

Agenda Date: June 18, 2009  
Agenda Placement: Regular  
Estimated Time: 30 minutes  
Continued Item: No

## **Board Agenda Item**

TO: Air Pollution Control District Board

FROM: Terry Dressler, Air Pollution Control Officer

CONTACT: Ron Tan, Planning and Technology Supervisor (961-8812)

SUBJECT: Inclusion of a Climate Protection Chapter in the 2010 Clean Air Plan

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### **RECOMMENDATION:**

1. Receive a briefing on greenhouse gases and climate change.
2. Direct the Control Officer to include a Climate Protection Chapter in the 2010 Clean Air Plan.

### **DISCUSSION:**

The California Clean Air Act requires the APCD to report our progress in meeting state mandates and revise our 1991 Air Quality Attainment Plan to reflect changing conditions on a triennial basis. The 2010 Clean Air Plan (2010 Plan) will represent the next triennial progress report and must be submitted to the California Air Resources Board (CARB) by the end of 2010. We will begin preparing the 2010 Plan in mid 2009. As was the case for previous clean air plans, the Community Advisory Council will be provided the opportunity to review and comment on the 2010 Plan as it is being prepared and to ultimately recommend to the APCD Board of Directors whether the Board should adopt the 2010 Plan.

Staff proposes to include a Climate Protection Chapter in the 2010 Plan; this represents the first time we would integrate greenhouse gas emissions and climate change issues in a clean air plan. The chapter would be informational and not regulatory in nature, present an overview of global climate change issues and at a minimum provide a baseline 2007 carbon dioxide (CO<sub>2</sub>) inventory for the county. This inventory will provide a starting point to track the county's progress in reducing gases that cause global climate change. Inventories for future years which reflect "business as usual" practices and those which reflect state mandated controls might also be included.

## BACKGROUND:

### Greenhouse Gases and Climate Change

There is a growing recognition that greenhouse gas (GHG) emissions are having a significant adverse impact on the world's climate and on our environment. Greenhouse gases (i.e., carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) trap heat in the Earth's atmosphere in a "greenhouse" effect.

The world's temperature has increased up to 1°F (0.5°C) over the past century and some of the colder, more remote spots have warmed up much more. This phenomenon is referred to as global warming, or global climate change. The World Meteorological Organization's Intergovernmental Panel on Climate Change has concluded that "warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice and rising global average sea level." The IPCC also finds that "most of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic GHG concentrations."

A 2006 report, *Our Changing Climate - Assessing the Risks to California*, projects effects of climate change in the state under three different emissions scenarios - a lower increase in greenhouse gas emissions, a medium to high increase, and a higher increase. The report, issued by the California Climate Change Center (under the California Energy Commission's Public Interest Energy Research Program) projected a warming of between 1 and 2.3° F in the state in the next few decades, and a warming ranging from 3 to 10.5° F by the end of the century, depending on the increase in greenhouse gas emissions.

The report projected additional climate change effects in the state, including:

- increased air pollution
- intensified heat waves
- an expanded range of infectious diseases
- a decline in the Sierra Nevada snow pack, with resulting impacts on water supply, ecosystems, and hydropower
- a range of agriculture impacts, including expanded ranges for weeds and pests, and a decrease in chill hours required by certain of the state's crops
- a rise in sea level and more severe storm events increasing coastal flooding
- increased flooding in river delta and floodplain areas
- an increase in the risk of large wildfires averaging up to 55%, depending on the GHG emissions scenario.

It is difficult to predict localized impacts of global climate change, and to determine how fast changes will occur, or when particular "tipping points" may be reached, as factors combine, causing sudden effects. For example, increases in surface temperature lead to less sea ice and snow cover, raising temperatures more, and reducing reflection of the sun's heat. As more water evaporates, additional water vapor in the atmosphere acts to increase temperature. In addition, higher temperatures may result in higher smog levels in some areas, as ground-level ozone forms more readily in warmer temperatures.

Scientists estimate that emissions of GHGs will need to be reduced by 80 percent by 2050 to avoid a 2°C (3.6°F) increase in global temperatures at which the risk of dangerous impacts rises sharply.

### Relevant California Legislation

In 2006, Governor Schwarzenegger signed into law Assembly Bill 32 which created the first-ever statewide cap on GHG emissions. AB 32 requires the CARB to establish a reporting program for GHG emissions beginning with the largest sources of emissions, to determine a 1990 GHG emissions baseline and to set that as the statewide limit to be achieved by 2020. AB 32 also requires that CARB publish a list of “Early-Action” GHG reduction measures by June 2007 and adopt regulations for those measures by January 2010. Finally, by January 2009, CARB had to prepare a detailed scoping plan (in consultation with state agencies, including the Public Utilities Commission) that outlines the direct reduction measures, market-based mechanisms, and incentives needed to meet the 2020 emissions cap (see Attachment 1). The major AB 32 timelines CARB must meet are shown in Figure 1 and include:

- By July 1, 2007 publish a list of discrete, Early Action measures that can be adopted and implemented before January 1, 2010.
- By January 1, 2008 determine 1990 GHG emissions and establish a statewide GHG emissions cap for 2020, based on 1990 emissions. Adopt mandatory reporting rules for significant sources of greenhouse gases.
- By January 1, 2009 adopt a plan (Scoping Plan) indicating how emission reductions will be achieved from significant GHG sources via regulations, market mechanisms and other actions.
- By January 1, 2010 adopt and enforce Early Action measures.
- By January 1, 2011 adopt regulations to meet the 2020 emission cap including provisions for using both market mechanisms (“Cap and Trade”) and alternative compliance mechanisms.
- By January 1, 2012 enforce regulations to meet 2020 emissions cap.

In 2008, Senate Bill 375 was signed into law and implements one component of AB 32 by requiring 5 million metric tons of GHG emission reduction targets statewide to be met by reducing vehicle miles travelled from light duty automobiles and light duty trucks. By September 30, 2010, emission reduction targets will be set by CARB for each region of the state with a Metropolitan Planning Agency. Each Metropolitan Planning Agency such as the Santa Barbara County Association of Governments (SBCAG) will develop a Sustainable Communities Strategy that achieves those targeted GHG reductions. SB 375 also aligns planning for GHG reductions with regional housing and transportation by 2013 through land use and related policies and still retains local and regional flexibility. By integrating transportation, land use, and housing planning with a Sustainably Communities Strategy, SB 375 ties together three major planning activities currently conducted by SBCAG:

1. Regional Growth Forecast
2. Regional Transportation Plan
3. Regional Housing Needs Assessment (RHNA) Plan

While AB 375 mandates the actions that SBCAG must undertake, the APCD will assist SBCAG in fulfilling its obligations. SBCAG has provided the mobile source inventory and control measures chapters of several APCD Clean Air Plans and over the years we have developed an excellent and close working relationship with SBCAG staff.

#### Relevant Federal Actions and Legislation

On March 31, 2009 Henry A. Waxman, Chairman of the House Energy and Commerce Committee, and Edward J. Markey, Chairman of the House Energy and Environment Subcommittee, released a draft of clean energy legislation that is intended to create jobs, help end America's dependence on foreign oil, and combat global warming.

The proposed legislation, "The American Clean Energy and Security Act of 2009," has four titles:

1. a "clean energy" title that promotes renewable sources of energy and carbon capture and sequestration technologies, low-carbon transportation fuels, clean electric vehicles, and the smart grid and electricity transmission;
2. an "energy efficiency" title that increases energy efficiency across all sectors of the economy, including buildings, appliances, transportation, and industry;
3. a "global warming" title that places limits on the emissions of heat-trapping pollutants; and
4. a "transitioning" title that protects U.S. consumers and industry and promotes green jobs during the transition to a clean energy economy.

Of particular interest is Title III which:

1. Establishes a market-based program for reducing global warming pollution from electric utilities, oil companies, large industrial sources, and other covered entities that collectively are responsible for 85% of U.S. global warming emissions. Under this program, covered entities must have tradable federal permits, called "allowances," for each ton of GHG pollution emitted into the atmosphere. Entities that emit less than 25,000 tons per year of CO<sub>2</sub> equivalent are not covered by this program.
2. Allows covered entities to increase their emissions above their allowances if they can obtain "offsetting" reductions at lower cost from other sources.
3. Provides for strict oversight and regulation of the new markets for carbon allowances and offsets.
4. Directs EPA to set emission standards on sources that are not covered by the allowance system.
5. Provides that CO<sub>2</sub> and other greenhouse gases may not be regulated as criteria pollutants or hazardous air pollutants on the basis of their effect on global warming.

On May 20, 2009, the White House announced that the federal government, major U.S. automakers and California had reached an agreement to establish a single nationwide car and truck emission standard that would require a reduction of 30% in CO<sub>2</sub> and other emissions from vehicles sold in the United States by 2016. As a side benefit, capping GHG emissions would effectively require better gas mileage.

#### Actions undertaken by other Air Districts

Table 1 summarizes climate change actions which have been or will be undertaken by several air districts. The Bay Area Air Quality Management District has taken the lead in addressing climate change issues in its planning efforts. Their 2009 triennial Clean Air Plan (CAP) update will be multi-pollutant in nature and will address criteria pollutants, air toxics and climate change. Following close behind, San Luis Obispo County APCD will also be preparing a multi-pollutant plan.

#### Actions undertaken by the County of Santa Barbara

On March 17, 2009 the Santa Barbara County Board of Supervisors unanimously passed a resolution adopting Santa Barbara County's climate change guiding principles and supporting the county efforts to reduce greenhouse gas emissions (see Attachment 2). These principles recognize the county's role in the state climate change arena as threefold: a producer of operational GHGs and both a regulator and an incentivizer of reductions to community-wide GHG emissions. The General Services Department has been charged with developing a plan that would enable the county, as a "producer" of GHG emissions, to achieve the State's 15% reduction target for county operations. To address the "regulator" and "incentivizer" roles, the Office of Long Range Planning will develop a countywide Climate Action Strategy.

#### Relationship of AB 32 Scoping Plan to 2010 Clean Air Plan

The AB 32 Scoping Plan outlines the State's strategy to achieve the 2020 greenhouse gas emissions limit. The Scoping Plan, developed by CARB proposes a comprehensive set of actions designed to "reduce overall greenhouse gas emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health." Reducing greenhouse gas emissions to 1990 levels would necessitate approximately a 30 percent reduction from business-as-usual emission levels projected for 2020, or about 15 percent from today's levels. Attachment 1 presents the seventy-four Scoping Plan measures aimed at achieving these reductions. Many of these measures will have an effect on reducing GHG emissions in Santa Barbara County.

The Air Resources Board resolution adopting the Scoping Plan directs the ARB Executive Officer "to develop a joint work plan with local air districts to define how to efficiently and effectively implement and administer the Scoping Plan." Implementation of certain Scoping Plan measures may increase our current permitting and enforcement duties. For example, control measure #14 is the management of stationary source refrigerants. CARB may turn to local districts to register/permit affected air conditioning and other refrigeration units and to enforce the measure's tracking, reporting, and repair requirements. Additionally, local air districts may be involved in implementing control measure #11, the control of landfill methane gas emissions.

Ultimately, it is important to quantify and track GHG emissions in Santa Barbara County to ascertain the efficacy of these measures. To do so we propose as a starting point to develop a baseline county-wide CO<sub>2</sub> (the primary GHG) emissions inventory in a Climate Protection Chapter of the 2010 Plan. And as criteria pollutant inventories are already required for our Clean Air Plans, the inventory methodologies used to develop those inventories have already been developed to address GHGs. The 2010 Plan will not include additional local controls directed at reducing GHGs (although some existing measures, while aimed at controlling criteria pollutant emissions may have a beneficial side effect called "co-benefits" of reducing GHGs). Finally, the

Climate Protection Chapter would include a discussion of the regional emission reduction targets SBCAG must achieve pursuant to AB 375 once these targets have been determined by CARB.

The 2010 Plan GHG inventory would encompass the entire county but will not be broken down by individual jurisdictions. For many source categories our methodology would be a “top down” approach, e.g., residential natural gas combustion emissions are calculated by using county-wide gas consumption instead of determining what each individual household uses. For large stationary sources we have the specific information needed to calculate emissions (e.g., large combustion sources) and we will obtain mobile source emissions from existing county-wide models.

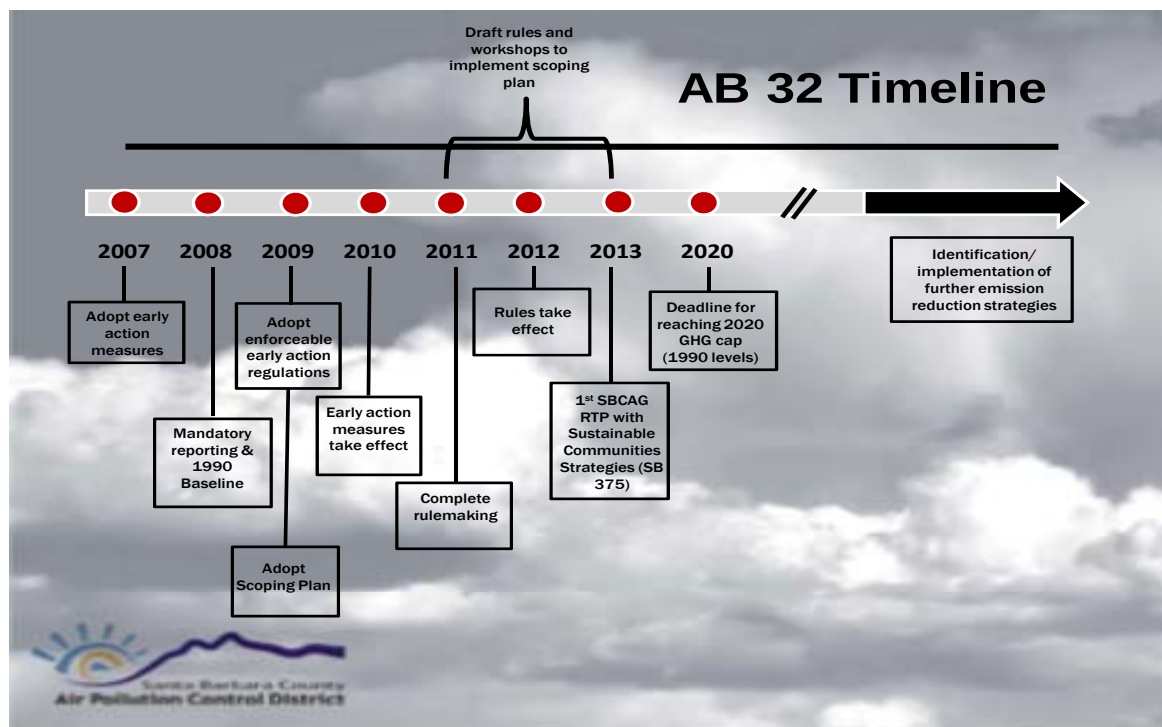
#### APCD Community Advisory Council Action

The issue of including a Climate Protection Chapter in the 2010 Plan was discussed at the APCD Community Advisory Council’s March 25, 2009 meeting. While the CAC in general supported preparing a GHG inventory and climate protection chapter, some members were concerned about the inclusion of the GHG inventory in the 2010 Plan. After some discussion the CAC voted to recommend that your Board include a Climate Protection Chapter including a GHG emission inventory in the 2010 Plan.

#### **NEXT STEPS**

Should your Board approve staff’s recommendation, staff will incorporate a Climate Protection Chapter into the 2010 Clean Air Plan development schedule. We plan to bring the 2010 Plan to your Board for approval in the Fall of 2010. As is the case with all our clean air plans, we will hold public hearings and provide the CAC an opportunity to review and comment on the Plan prior to bringing to your Board for consideration.

**Figure 1. AB 32 Timeline**



**Table 1. Air District Climate Change Actions**

| Air District            | Climate Change Actions Taken                                                                                        |
|-------------------------|---------------------------------------------------------------------------------------------------------------------|
| Bay Area AQMD           | GHG fees, climate protection grants, regional GHG inventory, curriculum, multi-pollutant clean air plan (2009)      |
| South Coast AQMD        | adopted SoCal Climate Solutions Exchange, GHG CEQA significance thresholds, technology forums, inventory, education |
| Sacramento AQMD         | creating GHG emissions bank, CEQA GHG mitigation, reporting system                                                  |
| San Luis Obispo APCD    | countywide GHG inventory, target mitigation grant funds for GHG emission reductions, multi-pollutant clean air plan |
| San Joaquin Valley AQMD | Climate Change Action Plan                                                                                          |

# ATTACHMENT 1

## California Air Resources Board AB32 Scoping Plan Measures

June 18, 2009

Santa Barbara County Air Pollution Control District

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| Row # | Scoping Plan Measure                                                                                                                     | Measure # | Page # | Responsible Agency (ies)<br>(Lead in bold) | Projected Date Measure to be Adopted by Lead Agency | Implementation Date                                                              | Million Tons of GHG Reductions by 2020 | Type of Action<br>(Regulation, Voluntary etc.)               |
|-------|------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------|--------------------------------------------|-----------------------------------------------------|----------------------------------------------------------------------------------|----------------------------------------|--------------------------------------------------------------|
| 1     | Pavley (AB 1493)                                                                                                                         | T-1       | C-57   | ARB                                        | Sep-04                                              | 2009-2016                                                                        | 27.7                                   | Regulation                                                   |
| 2     | Ship Electrification at Ports<br>(Discrete Early Action)                                                                                 | T-5       | C-66   | ARB                                        | Dec-07                                              | 2010                                                                             | 0.2                                    | Regulation                                                   |
| 3     | Port Drayage Trucks                                                                                                                      | T-6       | C-68   | ARB                                        | Dec-07                                              | Beginning 2010                                                                   | 3.5*                                   | Regulation                                                   |
| 4     | Limit High GWP Use in Consumer Products<br>(Discrete Early Action):<br>Pressurized Gas Duster<br>GWP Limit of 150                        | H-4       | C-179  | ARB                                        | Jun-08                                              | 2010                                                                             | 0.23                                   | Regulation                                                   |
| 5     | Heavy-Duty Vehicle GHG Emission Reduction<br>(Aerodynamic Efficiency)<br>(Discrete Early Action)                                         | T-7       | C-73   | ARB                                        | Dec-08                                              | Phased-In Schedule for large fleets:<br>Beginning 2010;<br>Final compliance 2013 | 0.93                                   | Regulation                                                   |
| 6     | Motor Vehicle Air Conditioning Systems:<br>Reduction of Refrigerant Emissions from Non-Professional Servicing<br>(Discrete Early Action) | H-1       | C-175  | ARB                                        | Jan-09                                              | 2010                                                                             | 0.26                                   | Regulation                                                   |
| 7     | SF <sub>6</sub> Limits in Non-Utility and Non-Semiconductor Applications (Discrete Early Action)                                         | H-2       | C-176  | ARB                                        | Feb-09                                              | 2010                                                                             | 0.1                                    | Regulation                                                   |
| 8     | Reduction of Perfluorocarbons in Semiconductor Manufacturing (Discrete Early Action)                                                     | H-3       | C-177  | ARB                                        | Feb-09                                              | 2012                                                                             | 0.18                                   | Regulation                                                   |
| 9     | Tire Pressure Program<br>(Discrete Early Action)                                                                                         | T-4       | C-63   | ARB                                        | Mar-09                                              | 2010                                                                             | 0.55                                   | Regulation                                                   |
| 10    | Low Carbon Fuel Standard<br>(Discrete Early Action)                                                                                      | T-2       | C-64   | ARB                                        | Apr-09                                              | 2010                                                                             | 15                                     | Regulation                                                   |
| 11    | Landfill Methane Control Measure (Discrete Early Action)                                                                                 | RW-1      | C-160  | ARB                                        | Apr-09                                              | 2012                                                                             | 1                                      | Regulation                                                   |
| 12    | Water Use Efficiency                                                                                                                     | W-1       | C-132  | DWR, SWRCB, CEC, CPUC, ARB                 | Spring 2009                                         | 2020                                                                             | 1.4**                                  | Regulation                                                   |
| 13    | Solar Reflective Auto Paints and Window Glazing                                                                                          | T-4       | C-63   | ARB                                        | May-09                                              | 2012                                                                             | 0.89                                   | Regulation                                                   |
| 14    | Stationary Equipment Refrigerant Management Program-Refrigerant Tracking/Reporting/Repair/Deposit Program                                | H-6       | C-182  | ARB                                        | May-09                                              | 2010                                                                             | 11                                     | Regulation                                                   |
| 15    | Energy Efficiency and Co-Benefits Audits for Large Stationary Sources                                                                    | I-1       | C-150  | ARB                                        | Oct-09                                              | 2010                                                                             | TBD                                    | Regulation                                                   |
| 16    | Sulfur Hexafluoride (SF <sub>6</sub> ) Emission Reductions from the Electricity Sector and Particle AcceleratorsSF <sub>6</sub>          | H-6       | C-186  | ARB                                        | Dec-09                                              | 2012                                                                             | 0.1                                    | Regulation                                                   |
| 17    | Mitigation Fee on High GWP Gases                                                                                                         | H-7       | C-189  | ARB                                        | Dec-09                                              | 2010                                                                             | 5                                      | Regulation                                                   |
| 18    | Tire Tread Program                                                                                                                       | T-4       | C-63   | CEC                                        | 2009                                                | 2010                                                                             | 0.3                                    | Regulation                                                   |
| 19    | Oil and Gas Extraction GHG Emission Reduction                                                                                            | I-2       | C-153  | ARB                                        | 2009                                                | 2015                                                                             | 0.2                                    | Regulation                                                   |
| 20    | Transport Refrigeration Units Cold Storage Prohibition and Energy Efficiency                                                             | T-6       | C-69   | ARB                                        | March-10                                            | TBD                                                                              | 3.5*                                   | Regulation (cold storage) and Guidelines (energy efficiency) |
| 21    | Foam Recovery and Destruction Program                                                                                                    | H-6       | C-185  | ARB                                        | Jul-10                                              | 2010                                                                             | 0.3                                    | Regulation                                                   |
| 22    | Cap-and-Trade                                                                                                                            |           | C-11   | ARB                                        | Nov-10                                              | 2012                                                                             | 34.4                                   | Regulation                                                   |
| 23    | Pavley II                                                                                                                                | T-1       | C-57   | ARB                                        | 2010                                                | 2017                                                                             | 4.1                                    | Regulation                                                   |

| Row # | Scoping Plan Measure                                                                                                        | Measure # | Page # | Responsible Agency (ies)<br>(Lead in bold)         | Projected Date Measure to be Adopted by Lead Agency | Implementation Date                                                 | Million Tons of GHG Reductions by 2020 | Type of Action (Regulation, Voluntary etc.) |
|-------|-----------------------------------------------------------------------------------------------------------------------------|-----------|--------|----------------------------------------------------|-----------------------------------------------------|---------------------------------------------------------------------|----------------------------------------|---------------------------------------------|
| 24    | High GWP Reductions from Mobile Sources Low GWP Refrigerants for New Motor Vehicle Air Conditioning Systems                 | H-5       | C-179  | ARB                                                | 2010                                                | 2015                                                                | 2.5                                    | Regulation                                  |
| 25    | Refinery Flare Recovery System Improvement                                                                                  | I-4       | C-155  | ARB                                                | 2010                                                | 2012                                                                | 0.33                                   | Regulation                                  |
| 26    | Removal of Methane Exemption from Existing Refinery Regulations                                                             | I-5       | C-156  | ARB                                                | 2010                                                | 2012                                                                | 0.01                                   | Regulation                                  |
| 27    | GHG Leak Reduction from Oil and Gas Transmission                                                                            | I-3       | C-154  | ARB                                                | 2010                                                | 2015                                                                | 0.9                                    | Regulation                                  |
| 28    | Alternative Suppressants in Fire Protection Systems                                                                         | H-6       | C-187  | ARB, Cal Fire                                      | Dec-11                                              | 2011                                                                | 0.1                                    | Regulation                                  |
| 29    | Stationary Equipment Refrigerant Management Program-Specifications for Commercial and Industrial Refrigeration              | H-6       | C-183  | ARB and CEC                                        | 2011 (CEC)                                          | 2012                                                                | 4                                      | Regulation                                  |
| 30    | Low Friction Engine Oil                                                                                                     | T-4       | C-63   | ARB                                                | TBD                                                 | TBD                                                                 | 2.8                                    | Regulation                                  |
| 31    | Medium-and Heavy-Duty Vehicle Hybridization                                                                                 | T-8       | C-73   | ARB                                                | TBD                                                 | TBD                                                                 | 0.5                                    | Regulation                                  |
| 32    | Reuse Urban Runoff                                                                                                          | W-4       | C-134  | SWRCB                                              | TBD                                                 | 2020                                                                | 0.2**                                  | Regulation                                  |
| 33    | Public Goods Charge for Water                                                                                               | W-6       | C-136  | DWR, ARB, CPUC, SWRCB                              | TBD                                                 | 2012                                                                | TBD                                    | Regulation                                  |
| 34    | Water Recycling                                                                                                             | W-2       | C-133  | SWRCB, DWR                                         | TBD                                                 | 2030                                                                | 0.3**                                  | Regulation                                  |
| 35    | Feebates (in lieu of Pavley regs)                                                                                           | T-1       | C-61   | ARB                                                | TBD                                                 | TBD                                                                 | 31.7                                   | Regulation (if needed)                      |
| 36    | Refrigerant Recovery from Decommissioned Refrigerated Shipping Containers                                                   | H-5       | C-181  | ARB                                                | 2010                                                | 2012                                                                | 0.2                                    | Regulation/Program                          |
| 37    | Solar Water Heating: AB 1470                                                                                                | CR-2      | C-118  | CPUC                                               | 2010                                                | 2020                                                                | 0.1                                    | Incentive                                   |
| 38    | Million Solar Roofs: 3,000 MW by 2017                                                                                       | E-4       | C-120  | CPUC, CEC, ARB                                     | Current Program                                     | Through 2016                                                        | 2.1                                    | Incentive                                   |
| 39    | Residential Refrigeration Early Retirement Program                                                                          | H-6       | C-188  | ARB                                                | Dec-10                                              | 2011                                                                | 0.1                                    | Incentive Partnership w/ Utilities          |
| 40    | Commercial Recycling                                                                                                        | RW-3      | C-161  | CIWMB                                              | 2010                                                | 2020                                                                | 5**                                    | Mandate                                     |
| 41    | High Speed Rail                                                                                                             | T-9       | C-85   | HSRA                                               | NA                                                  | 2020                                                                | 1                                      | NA                                          |
| 42    | Green Buildings                                                                                                             | GB-1      | C-142  | DGS, ARB, CEC, CPUC, HCD                           | Ongoing                                             | TBD                                                                 | 26**                                   | NA                                          |
| 43    | Enforcement of Federal Ban on Refrigerant Release during Servicing or Dismantling of Motor Vehicle Air Conditioning Systems | H-5       | C-182  | ARB                                                | 2009                                                | 2010                                                                | 0.1                                    | Partnership                                 |
| 44    | Air Conditioner Refrigerant Leak Test During Vehicle Smog Check                                                             | H-5       | C-180  | ARB, BAR                                           | 2010                                                | 2012                                                                | 0.5                                    | Partnership                                 |
| 45    | Renewables Portfolio Standards (33% by 2020 for IOUs & POU's)                                                               | E-3       | C-126  | CPUC, CEC, ARB                                     | 2009                                                | 2020                                                                | 21.3                                   | Various                                     |
| 46    | Increasing Combined Heat and Power Use by 30,000 GWh                                                                        | E-2       | C-122  | CPUC, CEC, ARB                                     | 2009                                                | 2020                                                                | 6.7                                    | Various                                     |
| 47    | Regional Transportation-Related Greenhouse Gas Targets                                                                      | T-3       | C-74   | ARB, Local Governments, Regional Planning Agencies | Sep-10                                              | Set targets by 2010. Local actions have begun already in some areas | 5                                      | Various                                     |
| 48    | Energy Efficiency Measures (Electricity)                                                                                    | E-1       | C-99   | CEC, CPUC, ARB                                     | Ongoing                                             | Through 2020                                                        | 15.2                                   | Various                                     |
| 49    | Energy Efficiency (Natural Gas)                                                                                             | CR-1      | C-99   | CPUC, CEC, ARB                                     | Ongoing                                             | Through 2020                                                        | 4.3                                    | Various                                     |

| Row # | Scoping Plan Measure                                                                                      | Measure # | Page # | Responsible Agency (ies)<br>(Lead in bold) | Projected Date Measure to be Adopted by Lead Agency | Implementation Date | Million Tons of GHG Reductions by 2020 | Type of Action (Regulation, Voluntary etc.) |
|-------|-----------------------------------------------------------------------------------------------------------|-----------|--------|--------------------------------------------|-----------------------------------------------------|---------------------|----------------------------------------|---------------------------------------------|
| 50    | Local Government Assistance                                                                               | NA        | C-49   | ARB, CalTrans, CEC, CTC, HCD, OPR          | Ongoing                                             | NA                  | NA                                     | Various                                     |
| 51    | Sustainable Forest Target                                                                                 | F-1       | C-166  | Board of Forestry and Fire Protection      | TBD                                                 | TBD                 | 5                                      | Various                                     |
| 52    | State Government                                                                                          | NA        | C-25   | Cal/EPA, ARB, DGS                          | TBD                                                 | Ongoing             | 1-2**                                  | Various                                     |
| 53    | N <sub>2</sub> O collaborative research                                                                   | NA        | 67     | ARB                                        | Feb-09                                              | NA                  | NA                                     | Voluntary                                   |
| 54    | Local Government Toolkit                                                                                  | NA        | 27     | ARB                                        | Apr-09                                              | Ongoing             | NA                                     | Voluntary                                   |
| 55    | Business Toolkit                                                                                          | NA        | 86     | ARB                                        | Apr-09                                              | Ongoing             | NA                                     | Voluntary                                   |
| 56    | Cargo Handling Equipment-Anti-Idling, Hybrid, Electrification                                             | T-6       | C-69   | ARB                                        | Nov-09                                              | TBD                 | 3.5*                                   | Voluntary                                   |
| 57    | Goods Movement System-Wide Efficiency Improvements                                                        | T-6       | C-67   | ARB                                        | 2010                                                | 2010-2015           | 3.5*                                   | Voluntary                                   |
| 58    | Methane Capture at Large Dairies                                                                          | A-1       | C-194  | ARB                                        | NA                                                  | 2020                | 1**                                    | Voluntary                                   |
| 59    | Increase Production and Markets for Compost (studies underway for data development)                       | RW-3      | C-161  | CIWMB                                      | Ongoing                                             | 2020                | 2**                                    | Voluntary                                   |
| 60    | Greening New and Existing State Buildings                                                                 | GB-1      | C-142  | DGS                                        | Ongoing                                             | TBD                 | TBD                                    | Voluntary                                   |
| 61    | Greening Public Schools                                                                                   | GB-1      | C-143  | DGS                                        | Ongoing                                             | TBD                 | TBD                                    | Voluntary                                   |
| 62    | Forest Conservation, Forest Management, Afforestation/Reforestation, Urban Forestry, and Fuels Management | NA        | C-167  | Cal Fire                                   | Ongoing                                             | 2020                | Potentially 2**                        | Voluntary                                   |
| 63    | Extended Producer Responsibility                                                                          | RW-3      | C-162  | CIWMB                                      | Pending Legislation                                 | 2020                | TBD**                                  | Voluntary                                   |
| 64    | Commercial Harbor Craft                                                                                   | T-6       | C-69   | ARB                                        | TBD                                                 | TBD                 | 3.5*                                   | Voluntary                                   |
| 65    | Commercial Harbor Craft-Maintenance and Design Efficiency                                                 | T-6       | C-69   | ARB                                        | TBD                                                 | TBD                 | 3.5*                                   | Voluntary                                   |
| 66    | Increasing the Efficiency of Landfill Methane Capture                                                     | RW-2      | C-160  | CIWMB                                      | TBD                                                 | 2020                | TBD**                                  | Voluntary                                   |
| 67    | Anaerobic Digestion                                                                                       | RW-3      | C-162  | CIWMB                                      | TBD                                                 | 2020                | 2**                                    | Voluntary                                   |
| 68    | Environmentally Preferable Purchasing                                                                     | RW-3      | C-162  | CIWMB, DGS                                 | TBD                                                 | TBD                 | TBD**                                  | Voluntary                                   |
| 69    | Water System Energy Efficiency                                                                            | W-3       | C-133  | CEC, CPUC, DWR, SWRCB                      | TBD                                                 | 2020                | 2**                                    | Voluntary                                   |
| 70    | Increase Renewable Energy Production (from Water sector)                                                  | W-5       | C-135  | CEC, CPUC                                  | TBD                                                 | 2020                | 0.9**                                  | Voluntary                                   |
| 71    | Clean Ships                                                                                               | T-6       | C-68   | ARB                                        | TBD                                                 | TBD                 | 3.5*                                   | Voluntary/Regulation                        |
| 72    | Vessel Speed Reduction                                                                                    | T-6       | C-68   | ARB                                        | TBD                                                 | TBD                 | 3.5*                                   | Voluntary/Regulation                        |
| 73    | Greening New Residential and Commercial Construction                                                      | GB-1      | C-145  | CEC, CPUC, Building Standards Commission   | Ongoing                                             | TBD                 | TBD                                    | Voluntary/Incentive                         |
| 74    | Greening Existing Homes and Commercial Buildings                                                          | GB-1      | C-146  | CEC, CPUC                                  | Ongoing                                             | TBD                 | TBD                                    | Voluntary/Incentive                         |

ATTACHMENT 2

SANTA BARBARA COUNTY  
CLIMATE CHANGE GUIDING PRINCIPLES  
(adopted March 17, 2009)

June 18, 2009

Santa Barbara County Air Pollution Control District

260 North San Antonio Road, Suite A  
Santa Barbara, California 93110

(805) 961-8800



RESOLUTION OF THE BOARD OF SUPERVISORS  
COUNTY OF SANTA BARBARA, STATE OF CALIFORNIA

IN THE MATTER OF ADOPTING SANTA BARBARA )  
COUNTY'S CLIMATE CHANGE GUIDING PRINCIPLES )  
AND SUPPORTING COUNTY EFFORTS TO REDUCE ) RESOLUTION NO. 09-059  
GREENHOUSE GAS EMISSIONS )

WITH REFERENCE TO THE FOLLOWING:

WHEREAS, as a result of growing public awareness and concern regarding climate change, in 2005, Governor Arnold Schwarzenegger unveiled his plan to reduce California's greenhouse gas emissions. This led to a series of recent climate laws, which present a new policy framework in which all segments of the economy will be required to undertake efforts to reduce Statewide greenhouse gas emissions; and,

WHEREAS, the most comprehensive of these State policies, Assembly Bill (AB) 32, states that climate change "poses a serious threat to the economic well-being, public health, natural resources, and the environment of California" and "will have detrimental effects on some of the State's largest industries, including agriculture, wine, tourism, skiing, recreational and commercial fishing, and forestry." AB 32 established a benchmark for greenhouse gas emission reductions to 1990 levels by 2020 (15% or 169 million metric tons) and to 80 percent below 1990 levels by 2050, and outlined a process of regulatory and market mechanisms to achieve these benchmarks, including implementation of an eighteen-point emission reduction plan; and, WHEREAS, Subsequent to AB 32, more than a dozen implementing laws have been adopted and many more are expected to be enacted in the near term. Notable bills include Senate Bill 375, which aligns housing, transportation and greenhouse gas planning to reduce vehicle miles traveled, and Senate Bill 97, which requires local jurisdictions to address and mitigate greenhouse gas emissions during CEQA review. Many of these laws contain requirements, implications and opportunities for local jurisdictions; and,

WHEREAS, emerging State and Federal legislation, including H.R.1, the American Recovery and Reinvestment Act of 2009 ("Federal Economic Stimulus") enacted on February 17, 2009, is poised to reward communities that incentivize investment in energy efficiency and "green" infrastructure improvements, while simultaneously providing opportunity to protect and preserve components vital and unique to regional economic stability; and,

WHEREAS, local governments play an important role in reducing greenhouse gas emissions through operating practices in public facilities and assets, effective land use and transportation planning, integrated waste management services, protection of natural habitat and rural agricultural resources, promotion of renewable energy, efficient use of energy, and other means to achieve a larger cumulative change; and,

WHEREAS, the 2009 California Planners' Book of Lists, published by the Governor's Office of Planning and Research, indicates that over 135 jurisdictions, including a third of Counties in California have already adopted policies and/or programs to address climate change and the effects of greenhouse gases; and,

WHEREAS, Santa Barbara County has a long tradition of environmental stewardship, specifically in promoting the preservation of agricultural land and open space, an important component of greenhouse gas mitigation. Additionally, the County has already begun to engage in activities to reduce greenhouse gas emissions such as regional housing and transportation planning, the County Carbon Footprint Project, the Innovative Building Review Program, the Sustainable Public Architecture Directive, Tajiguas Landfill Gas Collection System and the recently approved Lompoc Wind Energy development; and,

WHEREAS, in November 2008, the Board of Supervisors reconstituted the County Sustainability and Conservation Team, charged with increasing energy efficiency and reducing greenhouse gas emissions from municipal operations; and,

NOW, THEREFORE, IT IS HEREBY RESOLVED that:

1. The above recitation is true and correct.
2. In acknowledgement of the growing and urgent concerns regarding global climate change and the expanding regulatory environment, the Santa Barbara County Board of Supervisors will:
  - a. Adopt Exhibit 1, The Santa Barbara County Climate Change Guiding Principles.
  - b. Take immediate, cost effective and coordinated steps to reduce the County's collective greenhouse gas emissions.
  - c. Direct County staff to seek funding, including grants and rebates, to offset general fund costs of preparing the County's greenhouse gas emission reduction strategy and implementing programmatic actions that support climate protection.

PASSED, APPROVED, AND ADOPTED by the Board of Supervisors of the County of Santa Barbara, State of California, this 17th day of October, 2008, by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

JOSEPH CENTENO  
Chair, Board of Supervisors  
County of Santa Barbara

ATTEST: APPROVED AS TO FORM:

MICHAEL F. BROWN  
Clerk of the Board of Supervisors

DENNIS A. MARSHALL  
County Counsel

By: \_\_\_\_\_  
Deputy Clerk-Recorder

By: \_\_\_\_\_  
Deputy County Counsel

## **EXHIBIT 1: SANTA BARBARA COUNTY CLIMATE CHANGE GUIDING PRINCIPLES**

1. Protecting the community from the effects of climate change is a high priority for Santa Barbara County (County).
2. The County recognizes the State of California's climate change goals, regulations, and requirements set forth by AB 32 to reduce Statewide greenhouse gas (GHG) emissions and will implement programs to comply with these requirements.
3. As outlined in the State's AB 32 Scoping Plan, the benefits of investing in actions to reduce GHG emissions can outweigh the costs in numerous ways, including: economic vitality; public health and safety; natural resource protection; and infrastructure stability.
4. In order to maintain long-term regional well-being, health and prosperity of current residents, as well as future generations of residents, the County will preserve and balance our shared social wellbeing, economic prosperity and environmental resources.
5. The County recognizes that challenges associated with climate change are regional in nature and can best be addressed in partnership with both public and private sectors.
6. The County has three strategic roles to play in reducing GHG emissions: 1) a producer of GHG emissions, 2) a regulator of GHG emitting activities, and 3) a incentivizer of communitywide enhancements to reduce GHG emissions.
7. The County will preserve its fiscal health by conserving resources and promoting renewable resources, thereby reducing costs.
8. The County will enhance our local economy through the incubation of clean technology, by attracting innovative firms and talent through private sector incentives, and by creating opportunities for local residents to attain jobs and training in the growing regional green economy.
9. A key component in a successful climate strategy is the development of an effective and inclusive decision making process that promotes the sharing of information and encourages diverse public input.
10. Through coordinated planning, measurement, evaluation, and reporting, the County will continue to address state requirements, capitalize on economic opportunities, and protect the regional quality of life while strategically progressing towards regional sustainability.