BOARD OF SUPERVISORS

FROM:

Climate Change Work Group

DATE:

August 16, 2005

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SUBJECT:

Report on Inventory of the County's Current Policies and Programs that co

Climate Change

SPECIFIC REQUEST(S) OR RECOMMENDATION(S) & BACKGROUND AND JUSTIFICATION

RECOMMENDED ACTION

- 1. ACCEPT report on inventory of policies and programs, and list of issues and initiatives that could be used to develop a model ordinance to reduce climate change.
- 2. DIRECT the Climate Change Work Group to develop a draft outline of the elements of a model ordinance and report back to the Board in three months.

FISCAL IMPACT

There will be some staff costs associated with drafting a model ordinance.

REASONS FOR RECOMMENDATIONS AND BACKGROUND

Climate Change

The need to address the impacts of climate change is very real. The international climate protection goal is to not increase the average temperature more than 2 degrees centigrade worldwide, relative to pre-industrial times. We are currently 0.8 degrees centigrade higher and we will increase another 0.8 degrees centigrade due to activities that have occurred that we cannot reverse. This only leaves a 0.4 degree centigrade available increase for the future. We must manage our future activities to not exceed that small temperature change. To accomplish this goal, a diversified strategy is needed to reduce all relevant county-specific greenhouse gas and aerosol emissions. In addition, long-term planning will be necessary to offset climate change impacts within the county or in areas that eventually affect the county (e.g., upstream water resources).

CONTINUED ON ATTACHMENT:	⊠ YES	□ NO	SIGNATURE	Dennis /	· Barry	
RECOMMENDATION OF COUNT APPROVEOTH		ATOR _	RECOMMEN	DATION OF BO	DARD COMMITTE	E
SIGNATURE(S): Like An						
ACTION OF BOARD ON & / 10	0/2005	_APPRO\	ED AS RECOM	MENDED <u>X</u>	OTHER 🗴	
SEE AT	TACHED	ADD	ENDUM			

UNANIMOUS (ABSENT NO)

NOES: AYES: **ABSTAIN:** ABSENT:

Contact: Deidra Dingman (925-335-1224) John Sweeten, County Administrator

> Silvano Marchesi, County Counsel Maurice Shiu, Public Works Department (PWD)

Mitch Avalon, PWD

VOTE OF SUPERVISORS

Dennis Barry, Community Development Department (CDD)

Dr. Bill Walker, Health Services Department (HSD)

Dr. Wendel Brunner, HSD-Public Health

Bart Gilbert, General Services Department Jack Broadbent, Bay Area Quality Management District (BAAQMD) via CDD

Jean Roggenkamp, BAAQMD via CDD

David Shearer, California Environmental Associates via CDD

I HEREBY CERTIFY THAT THIS IS A TRUE AND **CORRECT COPY OF AN ACTION TAKEN AND ENTERED ON THE MINUTES OF THE BOARD** OF SUPERVISORS ON THE DATE SHOWN.

08/16 2003 **ATTESTED**

JOHN SWEETÉN, CLERK OF THE **BOARD OF SUPERVISORS AND COUNTY ADMINISTRATOR**

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BACKGROUND/REASONS FOR RECOMMENDATIONS - Continued

The recently released California Water Plan (Bulletin 160) from the California Department of Water Resources includes information that climate change is causing water levels to rise in the Delta and the snow pack in the Sierra Nevada's to shrink. This will have a huge impact on water resources in California and another sign that climate change is a real concern.

Effective action against climate change can protect public health. Global warming can introduce tropical diseases to new areas and promote the spread of established diseases such as West Nile Virus. Reducing greenhouse gas emissions will not only slow global warming, but will greatly improve air quality, thereby promoting community health by reducing asthma and other respiratory diseases. Strategies around "Smart Growth" and the "Built Environment" promote clean air and encourage walkable communities and a healthier lifestyle.

Model Ordinance

On May 24, 2005, Supervisor DeSaulnier introduced an item to the Board of Supervisors on the issue of climate change. The Board considered the item and formed the Climate Change Work Group, comprised of the heads of the Departments of Community Development, General Services, Health Services and Public Works, plus representatives of the Bay Area Air Quality Management District and the California Air Resources Board. The Work Group was directed to produce an inventory list of the County's current policies and programs that reduce greenhouse gas emissions, or that could be augmented to reduce greenhouse gas emissions, and to bring the inventory list back to the Board.

On July 14, 2005, the Work Group met with Supervisor DeSaulnier, including Jack Broadbent and Jean Roggenkamp with the Bay Area Air Quality Management District, and David Shearer, an air quality scientist, to better define the role and objectives for the Work Group. The task of the Work Group is to ultimately develop a model ordinance on climate change that identifies best practices for the County to utilize to reduce greenhouse gas emissions.

The Bay Area Air Quality Management District has started developing a Climate Protection program to provide support to existing local government efforts and to encourage further efforts to reduce greenhouse gas emissions in the region. The Air Districts program will include an "information clearinghouse" concept in which they will be collecting and sharing examples of different approaches adopted by local governments to encourage collaboration among Bay Area stakeholders. This "information clearinghouse" is expected to include examples of various potential approaches used by Bay Area counties and local governments including best practices, case studies, ordinances, climate action plans, General Plans and other information.

The Air District has not decided whether it would create a model ordinance on Climate Change. Because so many municipalities in the region have already begun a variety of climate protection programs, and because climate protection efforts include so many different areas (energy use, transportation planning, vehicle emissions, green buildings, adaptation to impending changes, agriculture, etc.) the Air District may decide that developing a single model ordinance for on climate protection would not be the appropriate approach. However, the Air District staff has indicated that they would like to be able to include any climate protection ordinance Contra Costa County adopts in their "information clearinghouse", as an example of one approach.

INVENTORY OF EXISTING POLICIES AND PROGRAMS

The first task of the Work Group is to inventory the County's existing policies and programs that could impact climate change. The inventory below includes a list of prior Board directives, programs, issues and initiatives that the Board has considered in the past that would be useful resources in developing a model ordinance.

Board Directives

The Board of Supervisors, in the past, has considered several items related to climate change, which can be used as a resource for developing a model ordinance for climate change. Those directives include the following:

- Zero Emission Vehicle Loan Program This Board Order dated October 6, 1998, outlines
 a loan program by the California Air Resources Board for Zero Emission Vehicles.
 (Attachment 1)
- Zero Emission Vehicles for County Fleet This Board Order dated August 1, 2000, requires at least 10% of all County purchases of automobiles and light duty trucks to be zero emission vehicles. (Attachment 2)
- Sustainable County Buildings This Board Order dated December 5, 2000, initiates the
 process to develop principles, policies, and design guidelines for sustainable County
 buildings. (Attachment 3)
- Compact for a Sustainable Bay Area This Board Order dated December 11, 2001, outlines the compact developed by the Bay Area Alliance for Sustainable Development and outlines the three "E's" of sustainable development; a prosperous economy, a quality environment, and social equity. (Attachment 4)
- Greenhouse Gas Emissions Legislation This Board Order dated May 14, 2002 supported legislation, which would require the California Air Resources Board to adopt regulations to reduce greenhouse gas emissions from motor vehicles. (Attachment 5)
- Sport Utility Vehicles This Board Order dated June 15, 2004 initiates the process to develop a policy to reduce the purchase of sport utility vehicles unless they are specifically justified based on a verified work assignment. (Attachment 6)
- Recycled Paper Business Cards This Board Order dated September 18, 1990, directed
 that all business cards for County Government employees be printed on recycled paper.
 Using recycled paper rather than cutting trees to produce new paper reduces greenhouse
 gases by increasing carbon uptake by forests, and reducing energy consumption, as well as
 minimizing disposal and related methane. (Attachment 7)

Policies

Below is a list of policies:

- Strategic Energy Plan This Plan, adopted by the Board on February 10, 2004, builds upon an ongoing program to reduce energy use at County facilities that began with the adoption of the Energy Reduction Action Plan in March 2001 and policy mandating specific temperatures in County buildings. The purpose of the Strategic Energy Plan is to evaluate and recommend strategies that will provide the County with a proactive and comprehensive energy management program. (Attachment 8)
- **Green Building Program** On June 14, 2005, the Board adopted the Contra Costa County Residential Green Building Program Implementation Plan, which outlines the County's goals and objectives for a green building program. (Attachment 9)
- Voluntary Clean Air Plan On July 26, 2005, the Board accepted the final report on the Voluntary Clean Air Plan for North Central Contra Costa County. (Attachment 10)
- Conditions of Approval for the 21st Century These conditions adopted by the Board of Supervisors outlines requirements for development that reduce energy consumption and increase bicycle and pedestrian access. (Attachment 11)
- Low Emissions Vehicles On September 21, 2004, the Board adopted the Contra Costa County Low Emission Vehicle and Fleet Policy, which requires the County to purchase low emission vehicles for a portion of its fleet. (Attachment 12)
- Sport Utility Vehicles The Low Emissions Vehicles policy mentioned above also eliminates the purchase of SUV's for the County fleet unless there is a justified need based upon work assignments. (Attachment 12)
- Tree Protection and Preservation Ordinance In 1994, the Board of Supervisors approved the "Tree Protection and Preservation Ordinance" (added as Chapter 816-6 in the County Code) which provides for the preservation of certain protected trees in the unincorporated area of the County. Trees take carbon from the atmosphere and store it in their tissues for long periods. It is estimated that each tree absorbs over 10 pounds of carbon dioxide each year, so protecting trees reduces the global greenhouse effect.
- Wood Burning Appliances Ordinance On November 14, 2000 the Board of Supervisors approved Ordinance 2000-35 (added as Chapter 718-10 in the County Code) to regulate new construction or replacement of wood burning appliances in the unincorporated area of the County for the purpose of limiting and/or reducing particulate emissions.

Programs

The following are programs that the County engages in that have an impact on climate change. The information and ideas generated through these programs could be utilized in the development of a model ordinance on climate change.

- Building Upgrades General Services has routinely performed energy upgrades in County buildings including changing out lights and light fixtures, upgrading fan motors and controls, and installing solar panels on rooftops.
- Control Systems General Services routinely upgrades control systems for heating, ventilating, and air conditioning systems in County buildings for greater energy efficiency.
- **Traffic Signal Lights** Traffic signal light bulbs throughout the County have been upgraded to light emitting diodes (LED's) that save significant amounts of energy.
- Fuel Tanks All underground fuel tanks have been retrofitted to a double-walled underground tank or to an above ground tank. This eliminates fuel leaks into the soil and groundwater, and vapors leaking into the atmosphere.
- Countywide Bicycle Action Plan This plan adopted by the Board included goals and objectives to increase bicycle use within the County. (Attachment 13)
- Recycling Market Development Zone In 1992, Contra Costa County's request to become designated as a Recycling Market Development Zone was approved by the State. If located within one of the State's Recycling Market Development Zones, eligible manufacturers using recycled materials to create new products potentially qualify for low-interest loans and other assistance. Manufacturing using recycled rather than virgin material reduces emissions, for example net carbon emissions are four to five times lower when materials are produced from recycled steel, copper, glass, and paper and 40 times lower for aluminum.
- Curbside Recycling Curbside recycling is not an optional service, but rather a component
 of solid waste collection services provided to residences located in areas governed under the
 County's collection franchise agreements. Recycling reduces the need for energy-intensive
 resource extraction. Recycling the following materials has the greatest climate benefit (from
 greatest to least): aluminum cans, paper materials (office paper, phonebooks, textbooks,
 magazines), mixed recyclables, dimensional lumber, steel cans and plastic containers.
- **Telecommuting Program** On July 13, 1993 the Board of Supervisors approved the Telecommuting Program for the primary purposes of reducing peak hour traffic congestion and air pollution.
- Home Composting Program Contra Costa County sponsors free home composting
 workshops to teach residents how to compost their yard debris at home. Home composting
 can reduce greenhouse gas emissions by eliminating the need to transport the material for
 processing or disposal, increasing the carbon storage in soils and reducing methane
 generated from landfilling.
- Car & Vanpool Program On November 4, 2003 the Board of Supervisors approved a change to the County Car & Vanpool Program to allow a County employee that signs up for a car or van pool through Enterprise Rideshare, to qualify for 25% off monthly vanpool costs. The County also offers preferred parking in downtown Martinez for carpool vehicles.
- Transportation Demand Management Program Contra Costa County co-sponsors "511 Contra Costa", a comprehensive transportation demand management program, which promotes alternatives to the single occupant vehicle. These efforts, which include financial incentives for using transit or forming a new carpool, reduce traffic congestion and improve air quality by maximizing the use of the existing roadway system.
- General Services Department Recycling Program Ongoing program intended to collect and recycle various materials from County Buildings. In 2004, a total of 343 tons of cardboard, 1,000 tons of paper, 109 tons of scrap metal, 3.8 tons of bottles and cans as well as almost 2,000 computer monitors and toner cartridges were recycled.
- Freon/Refrigerant Capture and Recovery General Services utilizes vehicle refrigerant units that capture evacuated air conditioning Freon (R-12) and refrigerant (R-134A) and then it is reused when needed. General Services does not expel vehicle refrigerant into the atmosphere; it is a completely sealed system of recovery and installation. General Services contracts for the removal of large equipment refrigerant, however they remove refrigerant from smaller units and stores the refrigerant until enough has been accumulated to ship out for destruction.

Compatible Initiatives and Issues

The County has explored several very complex issues and developed initiatives on subject matters that impact climate change. Significant research and work has been done on these issues and initiatives that could be utilized in the development of a model ordinance for climate change.

- Smart Growth and the Built Environment Planning and design guidelines that improve pedestrian and bicycle access, and reduce distances from housing to services and therefore reducing the consumption of fossil fuels.
- **Jobs-Housing Balance** The creation of jobs and housing in the same vicinity, with the intention to reduce commute distances and thereby reducing the consumption of fossil fuels.
- Landscaping Requirements The living process for plant life (photosynthesis) combats the affects of carbon dioxide buildup that results from consumption of fossil fuels.
- Methane Recovery Landfilling waste results in emission of methane (CH₄), a greenhouse gas that is 21 times more effective at trapping heat in the atmosphere than carbon dioxide. State law and local air district regulations require landfills to collect and process landfill gases through a gas collection system and emission control system. Two of the three operating landfills in Contra Costa County use methane to produce electricity; the third landfill is currently pursuing the development of a landfill gas power plant.

CONSEQUENCES OF NEGATIVE ACTION

The report on climate change would not be accepted and the Climate Change Work Group would not have direction to develop a model ordinance.

ADDENDUM TO ITEM D.3

August 16, 2005

On this day, the Board of Supervisors considered accepting a report from the Climate Change Work Group on the inventory of current County policies and programs affecting climate change, and directing the Group to begin work on a model ordinance identifying best practices to reduce greenhouse gas emissions.

Dennis Barry, Director of Community Development, presented staff's report and recommendation that the Board accept the inventory report that could be used in the development of an ordinance.

Supervisor Piepho asked how much the administrative costs would be to develop such an ordinance.

Mr. Barry responded that the cost would be approximately \$20,000-\$30,000.

Supervisor Piepho asked why the County, rather than the Air Board, was developing this model ordinance.

Mr. Barry noted that at this time, the Air Board was not far along in its development of a model ordinance, and that this development of a draft ordinance could be used as a model by other agencies.

Supervisor DeSaulnier suggested that the County not incur more than one-third of the costs of developing of a model ordinance, noting that this is a collaborative effort with the Air Board and the Air District.

Supervisor DeSaulnier moved approval, and the motion was seconded by Supervisor Uilkema. By unanimous approval with none absent, the Board of Supervisors took the following action:

ACCEPTED report from the Climate Change Work Group on the inventory of current County policies and programs affecting climate change, and **DIRECTED** the Group to begin work on a model ordinance identifying best practices to reduce greenhouse gas emissions and report back to the Board in three months, additionally stipulating that the County should not incur more than approximately one-third of the costs for developing this ordinance in an equitable fiscal partnership with the Bay Area Air Quality Management District and the California Air Resources Board.