to the various jurisdictions within the County as they develop their individual CAPs. The County's EECAP included some of the same members of the consultant team that worked on RICAPS. The efforts use similar, though not always identical, methodologies and reduction measures, as the County's efforts somewhat preceded those in RICAPS. In some cases, the County has developed reduction measures that go beyond the template used in RICAPS. In addition, the County's project also includes General Plan amendments, which are not specifically a part of the RICAPS template. As other jurisdictions' CAPs move into the adoption and implementation phase, County staff will continue to coordinate its efforts with the other member jurisdictions within RICAPS. More information about RICAPS can be found at the following internet link: *http://www.smcenergywatch.com/countywide_climate_action.shtml*

The project presented to the Planning Commission today relates specifically to the unincorporated portions of the County, because that is the geographic area over which the General Plan and its implementing regulations have jurisdiction. Greenhouse gas emissions and climate change in general do not, however, respect jurisdictional boundaries. To provide context for the efforts of other jurisdictions, staff has summarized the GHG reduction targets of some of the cities within San Mateo County. Some of the smaller jurisdictions have not begun preparing a CAP, some are currently drafting a CAP with the assistance of the RICAPS process, several are in or nearing the public hearing and adoption stage, and a few have adopted a Climate Action Plan. For some of the San Mateo County cities that have completed a CAP, the adopted GHG reduction targets are shown below, along with their year of adoption, for comparison to the County's EECAP. This table is not necessarily comprehensive, but does give a brief overview of some of the other completed CAP efforts in San Mateo County.

Jurisdiction	Year Completed	GHG Reduction Target 2020 (below baseline)
Menlo Park	2009	15%
Redwood City	2009	15%
San Carlos	2009	15%
San Mateo County	**Pending - 2013**	**17%**
State of California	2006 (AB 32)	15%

4. Relation to the LCP

This project is not a proposed Local Coastal Program (LCP) amendment and is independent of the LCP. The General Plan amendment provides General Plan policies that apply throughout the entire unincorporated County. Likewise, the EECAP also includes implementation measures that apply throughout the County. The County has certain obligations under the State Coastal Act, but also has other obligations under other State laws, such as SB 375 and AB 32. The County also has jurisdiction within all areas of the unincorporated County under its general police powers.

This is consistent with past County practice regarding the General Plan. For instance, the 2011 Housing Element was also a General Plan amendment that applied Countywide, and was not an LCP amendment, nor was it certified by the Coastal Commission. Neither was the 1986 General Plan certified by the Coastal Commission.

That said, the Planning Department recognizes that there are issues related to climate change and energy efficiency that have a particular impact in the Coastal Zone, particularly in the areas of vulnerability and adaptation. For this reason, Coastal Commission staff was asked to and did participate in the Vulnerability Assessment, and has been notified of the progress of the project. The County recognizes that in instances that would apply specifically and exclusively to implementation including development permitting within the Coastal Zone, an LCP amendment and/or CZ/CD zone amendment would need to be certified by the Coastal Commission at a future date. However, the current project does not propose any such specific regulatory changes exclusive to the Coastal Zone nor zoning changes to the CZ/CD zones.

B. ENVIRONMENTAL REVIEW

A Draft Environmental Impact Report (DEIR) has been prepared for this project. The public review period for the DEIR began on February 21, 2013 and ends on April 8, 2013. The DEIR was distributed through the State Clearinghouse to all responsible agencies and other parties as required by CEQA, and is also available for public review at the Planning and Building Department. The DEIR is

also available on the project webpage at:
http://www.co.sanmateo.ca.us/planning/rechargesmc/docs.html

Today's Planning Commission hearing is during the 45-day review and comment period for the DEIR, and provides an opportunity for the Planning Commission to hear public comment and to provide comment and feedback on the DEIR, the draft EECAP, and the General Plan amendment. After completion of the 45-day review period, the DEIR, draft EECAP, and amendment will be considered at a subsequent Planning Commission hearing, which will also provide additional opportunities for public comment on these items, and for further Planning Commission action. Written comments received on the DEIR within the public comment period will be addressed in writing in the Final EIR (FEIR). The FEIR will include consideration of and response to all comments on the DEIR by the public, by responsible agencies, and by other interested parties.

The DEIR, consistent with the requirements of CEQA, assesses potential environmental impacts that could result from adoption of the EECAP and amendment and recommends mitigation measures, as needed, to reduce impacts to less than significant. The DEIR also compares the potential impacts of adopting the project to various alternatives, including a no project alternative (Alternative 1), or adopting a Wind Energy Generating Facility Restriction Alternative (Alternative 2).

The DEIR concludes that while a No Project Alternative would avoid potential environmental impacts of project adoption, it would not achieve any of the goals of the project. Alternative 2 would result in a more severe impact to climate change and GHG reduction as compared to the proposed project and may not be able to attain the requirements of AB 32.

For the most part, the DEIR concludes that potential impacts of project adoption are less than significant, either with or without mitigation. However, the DEIR found that implementation of the proposed EECAP could have significant impacts on some sensitive and special-status species and their associated habitat and migratory corridors. These impacts would be reduced by incorporating design measures into all energy facilities constructed as part of EECAP implementation. These measures would include design of the installation of transmission lines, wind energy facilities, and wind turbines to reduce the likelihood of bird electrocutions and collisions, discourage the use of such sites by birds, and design features to minimize impacts to birds and bats. However, potential impacts cannot be fully eliminated, so this impact was considered significant and unavoidable.

C. PUBLIC COMMENT

In addition to public involvement, as summarized earlier in this report, the public may also comment on the draft CAP and amendment, and on the DEIR. Comments on the DEIR must be received by April 8, 2013. CEQA outlines a specific process for considering such comments. Comments on the CAP and the

amendment are not necessarily the same as comments on the EIR, but will still be considered and evaluated by staff as it prepares the final documents.

D. REVIEWING AGENCIES

This report was reviewed by staff from the following County Departments.

County Counsel
Public Works and Parks
Health

NEXT STEPS

The public comment period on the DEIR ends on April 8, 2013. County staff will review the comments received from the public on the EECAP, on the General Plan amendment, and on the DEIR, as well as direction received from the Planning Commission at this hearing. Comments on the EECAP and the General Plan amendments will be evaluated and these documents may then be revised accordingly. Written comments received on the DEIR within the public comment period will be addressed in writing in the Final EIR (FEIR). Staff and consultants will present the revised documents (if revisions are warranted) to the Planning Commission at a future hearing date in April or May for recommendation to the Board of Supervisors. The Board then has the authority to adopt the General Plan amendments, the EECAP, and to certify the FEIR.

ATTACHMENTS

A. General Plan Amendment Chapter 17: Energy and Climate Change Element
B. General Plan Amendment to Other Portions of General Plan
C. EECAP: Executive Summary (complete EECAP provided only to Planning Commission Members)
D. DEIR: Executive Summary (complete DEIR provided only to Planning Commission Members)

MAT:fc – MATX0207_WFU.DOCX

County of San Mateo - Planning and Building Department

ATTACHMENT A

SAN MATEO COUNTY

GENERAL PLAN

CHAPTER 17

ENERGY AND CLIMATE CHANGE ELEMENT

DRAFT

FEBRUARY 2013

PREPARED BY PMC
PREPARED FOR PLANNING AND BUILDING DEPARTMENT

TABLE OF CONTENTS

SAN MATEO COUNTY
CLIMATE CHANGE ELEMENT

PURPOSE

This Energy and Climate Change Element demonstrates San Mateo County's commitment to achieve energy efficiency and mitigate its impact on climate change by reducing greenhouse gas (GHG) emissions consistent with state legislation. This element is an optional element of the General Plan and is not mandated by the State of California. Authorized by Section 65303 of the Government Code, the inclusion of this element in the General Plan demonstrates the County's commitment to the long-term sustainability and resilience of the unincorporated county. San Mateo County is working to sustain the long-term health of the natural and built environments, achieve effective and meaningful reductions in GHGs, and increase resiliency to the impacts of climate change in the unincorporated county.

REGULATORY CONTEXT

OVERVIEW OF THE ELEMENT AND RELATIONSHIP TO THE ENERGY EFFICIENCY CLIMATE ACTION PLAN

Greenhouse gas emissions are unique in their cross-sector link across General Plan topics and issues. Similarly, the Energy and Climate Change Element takes an interdisciplinary approach to address the key opportunities related to GHG emissions. This element identifies the County's key opportunities to achieve consistency with statewide guidance related to GHG emissions. Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006, provides a statewide directive to achieve 1990 GHG emissions levels by 2020, equivalent to a 15% reduction below baseline 2005–2008 emissions levels.

The Energy Efficiency Climate Action Plan (EECAP) provides a path for achieving local energy efficiency and reductions in GHGs by 2020. The EECAP will function as an implementation tool of the General Plan, working as a shorter-term plan that will be updated on a more regular basis. The EECAP also provides technical analysis to demonstrate the impact of the County's policies and programs on GHG emissions. Maintaining the EECAP separately from the General Plan provides flexibility to the County to assess and revisit the effectiveness of EECAP measures and actions toward this element's overall goals and policies. As a stand-alone plan, the EECAP also has the flexibility to integrate near-term opportunities, new technologies, and research.

Together, the General Plan and EECAP function as part of the County's toolkit to achieve resilience to climate change and long-term GHG reductions.

GUIDANCE FROM THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT AND THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

The Energy and Climate Change Element and the EECAP are part of the framework for developing a GHG emissions reduction strategy in compliance with regional and statewide requirements. This includes Section 15183.5(b) of the California Environmental Quality Act (CEQA) Guidelines and the Bay Area Air Quality Management District's (BAAQMD) criteria for a Qualified GHG Reduction Strategy as defined in the BAAQMD's CEQA Air Quality Guidelines. The purpose of the BAAQMD CEQA Air Quality Guidelines is to assist lead agencies in evaluating the significance of impacts related to air quality and CEQA in the San Francisco Bay Area Air Basin. The guidelines were updated in 2010 to establish thresholds of significance for impacts related to GHG emissions to be consistent with the requirements of CEQA in response to the State of California's amendment to the State CEQA Guidelines Section 15183.5(b) through Senate Bill (SB) 97, which requires all projects subject to CEQA to analyze and mitigate the GHG emissions that will occur.

The County's EECAP follows both the State CEQA Guidelines (Section 15183.5(b)) and the BAAQMD's guidelines by incorporating the standard elements of a Qualified GHG Reduction Strategy into the EECAP. The standard elements of a Qualified GHG Reduction Strategy include the following steps:

1) Prepare a greenhouse gas inventory that includes projected emissions

2) Develop an emissions reduction target

3) Include emissions associated with specific actions in the county

4) Identify emissions reduction measures and quantify their benefits

5) Establish a procedure to monitor and update the climate action plan

6) Go through a public process and appropriate level of environmental review

The approach taken by the County to develop the EECAP and this element satisfies all of the criteria outlined in the existing Section 15183.5(b) of the CEQA Guidelines. This element further equips the County to achieve EECAP targets and respond to climate change with meaningful and measurable actions.

POTENTIAL IMPACTS OF CLIMATE CHANGE

GHG reduction efforts and climate change adaptation are the two complementary tasks for mitigating and responding to climate change. In addition to reducing the County's contribution to global climate change, the

County is also acting as a leader to proactively prepare for local impacts that will result from global climate change. By taking steps to adapt or manage potential changes to the local environment and socioeconomic systems, the County will equip county residents and businesses to reduce risks and increase resilience. Climate change adaptation is the term that summarizes this process of preparing for climate change, referring to the process of adjusting both natural and human systems to anticipated climate change impacts, moderating risks and maximizing potential benefits.

CLIMATE CHANGE FORECASTS FOR SAN MATEO COUNTY

The County conducted a vulnerability assessment to assess the impacts of climate change on the unincorporated county's built environment and natural resource systems. The adaptation assessment was conducted in partnership with ICLEI-Local Governments for Sustainability, PMC, San Mateo County's Planning and Building Department, and a Vulnerability Assessment Working Group.

Three primary climate conditions are projected to change in the San Mateo County region:

- **Temperature.** Temperatures in San Mateo County are expected to increase between 1 and 2 degrees (estimated to increase 1.6 degrees) Fahrenheit by 2030 and between 2 and 3 degrees (estimated to increase 2.8 degrees) Fahrenheit by 2050.

- **Precipitation.** Climate model projections for San Mateo County anticipate moderate changes in annual precipitation. A statewide assessment found that California will probably retain its current basic precipitation pattern and will continue to have a high likelihood of extreme dry weather events. The statewide assessment indicates that precipitation patterns in San Mateo County will also experience increasing variability, resulting in more extreme events that could be complemented by prolonged dry weather periods.

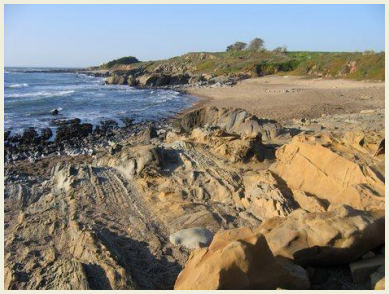
- **Sea Level Rise.** Over the last century, California has observed a nearly 8-inch rise in sea levels along the coast. Climate models have projected an additional 3.3- to 4.6-inch rise in sea level by 2100. Areas in unincorporated San Mateo County most at risk for sea level rise include inland bay shoreline areas, but are primarily coastal shoreline areas. This is because all of the bay shoreline areas are within incorporated cities, rather than the unincorporated county, with the exception of the San Francisco International Airport, which is conducting a separate climate action planning process. Specific areas of vulnerability include areas that will be subject to increased inundation (for example, Surfers Beach at Highway 1) and erosion (for example, Seal Cove). Sea level rise will also result in more

extreme events that will inflict more damage, which are anticipated to coincide with winter storm events and El Niño occurrences.

VULNERABILITIES IN SAN MATEO COUNTY

In addition to specific changes in climatic conditions, San Mateo County also expects to experience increasing vulnerability in natural and man-made systems. Changes in weather and climatic conditions affect wider biological systems, ecosystems, and infrastructure. Anticipated vulnerabilities include an increased rate of fires, loss of natural resources, increased forestry and agricultural vulnerability, and deteriorating public health. Climatic changes are also expected to affect water supply and systems. Variable temperatures and weather patterns are expected to result in decreased groundwater and reservoir supplies, while also triggering greater severity in flooding events. Areas in San Mateo County have been determined by the Federal Emergency Management Agency (FEMA) to fall within 500- and 100-year floodplains, which will be more vulnerable to the heightened flooding threats that are anticipated to result from climate change. Localized flooding of low-lying areas will continue to be a concern as rainfall events become more severe. A summary of climate change vulnerabilities in the unincorporated county is presented in **Table 1** below.

Table 1. Climate Change Vulnerabilities in San Mateo County

Potential Changes	Vulnerability Assessment for San Mateo County		
Rising Sea Levels Sea levels are projected to rise approximately 3 to 5 inches by 2100.	**Built Environment** As much as $24 billion in property throughout the county is at risk from an extreme flood by the end of century. Coastal infrastructure will be increasingly vulnerable. Other key vulnerability areas include Seal Cove and homes and businesses in North Fair Oaks, Pescadero, Princeton, and Moss Beach.		**Natural Resources** Erosion and inundation that result from sea level rise may permanently damage wetlands, beaches, tide pools, and other natural resources. Surfers Beach at Highway 1 is vulnerable to inundation and even complete loss, while Pescadero Marsh and Pillar Point Marsh are also resources of concern.
Temperature Variability Increased average temperature and extreme weather will lead to longer heat waves, reduced air quality, changes in vegetation patterns, and reduced snowpack in the Sierras.	**Public Health** County residents may experience more heat-related and respiratory illnesses. Elderly, very young, low-income residents, and outdoor workers are especially vulnerable.		**Fire** It is estimated that the county will face a 1% increase in wildfire risk as a result of shifting vegetation patterns and increased evapotranspiration rates. Increasingly severe drought events also contribute to increased vulnerability.
Precipitation Variability Climate change will likely lead to more intense precipitation events followed by extended drought events, which will be exacerbated by loss of snowpack in the Sierras.	**Agriculture and Forestry** Agricultural productivity is vulnerable to changes in water availability, especially for water-intensive crops. Forest health is also vulnerable to lower rainfall levels and higher temperatures.		**Water** Water supply may decrease, resulting from the impacts of drought, due to reductions in surface water and groundwater, and the impact of flooding on water infrastructure.

GHG EMISSIONS INVENTORY AND FORECAST FOR THE UNINCORPORATED COUNTY

BASELINE GHG INVENTORY

The County conducted a comprehensive greenhouse gas emissions inventory and forecast for the baseline year of 2005. The inventory presents carbon dioxide (CO_2), nitrous oxide (N_2O), and methane (CH_4) emissions generated from activities by San Mateo County community members in unincorporated areas of the county.

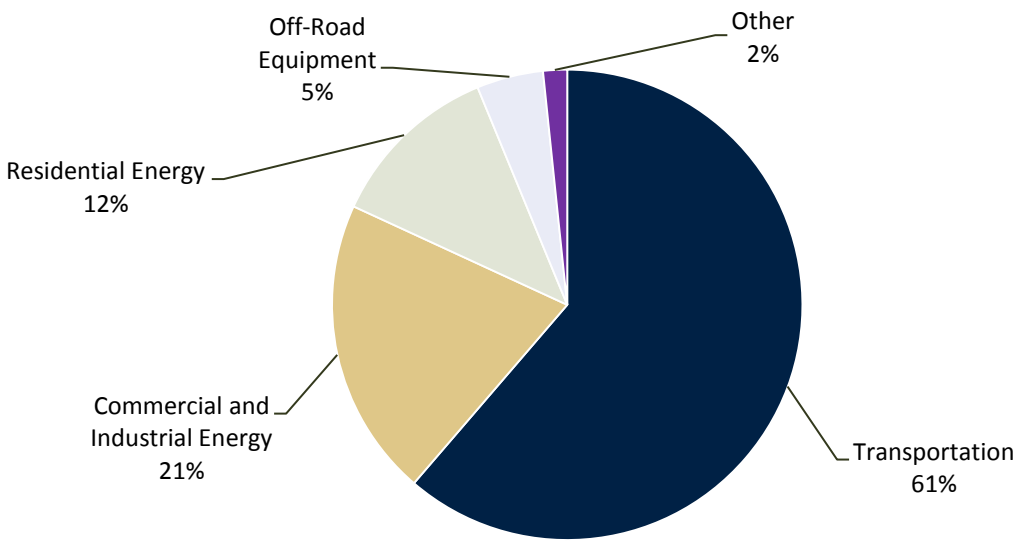
The emissions sources calculated in the baseline GHG inventory include commercial, residential, and industrial electricity and natural gas use, transportation, solid waste disposal, energy use related to water and wastewater, agricultural off-road equipment and emissions associated with fertilizer application, and off-road equipment used for construction and lawn and garden activities. GHG emissions from these activities were calculated from activity data such as kilowatt-hours (kWh) of electricity, therms of natural gas, tons of waste disposed, and vehicle miles traveled from trips with an origin or destination in unincorporated San Mateo County. In 2005, the County of San Mateo emitted approximately 782,080 metric tons of carbon dioxide equivalents ($MTCO_2e$) (see **Table 2** and **Figure 1**).

Table 2. 2005 Community-Wide Baseline Emissions by Sector

Sector	Metric Tons CO_2e/year	Percentage of Total
Transportation	479,400	61%
Commercial and Industrial Energy	160,900	21%
Residential Energy	93,100	12%
Off-Road Equipment	35,800	5%
Solid Waste	8,380	1%
Agriculture	3,000	<1%
Water and Wastewater	1,500	<1%
TOTAL	782,080	100%

Due to rounding, the total may not equal the sum of component parts.

Figure 1. 2005 Community-Wide Baseline Emissions by Sector

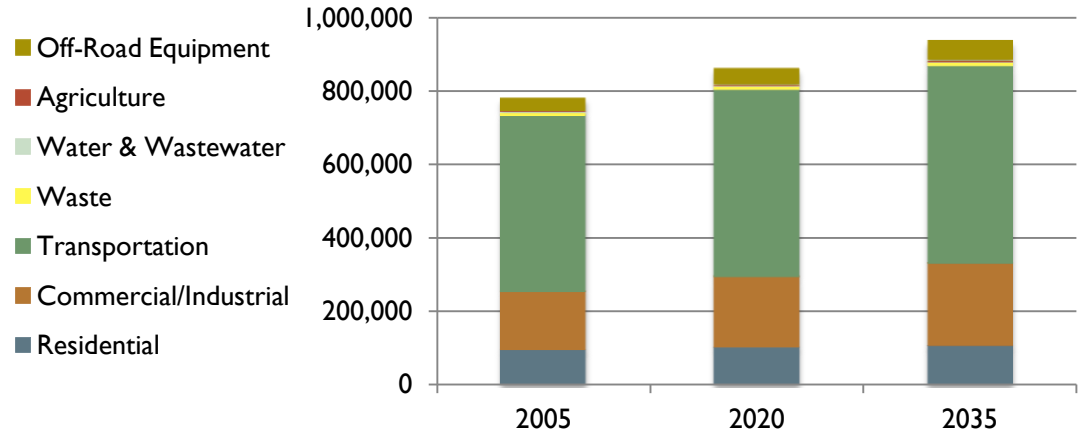


Due to rounding, the total may not equal the sum of component parts.

GHG INVENTORY FORECAST

The basis for all growth scenarios is a business-as-usual (BAU) projection. The BAU projection forecasts emissions to reflect the County's growth projections without regulatory or technical intervention to reduce GHG emissions, consistent with regional forecasts. These indicators are then applied to the 2005 GHG emissions inventory to determine a BAU growth scenario. Under the BAU scenario, community-wide emissions will grow by approximately 10% by the year 2020 to 860,800 $MTCO_2e$ and by 19% by 2035 to 934,300 $MTCO_2e$, as shown in **Figure 2** and **Table 3**.

Figure 2. San Mateo Community GHG Emissions Forecast, 2005–2035



The emissions contribution of agriculture and water & wastewater are too nominal to be adequately represented on the scale of this chart.

Table 3. San Mateo Community GHG Emissions BAU Forecast, 2005–2035

Sector	2005 Baseline	2020	2035
Transportation	479,400	506,800	534,200
Commercial and Industrial Energy	160,900	194,600	226,300
Residential Energy	93,100	100,500	104,200
Off-Road Equipment	35,800	44,600	53,900
Solid Waste	8,380	9,500	10,400
Agriculture	3,000	3,100	3,400
Water and Wastewater	1,500	1,700	1,900
TOTAL	782,080	860,800	934,300
Percentage Change from 2005		10%	19%

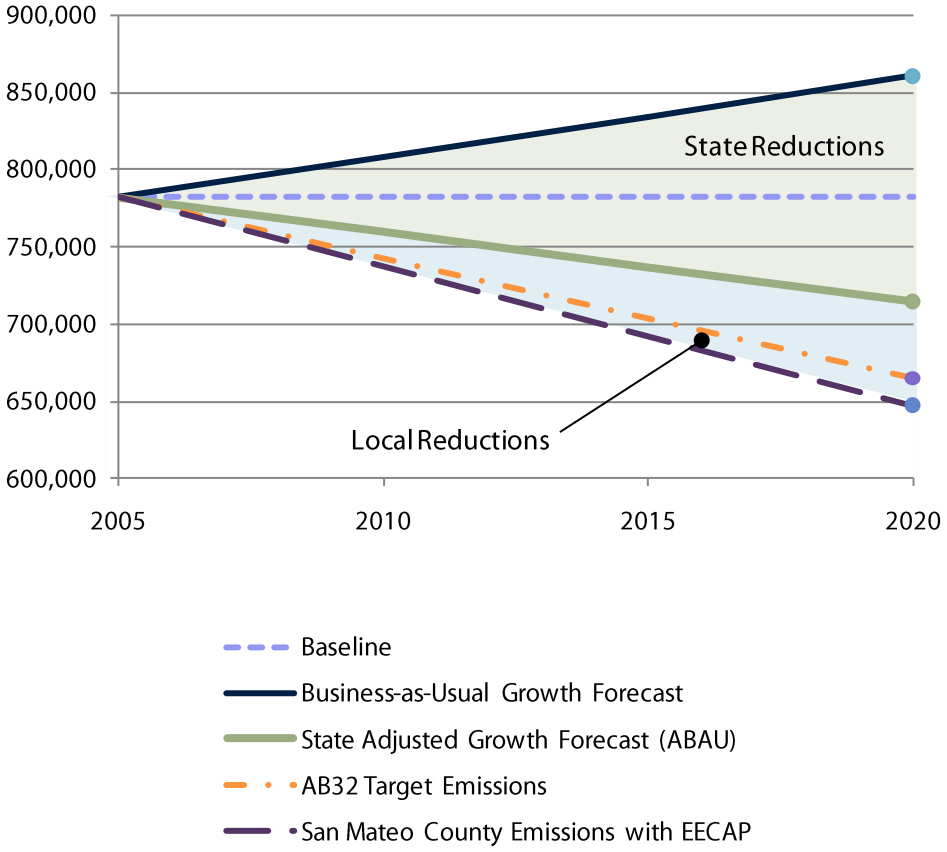
In addition to AB 32, California has adopted and initiated several state-level programs that will impact local GHG emissions. In order to effectively determine the emissions reductions that will need to be implemented at the local level to meet the County's emissions reduction target, the impact of state-level programs has been incorporated into an adjusted BAU forecast. The state-level programs included in this adjusted forecast include the Renewables Portfolio Standard (RPS), updates to Title 24 Energy Efficiency Standards, California Solar Initiative rebates, and the implementation of the Clean Car Fuel Standard, commonly referred to as the Pavley standards. The impact of these state programs (shown in **Table 4**) will play a critical role in helping San Mateo County achieve the emissions reduction target.

Table 4. State Reductions Summary

	2005	2020	2035
Business-as-Usual Emissions	782,080	860,800	934,300
Renewables Portfolio Standard (RPS)	–	-4,500	-13,300
AB 1493 (Pavley) Vehicle Standards	–	-130,700	-194,700
California Solar Initiative (CSI)	–	-300	-200
CALGreen Building Standards	–	-10,900	-17,000
Subtotal State Reduction Efforts	–	-146,400	-225,200
Net Emissions	–	714,400	709,100
Percentage Change from 2005 Levels	–	-9%	-9%

Through the EECAP, the County of San Mateo is following state guidelines by seeking to achieve a GHG emissions reduction target of 15% below 2005 baseline levels by 2020. To achieve this goal, the County identified actions in the EECAP that will reduce remaining emissions through local activities and programs. The strategies in the EECAP demonstrate a path for the County to achieve a 15% reduction below baseline 2005 emissions by 2020 (see **Figure 3**), which provides the basis for the goals and policies in this element.

Figure 3. GHG Reductions in San Mateo County ($MTCO_2e$)



ENERGY USE IN SAN MATEO COUNTY

INTRODUCTION TO ENERGY USE

Energy used in the homes and businesses of San Mateo County is currently provided primarily by Pacific Gas and Electric (PG&E). PG&E generates energy from a mix of nonrenewable, fossil fuel-based sources, such as coal and natural gas, and renewable sources, such as biomass, geothermal, hydroelectric, and wind.

The amount of energy used to power homes and businesses determines how much power PG&E needs to generate and the quantity of GHGs emitted. If the energy needed for daily activities is decreased, reductions can be achieved in the amount of electricity or natural gas PG&E needs to generate, obtain, and/or transmit. In addition, the GHGs associated with electricity generation and natural gas combustion would decrease. The most common uses of electricity are for lighting and heating/cooling buildings, for powering appliances such as refrigerators, computers, and washing machines, and for conveying water around the county and into homes or to treatment plants. Natural gas is most

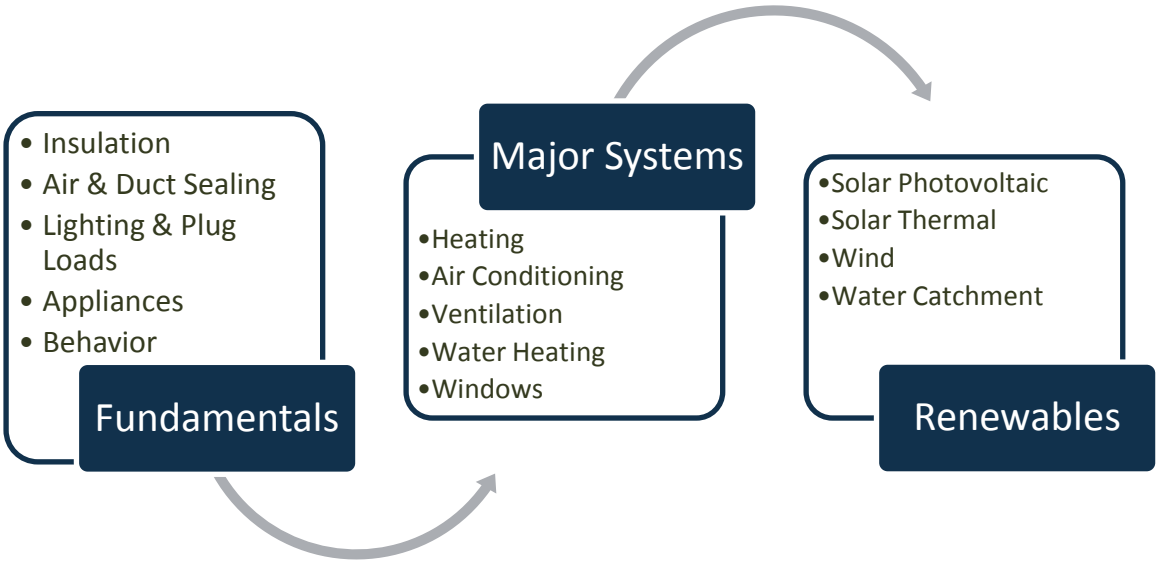
typically used for heating buildings and water, in addition to powering industrial and manufacturing processes.

THE ENERGY REDUCTION LOADING ORDER

GHGs from energy use can be reduced, primarily through increasing conservation (i.e., avoiding using electricity) and improving efficiency (i.e., using less electricity for the same activity) when conservation cannot be realized. Common conservation practices include unplugging appliances and electronics when not in use, turning off lights during the day or when the room is empty, and changing heating and cooling settings on thermostats. Increasing energy efficiency means replacing incandescent light bulbs with compact fluorescent lights and inefficient or older models of appliances and electronics with new, preferably Energy Star (or other efficiency label) models in order to use less energy when it is necessary. Using small renewable solar panels can also reduce demand from PG&E for daily electricity use. Reductions in electricity used for water pumping in the community can be achieved by using less water for irrigation and other household uses. The use of solar water heaters can also reduce demand from PG&E for natural gas use. These are just some examples of energy efficiency and conservation.

When completing energy efficiency retrofits to buildings, there is a loading order that should be followed to maximize energy savings while minimizing added costs. **Figure 4** depicts the recommended loading order for undertaking energy efficiency projects and retrofits.

Figure 4: Retrofitting Loading Order



COMMUNITY ENERGY DEMAND

Unincorporated San Mateo County has over 20,000 homes in diverse residential communities. Over 60% of homes in the unincorporated county were constructed before 1970, the date of adoption of the state's first mandatory energy efficiency standards for new construction. Older homes generally have a greater opportunity to improve levels of comfort and reduce energy use through energy efficiency improvements. In general, the county's inland communities have older housing stock than the newer coastal communities, providing more significant retrofit opportunities. For example, the five inland communities of Broadmoor, North Fair Oaks, Emerald Lake Hills, West Menlo Park, and the Sequoia Tract have homes with a median age of construction ranging from 1940 to 1967, with a sizable number of homes constructed before 1940.[1] On average, households in the unincorporated county that are served by PG&E used approximately 6,000 kWh of electricity and nearly 500 therms of natural gas in the baseline year of 2005. Assuming average energy rates, in 2005 these households paid on average of $1,100 per year for electricity and almost $600 per year for natural gas.

Nonresidential uses also contribute to the unincorporated county's energy use. In 2005, just three sectors used approximately 80% of total nonresidential energy in the unincorporated county: manufacturing and transportation, retail, and hospitality. On average, each nonresidential PG&E customer used approximately 37,000 kWh and 24,000 therms per year, paying a total of about

[11] US Census Bureau 2012.

$29,000 in energy bills. This higher level of energy use reflects the presence of advanced biotech and manufacturing firms, which contribute significantly to the county's overall economy. These types of firms also stand to benefit from energy efficiency and conservation. Retrofits and improvements can help businesses reduce operating costs and maintenance, in addition to enhancing profitability.

GREENHOUSE GAS REDUCTION GOALS, POLICIES, AND PROGRAMS

This section provides the County's policy framework to minimize its contribution to climate change by reducing GHG emissions. The County will accomplish this reduction by decreasing GHG emissions through the built environment, transportation, and water and waste practices. While reducing GHG emissions, the goals, policies, and programs presented here also improve the quality of life in San Mateo County for residents, strengthen business, reduce costs, and conserve natural resources.

DEFINITIONS

The following definitions are provided for terms contained in this plan:

- **Climate change** is a term to imply a significant change from one climatic condition to another, including natural changes in climate.

- **Complete Streets** is an approach to transportation that describes an integrated, multimodal transportation system which equally supports all types of transportation, including pedestrian, bicycle, and vehicular traffic.

- **Distributed energy resources** are small, modular energy generation and storage technologies that provide electric capacity or energy located on-site or close to where it is needed, whether connected to the local electric power grid or isolated in stand-alone applications. These systems generally produce less than 10 megawatts of power and include wind turbines, photovoltaics, fuel cells, microturbines, and energy storage systems.

- **Greenhouse gas emissions** are gases that cause heat to be trapped in the atmosphere, warming the earth. Greenhouse gases include all of the following: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. The majority of greenhouse gases come from natural sources, although human activity is also a major contributor.

- **Renewable energy** is energy from sources that regenerate and are less damaging to the environment than nonrenewable energy sources, such as solar, wind, biomass, and small-scale hydroelectric power.

- **Traffic-calming features** are features designed to increase non-vehicular traffic and reduce the conflict of vehicles with pedestrians and cyclists. Traffic-calming features may include, but are not limited to, marked crosswalks, countdown signal timers, curb extensions, speed tables, raised crosswalks, raised intersections, median islands, tight corner radii, roundabouts or mini-circles, on-street parking, planter strips with street trees, and chicanes/chokers.

GREENHOUSE GAS REDUCTION GOALS

The County will achieve the following goals for greenhouse gas emissions:

Goal 1: Promote and implement policies and programs to reduce community-wide greenhouse gas emissions.

Goal 2: Maximize energy efficiency in new and existing development.

Goal 3: Promote the expansion of the use of renewable energy supplies.

Goal 4: Promote and implement policies and programs to reduce vehicle miles traveled by all vehicles traveling in the unincorporated county.

Goal 5: Encourage the use of clean, low-emissions vehicles and equipment.

Goal 6: Promote and implement policies and programs with the goal of achieving zero waste.

Goal 7: Support sustainable agricultural practices.

Goal 8: Promote and implement policies and programs to reduce water use.

GENERAL GREENHOUSE GAS REDUCTION POLICIES AND PROGRAMS

Goal 1: Promote and implement policies and programs to reduce county-wide greenhouse gas emissions..

Policy 1.1: Create a strategic planning framework to identify and reduce greenhouse gas emissions countywide.

Implementing Strategy 1.1A: Regularly inventory greenhouse gas emissions from community-wide activities on a regular basis.

Implementing Strategy 1.1B: Identify a community-wide greenhouse gas emissions reduction target that will be consistent with current state objectives, statewide guidance, and regulations.

Implementing Strategy 1.1C: Adopt and implement the County of San Mateo's Energy Efficiency Climate Action Plan that will identify goals, measures, and actions to achieve the County's greenhouse gas reduction target.

Implementing Strategy 1.1D: Regularly monitor and track progress toward the County's greenhouse gas reduction goals.

Implementing Strategy 1.1E: Regularly report to the Board of Supervisors or its designee on the implementation status of the Energy Efficiency Climate Action Plan.

Implementing Strategy 1.1F: Update the Energy Efficiency Climate Action Plan should the County find that specific strategies are not achieving the intended GHG reductions or to incorporate new technology, programs, and opportunities to reduce greenhouse gas emissions.

Policy 1.2: Evaluate the greenhouse gas emissions impacts of development projects as part of plan review.

Implementing Strategy 1.2A: Update development forms and permits to help County staff collect and assess project-related information on greenhouse gas emissions impacts.

Implementing Strategy 1.2B: Create a checklist or other tool that allows project applicants to identify all project measures that reduce greenhouse gas emissions.

Goal 2: Maximize energy efficiency in new and existing development.

Policy 2.1: Support energy conservation and efficiency in the existing building stock.

Implementing Strategy 2.1A: Identify and foster innovative financing opportunities for energy efficiency retrofits, including utility rebates or programs such as on-bill financing, statewide energy efficiency rebates or loans, "green" mortgages, and bulk procurement programs.

Implementing Strategy 2.1B: Educate homeowners, renters, building owners, and tenants about the benefits of energy efficiency.

Implementing Strategy 2.1C: Continue to participate in regional programs that provide education or funding resources for building owners to undertake energy efficiency improvements, such as property-assessed clean energy financing.

Implementing Strategy 2.1D: Implement policy HE 47 in the Housing Element to expand energy efficiency in existing housing through

educational outreach, promotion of audits, and encouragement of weatherization and audits in low-income housing.

Implementing Strategy 2.1E: Consider options to implement a green business program for businesses in the unincorporated county, which would encourage business "greening" and energy efficiency practices.

Policy 2.2: Provide incentives for voluntary energy efficiency improvements in the existing building stock.

Implementing Strategy 2.2A: Streamline the review process for energy efficiency improvements, considering options such as reduced permit fees, expedited or administrative review, or other mechanisms.

Implementing Strategy 2.2B: Incentivize the transition to more energy-efficient home heating and cooling strategies through the plan review process.

Implementing Strategy 2.2C: Collaborate with utility providers, such as PG&E, and regional partners to encourage development of large-scale cooperative efforts that reduce costs and simplify the purchase of energy efficiency equipment or the completion of voluntary retrofits.

Policy 2.3: Develop a program for unincorporated communities to reduce heat gain in buildings and sequester greenhouse gases through tree planting and other "cooling" strategies.

Implementing Strategy 2.3A: Revise design guidelines and other regulations to incorporate requirements for tree planting, shading design, and the use of high albedo, pervious, or open-grid materials to reduce heat absorption in development.

Implementing Strategy 2.3B: Collaborate with nonprofits or local environmental or community groups to increase tree planting and the forest canopy countywide.

Policy 2.4: Collaborate with stakeholders to encourage energy efficiency by the county's largest energy users in the commercial sector in concert with economic growth and development objectives.

Implementing Strategy 2.4A: Through the regular greenhouse gas monitoring process, use reports from utility providers such as PG&E to identify the largest users of energy and understand the highest opportunities for energy efficiency.

Implementing Strategy 2.4B: In partnership with utility providers such as PG&E, encourage energy benchmarking practices that help businesses monitor and reduce energy use, consistent with state regulations.

Implementing Strategy 2.4C: Collaborate with business stakeholders to provide education on programs, financing, and other resources for nonresidential energy efficiency.

Policy 2.5: Continue implementation of green building standards that exceed state energy efficiency standards.

Implementing Strategy 2.5A: Continue to require the participation of new development and significant remodels in green certification programs or standards that reduce energy use, such as the Leadership in Energy and Environmental Design (LEED) program, GreenPoint Rated, or CALGreen Tier 1 and Tier 2.

Implementing Strategy 2.5B: Consider options to expand the requirements or applicability of the Green Building Ordinance to achieve higher levels of energy efficiency.

Goal 3: Promote the expansion of the use of renewable energy supplies.

Policy 3.1: Identify opportunities for new and existing development to incorporate on-site distributed energy resources into project design and construction.

Implementing Strategy 3.1A: Incorporate standards for new development to provide pre-wiring for renewable energy systems, such as solar photovoltaic systems or solar water heaters.

Implementing Strategy 3.1B: Streamline the process for installing on-site distributed energy resources through strategies such as simplified review procedures, permit fee reductions, or expedited permitting, consistent with state law.

Implementing Strategy 3.1C: Promote financing opportunities and rebates for installation of on-site renewable energy systems.

Implementing Strategy 3.1D: Encourage developers of new large projects to provide solar photovoltaic or other on-site renewable energy systems.

Implementing Strategy 3.1E: Consider creating incentives to encourage development of distributed energy systems in existing developed areas, with minimum biological and aesthetic impact.

Implementing Strategy 3.1F: Support a pilot solar photovoltaic program that provides additional incentives to participating developers for on-site solar photovoltaic facilities, with minimal biological and aesthetic impact.

Policy 3.2: Promote the production of appropriate off-site renewable energy for use in the unincorporated county.

Implementing Strategy 3.2A: Consider identifying areas with the highest feasibility for large-scale, commercial production of energy from renewable resources, including locations near existing power facilities and transmission lines to minimize biological and aesthetic impacts, and other environmental impacts.

Implementing Strategy 3.2B: Require commercial wind farms or large-scale wind projects to use technologies deemed bird-safe and that would minimize impacts to wildlife.

Implementing Strategy 3.2C: Investigate feasible opportunities to promote the use of off-site renewable energy in new and existing development, including power purchase agreements and renewable energy credits.

Implementing Strategy 3.2D: Assess the feasibility and benefits of creation of a Community Choice Aggregation Program.

Goal 4: Promote and implement policies and programs to reduce vehicle miles traveled by all vehicles traveling in the unincorporated county.

Policy 4.1: Expand transit-oriented and mixed-use development that reduces reliance on vehicular travel.

Implementing Strategy 4.1A: As new development occurs, encourage new development to locate in proximity to transit corridors.

Implementing Strategy 4.1B: Assess existing standards to expand the provision of mixed uses by right in appropriate areas.

Implementing Strategy 4.1C: Evaluate options to reduce minimum parking requirements and promote a variety of transportation choices in new development.

Implementing Strategy 4.1D: Encourage neighborhood-serving retail and co-location of daily service uses at key locations throughout the unincorporated county.

Implementing Strategy 4.1E: Work with local community advisory councils, environmental groups, and community groups to assess appropriate strategies and locations to test innovative parking, land use, or other design solutions to reduce single-occupant vehicle use.

Policy 4.2: Promote non-motorized and alternative travel.

Implementing Strategy 4.2A: Require project applicants to evaluate and identify appropriate measures to achieve Complete Streets and promote alternative travel, such as pedestrian paths/sidewalks or traffic calming improvements.

Implementing Strategy 4.2B: Develop standards for and require new projects to provide appropriate levels of short- and long-term bicycling facilities such as bicycle parking, lockers, and shower facilities.

Implementing Strategy 4.2C: Identify options for collection of alternative revenue to support transit and Complete Streets projects, such as an impact fee.

Implementing Strategy 4.2D: Establish design criteria for the assessment of Complete Streets and pedestrian-oriented design in new development, recognizing the unique considerations of urban, suburban and rural communities.

Implementing Strategy 4.2E: Create a local commute trip reduction program, which would establish mandatory standards for employers to promote commuter programs and support a reduction in single-occupant vehicle trips.

Implementing Strategy 4.2F: Continue to partner with the Peninsula Traffic Congestion Relief Alliance, Shuttle Business Task Force, SamTrans, school districts, and private partners to fund and support transit and commuter programs.

Goal 5: Encourage the use of clean, low-emissions vehicles and equipment.

Policy 5.1: Facilitate the expansion of infrastructure for alternative fuel vehicles.

Implementing Strategy 5.1A: Encourage the installation of electric vehicle charging stations in new development.

Implementing Strategy 5.1B: Consider strategic opportunities to plan for electric vehicle networks or alternative fueling stations, such as

development of a neighborhood electric vehicle plan for urban areas or integration with regional planning efforts.

Implementing Strategy 5.1C: Explore pursuing funding with partners for the conversion of government and private fleets in the unincorporated county to alternative and low-emissions fuels.

Policy 5.2: Promote the voluntary transition to clean and low-emissions outdoor equipment through programs and plan review.

Implementing Strategy 5.2A: Require new development to provide accessible exterior electrical outlets to support the use of electric-powered lawn and garden equipment.

Implementing Strategy 5.2B: Support both the use of low-emissions construction equipment and reduced equipment idling in construction activities through the plan review process, such as through permit requirements or conditions of approval.

Implementing Strategy 5.2C: Work with agricultural stakeholders to encourage the use of low-emitting, energy-efficient agricultural equipment.

Goal 6: Promote and implement policies and programs with the goal of achieving zero waste.

Policy 6.1: Continue to expand recycling and reduce landfilled waste.

Implementing Strategy 6.1A: Collaborate with solid waste providers to increase diversion of landfilled waste using new technologies or other methods.

Implementing Strategy 6.1B: Ensure the provision of food waste services, such as composting, for commercial restaurants.

Implementing Strategy 6.1C: Provide curbside composting and green waste for residential customers. In rural locations that are infeasible for curbside services, provide centralized drop-off locations for residential customers.

Implementing Strategy 6.1.D: Require new development to provide appropriate trash and recycling enclosures.

Implementing Strategy 6.1.E: Create standards for new development that will support the use of recycled goods and reduce the consumption of raw materials.

Implementing Strategy 6.1.F: Promote statewide recycling and waste reduction programs to the private sector.

Implementing Strategy 6.1G: Consider opportunities to increase mandatory diversion of construction and demolition waste.

Goal 7: Support sustainable agricultural practices.

Policy 7.1: Collaborate with partners to encourage voluntary sustainable agricultural practices that reduce greenhouse gas emissions.

Implementing Strategy 7.1A: Support compliance with statewide restricted materials requirements for pesticides and fumigants, and encourage the voluntary use of low global warming potential (GWP) pesticides and fumigants.

Implementing Strategy 7.1B: Consider allowing sustainable farming practices that protect resources in appropriate non-farmed areas where agriculture may not otherwise be allowed.

Implementing Strategy 7.1C: Work with agricultural stakeholders to encourage the preparation and dissemination of tools for sustainable agricultural practices, including new technologies.

Implementing Strategy 7.1D: Consider updating zoning standards and land use designations for small-scale farming and temporary ancillary agricultural uses, such as farmers markets, to create clear and uniform definitions that encourage appropriate farming practices..

Goal 8: Promote and implement policies and programs to reduce water use.

Policy 8.1: Expand infrastructure for monitoring and reusing water.

Implementing Strategy 8.1A: Work with water providers to promote the installation of water meters or other technologies that allow for the accurate monitoring and billing of water use.

Implementing Strategy 8.1B: Investigate opportunities to expand the provision of recycled water to the more built-out communities.

Implementing Strategy 8.1C: Consider requiring new development to provide dual plumbing in anticipation of recycled water provisions.

Implementing Strategy 8.1D: Streamline and incentivize the provision of greywater systems for unincorporated areas that follow the County's Environmental Health best management practices.

ADAPTATION GOALS, POLICIES, AND PROGRAMS

This section provides the County's policy framework to adapt to the impact of climate change and sustain ongoing resilience in the natural and built environments. The County will attain these objectives through proactive anticipation of climate change impacts, working closely with stakeholders and partners to protect resources. The County will also use the opportunities afforded by climate change to sustain resilience and sustainability of San Mateo County's resources.

DEFINITIONS

The following definitions are provided for terms contained in this element:

- **Buffer zones** are areas adjacent to sensitive habitats which are necessary to allow for periodic, seasonal, or ecological changes, including the impacts of climate change.

- **Critical infrastructure or facilities** provide necessary services to the community, including but not limited to roadways, hospitals, airports, utility lines, and water and sewage infrastructure.

- **Climate change** is significant change from one climatic condition to another, including natural changes in climate.

- **Climate change adaptation** seeks to address the impacts of climate change on natural or human systems to minimize harm or take advantage of beneficial opportunities.

- **Climate change mitigation** is a technical or behavioral intervention to reduce the sources of greenhouse gas emissions in order to reduce the potential effects of climate change.

- **Climate change risks** are vulnerabilities caused or exacerbated by changes in climatic conditions, such as flood zone areas, wildfire, drought, and extreme weather events such as heat waves.

Adaptation Goals

The County will achieve the following goals for climate change adaptation:

Goal 9: Identify and prepare for climate change impacts.

Goal 10: Enhance the adaptive capacity of natural and man-made systems.

GENERAL ADAPTATION POLICIES AND PROGRAMS

Goal 9: Identify and prepare for climate change impacts.

Policy 9.1: Develop an approach to track and fund the assessment of climate change impacts and risks.

Implementing Strategy 9.1A: Identify funding programs and grant opportunities for assessing climate risks.

Implementing Strategy 9.1B: Work with governmental and non-governmental partners, including educational institutions, landowners, and regional or state agencies, to leverage resources and assess climate change vulnerabilities.

Implementing Strategy 9.1C: Partner with neighboring jurisdictions and regional entities to create an ongoing monitoring program that tracks local and regional climate change impacts.

Implementing Strategy 9.1D: Regularly evaluate existing plans and programs (federal, state, and regional) to identify updates in response to emerging information on climate change impacts or best practices.

Policy 9.2: Integrate ongoing assessment of climate change vulnerabilities into the planning process.

Implementing Strategy 9.2A: Establish the State of California Sea-Level Rise Interim Guidance Document, or its successor, as the standard for designing, evaluating, and implementing plans, projects, and programs.

Implementing Strategy 9.2B: Develop guidelines that require the consideration of potential climate change impacts when preparing environmental documents in accordance with the California Environmental Quality Act.

Implementing Strategy 9.2C: Create mechanisms to assess risk and liability for projects and activities that may occur in areas that are vulnerable to climate change.

Implementing Strategy 9.2D: Incorporate potential climate change impacts into the decision-making process when siting new facilities and prioritizing repairs and improvements to critical infrastructure.

Implementing Strategy 9.2E: Encourage the San Mateo County Local Agency Formation Commission to integrate analysis of climate change risks into municipal service reviews, public service or infrastructure improvements, and management plans.

Goal 10: Enhance the adaptive capacity of natural and man-made systems.

Policy 10.1: Encourage the location and design of new development, remodels, or expansions to anticipate and mitigate climate change risks.

Implementing Strategy 10.1A: Consider expanding minimum standards for setbacks or buffer zones in areas with high vulnerability to climate change impacts.

Implementing Strategy 10.1B: Promote the site selection and design of critical facilities that consider site-specific vulnerabilities to climate change.

Implementing Strategy 10.1.C: Promote the location of new critical infrastructure facilities in areas not subject to severe climate change impacts, such as storm surge, flooding, or inundation.

Implementing Strategy 10.1D: Evaluate on-site disposal system regulations to ensure they are adequate to address surface water and groundwater issues anticipated with changes in the water table and precipitation.

Implementing Strategy 10.1E: Consistent with statewide standards and guidance from the California Coastal Commission, require all new projects in the coastal zone to account for sea level rise and the potential for increasing rates of erosion.

Implementing Strategy 10.1F: Encourage the use of biological and natural solutions for shoreline protection, rather than "armoring" infrastructure such as sea walls or breakwaters.

Policy 10.2: Improve public health and social equity through climate change adaptation strategies.

Implementing Strategy 10.2A: Prepare a regular inventory of essential infrastructure that supports public health and meets emergency response needs, such as emergency facilities, response routes, water supplies, and wastewater disposal.

Implementing Strategy 10.2B: Regularly assess health, socioeconomic, and equity vulnerabilities and adaptive strategies related to climate change using performance metrics and data.

Implementing Strategy 10.2C: Work with public health organizations, nonprofits, and other groups to conduct public outreach and education efforts that inform vulnerable groups about climate change risks.

Implementing Strategy 10.2D: Prioritize adaptation planning efforts for vulnerable populations and communities, including low-income groups, such as potentially affected trailer parks and farmworker housing.

Implementing Strategy 10.2E: Ensure that emergency response and educational information regarding climate change is provided in the key languages commonly spoken throughout the unincorporated county.

Policy 10.3: Protect the built environment from climate change risks through programs and strategic planning.

Implementing Strategy 10.3A: Establish a strategy for addressing existing development and critical infrastructure that is vulnerable to increased impacts of climate change, identifying decision-making criteria for upgrades and managed retreats from risks.

Implementing Strategy 10.3B: Consider the transfer of development rights for reconstruction of development that has been damaged or destroyed due to fire or flooding, as feasible.

Implementing Strategy 10.3C: Coordinate with agency partners to prepare for the increased need for emergency response services that is expected due to climate change impacts.

Implementing Strategy 10.3D: Collaborate with utility providers to ensure that infrastructure management plans account for anticipated climate change impacts.

Implementing Strategy 10.3E: Promote improved emergency vehicle access and roadside vegetative management.

Implementing Strategy 10.3F: Continue collaboration with the Federal Emergency Management Agency to review and identify flood zones and risks.

Implementing Strategy 10.3G: Coordinate with neighboring jurisdictions and regional entities to plan and mitigate wildfire impacts in wildland-urban interface areas.

Implementing Strategy 10.3H: Maintain public access to recreation facilities, open space, and other natural resources wherever possible despite climate change impacts.

Policy 10.4: Monitor and support the adaptive capacity of natural and agricultural resources to climate change.

Implementing Strategy 10.4A: Consider diversifying the allowable activities on agricultural land to support the diversification of sources for potential income, such as agricultural tourism, roadside stands, and farmers markets.

Implementing Strategy 10.4B: Create a monitoring and assessment program to track forest health and support ecological, social, and economic sustainability of public forestlands.

Implementing Strategy 10.4C: Partner with local organizations to investigate the use of conservation easements for protection of habitats vulnerable to climate change that could also serve as buffers for the built environment.

Implementing Strategy 10.4D: Collaborate with partners to prepare adaptive management plans for sea level rise in coastal areas.

Implementing Strategy 10.4E: Evaluate the role of wetlands in carbon sequestration and as buffer to the impacts of sea level rise and increased flooding.

Implementing Strategy 10.4F: Coordinate with stakeholders, agencies, and other groups to monitor new opportunities to strengthen the resilience of natural and agricultural resources to climate change.

County of San Mateo - Planning and Building Department

ATTACHMENT B

San Mateo County

General Plan Amendment

February 2013

Proposed Edits and Additions to Existing Text

Vegetative, Water, Fish and Wildlife Resources Policies, Section 1.14, Definition of Buffer Zones:

> Define Buffer Zones as those areas adjacent to sensitive habitats which are necessary to allow for periodic, seasonal, or ecological changes, including the impacts of climate change.

Suggested addition following Section 1.14:

> Define climate change as a term to imply a significant change from one climatic condition to another, including natural changes in climate.

Vegetative, Water, Fish and Wildlife Resources Policies, Section 1.28, Establish Buffer Zones:

> Establish necessary buffer zones adjacent to sensitive habitats which include areas that directly affect the natural conditions in the habitats~~,~~ and areas expected to experience changing vulnerabilities due to impacts of climate change.

Vegetative, Water, Fish and Wildlife Resources Policies, Section 1.49, Support Resources Management:

> 1.49 Support Resource Management Efforts of Other Agencies
> Recognize, encourage, and cooperate with the efforts of public agencies and private groups which are consistent with the goals, objectives, and policies of this chapter.

> 1.50 Develop P~~p~~rograms to A~~a~~dapt to the I~~i~~mpacts of Climate Change~~.~~
> a. Integrate advances in research of the impact of climate change into the assessment of vulnerabilities of sensitive species,~~;~~ sensitive habitats, and vegetative, fish, and wildlife resources.
> b. ~~Support adaptation of~~ Protect sensitive habitats and resources ~~to~~ from the impacts of climate change.
> c. Coordinate with other local, state, and national agencies to understand and respond to new, exacerbated, or changing vulnerabilities that result from the impacts of climate change.

Visual Quality, Section 4.1, suggested addition:

> Define distributed energy resources as small, modular~~,~~ energy generation and storage technologies that provide electric capacity or energy located on-~~-~~site or close to where it is needed, whether connected to the local electric power grid or isolated in stand-alone applications. These systems generally produce less than 10 megawatts (MW) of power and include wind turbines, photovoltaics (PV), fuel cells, microturbines, and energy storage systems.

San Mateo County

General Plan Amendment

February 2013

Visual Quality, Section 4.20, Utility Structures:

> Minimize the adverse visual quality of utility structures, including roads, roadway and building signs, overhead wires, utility poles, T.V., antennae, distributed energy resources, solar water heaters, windmills, and satellite dishes.

Visual Quality, Section 4.52, Architectural Design Standards for Rural Scenic Corridors:

> a. Limit the height of structures or appurtenances in forested areas so as not to exceed the height of the forest canopy.
> b. Limit the height of structures in grassland areas in order to maintain a low horizontal profile.
> c. Allow ~~solar~~ distributed energy resources~~, panels~~ and chimneys to extend beyond these height limits where required for safety or efficient operation.

Visual Quality, Section 4.61, Parking and Paved Areas:

> Integrate paved areas with their site, ~~consider~~encourgage the use of alternative paving technologies that minimize hardscape, ~~-~~and landscape and/or screen them to reduce visual impact from the scenic corridor.

Park and Recreation Resources, ~~Section 6.34, County Park and Recreation Facilities~~Maintenance and Operation suggested addition:

> 6.34 Use of Volunteer Programs
> a. Support, encourage and recognize volunteer and docent programs to help maintain and operate the County park and recreation system and to educate the public in the understanding and appreciation of its facilities.
> b. Provide interpretation programs which will encourage the support of volunteer assistance. Also provide coordinative senior citizen and handicapped recreation programs.
>
> 6.35 Encouragement of Forest Resilience Studies
> Support the use of County-owned forests or public land for studies of long-term forest resilience, carbon sequestration, or adaptation to changing climate, which would be compatible with park and recreation activities.

Urban Land Use, Section 8.3, Land Use Objectives for Urban Neighborhoods:

> a. Plan Urban Neighborhoods to be primarily, though not exclusively, single~~-~~family residential areas which appear and function as residential neighborhoods of contiguous cities.

b. Provide a mix of residential and commercial land uses to balance generated tax revenues with the costs of providing desired levels of public services and facilities.
c. Encourage the integration of land uses to provide neighborhood-serving uses and facilitate clean transportation options, such as pedestrian and bicycle activity.
dc. Establish land use patterns which make uUrban nNeighborhoods compatible, functional, and identifiable with adjoining cities.

Urban Land Use, sSuggested aAddition:

[Insert a new sSection, titled Definition of Transit-Oriented Land Uses, to start as section 8.7 (preceding the Urban Land Use map reference on page 8.3aP)]

Define tTransit-oOriented lLand uUses as land uses that are integrated with multimodal transportation systems, facilitating creation of Complete Streets by equally supporting all types of transportation, including pedestrian, bicycle, and vehicular traffic.

Urban Land Use, Section 8.14 ~~– 8.16~~, Residential Land Use Compatibility:

a. Protect and enhance the character of existing single-family areas.
b. Protect existing single-family areas from adjacent incompatible land use designations which would degrade the environmental quality and economic stability of the area.
c. Encourage transit-oriented development- in appropriate locations and ~~the~~a mixture of appropriate land uses that would enhance neighborhood quality and support pedestrian and bicycle activity.

Urban Land Use, Section 8.15, Commercial Land Use Compatibility:

Ensure that commercial development is compatible with adjacent land uses and supports a mixture of commercial activity with appropriate service-oriented and transit-oriented land uses.

Urban Land Use, Section 8.16, Commercial Buffers:

Buffer commercial land uses when needed to protect contiguous residential uses, while maintaining connectivity and walkability. ~~.~~

Urban Land Use, Section 8.39, Parking Requirements:

Regulate minimum on-site parking requirements and parking development standards in order to: (1) accommodate the parking needs of the development, (2) provide convenient and safe access, (3) prevent congestion of public streets, ~~and~~ (4) establish orderly development patterns, and (5) discourage an over-reliance on ~~unnecessary~~ auto travel to the exclusion of other travel modes.

Urban Land Use, Section 8.42, Buildings:

Encourage the construction of energy-~~-~~efficient buildings which use renewable resources and resource-efficient design to the maximum extent possible.

Water Supply, Section 10.9, Potential Water Sources:

a. Support the creation of water supplies which are commensurate with the level of development permitted in adopted land use plans.
b. Identify and encourage the protection and development of sites in rural areas suitable for reservoirs to store water supplies.
c. Encourage and support different techniques to convert salt water to potable water.
d. ~~Consider~~ Encourage the use of treated wastewater as a potential source of water.
e. Encourage the development of off-stream reservoirs for the retention of water generated from winter runoff.

Water Supply, Section 10.26, ~~Water Reclamation~~Wastewater Reuse:

10.26 Wastewater Reuse
a. Encourage the reuse and recycling of water whenever feasible.
b. Encourage the use of treated wastewater that meets applicable County and State health agency criteria.
~~e~~c. Support small-scale and on-site water recycling technologies, which meet public health and safety standards, for landscaping and agricultural purposes~~, which meet public health and safety standards~~.

Transportation, Section 12.1, Goals and Objectives:

12.1 Plan for a transportation system that provides for the safe, efficient, and convenient movement of people and goods in and through San Mateo County.
12.2 Create and maintain Complete Streets that serve all categories of transportation users and goods, providing safe, efficient, comfortable, and convenient travel along all streets through an integrated, balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel in a manner that is suitable to the rural, suburban, or urban context of the general plan.
12.3~~2~~ To the extent possible, plan for accommodating future transportation demand in the County by using existing transportation facilities more efficiently, or improving and expanding them before building new facilities.
12.4~~3~~ Provide for a balanced and integrated transportation system in the County which allows for travel by various modes and easy transfer between modes.

12.5~~4~~ Plan for increasing the proportion of trips using public transit or ridesharing.
12.6~~5~~ Balance and attempt to minimize adverse environmental impacts resulting from transportation system improvements in the County.
12.7~~6~~ Promote the development of energy-conserving transportation systems in the County.
12.~~7~~8 Coordinate transportation planning with adjacent jurisdictions.

Transportation, Section 12, suggested additions:

Add definition of Complete Streets as an approach to transportation that describes an integrated, multimodal transportation system ~~that~~which equally supports all types of transportation, including pedestrian, bicycle, and vehicular traffic.

Add definition of Complete Streets ~~P~~projects: Including but not limited to sidewalks, shared-~~-~~use paths, b-icycle lanes, bicycle routes, paved shoulders, street trees and landscaping, planting strips, accessible curb ramps, crosswalks, refuge islands, pedestrian signals, ~~and~~ signs, street furniture, bicycle parking facilities, ~~public transprotationtransportation stops and facilities,~~ transit priority signalization, and other features assisting in the provision of safe travel for all users, such as traffic-~~-~~calming devices~~circles~~, ~~transit~~ bulb-outs, curb extensions, chicanes, and road diets.

Add definition of streets to include streets, roads, bridges, interchanges used to get to and across highways, bridges, and other portions of the transportation system.

Add definition of transportation users as motorists, movers of commercial goods, users of public transportation, bicyclists, pedestrians of all ages and abilities,~~,~~ children, persons with disabilities, and seniors, ~~bicyclists, persons with disabilities, motorists, movers of commercial goods,~~ users and operations, operators of public transportation, ~~seniors, children,~~ youth, and families. ~~(STET)~~

Add definition of streets projects: ~~p~~Planning, design, and implementation process for street construction, reconstruction, retrofit, ~~maintenance, operations,~~ alteration~~-~~, or repair of streets~~, as feasible.~~; and p~~-P~~rojects, programs, and practices~~,~~ including but not limited to pavement resurfacing, restriping, ~~accessing aboveground and underground utilities~~utility projects, signalization operations or modifications, and maintenance of landscaping/related features.

Transportation, Section 12.9, Rural Road Improvements:

In rural areas, where improvements are needed due to safety or congestion, support improved traffic control measures that balance the needs of all users and provide safe travel, implementing measures such as signing, lane markings, and speed controls, and the construction of operational and safety improvements, such as adequate passing lanes, elimination of sharp curves, lane widening, or paved shoulders.

Transportation, Section 12.10, Urban Road Improvements:

In urban areas, where improvements are needed due to safety concerns or congestion, support the construction of interchange and intersection improvements, additional traffic lanes, turning lanes, redesign of parking, channelization, traffic control signals, or other improvements while enhancing the functionality of travel routes for all transportation users.

Transportation, Section 12.13, Circulation East of Highway 101:

Encourage the cities and Caltrans to develop an adequate circulation system, including bikeways~~,~~ and other context-sensitive design features to serve all transportation users and new development east of Highway 101 and which, to the maximum extent feasible, does not adversely affect baylands or wetlands.

Transportation, Section 12.15, Local Circulation Policies:

In unincorporated communities, plan for providing:
a. Maximum freedom of movement for all transportation users and adequate access to various land uses~~;~~.
b. Improved streets, sidewalks, ~~and bikeways~~bicycle routes, landscaping, shared-use paths, ~~-~~and other site-appropriate design features that enhance the safety and usability of transportation networks in developed areas~~;~~.
c. Minimal through~~-~~traffic in residential areas~~;~~.
d. Routes for truck traffic which avoid residential areas and are structurally designed to accommodate trucks~~;~~.
e. Access for emergency vehicles~~;~~.
f. Safe and efficient ~~B~~bicycle and pedestrian travel~~;~~.
g. Access by ~~physically handicapped persons~~all transportation users, including persons with disabilities, seniors, children, and youth, to public buildings, shopping areas, hospitals, offices, and schools~~, including persons with disabilities, seniors, children, and youth~~;.
h. Prioritization of accessibility to transit services and to ~~Routes~~ routes and turnouts for public transit~~;~~.
i. Parking areas for ridesharing~~;~~.
j. Coordination of transportation improvement with adjacent jurisdictions.

Transportation, Section 12.19, Parking Standards:

Review and update the County's off-street and on-street parking standards in order to reflect current conditions and requirements. Consider the needs of each individual land use, the potential for joint use of parking areas, fees in lieu of parking, spaces for smaller cars, and parking management strategies that support project needs while reducing an over-abundance

of surface parking to the detriment of other categories of transportation users or other land uses.

Transportation, Section 12.23, ~~Suggested~~ suggested addition:

[Insert a new s~~S~~ection, titled Complete Streets, to start as S~~s~~ection 12.23 (preceding the Public Transit and Ridesharing Category)]

Complete Streets

12.23 Context-Sensitive Street Design
Coordinate with stakeholders during street planning and design to maintain sensitivity to local conditions and ensure a strong sense of place that meets the needs of transit users, including consideration of a diversity of C~~c~~omplete S~~s~~treets projects.

12.24 Integration with Regional Complete Streets Planning
Coordinate transportation and street~~s~~ projects with local and regional plans for bicycle, pedestrian, transit, and related multimodal plans designed to support Complete Streets.

12.25 Existing Street and Network Connectivity
Incorporate Complete Streets infrastructure into existing streets to improve the safety and convenience of users, ~~create employment,~~ accommodate all transportation users, and increase connectivity across jurisdictional boundaries and for existing and anticipated areas of development.

Transportation, Section 12.45, Role of County:

a. Provide a leadership role in coordinating countywide transportation issues with the cities of San Mateo County.
b. Continue County participation in the regional transportation planning activities of MTC, SamTrans, RPC, and the City County Engineers Association.
c. Strengthen County participation in the regional transportation planning structure by using the policy framework of this chapter and the area plans to provide input for decision-~~-~~making.
d. Provide staff support in transportation planning to assist County decision-~~-~~makers; coordinate with MTC, SamTrans, and CalTrans; maintain a transportation planning data~~-~~base; review and comment on transportation plans and programs affecting the County; and periodically review and update the Transportation Chapter of the General Plan.
e. Support consultation with local and regional bicycle, pedestrian, transit, and other multimodal relevant plans to achieve Complete Streets and support connectivity across jurisdictional boundaries.

fe. Departments and agencies of San Mateo County addressing transportation issues shall work towards making Complete Streets practices a routine aspect of everyday operations and integrate Complete Streets planning into all long-term streets projects, as feasible.
g. County staff will use a standardized process to document the integration of Complete Streets into street projects, which shall also allow for documentation of reasons the project could not accommodate all modes of transportation.

Natural Hazards, Section 15.4, Definition of Natural Hazards:

15.4 Definition of Natural Hazards
Define natural hazards as conditions of potential danger or risk to life and/or property resulting from acts of nature, man-made alterations to the natural environment that create hazardous conditions, and/or hazardous conditions intrinsic to the natural environment. Natural hazards may include risks or vulnerabilities likely to be caused or exacerbated by climate change.

Natural Hazards, Section 15.12, Locating New Development in Areas Which Contain Natural Hazards:

a. As precisely as possible, determine the areas of the County where development should be avoided or where additional precautions should be undertaken during review of development proposals due to the presence of natural hazards.
b. Give preference to land uses that minimize the number of people exposed to hazards in these areas.
c. Determine appropriate densities and development.
d. Require detailed analysis of hazard risk and design of appropriate mitigation when development is proposed in these areas, including assessment of hazardous conditions expected to be exacerbated by climate change, such as increased risks of fire, flooding, and sea level rise.

Natural Hazards, Section 15.15, Critical Facilities:

a. Where practical, avoid the location of new critical facilities in areas which contain significant natural hazards or are likely to contain significant natural hazards due to the impacts of climate change.
b. Continue to work with public utilities, school districts, and other agencies supplying critical public services to ensure that they have incorporated structural safety and other measures to be adequately protected from natural hazards for both existing and proposed facilities and are prepared for potential disasters affecting these facilities.

County of San Mateo - Planning and Building Department

ATTACHMENT C

EXECUTIVE SUMMARY

This chapter provides a brief summary of the County of San Mateo Energy Efficiency Climate Action Plan (EECAP).

EXECUTIVE SUMMARY

The County of San Mateo has a long-standing commitment to implementing resource conservation programs and proactively working to improve energy efficiency and reduce greenhouse gas (GHG) emissions. This Energy Efficiency Climate Action Plan (EECAP; Plan) recognizes the imperative to act and demonstrates the County's continued commitment to reducing GHG emissions. This EECAP is intended to streamline future environmental review of projects in the unincorporated areas of San Mateo County by following the California Environmental Quality Act (CEQA) Guidelines and meeting the Bay Area Air Quality Management District's (BAAQMD) expectations for a Qualified GHG Reduction Strategy. The EECAP includes the following chapters:

- Introduction (Chapter 1)
- Scientific and Regulatory Context (Chapter 2)
- Greenhouse Gas (GHG) Emissions Inventory (Chapter 3)
- GHG Reduction Strategies (Chapter 4)
- Adaptation (Chapter 5)
- Implementation (Chapter 6)

- Glossary and appendices provide additional details and information, which are referenced later in this Executive Summary.

CHAPTER 1: INTRODUCTION

Chapter 1 provides a brief overview of the purpose and scope of this EECAP and how it will build off of the County's long-standing tradition of environmental stewardship and leadership. The County has prepared the EECAP not only to meet the requirements of a Qualified GHG Reduction Strategy but to also outline a clear path to successfully implementing policies, programs, and activities that will achieve the County's GHG reduction targets.

CHAPTER 2: SCIENTIFIC AND REGULATORY CONTEXT

Chapter 2 describes the scientific and regulatory context guiding the preparation and implementation of this EECAP. A brief overview of the science behind climate change and its potential implications, as well as relevant federal, state, regional, and local regulatory framework, explains why and how the County is acting to reduce GHG emissions.

While the State of California has passed landmark legislation related to climate change, such as Assembly Bill (AB) 32, Senate Bill (SB) 375, and SB 97, regulatory agencies are also implementing several other state laws related to climate change, land use and transportation, energy and renewable energy, water conservation, and waste and recycling at both the state and local levels. In addition to statewide efforts, the Plan also builds on local planning efforts that the County actively participated in with the City/County Association of San Mateo County (C/CAG) and other incorporated jurisdictions in the county.

CHAPTER 3: GHG EMISSIONS INVENTORY

In order to develop appropriate GHG emissions reduction strategies, the County must have an understanding of baseline and future GHG emissions. **Chapter 3** provides an inventory of community-wide emissions for baseline year 2005, projects emissions using assumptions about economic and demographic growth as well as state and federal policies, and compares the emissions forecast to the County's goals. This information is summarized in **Table ES-1** and **Figure ES-1**.

Table ES-1. 2005 Community-Wide Baseline Emissions by Sector

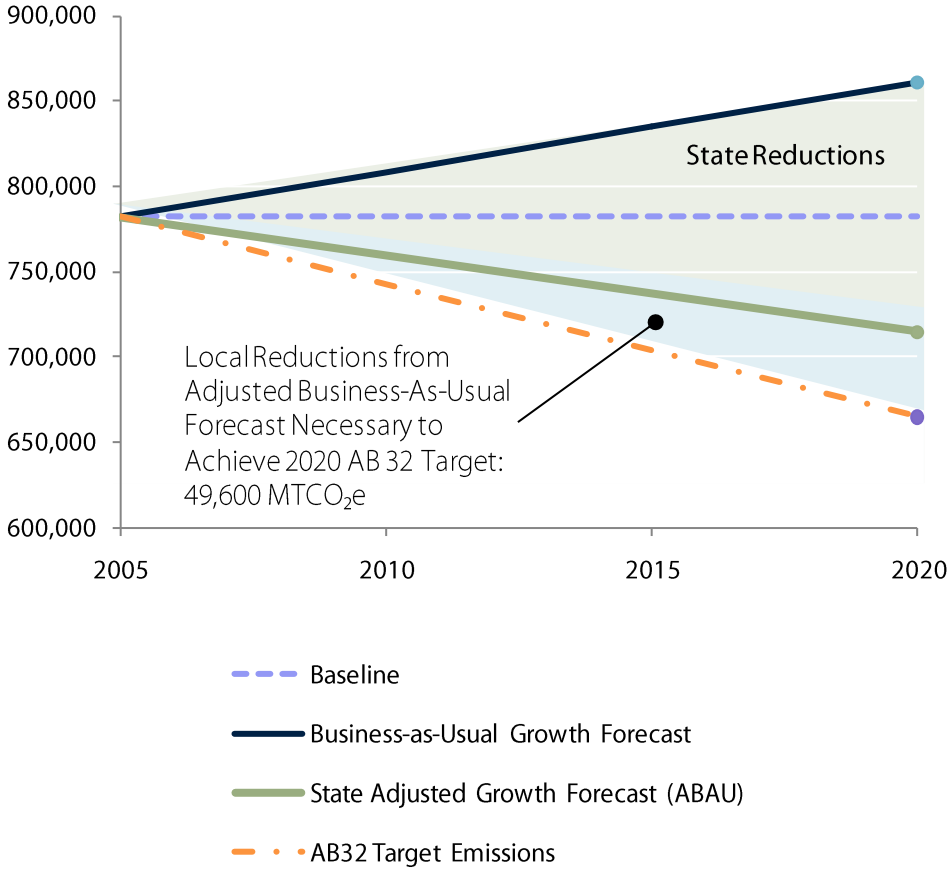
Sector	Metric Tons CO_2e/year	Percentage of Total
Transportation	479,400	61%
Commercial and Industrial Energy	160,900	21%
Residential Energy	93,100	12%
Off-Road	35,800	5%
Solid Waste	8,380	1%
Agriculture	3,000	<1%
Water and Wastewater	1,500	<1%
TOTAL	**782,080**	

** Due to rounding, the total may not be the sum of component parts.*

The community-wide inventory includes GHG emissions from activities such as electricity use, natural gas use, on-road transportation, solid waste disposal, water and wastewater, off-road equipment, agriculture, and stationary sources. The baseline inventory estimates that community-wide activities generated 905,090 metric tons of carbon dioxide equivalents ($MTCO_2e$) in 2005. For the purposes of this EECAP, stationary source and direct landfill emissions are excluded from this inventory, resulting in a community-wide total of 782,080 $MTCO_2e$. Stationary sources and direct landfill emissions are excluded from the EECAP because the County lacks primary regulatory control over many of these facilities because they are permitted and regulated by the Bay Area Air Quality Management District.

Community-wide GHG emissions were forecast for 2020 and 2035 using 2005 energy consumption rates, demographic and economic projections from the Association of Bay Area Governments (ABAG), and estimated growth in off-road equipment and vehicle miles travelled (VMT). This forecast was adjusted to include GHG reductions that will occur as a result of state and federal policy. The difference between these forecasts and the County's goals is the GHG emissions reduction needed to achieve those goals. **Figure ES-1** illustrates the GHG emissions forecast, the adjusted forecast, and the reductions required to achieve the County's goals.

Figure ES-1. San Mateo County Forecast Summary and Reduction Targets ($MTCO_2e$)



CHAPTER 4: GHG REDUCTION STRATEGIES

In order to achieve the state-recommended AB 32 reduction target of 15% below 2005 emissions levels by 2020, the County will need to implement the goals, policies, and actions set forth in this document. The County's strategy is structured around the following ten topic areas:

Figure ES-2. GHG Reduction Topics

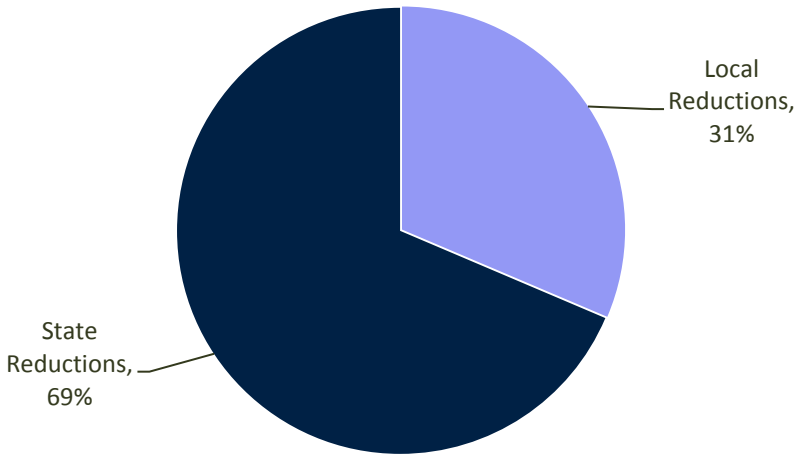
The reduction measures included in this Plan build upon existing efforts and provide a diverse mix of regulatory and incentive-based programs for both new and existing development. The reduction measures also aim to reduce GHG emissions from each source to avoid reliance on any one strategy or sector to achieve the target. In total, GHG reduction measures in the EECAP will reduce GHG emissions in the unincorporated county in 2020 by 67,000 $MTCO_2e$ (see **Table ES-2).** As shown in **Figure ES-4**, local actions from this Plan contribute 31% of total progress toward the County's reduction target. The remaining 69% of reductions result from state programs. Together, these reductions achieve a 17% decrease by 2020, exceeding the AB 32 target for 2020. Beyond 2020, there is a continued need to reduce GHG emissions even further, which is why this plan includes a forecast and GHG reduction strategies to 2035.

Table ES-2. Local GHG Reduction Summary by Topic ($MTCO_2e$)

Goal Topic	2020	2035
Residential Energy Efficiency	5,630	10,590
Commercial Energy Efficiency	15,580	43,490
Green Building Ordinance	6,780	69,270
Renewable Energy	6,480	35,420
Transportation	7,100	6,400
Alternative Fuels	1,780	2,200
Waste Diversion	15,010	22,140
Water Efficiency	170	200
Sustainable Agricultural Practices[1]	-	-
Off-Road Technologies	8,470	16,740
Sequestration[1]	-	-
Totals	67,000	206,450

1. *Not quantified; supportive goal topics.*

Figure ES-3. 2020 Local and State Reductions ($MTCO_2e$)



Achievement of a 17% reduction in GHG emissions by 2020 will exceed state recommendations and BAAQMD threshold requirements for developing a Qualified GHG Reduction Strategy. This level of reduction will exceed the state-recommended reduction target (see **Figure ES-3)**. As shown in **Figure ES-3**, through the

implementation of this Plan, the unincorporated county's GHG emissions will decrease from 7.2 $MTCO_2e$ per person per year in 2005 to 4.1 $MTCO_2e$ per person per year in 2035.

Figure ES-4. Summary of 2020 GHG Reductions & Reduction Target ($MTCO_2e$)

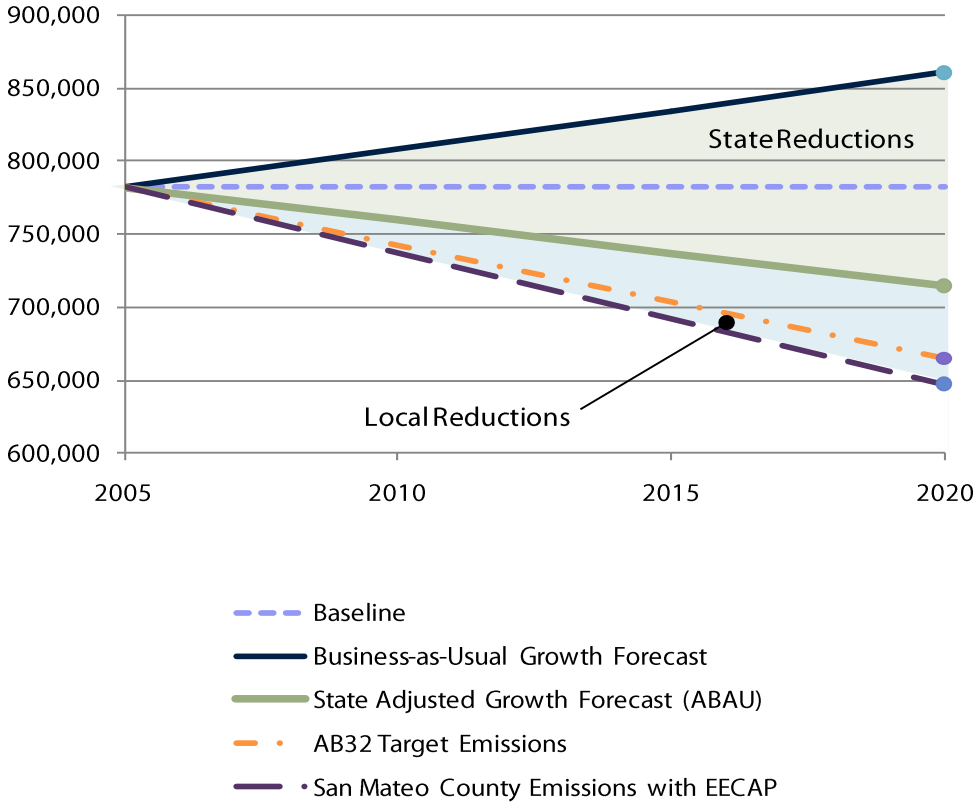
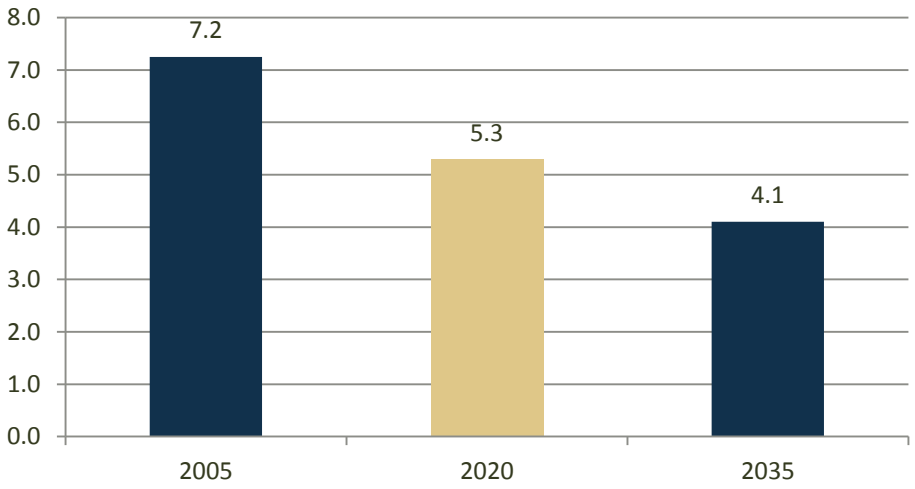


Figure ES-5. GHG Emissions per Service Population ($MTCO_2e$)



CHAPTER 5: ADAPTATION

Even with significant efforts to mitigate GHG emissions today, future climate projections and scenarios anticipate that climate change may have significant effects on California's precipitation, temperature, and weather patterns. San Mateo County is a coastal county with a significant amount of rural land area, with special vulnerabilities to:

- Increased wildfire risk;
- Negative impacts to wildlife and its habitat;
- Deteriorating public health;
- Decreased supply of fresh water; and
- Increased sea level rise.

As described in **Chapter 5,** the County completed a vulnerability assessment to further investigate risks and opportunities for adaptation to climate change. Through the involvement of a working group, the County vetted and identified a framework for adaptation. The adaptation chapter also summarizes current efforts at the state and regional levels to address climate change adaptation such as the Cal-Adapt tool.

CHAPTER 6: IMPLEMENTATION

To ensure successful achievement of the County's reduction target, the EECAP identifies implementation strategies and supporting actions in the implementation chapter. This chapter also includes an implementation matrix with details specific to each measure, including the responsible department, implementation time frame, and co-benefits. The implementation matrix will be a critical tool to monitor the County's progress toward implementing the CAP.

GLOSSARY, APPENDICES, AND SUPPLEMENTAL MATERIALS

To streamline the main document, several technical appendices provide additional detail and information regarding GHG reductions, plan development, and sources. This Plan includes the following six appendices:

- Glossary of key terms used throughout the document (**Appendix A – Glossary**);
- Technical memo on GHG emissions inventory results and methodologies (**Appendix B – Baseline GHG Inventory**);
- Summary of sources and assumptions used to estimate GHG reductions for each reduction measure (**Appendix C – GHG Methods and Assumptions**);

- Detailed discussion of how the Energy Efficiency Climate Action Plan will satisfy BAAQMD requirements for a Qualified GHG Reduction Strategy (**Appendix D – BAAQMD Compliance**);
- An adaptation matrix summarizing key adaptation topics, vulnerabilities, regulatory agencies, and opportunities for mitigation (**Appendix E – Adaptation Matrix**);
- A checklist to be completed by project development applicants to demonstrate compliance with the EECAP (**Appendix F – New Development Checklist**); and
- Works utilized in this document (**Appendix G – Works Cited**).

County of San Mateo - Planning and Building Department

ATTACHMENT D

This section provides an overview of the proposed San Mateo Energy Efficiency Climate Action Plan (EECAP) project and the environmental analysis.

The San Mateo County is the lead agency for the proposed project. In accordance with Section 15082 of the California Environmental Quality Act (CEQA) Guidelines, the County prepared and distributed a Notice of Preparation (NOP) of an EIR on May 10, 2012 (SCH# 2012052039). This notice was circulated to the public, local, state, and federal agencies, and other interested parties to solicit comments on the proposed project. The NOP is presented in Draft EIR **Appendix A**. The County filed a Notice of Completion with the State Clearinghouse for the Draft EIR on February 21, 2013, concurrently initiating a 45-day public review period for the Draft EIR document and associated technical appendices. The public review period on the Draft EIR ends on April 8, 2013, after which the County will respond in writing to all comments received and incorporated into a Final Environmental Impact Report (FEIR) for consideration by the San Mateo County Board of Supervisors.

ES1 PURPOSE AND SCOPE OF THE ENVIRONMENTAL IMPACT REPORT

This Draft EIR provides an analysis of the potential environmental effects associated with the approval of the proposed project, pursuant to CEQA (California Public Resources Code Section 21000, et seq.) and the State CEQA Guidelines (14 California Code of Regulations, Section 15000, et seq.). The Draft EIR analysis focuses on potential impacts that could result from implementation of the EECAP.

ES2 PROJECT CHARACTERISTICS

The project consists of the adoption of the EECAP and proposed adoption of recommendations of amendments to the General Plan, Subdivision, Building, and Zoning Regulations. The County of San Mateo has a long-standing commitment to implementing environmental programs and proactively working to reduce GHG emissions. The EECAP builds on this early leadership and demonstrates the County's continued commitment to reducing GHG emissions. The EECAP is intended to streamline future environmental review of projects within the unincorporated county by following CEQA Guidelines and meeting the BAAQMD's expectations for a Qualified GHG Reduction Strategy.

The EECAP will act as an implementation tool to identify programs, policies, and actions to reduce GHG emissions. The reduction measures described in the EECAP are consistent with the goals, policies, and programs contained in the General Plan.

There are a number of regulatory documents intended to address the environmental effects of climate change through reductions in GHG emissions that have guided the creation of the EECAP. The EECAP was prepared to be consistent with all of the GHG regulatory provisions. For a complete description of the project, see Section 2.0, Project Description, of this Draft EIR.

ES3 PROJECT ALTERNATIVES SUMMARY

The CEQA Guidelines Section 15126.6 requires that an environmental impact report describe a range of reasonable alternatives to the project that could feasibly attain the basic objectives of the project and reduce the degree of environmental impact. Section 4.0, Alternatives to the Project, provides a qualitative analysis of alternatives as compared to the proposed project. Alternatives identified for the proposed project include the following:

Alternative 1 – No Project Alternative.

Under this alternative, the proposed EECAP would not be adopted and the General Plan would remain as it is currently adopted. This alternative is consistent with CEQA Guidelines Section 15126.6(e)(3)(A).

Alternative 2 – Wind Energy-Generating Facility Restriction Alternative. Alternative 2 would implement the reduction measures that are proposed in the EECAP, but in order to address the biological resources impacts associated with the proposed project, Alternative 2 would eliminate measures from the EECAP that would encourage the development of wind energy facilities. The analysis considers the potential effects if additional, low-GHG-generating energy facilities are developed to address the reduction in wind facilities. However, because the types of sites used for wind facilities may not be well suited for other types of facilities, such as solar, this alternative assumes that the amount of low-GHG-generating energy facilities would be reduced compared with the proposed project.

ES4 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

The County received no comments on the NOP and no comments identifying issues of controversy have been submitted to the County.

ES5 SUMMARY OF ENVIRONMENTAL IMPACTS

Table ES-1 displays a summary of project impacts and proposed mitigation measures that would avoid or minimize potential impacts. In the table, the level of significance is indicated both before and after the implementation of each mitigation measure. For detailed discussions of project impacts and mitigation measures, the reader is referred to the technical environmental analysis in Section 3 in this Draft EIR. CEQA Guidelines Section 15126.2(b) requires an EIR to discuss unavoidable significant environmental effects, including those that can be mitigated but not reduced to a level of insignificance.

The impact analysis provided in Sections 3.1 though 3.5 has identified that the proposed EECAP would result in the following significant and unavoidable impacts:

Impact 3.3.1 Natural Habitat Areas/Sensitive Species/Wildlife Corridors

TABLE 2.0-1
PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

Impact		Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
3.1 Aesthetics and Visual Resources				
Impact 3.1.1	Implementation of the proposed EECAP would not have a substantial effect on scenic views or a scenic vista, or substantially degrade the existing visual character of the county.	LS	None required.	LS
Impact 3.1.2	Implementation of the proposed EECAP could result in an increase of daytime glare and/or nighttime lighting. This increase in daytime glare sources and nighttime lighting levels could have an adverse affect on adjacent areas and land uses.	PS	None required.	LS
3.2 Air Quality				
Impact 3.2.1	Implementation of the proposed EECAP and General Plan Amendment could have a negative effect on air quality as a result of construction-generated air pollutants.	PS	The following standard mitigation shall be applied to all EECAP-related projects, as applicable: **MM 3.2.1** The County shall require that projects implementing EECAP reduction measures are analyzed as part of project review in accordance with BAAQMD-recommended methodologies and significance thresholds and shall require that all recommended mitigation measures are incorporated to reduce short-term construction emissions attributable to individual EECAP GHG reduction measures. Such mitigation measures may include, but are not limited to, the following:	LS

LS – Less than Significant LS + M – Less than Significant with Mitigation PS – Potentially Significant S – Significant SU – Significant and Unavoidable
LCC – Less than Cumulatively Considerable LCC + M – Less than Cumulatively Considerable with Mitigation CC – Cumulatively Considerable

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		• Water all active construction areas at least twice daily as required. • Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard. • Sweep daily, as required, all paved access roads, parking areas, and staging areas at construction sites. • Sweep streets daily as required if visible soil material is carried onto adjacent public streets. • Reduce unnecessary idling of truck equipment within proximity to sensitive receptors (i.e., idle time to five minutes or less). • Where possible, use newer, cleaner-burning diesel-powered construction equipment • Properly maintain construction equipment per manufacturer specifications. • Designate a disturbance coordinator responsible for ensuring that mitigation measures to reduce air quality impacts from construction are properly implemented. *Timing/Implementation:* *During construction* *Enforcement/Monitoring:* *County of San Mateo Planning and Building Department*	

LS – Less than Significant LS + M – Less than Significant with Mitigation PS – Potentially Significant S – Significant SU – Significant and Unavoidable
LCC – Less than Cumulatively Considerable LCC + M – Less than Cumulatively Considerable with Mitigation CC – Cumulatively Considerable

Impact		Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
Impact 3.2.2	Implementation of the proposed EECAP and General Plan Amendment would not have a negative effect on air quality as a result of air pollutants emissions generated during project operations.	N	None required.		N
Impact 3.2.3	Implementation of the proposed EECAP and General Plan Amendment would result in a decrease of vehicle miles traveled and, therefore, would not exceed assumptions used to create the BAAQMD Ozone Attainment Plan and Clean Air Plan.	N	None required.		N
Impact 3.2.4	Subsequent land use activities associated with implementation of the proposed EECAP and General Plan Amendment could result in projects that would include sources of toxic air contaminants which could affect surrounding land use.	PS	Implementation of Mitigation Measure MM 3.2.1 would ensure that each project implementing EECAP measures that goes through County plan review process would be subject to applicable BAAQMD regulations and requirements, and would make the project's impacts related to toxic air contaminants **less than significant**.		LS
3.3 Biological Resources					
Impact 3.3.1	Implementation of the proposed EECAP could have substantial impacts on some sensitive and special-status species and their associated habitat and migratory corridors.	S	**MM 3.3.1**	The following design measures shall be incorporated into all energy facilities constructed as part of EECAP implementation: • Transmission lines and all electrical components shall be designed, installed, and maintained to reduce the likelihood of large bird electrocutions and collisions. • The design of wind energy facilities shall discourage the use of the site by avian species (provision of landscaping and ground conditions that are unattractive to avian species).	SU

Impact		Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
			• Design and siting of wind turbines to avoid placement of turbines on or immediately adjacent to the upwind side of ridge crests, and other design features to minimize impacts to bat and avian species. • Provision of an avian and bat management plan that includes mortality monitoring and additional measures to address unanticipated significant adverse impacts on the population of avian or bat species or with any migratory corridor. *Timing/Implementation:* *As a condition of project approval, and implemented during construction activities.* *Enforcement/Monitoring:* *San Mateo County Planning and Building Department*	
Impact 3.3.2	Implementation of the proposed EECAP could result in substantial impacts on wetland and riparian habitat in some areas of the county.	LS	None required.	LS
Impact 3.3.3	Implementation of the proposed EECAP would not have substantial impacts related to potential inconsistencies with local or regional policies, ordinances, or habitat conservation plans.	LS	None required.	LS

LS – Less than Significant LS + M – Less than Significant with Mitigation PS – Potentially Significant S – Significant SU – Significant and Unavoidable
LCC – Less than Cumulatively Considerable LCC + M – Less than Cumulatively Considerable with Mitigation CC – Cumulatively Considerable

Impact		Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
3.4 Historical, Archaeological, and Paleontological Resources					
Impact 3.4.1	Implementation of the proposed EECAP could result in the potential disturbance of historical resources.	LS	None required.		LS
Impact 3.4.2	Implementation of the proposed EECAP could result in the potential disturbance of known or undiscovered archeological resources (i.e., prehistoric sites and isolated artifacts and features) and human remains.	LS	None required.		LS
Impact 3.4.3	Adoption of the proposed EECAP could result in the potential disturbance of paleontological resources (i.e., fossils and fossil formations) within the county.	PS	**MM 3.4.3**	If paleontological resources are encountered during future grading or excavation activities associated with EECAP related activities, work shall avoid altering the resource and its stratigraphic context until a qualified paleontologist has evaluated, recorded, and determined appropriate treatment of the resource, in consultation with the County. Project personnel shall not collect cultural resources. Appropriate treatment may include collection and processing of "standard" samples by a qualified paleontologist to recover micro vertebrate fossils; preparation of significant fossils to a reasonable point of identification; and depositing significant fossils in a museum repository for permanent curation and storage, together with an itemized inventory of the specimens. *Timing/Implementation:* *As a condition of project approval, and implemented*	LS

Impact		Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
			during construction activities. *Enforcement/Monitoring: San Mateo County Planning and Building Department*	
3.5 Greenhouse Gases and Climate Change Adaptation				
Impact 3.5.1	The proposed EECAP and General Plan Amendment would not conflict with the goals of AB 32 or the AB 32 Scoping Plan.	LCC	None required.	LCC
Impact 3.5.2	The effects of climate change could result in the exposure of unincorporated San Mateo County to associated environmental effects. While the exact extent of the environmental effects of climate change on unincorporated San Mateo County is not known at this time, state provisions, in addition to proposed EECAP measures, address these effects. Thus the proposed project would not result in a new significant impact relating to the effect of climate change on unincorporated San Mateo County.	N		

LS – Less than Significant LS + M – Less than Significant with Mitigation PS – Potentially Significant S – Significant SU – Significant and Unavoidable
LCC – Less than Cumulatively Considerable LCC + M – Less than Cumulatively Considerable with Mitigation CC – Cumulatively Considerable