



# LIVERMORE CLIMATE ACTION PLAN

## ABOUT THE LIVERMORE CLIMATE ACTION PLAN

During 2010 the City of Livermore (City) began developing the Livermore Climate Action Plan (CAP) to outline ways to reduce the amount of greenhouse gases (GHGs) produced within the city to a level 15 percent below 2008 conditions by 2020. The CAP will include specific incentives, actions, and requirements to reduce GHGs produced by residents, city operations, and public agencies. Reducing GHGs will not only benefit the Livermore community by making it a more healthful place to live, work and play, but will also support the statewide goal of GHG reductions under Assembly Bill 32, the Global Warming Solutions Act of 2006. Prominent GHGs found in the atmosphere include carbon dioxide (CO<sub>2</sub>), methane and nitrous oxide. These gases are emitted from fossil fuel combustion, deforestation, and various other human activities.

The City has been working to reduce GHGs for several years. In 2009, the City adopted a Climate Change Element of the Livermore General Plan, one of the first of its kind in California. As part of the Climate Change Element, the City prepared an inventory to identify its GHG emissions. This inventory serves as a baseline for projecting future emissions and evaluating and developing emission-reduction measures, such as those included in the CAP.

Figure 1 compares 2005 CO<sub>2</sub> emissions to projected 2020 Business as Usual (BAU) emissions by sector in the city; Business as Usual refers to a future scenario in which no action is taken to reduce current trends of increasing emissions.

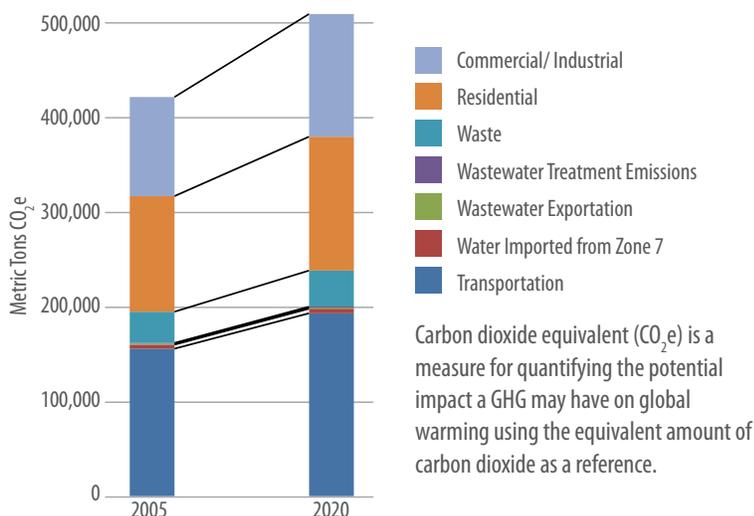


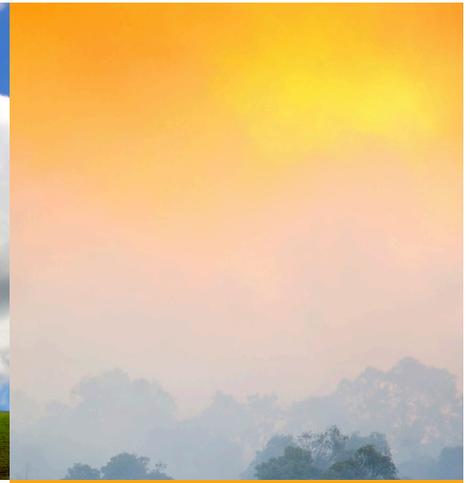
Figure 1 - Comparison of 2005 and 2020 Business As Usual Emissions



## HOW CAN YOU REDUCE YOUR "CARBON FOOTPRINT"?

Your carbon footprint is the measure of the GHGs produced by your own actions. If we each reduce our individual carbon footprint, we could make a big difference in Livermore and across California! Ways to reduce your footprint include:

- Use mass transit when possible and/or carpool and/or drive a vehicle with high gas mileage ratings;
- Walk or bike when you can for local trips;
- Look for the Energy Star logo when buying an appliance;
- Unplug electric appliances when not in use (think: hair dryer, electric toothbrush charger, oscillating fans, and lamps);
- Switch to compact fluorescent lights (CFL);
- In the summer: Turn your thermostat up 5 degrees when you are home and up 10 degrees when you are not home;
- In the winter: Turn your thermostat down 5 degrees when you are home and down 10 degrees when you are not home;
- Add insulation or energy-efficient windows to your home;
- Use renewable energy; call your utility provider to see whether they offer it in your area;
- Recycle or reuse materials whenever possible (this reduces landfill emissions); and
- Conserve water (reduces energy use in pumping).



The City realizes that no one party can reach the emissions reduction goal alone and that this effort must be a collaborative one. That's why the community as a whole is encouraged to get involved, spearhead conservation efforts, connect with colleagues to make a difference at work, and mobilize to help achieve the goals of the CAP and create a healthier community.

## ABOUT GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

The earth's climate has been evolving for many millions of years and has experienced both warm trends and ice-age cycles. Most recently, the climate has been stable and relatively warm; however, during the past 50 years there has been a rapid warming trend, one that most climate scientists, based on extensive investigation in a number of different fields, believe is not attributable to nature alone.

This warming trend is thought to be caused by excessive GHGs. Increased GHGs in turn cause the earth's average surface temperature to rise, a condition known as *global warming*. Global warming is thought to be the root of notable changes in the climate, including reduced snow packs, changes in rainfall cycles, and sea level change. These effects are known as *climate change*.

These changes are occurring at a time when California's population is expected to increase from 34 million to 59 million by the year 2040, meaning the number of people contributing to and being affected by climate change will continue to increase unless something is done to reduce emissions. In response to global warming, the State passed Assembly Bill 32, which is designed to reduce statewide GHG emissions to 1990 levels by 2020. Many cities throughout the state have or are currently developing CAPs to reduce their own community's emissions.

## POTENTIAL REGIONAL EFFECTS OF CLIMATE CHANGE

In recent years there has been heightened attention to the global increase in GHG emissions. This is because a changing climate can profoundly impact the planet and the California. Some of the long-term predicted effects of climate change in California are:

- Rising sea levels along the California coastline that may increase the risk of inundation;
- Extreme and long lasting heat waves, which could last longer and become more frequent;
- Heightened risk of respiratory problems caused by deteriorating air quality;
- Reduced snow pack and streamflow in the Sierra Nevada, which would affect winter recreation and water supplies;
- Changes in distribution of plant and wildlife species because of changes in temperature;
- Increased severity of winter storms, affecting peak streamflows, that may increase the risk of flooding; and
- Changes in growing season conditions that could affect California agriculture, causing variations in crop quality and yield.

