



# 1 – INTRODUCTION



## PURPOSE AND SCOPE

The County of San Luis Obispo (County) acknowledges that global climate change will have significant adverse impacts locally and throughout California unless significant steps are taken to reduce greenhouse gas (GHG) emissions. This EnergyWise Plan (Plan) demonstrates the County’s continued commitment to addressing the challenges of climate change by reducing local GHG emissions, with an emphasis on improving the energy efficiency of buildings and transportation, and preparing the county to adapt to a changing climate.

This EnergyWise Plan is also referred to as a climate action plan or greenhouse gas reduction plan. The name of this Plan highlights the County’s focus on energy as a key sector to addressing local greenhouse gas emissions.

This Plan identifies how the County will achieve the GHG emissions reduction target of 15% below baseline levels by the year 2020 in addition to other energy efficiency, water conservation, and air quality goals identified in the Conservation and Open Space Element (COSE) of the County’s General Plan. In addition to reducing GHG emissions, these goals will provide additional benefits to the community such as lower energy bills, improved air quality, expanded economic growth, and enhanced quality of life.

Specifically, this Plan:

- Provides the scientific and regulatory framework for addressing climate change and greenhouse gases (GHGs) at the local level (refer to Chapter 2).
- Identifies sources of GHG emissions within the unincorporated county and estimates how these emissions may change over time (refer to Chapter 3).
- Forecasts emissions to reflect the County’s desired population projections without regulatory or technical intervention to reduce GHG emissions (refer to Chapter 4).



The name of the Plan – *EnergyWise - Designing Energy and Climate Solutions for the Future* highlights the County’s focus on energy as a key sector to addressing local greenhouse gas emissions.

### Benefits of the EnergyWise Plan:

- Lower utility bills
- Improved air quality
- Expanded economic growth
- Enhanced quality of life



### Assembly Bill 32 - AB 32

The California Global Warming Solutions Act of 2006 represents California's effort to reduce GHG emissions and combat global climate change.

For more information on regional transportation issues visit SLOCOG's website:

[www.slocog.org](http://www.slocog.org)

- Provides an emissions reduction target consistent with Assembly Bill (AB) 32 and the County's General Plan (refer to Chapter 4).
- Provides energy use, transportation, land use, water use, and solid waste strategies to reduce community-wide GHG emissions.
- Quantifies the potential emissions reductions that will be achieved by implementing and identifies relative costs and savings of each strategy (refer to Chapter 5).
- Identifies existing and proposed strategies to reduce GHG emissions from County operations and facilities, quantifies the potential emissions reductions and identifies relative costs and savings of each strategy (refer to Chapter 6).
- Provides methods for reducing County's GHG emissions consistent with the State's goals and Public Resources Code Section 21083.3. [The California Environmental Quality Act (CEQA) Guidelines encourage the adoption of policies or programs as a means of comprehensively addressing the cumulative impacts of projects.
- Proposes an adaptation approach to increase the county's resiliency to climate change (Chapter 7).
- Presents an implementation program (Program) to assist with monitoring and prioritization of the reduction strategies through 2020 (refer to Chapter 8).

This Plan will also assist the County's participation in the regional effort led by the San Luis Obispo Council of Governments to implement land use and transportation measures to reduce regional GHG emissions from the transportation sector by 2035 (per Senate Bill 375).

## LOCAL SETTING

San Luis Obispo County covers an area of approximately 3,300 square miles (2.1 million acres) from the coast to the central valley of California. The county includes seven incorporated cities: Arroyo Grande, Atascadero, Grover Beach, Morro Bay, Paso Robles, Pismo Beach, and San Luis Obispo, and 15 unincorporated communities: Avila Beach, California Valley, Cambria, Cayucos, Cholame, Creston, Lake Nacimiento, Los Osos, Nipomo, Oceano, San Miguel, San Simeon, Santa Margarita, Shandon, and Templeton.

The county is divided into three geographic or climate regions: coastal plateau, Upper Salinas River Valley, and east county plain. The coastal plateau is immediately inland from the Pacific Ocean and is typically 5 to 10 miles wide. It ranges in elevation from sea level to about 500 feet above sea level and is bounded by the Santa Lucia Range to the northeast.

The Santa Lucia Range rises to roughly 3,000 feet elevation and runs parallel to the coast almost the entire length of the county. The Upper Salinas River Valley lies inland from the Santa Lucia Range in the northern portion of the county. The east county plain lies further inland along the eastern flank of the county and includes about one-third of the county.

### Demographics

Nearly 40% of the entire county's population lives within unincorporated communities or on rural lands in the county. In 2010, the unincorporated county had an estimated 108,000 residents.<sup>1</sup> Forecasts estimate that the unincorporated county's population will grow by an additional 30,000 people between 2010 and 2035.

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<sup>1</sup> San Luis Obispo Council of Governments. 2010. Long-Range Socio-Economic Projections





The unincorporated county's population primarily resides in smaller urban communities or rural areas. These communities are typically able to meet the daily services and needs of the community but residents may need to travel to nearby communities or cities for other services. Historic land use and travel patterns in the unincorporated county are typically reliant on private vehicle use, as limited transit and alternative transportation can make it difficult to travel between communities efficiently.

### **Plan Area**

This Plan is applicable to all unincorporated areas of San Luis Obispo County, including the community service districts (CSD) within the county. **Figure 1-1** identifies the geographical boundaries used to determine which sources of GHG emissions were included within the County's inventory and which sources are attributed to the incorporated cities within the county.

In cases where the County lacks direct regulatory authority to require GHG emissions reductions, staff will collaborate with local CSDs and state or federal agencies to ensure that the emissions reduction measures in this Plan can be implemented by these agencies.

### **Local Climate**

Nearly 75% of the county's population and businesses are located within the coastal plateau, while roughly 25% of the population lives in the Upper Salinas River Valley and less than 1% of the population lives in the east county plains. The coastal plateau exhibits a more moderate Mediterranean climate with summer fog and mild temperatures due its proximity to the Pacific Ocean. Further inland, the climate becomes more continental, with colder winters and markedly warmer summers.

The [California Energy Commission](#) has classified California into distinct climate zones to recognize the variability in energy use based on local weather patterns. The Energy Commission uses these climate zones to determine energy budgets and prescriptive packages for new and renovated buildings for each climate zone to ensure that they meet the State's Title 24 energy efficiency standards.

San Luis Obispo County is split into two different climate zones. The areas of the county north and east of the Santa Lucia Range fall into climate zone 4, while the coastal areas are classified climate zone 5 (**Figure 1-2**).

## PREPARATION OF THE PLAN

In 2009, the County was awarded an Energy Efficiency and Conservation Block Grant (EECBG) from the United States Department of Energy (DOE). The County developed an Energy Efficiency and Conservation Strategy (EECS) to determine how the EECBG funds would be used to reduce energy use. As part of the EECS, the County dedicated a portion of its EECBG funds to prepare this Plan as a key implementation program of the County's Conservation and Open Space Element of the General Plan. Other programs currently funded through the grant include HVAC upgrades and lighting retrofits to multiple County facilities, replacement of streetlights with light-emitting diode (LED) lighting fixtures, installation of bicycle infrastructure, and the development of a Green Building Ordinance.

Adopted by the Board of Supervisors in May 2010, the County's COSE directs staff to prepare and implement a plan to reduce greenhouse gas emissions in the county. The EnergyWise Plan, also commonly referred to as a climate action plan or greenhouse gas reduction plan, will be adopted as a separate and "stand alone" planning document that is consistent with and directly applicable to the goals, policies, strategies, and actions of the General Plan.

The planning process for this Plan relied on a comprehensive public participation strategy to engage residents, business owners, and



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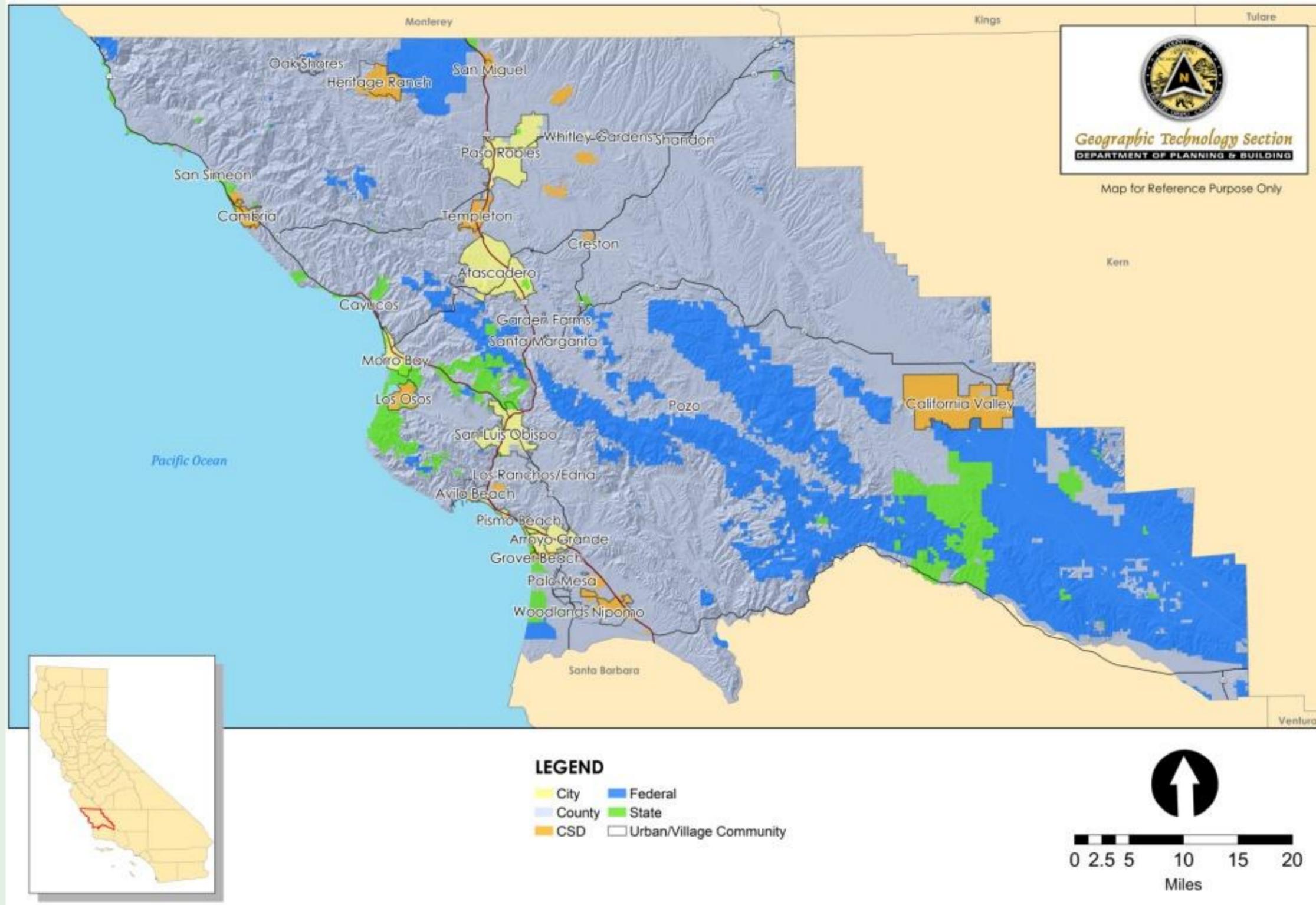


other stakeholders in the identification and refinement of goals, programs, activities, and projects to reduce emissions. The public participation process included two County-sponsored community workshops, County participation in community-sponsored workshops, stakeholder focus group meetings, an online survey, development of a project website, interagency coordination, and numerous speaking engagements, presentations, and conversations with the staff planning team.

The project website provides access to all workshop and meeting notices and materials, links to resources, an online survey, and a forum to submit comments and questions to staff. In addition, the County Department of Planning and Building's profile on [Facebook](#) and [Twitter](#) provided status updates on the Plan and alerts for workshops.

The County presented the Draft Plan for public review in April 2011. With the receipt of public comments, the County has revised the Plan presented it at public hearings to the Planning Commission and Board of Supervisors. This Plan is accompanied by an environmental review document consistent with the California Environmental Quality Act and was adopted via Resolution 2011-381 by the San Luis Obispo County Board of Supervisors on November 22, 2011.

Figure 1-1. EnergyWise Plan Jurisdictional Figure





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Figure 1-2. EnergyWise Plan Climate Zone





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## USING THIS PLAN

This Plan serves as the County’s greenhouse gas reduction strategy, commonly referred to as a climate action plan. The COSE framework and stakeholder input emphasized the focus of this Plan on energy with a preference to reduce energy use, improve energy efficiency and diversify local renewable sources of energy as a means to reduce greenhouse gas emissions.

This Plan provides a greenhouse gas (GHG) emissions inventory, GHG forecast, GHG reduction target, and a set of strategies to respond to local contributions to and effects of climate change. The primary objective of this Plan is to provide the County’s strategy to address climate change locally.

### GHG Reduction Measures

The GHG reduction strategy is represented by GHG reduction measures and actions to reduce GHG emissions from community-wide sources (Chapter 5) as well as county operations (Chapter 6).

Reduction measures are organized by key issue or goal area. Each reduction measure is presented with a set of actions, a summary or description of the measure, an implementation table, reference to an applicable COSE goal, policy, or strategy, and a summary of reductions and co-benefits.

The implementation tables specific to each measure identify the County agency responsible for the implementation of the measure, the time frame for implementation, ranges of the costs and savings that will be associated with the measure, and the indicators that will be used to measure progress.

- **Implementation Timeframe:** The implementation time frame is an important consideration in quantifying the GHG reduction impact that each measure will have, as many measures will have a cumulative impact on GHG emissions and delayed implementation will reduce the effectiveness of each measure in helping to achieve the GHG reduction targets. The time frame indicated for each measure will



The Conservation and Opens Space Element of the General Plan was updated in 2010.

County departments responsible for implementing this Plan include:  
 Planning and Building,  
 General Services, and  
 Public Works



assist with budgetary and decision-making processes and ensure that measures are implemented in a logical order and timely manner.

- **Responsible Department(s):** Responsible departments are identified for each measure. In some cases, involvement from multiple departments may be required to effectively implement the measure.
- **County Costs:** County costs are an estimate of anticipated costs to the County for implementation of the measure by 2020. County costs may include staff time to develop programs and ordinances, any incentives that will be provided, or increased costs associated with purchasing and construction compared to current practices. These ranges are presented in current (2010) dollars.
- **Community Costs/Savings:** The effective implementation of each program may require community investment in addition to the County costs for each program. However, additional savings from reduced energy, fuel, or water use will offset these added costs.
- **County Savings:** Savings to the County are also evaluated for County operations measures. Due to the difference in scale between community and County savings potentials, the savings to be achieved by the County will use the scale presented in Chapter 8.
- **Relevant General Plan Policies:** Many of the community-wide and County operations reduction measures are based on adopted policies in the County's General Plan. The policies are primarily from the COSE, though some related to the built environment stem from other General Plan policies, goals, and objectives.
- **Progress Indicators:** An indicator is a quantitative measurement of the progress or success of each reduction measure. The progress indicators used in the

implementation plan to demonstrate how many homes or businesses will need to participate in a particular program or the amount of waste that will need to be diverted from the landfill to reach the GHG reduction of each measure. The progress indicators used in this Program rely on data that is already tracked by the County through annual reporting or would be readily available through partner agencies or data requests to utility providers.

All implementation details are compiled in a summary implementation table in Chapter 8.

**Quantifying GHG reductions and benefits**

The quantified reductions and benefits resulting from implementation of this Plan distinguish this Plan from other County planning documents. When sufficient information is available, emissions reduction measures have been quantified to indicate the contribution that a measure will have to overall GHG reductions. This number is presented in MTCO<sub>2</sub>e reduced per year. In some cases, the GHG reduction benefit is not quantifiable on its own, but is included in another strategy. Other measures may not have a direct GHG reduction benefit, but are critical to the success of other reduction strategies.

In addition to reducing GHG emissions, many measures will provide numerous co-benefits to the community while furthering the sustainability goals of the County. These co-benefits are depicted in this document through the following graphic symbols.



**What is a Metric Ton?**

The international reporting standard for carbon dioxide (CO<sub>2</sub>) emissions is in metric tons. There are 2,204 lbs per metric ton.

Reducing 1 million metric tons (MMT) CO<sub>2</sub> is equivalent to:

- Not driving 216,000 passenger cars for one year
- Saving 114 million gallons of gasoline
- Saving 2.3 million barrels of oil
- One year of electricity use by 128,000 average U.S. households or 193,000 average California households



**Figure 1-3.** Potential Co-Benefits of GHG Reduction Measures

