APA Northern News
Northern Section, California Chapter, American Planning Association
March 2007

Cool planners build resilient, carbon neutral communities

By Allison Quaid, Executive Director, Bay Area Alliance for Sustainable Communities

Almost 85 percent of greenhouse gases, the major source of global warming, originate from the way communities are developed. Thus planners can play an important role in addressing this critical issue. Equally important, planners can build a city's resilience to extreme and erratic weather events, using risk assessment and designing for climate adaptation, thereby saving lives and reducing adaptation costs.

Inside this issue:

Greenhouse gases (GHG)

According to the US Department of Energy, residential and commercial buildings account for 35 percent of CO_2 emissions nationwide.[1] Add to that the fact that energy consumed by transportation accounts for 40–50 percent of total GHG emissions in many Northern California communities, and planners are in a position to influence up to 85 percent of a community's potential for generating GHG emissions.

Mitigating a community's GHG emission potential can be accomplished by strengthening efforts to promote green building and smart growth. In this context, green building encompasses energy and water efficiency, waste reduction, selection of green building materials, use of renewable energy sources, and promotion of commute alternatives.

For example, development plans should orient buildings to optimize passive solar gain, use passive ventilation as opposed to HVAC systems, allocate space for collection and storage of recyclable materials, promote rainwater collection for outside uses such as watering the landscape, promote the recycling of greywater, and ensure good access for pedestrians and cyclists and to public transport.[2]

Green buildings

Northern California is projected to experience warmer temperature for longer periods, so planners need to maximize the ability of communities to cool themselves. Traditional strategies employed to minimize urban heat islands include cool roofs and pavements, tree planting and shading, and roof gardens.

The US Green Building Council (USGBC) also endorses reducing greenhouse gases through green building. As of January 2007, USGBC requires all new commercial Leadership in Energy and Environmental Design (LEED) projects to reduce CO_2 emissions by 50 percent when compared to current emission levels.[3] Emission reductions can come from any of the four areas where credits are earned—energy, water, transportation, and materials. In addition, all commercial LEED projects must achieve at least two energy credits to ensure that the building

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Getting warmer!

Not a day goes by without a "global warming" or "climate change" article in the press. And while we may be preaching to the choir, it would be inappropriate for Northern News not to tackle the subject. This issue is devoted entirely to climate change, and what we as planners can do about it. Your letters and comments are welcome. Please send them to Naphtali H. Knox, FAICP, knoxnaph@gmail.com.

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DIRECTOR'S NOTE *by Juan Borrelli, AICP*

Are you going to "Philly"? From April 14 through 18, Philadelphia will host this year's **National APA Conference**. Here are some compelling reasons to go: More than 300 years old, Philadelphia ("City of Brotherly Love" in Greek) is the birthplace of the nation and the Constitution. Founded by William Penn in 1682 and laid out in a strict grid by his surveyor, Thomas Holme, it is one of the first planned cities in America. Today, it is the largest city in Pennsylvania, second-largest on the East Coast, and fifth-largest in the United States. Yet this diverse city is one of the country's most livable and is a leading example of urban renaissance in America. Its eclectic mix of character, culture, and community is like few other places in the world. Visit www.planning.org today to register for the 2007 National APA conference and to enjoy many excellent planning-related conference sessions, mobile workshops, training seminars, and networking opportunities in this beautiful and historic city.

Mark your calendars and please plan to attend the **Northern Section Awards Ceremony** on Friday, May 18, at the Marines' Memorial Club & Hotel in San Francisco. You will not want to miss our chapter's celebration of "Excellence in Planning" at this elegant venue. For more information, please contact Awards Program Directors, **Andrea Ouse, AICP**, at andrea.ouse@lsa-assoc.com or **Eileen Whitty, AICP**, at ewhitty@ebmud.com.

The **2007 CCAPA Conference**, which will be held in San José September 30 through October 3, is just a short six months away. The Steering Committee organizing this State conference is currently seeking a volunteer Graphic Designer to prepare the *Planner's Guide*. If you possess strong graphic design and print layout skills and are interested in assisting, please contact our Portfolio/Planner's Guide Chair, **Stephanie Menzies** at stephanie.menzies@sanjoseca.gov or me, **Juan Borrelli, AICP**, at juan.borrelli@sanjoseca.gov. For continuous up-to-date conference information, and for sponsorship or exhibitor opportunities, check out www.calapa.org.

Lastly, don't forget to "spring ahead" even earlier this year by setting your clocks forward one hour for Daylight Savings on Sunday, March 11, at 2 AM. As of 2007, Daylight Savings starts on the second Sunday in March instead of the first Sunday in April. Standard Time returns on the first Sunday in November. In addition to resetting clocks, a good practice is to use this event as a reminder to change the batteries in your home smoke detectors. Be safe, and happy spring everyone! ■

The deadline for submitting materials for inclusion in the *Northern News* is the 15th day of the month prior to publication.

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Onward and upward

NSCCAPA Director Elect **Darcy Kremin**, **AICP**, has joined the Walnut Creek office of ENTRIX, Inc., a national environmental consulting firm. Darcy has a bachelor's degree in geography and environmental studies (UCLA) and a master's degree in environmental policy (Tufts). She previously worked at RBF Consulting writing and editing CEQA and NEPA documents. At ENTRIX, she is managing several small projects and is the deputy project manager for the Preservation Ranch Project, Sonoma County.

The City of San Carlos has named **Al Savay**, **AICP**, its new Community Development Director. Al comes to the position after serving as zoning administrator and in other positions in the Mountain View Community Development Department. Al is a city and regional planning graduate of California Polytechnic State University, San Luis Obispo. Earlier in his career, he worked in Daly City and Orinda, operated a planning consulting practice, and was an associate planner at UC Irvine. ■

What local and regional agencies are doing about climate change

By Scott A. Shepard, RHL Design Group, NSCCAPA Legislative Director

Many Bay Area jurisdictions have already acted with regard to how planners should address climate change. The Bay Area Air Quality Management District (BAAQMD) recently underscored that perspective in hosting a "Bay Area Climate Protection Summit" on November 10, 2006. The summit brought together business, community, and government leaders to seek and implement local solutions to climate change. Held at the Yerba Buena Center for the Arts in San Francisco, the summit was keynoted by former Vice President Al Gore, creator of the documentary film, "An Inconvenient Truth."

The summit crystallized what is already being done by five Bay Area counties and 26 cities to address climate change. The jurisdictions are participating in the ICLEI (International Council for Local Environmental Initiatives) "Cities for Climate Protection" campaign. The campaign provides a framework for local governments to develop a strategic agenda to reduce global warming and air pollution emissions, particularly greenhouse gas (GHG) emissions.

Here's what some Bay Area jurisdictions are doing to address climate change:

Bay Area Air Quality Management District – In 2005, BAAQMD adopted a resolution establishing a Climate Protection Program and acknowledging the link between climate protection and air pollution reduction programs. The District's climate protection activities include the Climate Protection Summit, Climate Protection Grant Program, GHG Technology Study, Bay Area GHG Emissions Inventory, Promotion of Energy Efficiency, In-house GHG Emission Reductions, and Green Schools.

Marin County – Measuring greenhouse gas emissions is a key step in determining how to prioritize climate change work. In 2003, Marin County completed an analysis of GHG emission levels. The County is currently working on developing an emissions reduction target.

Sonoma County – Sonoma County is developing a two-phased action plan for reducing greenhouse gases. The first phase develops guidelines for conducting GHG emission inventories and identifying strategies to reduce those emissions. The second phase provides guidance in developing model climate protection programs and integrating current air quality planning efforts with climate protection.

Alameda County – On joining ICLEI in 2006, Alameda County embarked on a coordinated, county-wide climate protection effort. The county's participating cities are coordinating to achieve sustained reductions in GHG and local air pollutant emissions.

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In memoriam

Kaye Bock, 62 (BA, summa cum laude, University of Dallas; MA, honors, Marquette University; PhD course work completed, Kent State University) passed away in her sleep on January 16, 2007.

Kaye was an institution in the Department of City and Regional Planning, UC Berkeley, for more than two decades, shepherding masters and doctoral students through their programs and constantly working to keep students enrolled during difficult financial times.

Donations can be made to a graduate student aid fund established to honor her memory: The Kaye Bock Memorial Fund, Department of City and Regional Planning, College of Environmental Design, University of California, Berkeley, CA 94720-1850. A website is available for anyone to post memories and tributes: **http://www.kayebock.net**. ■

What local and regional agencies are doing ...

(continued from page 3)

Santa Clara County – In October 2004, the Board of Supervisors passed a resolution forming a partnership with the BAAQMD to achieve the Cities for Climate Protection Program goals of reducing both GHG and air pollution emissions.

San Francisco – The San Francisco Board of Supervisors passed a GHG Emissions Reduction Resolution in 2002, mandating a GHG emission reduction goal of 20 percent below 1990 levels by 2012. San Francisco followed with a Climate Action Plan in 2004. The Plan is comprehensive and contains renewable energy and efficiency strategies to reduce GHG emissions from transportation and solid waste.

In November 2006, San Francisco successfully certified its GHG emissions inventory with the California Climate Action Registry, becoming the first city in the United States to earn the Registry's distinction of Climate Action Leader™. The Registry (www.climateregistry.org) was created by the California Legislature in 2000. It is a nonprofit public-private partnership that helps companies and organizations throughout the US track, publicly report, and reduce their GHG emissions. San Francisco is now publicly and voluntarily reporting its GHG emissions under this rigorous registry program.

In January 2007, Mayor Gavin Newsom instructed the Departments of Building Inspection, Environment, and Planning to draft municipal code amendments to require large, private, new construction projects to attain Leadership in Energy and Environmental Design (LEED) certification for green buildings. San Francisco will become the first large city in California to implement a code requirement for high-level sustainability features and systems in new private buildings. ■

THE GLOBALIST QUIZ

Energy Consumption

QUESTION:

Despite concern about climate change, the demand for energy has continued to grow. In fact, energy consumption across the globe increased by 72 percent from 1975 to 2003. Which of these regions increased its use of energy by the lowest percentage?

ANSWERS:

A. Japan
B. China
C. United States
D. European Union

A.

Japan is not correct.

Since energy has always been used thriftily in Japan, energy efficiency has improved relatively little since 1975. Therefore, the country's energy use has risen broadly in line with economic growth by 68 percent between 1975 and 2003, while Japan's economy grew by 108 percent.

Energy efficiency is measured by the output of goods and services per kiloton of oil equivalent, which includes energy from all sources.

B.

China is not correct.

China's use of energy has increased by "only" 191 percent even though its gross domestic product has increased more than tenfold since 1975. Since its energy use was extremely inefficient, economic output per kiloton of energy rose in China from a little over a million dollars in 1975 to $4.5 million in 2003, an improvement of more than 300 percent.

In contrast, the much more efficient Japan managed to improve its energy efficiency by just 24 percent. Japan's economy now generates $6.6 million of real GDP per ton of oil equivalent.

C.

United States is correct.

Overall energy use rose only 31 percent in the United States from 1975 to 2003 and hence the lowest increase among the key regions. During the same period, US GDP rose by 140 percent.

The reason for this is that the United States has traditionally used energy much less efficiently than Japan and Europe, but the gap has been shrinking. In 1975, the United States produced about $2.6 million GDP per kiloton. In 2003, it was $4.5 million.

D.

European Union is not correct.

Like Japan, Europe already was already using energy relatively efficiently back in 1975. As a result, energy use there rose by 39 percent, while GDP grew by 93 percent from 1975 to 2003.

In 1975, Europe produced about $4.6 million GDP per kiloton, 80 percent more than the United States.

By 2003, one kiloton of energy generated $6.5 million of GDP, so the advantage in energy efficiency over the United States had fallen to 44 percent.

Japan and Europe, the more efficient producers, have found it harder to increase energy efficiency. The difficulties in increasing energy efficiency in Europe and Japan underline the challenge posed by the Kyoto Protocol.

Cool planners build resilient, carbon neutral communities *(continued from page 1)*

is boosting its energy efficiency potential. Lastly, USGBC will develop an innovative carbon dioxide offset program. This program will let developers and building owners who have achieved energy efficiency points beyond the LEED prerequisites capitalize on their savings.

Planners who work to improve the weather resiliency of developments are worth their weight in gold.

Overall industry support for the promotion of green building in response to climate change is high as evidenced by the popular "2030 Challenge." The 2030 Challenge is a global initiative officially launched in January 2006 by *Architecture 2030* sponsored by The American Institute of Architects (AIA), the Home Depot Foundation, USGBC, the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), and others. (See www.architecture2030.org/) It calls for all new buildings and major renovations to reduce their fossil-fuel GHG-emitting energy consumption by 50 percent immediately, increasing this reduction to 60 percent in 2010, 70 percent in 2015, 80 percent in 2020, and 90 percent in 2025, until all new buildings are carbon neutral by 2030.

Smart growth

Smart growth takes on renewed prominence in light of climate change, since compact, mixed-used developments greatly reduce per capita vehicle miles traveled and associated GHG emissions. Fortunately, transit-oriented development is on the rise in the Bay Area, as are incentives for smart growth from the Metropolitan Transportation Commission and the Association of Bay Area Governments.

Weather resiliency

Planners need to understand they can build developments to withstand the changes global warming will bring—long and intense droughts, fierce hurricanes, heat waves, and rising sea levels.[4] Planners can start by assessing the risk potential of new buildings and incorporating design considerations for adaptation. There's never been a better time for a pay increase for planners, because as in medicine, an ounce of prevention is worth a pound of cure, and as government agencies assess the cost of capital improvements for handling rising sea levels and droughts, they find themselves facing costs surpassing a billion dollars solely in the Bay Area. Planners who work with developers to improve the weather resiliency of developments are therefore worth their weight in gold.

Look to the European Union for planning guidance in response to climate change; political will has given them a few years' head start. In 2004, the UK Office of the Deputy Prime Minister issued "The Planning Response to Climate Change: Advice on Better Practice." Excerpted from that report is a checklist for assessing risk and design considerations for adapting to climate change. The report recommends screening incoming development plans by considering both "risk" and "adaptation":

Risk

Is the site at risk from current or future climate change impacts such as:

- sea level rises?
- storm surges (extreme high water levels and tidal flooding)?
- flash floods?
- groundwater rise flooding?
- land erosion?
- wind damage?
- water shortage?

Does the development potentially increase climate-related risks in the locality in terms of:

- Increased surface water run-off causing changes to the flood plain?
- Increased pressure for new or enhanced flood or coastal defense measures?
- Loss of tree cover that provides wind protection or shade?
- Fragmentation and vulnerability of habitats?
- Increased pressure for water resources?

Adaptation

Has the development adopted features that increase resilience to climate impacts such as:

Flood risk and heavy rain events? For example:

- Incorporating landscape features to absorb floodwater in larger developments.
- Ensuring building services are sited above potential flood levels.
- Increasing resistance of building envelopes to penetration by driving rain.

Drought and extreme heat? For example:

- Specifying water recycling and rainwater collection features.
- Incorporating passive ventilation and greater thermal mass.
- Incorporating shading into land scaping and design of open public spaces.
- Incorporating features which prevent excessive solar gain.

Storms and strong winds? For example:

- Design to reduce aerodynamic loads.
- Incorporating landscaping to provide protection from prevailing winds.

Emergency planning? For example:

- Access for emergency vehicles.

Conclusion

Planners are perfectly poised to help communities respond to global climate change through both mitigation and adaptation strategies. Working with developers, government agencies, and residents, planners can help create climate neutral and adaptive communities, using techniques they have employed for years: green building and smart growth. New considerations for planners include assessing the risk potential of new buildings and incorporating design considerations for adaptation. Together, these are the tools we all need to adopt if we hope to build climate neutral communities. ■

Climate Change 2007: The physical science basis—Summary for policymakers

Contribution of Working Group I to the Fourth Assessment Report (FAR) of the Intergovernmental Panel on Climate Change (IPCC), Paris, February 2007.

Ed. Note: All of the following information has been excerpted directly from the IPCC Fourth Assessment Report (FAR) of February 2007. The excerpts are presented here without the scientific notations, definitions, footnotes, tables, graphs, and maps that appear throughout the report. Readers are encouraged to visit the IPCC website http://www.ipcc.ch to read the complete document.

INTRODUCTION

Summary: Th[is] Working Group I contribution to the IPCC Fourth Assessment Report … builds upon past IPCC assessments and incorporates new findings from the past six years of research.

HUMAN AND NATURAL DRIVERS OF CLIMATE CHANGE

["Climate change" in IPCC usage refers to any change in climate over time, whether due to natural variability or as a result of human activity. This usage differs from that in the Framework Convention on Climate Change, where climate change refers to a change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and that is in addition to natural climate variability observed over comparable time periods.]

Summary: Changes in the atmospheric abundance of greenhouse gases and aerosols, in solar radiation and in land surface properties alter the energy balance of the climate system.

Global atmospheric concentrations of carbon dioxide, methane and nitrous oxide have increased markedly as a result of human activities since 1750 and now far exceed pre-industrial values determined from ice cores spanning many thousands of years ... The global increases in carbon dioxide concentration are due primarily to fossil fuel use and land-use change, while those of methane and nitrous oxide are primarily due to agriculture.

Carbon dioxide is the most important anthropogenic[5] greenhouse gas …

The primary source of the increased atmospheric concentration of carbon dioxide since the pre-industrial period results from fossil fuel use, with land use change providing another significant but smaller contribution.

The global atmospheric concentration of methane … in 2005 exceeds by far the natural range of the last 650,000 years as determined from ice cores.

DIRECT OBSERVATIONS OF RECENT CLIMATE CHANGE

Summary: Since the Third Assessment Report (TAR), progress in understanding how climate is changing in space and in time has been gained through improvements and extensions of numerous datasets and data analyses, broader geographical coverage, better understanding of uncertainties, and a wider variety of measurements. Increasingly comprehensive observations are available for glaciers and snow cover since the 1960s, and for sea level and ice sheets since about the past decade. However, data coverage remains limited in some regions.

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 mean sea level.

Eleven of the last twelve years (1995-2006) rank among the 12 warmest years in the instrumental record of global surface temperature—the average of near surface air temperature over land, and sea surface temperature—since 1850.

The average atmospheric water vapour content has increased since at least the 1980s over land and ocean as well as in the upper troposphere. The increase is broadly consistent with the extra water vapour that warmer air can hold.

Observations since 1961 show that the average temperature of the global ocean has increased to depths of at least 3000 m and that the ocean has been absorbing more than 80% of the heat added to the climate system. Such warming causes seawater to expand, contributing to sea level rise.

Mountain glaciers and snow cover have declined on average in both hemispheres. Widespread decreases in glaciers and ice caps have contributed to sea level rise (ice caps do not include contributions from the Greenland and Antarctic ice sheets). *(continued on page 7)*

LETTERS

Dear Friends,

As the new Chair of the Senate Environment and Public Works Committee, I am working to make the fight against global warming a top national priority.

…[T]he Bush Administration has done little to deal with the long-term and serious problem of global warming despite overwhelming evidence that greenhouse gas (GHG) emissions from human activity are altering the planet's climate. The buildup of harmful gases in the atmosphere, such as carbon dioxide and methane, is causing the planet to warm. This warming is raising sea levels and threatening to flood coastal areas, and it could increase agricultural losses from drought and pests and cause numerous other destructive impacts. Scientists have warned that we may be reaching a "tipping point" beyond which irreversible damage may occur.

That is why I am an original co-sponsor of S.309, the Global Warming Pollution Reduction Act. Introduced by Senator Bernie Sanders (I-VT), this bill would set a mandatory cap on GHG emissions and require sufficient reductions of GHG emissions to ensure that we do not reach levels that will be dangerous to the environment. S.309 would also raise emission standards for vehicles and energy providers, promote cleaner and more efficient energy technologies and sources, and support additional climate change research.

Rest assured that I will do everything within my power to address this urgent environmental threat. I am committed to working closely with my colleagues to find consensus on this critical issue so that we can pass meaningful legislation in the near future.

Barbara Boxer
United States Senator
February 9, 2007

 (continued from page 6)

New data since the TAR now show that losses from the ice sheets of Greenland and Antarctica have very likely contributed to sea level rise over 1993 to 2003 …

Global average sea level rose at an average rate of 1.8 [1.3 to 2.3] mm per year over 1961 to 2003 …. There is *high confidence* that the rate of observed sea level rise increased from the 19th to the 20th century. The total 20th century rise is estimated to be 0.17 [0.12 to 0.22] m.

At continental, regional, and ocean basin scales, numerous long-term changes in climate have been observed. These include changes in Arctic temperatures and ice, widespread changes in precipitation amounts, ocean salinity, wind patterns and aspects of extreme weather including droughts, heavy precipitation, heat waves and the intensity of tropical cyclones (includes hurricanes and typhoons).

Mid-latitude westerly winds have strengthened in both hemispheres since the 1960s.

The frequency of heavy precipitation events has increased over most land areas, consistent with warming and observed increases of atmospheric water vapour.

Widespread changes in extreme temperatures have been observed over the last 50 years. Cold days, cold nights and frost have become less frequent, while hot days, hot nights, and heat waves have become more frequent.

A PALEOCLIMATIC PERSPECTIVE

Summary: Paleoclimatic studies use changes in climatically sensitive indicators to infer past changes in global climate … on time scales ranging from decades to millions of years.

Paleoclimate information supports the interpretation that the warmth of the last half century is unusual in at least the previous 1300 years. The last time the polar regions were significantly warmer than present for an extended period (about 125,000 years ago), reductions in polar ice volume led to 4 to 6 metres of sea level rise.

UNDERSTANDING AND ATTRIBUTING CLIMATE CHANGE

Most of the observed increase in globally averaged temperatures since the mid-20th century is *very likely* due to the observed increase in anthropogenic [defined as *"originating in human activity"*] greenhouse gas concentrations.

The observed widespread warming of the atmosphere and ocean, together with ice mass loss, support the conclusion that it is *extremely unlikely* that global climate change of the past fifty years can be explained without external forcing, and very likely that it is not due to known natural causes alone.

PROJECTIONS OF FUTURE CHANGES IN CLIMATE

For the next two decades a warming of about 0.2°C per decade is projected for a range of SRES emission scenarios (Special Report on Emission Scenarios, 2000). Even if the concentrations of all greenhouse gases and aerosols had been kept constant at year 2000 levels, a further warming of about 0.1°C per decade would be expected.

Model experiments show that even if all radiative forcing agents are held constant at year 2000 levels, a further warming trend would occur in the next two decades at a rate of about 0.1°C per decade, due mainly to the slow response of the oceans.

Continued greenhouse gas emissions at or above current rates would cause further warming and induce many changes in the global climate system during the 21st century that would *very likely* be larger than those observed during the 20th century.

Models used to date do not include uncertainties in climate-carbon cycle feedback nor do they include the full effects of changes in ice sheet flow, because a basis in published literature is lacking. The projections include a contribution due to increased ice flow from Greenland and Antarctica at the rates observed for 1993-2003, but these flow rates could increase or decrease in the future.

There is now higher confidence in projected patterns of warming and other regional-scale features, including changes in wind patterns, precipitation, and some aspects of extremes and of ice.

Snow cover is projected to contract. Widespread increases in thaw depth are projected over most permafrost regions.

Sea ice is projected to shrink in both the Arctic and Antarctic under all SRES scenarios. In some projections, Arctic late-summer sea ice disappears almost entirely by the latter part of the 21st century.

It is *very likely* that hot extremes, heat waves, and heavy precipitation events will continue to become more frequent.

Based on a range of models, it is likely that future tropical cyclones (typhoons and hurricanes) will become more intense, with larger peak wind speeds and more heavy precipitation associated with ongoing increases of tropical SSTs. There is less confidence in projections of a global decrease in numbers of tropical cyclones.

Increases in the amount of precipitation are *very likely* in high-latitudes, while decreases are likely in most subtropical land regions … continuing observed patterns in recent trends.

Anthropogenic warming and sea level rise would continue for centuries due to the timescales associated with climate processes and feedbacks, even if greenhouse gas concentrations were to be stabilized.

Contraction of the Greenland ice sheet is projected to continue to contribute to sea level rise after 2100. Current models suggest ice mass losses increase with temperature more rapidly than gains due to precipitation …

Current global model studies project that the Antarctic ice sheet will remain too cold for widespread surface melting and is expected to gain in mass due to increased snowfall….

Both past and future anthropogenic carbon dioxide emissions will continue to contribute to warming and sea level rise for more than a millennium, due to the timescales required for removal of this gas from the atmosphere. ■

What can planners do about climate change?

By Michele Rodriguez, AICP, Urban & Regional Planning Consultant, and NSCCAPA's Planning Diversity Director

With last month's issuance of the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (see pages 6 and 7 of this issue), it has been all but confirmed that global warming stems primarily from human activities. While the federal government and the State of California are taking some steps to respond, planners working for local governments have a huge opportunity to exert power and influence to confront this challenge by developing and implementing program and policy changes.

Before looking at local planning initiatives, it is worth reviewing what is happening at other levels of government.

What is the federal government doing?
Each year the United States contributes about a quarter of the world's greenhouse gases. Until very recently, however, the federal government has done little. President Bush rejected the 2001 Kyoto Protocol, an international treaty requiring 35 industrial nations to cut their global-warming gases by 5 percent below 1990 levels by 2012. The President also rejected government-ordered reductions in greenhouse gas (GHG) emissions, citing concern about job loss. More recently Mr. Bush has called for federal agencies to reduce energy consumption in buildings by 30 percent by 2015 and to apply green building strategies to new construction and major renovations.[6]

Other federal programs include the Million Solar Roofs (MSR) Initiative, funding for climate-change programs, and energy tax credits.

What is the State of California doing?
California is quickly taking the lead in the fight against global warming. In 2005, Governor Schwarzenegger signed an Executive Order establishing statewide GHG emission goals as follows:

- By 2010, reduce to 2000 emission levels
- By 2020, reduce to 1990 emission levels
- By 2050, reduce to 80 percent below 1990 levels

Last year, California enacted the California Global Warming Solutions Act (AB 32) which establishes a comprehensive program of regulatory and market mechanisms to achieve real, quantifiable, cost-effective reductions of greenhouse gases. It requires the Air Resources Board (ARB) to establish a statewide emissions cap for 2020 based on 1990 emissions and adopts mandatory reporting rules.

Also in 2006, the California Public Utilities Commission (CPUC http://www.cpuc.ca.gov) created the California Solar Initiative which moves the renewable energy rebate program for existing homes from the California Energy Commission to the utility companies under the direction of the CPUC.[7] This new incentive program provides a total of $2.9 billion over 10 years.

Beginning in 2007, the California Energy Commission is offering $350 million targeted for new residential building construction under the New Solar Homes Partnership (http://www.gosolarcalifornia.ca.gov/nshp/).

Going further back, in 2002, California established its Renewable Portfolio Standard Program, with the goal of increasing the percentage of renewable energy in the state's electricity mix from 10 to 20 percent by 2017.

ABAG actions
Transit oriented development is critical to reducing carbon emissions in the Bay Area. The Association of Bay Area Governments (ABAG) has begun to incorporate global climate change into its policy documents, including its *Bay Area Vision* project developed with the Metropolitan Transportation Commission (MTC) and the Bay Area Air Quality Management District (BAAQMD). The *Vision* project—which builds on the 2002 *Smart Growth Strategy Livability Footprint*—aims to shift growth toward a more compact and connected development pattern. Compact development is also a focus of new rounds of the Regional Housing Needs Allocation and housing element updates.

ABAG also developed the Bay Area Green Business Program in collaboration with US EPA, Cal EPA–Department of Toxic Substances Control, and the business community. The program is a voluntary partnership that recognizes and promotes businesses that demonstrate continuous compliance with applicable environmental regulations and conserve energy, water, and other materials.

The ABAG report, *Natural Hazards and Climate Change – Risk Management and Public Policy Opportunities*, examines the impacts of climate change and options for local government.

What else might ABAG do? It could integrate global climate change into other programs including the Emergency Planning for the Bay/Delta Levee Failure program, the Critical Coastal Areas Pilot Projects, the Bay Trail, and its Corridors Projects. Its regional GIS could be used to show local sea level rise, to conduct solar potential mapping, and for carbon emissions calculations and monitoring.

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China trips—2 down, 1-to-go

Rob Eastwood, AICP, NSCCAPA's International Director, will have two 17-day tours going to China in May!
Tour I leaves May 9 and ends May 25. **Tour II** starts May 25 and ends June 10.
Both tours begin in Hong Kong and end in Beijing. The list is closed, the tours are set, and they're practically on their way!

However, there's still time to join National APA's China Study Tour, June 9-19: Beijing, Nanjing, Suzhou, Shanghai.
Details at http://www.planning.org/APAinChina/studytour/index.htm

tenthingstodo

Want to do something to help stop global warming?

Here are 10 simple things you can do and how much carbon dioxide (CO_2) you'll save doing them!

Change a light
Replacing one regular light bulb with a compact fluorescent light bulb will save 150 lbs. of CO_2!

Drive less
Walk, bike, carpool or take a mass transit more often. You'll save 1 lb. of CO_2 for every mile you *don't* drive!

Recycle more
You can save 2,400 lbs of CO_2 per year by recycling just half of your household waste.

Check your tires
Keeping your tires inflated properly can improve gas mileage by more than 3%. Every gallon of gasoline saved keeps 20 lbs. of CO_2 out of the atmosphere!

Use less hot water
It takes a lot of energy to heat water. Use less hot water by installing a low flow showerhead (350 lbs. of CO_2 saved per year) and wash your clothes in cold or warm water (500 lbs. saved per year).

Avoid products with a lot of packaging
You can save 1,200 lbs. of CO_2 if you cut down your garbage by 10%.

Adjust your thermostat
Turn your thermostat down just 2 degrees in winter and up 2 degrees in summer. You could save about 2,000 lbs. of CO_2 a year with this simple adjustment.

Plant a tree
A single tree will absorb one ton of CO_2 over its lifetime.

Turn off electronic devices
Simply turning off your television, DVD player, stereo and computer when you're not using them will save thousands of pounds of CO_2 a year.

Source: www.climatecrisis.org

What can planners do about climate change?

(continued from page 8)

Carbon emissions could be determined for all nine Bay Area counties, and the data could be segregated by main contribution so that policies and programs can be appropriately tailored to promote reduction.

The American Planning Association
APA's Board of Directors ratified a policy on planning for sustainability in April 2000. Objectives that relate directly to global climate change and carbon reduction include reducing dependence on fossil fuels and other manufactured substances that can accumulate in nature.

What can cities and counties do?
Cities and counties are major contributors to GHG emissions. One way they can reduce climate change is to participate in the Mayors for Climate Protection program. So far, over 300 mayors, representing more than 50 million Americans, have signed the US Mayors Climate Protection Agreement.

Participating cities commit to the following:

- Strive to meet or beat the Kyoto Protocol targets in their own communities through actions ranging from anti-sprawl land-use policies to urban forest restoration projects to public information campaigns;
- Urge their state and federal governments to enact policies and programs to meet or beat the GHG emission reduction target suggested for the United States in the Kyoto Protocol; and
- Urge Congress to pass bipartisan GHG reduction legislation establishing a national emission trading system.

Participating cities work toward five objectives:

1. Conduct a baseline emissions inventory and forecast.
2. Adopt an emissions reduction target for the forecast year.
3. Develop a Local Action Plan.
4. Adopt policies and implementation measures.
5. Monitor and verify results.

According to the Mayors for Climate Protection web site, cities prosper from climate action through investment in mass transit; commitment to clean, renewable energy; improved public health from cleaner air; and new partnerships with the private sector.

Green Building programs. Local agencies can also implement a green building program. According to the US Green Building Council (USGBC), green buildings save 70 percent of solid waste, 40 percent of water, 35 percent of carbon emissions, and between 30-50 percent of energy. Jurisdictions with green building programs include Marin County, San José, San Mateo County, Pleasanton, Los Angeles, Santa Monica, West Hollywood, Santa Clarita, Irvine, and San Francisco. The programs vary by jurisdiction, but generally offer:

- Green Building guidebook,
- Technical assistance,
- Website information,
- Training and education of architects, builders, and staff on green building techniques,
- Requirement that government buildings receive Green Building certification,
- Construction and demolition waste recovery ordinances,
- Energy efficiency ordinances, and
- Adding the Green Building Rating System to their design review findings.

Green business. Local jurisdictions could operate local green business programs similar to Marin County's Sustainable Partners program. Marin's program requires businesses to meet basic standards and make additional environmental impact reduction efforts.

Renewable energy programs. Jurisdictions could encourage the use of renewable energy sources (wind, water, waste [methane], and solar) by streamlining their zoning ordinances and permitting processes and through employee training in the new technologies. Resources and advice for these efforts are available through Vote Solar in San Francisco and the P.G.& E. Pacific Energy Center.

General plans and zoning ordinances. General plans have the potential to significantly reduce global warming through policies regulating land use placement and density, building design,

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What can planners do about climate change?

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energy, and circulation. City and county general plans can establish global warming reduction goals that set forth the intent of using renewable energy, fuel-efficient transportation, and green building and business practices. Cities can benchmark the contribution that different land uses make to GHG emissions and focus their policies on them.

If planners are creative, the range of potential new ordinances is broad. Many jurisdictions have developed construction and demolition waste recovery ordinances to require mandatory re-use or recycling of construction waste. Energy efficiency ordinances require buildings that exceed a particular size to not generate more energy than a much smaller sized building. Essentially this means that the building must be designed to exceed Title 24 requirements—for example, by installing renewable energy sources. Other cities are looking at ways to reduce the permitting requirements for developments that use renewable energy technologies.

Conclusion

Planners have the ability to integrate sensible policies and programs into their land use planning to significantly reduce global warming. They can step up to the challenge and do their part to protect the world for generations and leave the climate and environment in better shape than they found it.

Michele Rodriguez, AICP, was principal planner in charge of the Marin Countywide Plan update—the first general plan in the nation with the overarching theme of sustainability. ■

Footnotes for all articles:

1. Climate Change and Your Town. http://www.biology.duke.edu/bio217/2002/smo3/index.html
2. The Planning Response to Climate Change. http://www.communities.gov.uk/embedded_object.asp?id=1144498
3. Homepage of US Green Building Council. http://www.usgbc.com
4. Intergovernmental Panel on Climate Change. Climate Change 2007. http://www.ipcc.ch
5. Originating in human activity.
6. Executive Order January 24, 2007. Source: US Green Building Council.
7. CPUC ruling - R.04-03-017 ■

JOBS

RBF CONSULTING

Environmental Planning Project Manager

RBF Consulting has an exciting opportunity for an experienced **Environmental Planning Project Manager** to work in either our Monterey Bay or San José office. Current projects include military base conversions, urban infill projects, sports complexes, industrial site conversions, transit-oriented villages, and affordable housing projects that will improve quality of life in Northern California. This position requires proven success in EIR preparation and management including initial studies, negative declarations, and mitigated negative declarations. Public outreach and presentations to jurisdictional entities, coordination of multidisciplinary consulting services, project organization and proposal, and project submittal preparation.

Qualified candidates will have a Bachelor's or Master's in environmental studies, Urban Planning, Geography or related field, 8 to 10 years of relevant public and/or private sector experience in environmental planning, and must be a CEQA expert. Excellent written, verbal, and presentation skills are essential.

RBF offers excellent compensation and benefits packages, including a generous matching 401(k), profit and bonus plans, relocation assistance, and ownership opportunity.

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COUNTY OF MAUI, HAWAII

Planner V – General Plan Planner
Civil Service - $47,448 - $67,536

The County of Maui is accepting applications for a senior planner (Planner V - General Plan Planner) position in the Maui County Planning Department's Long Range Division. The Planner V will assist with preparing the Maui County General Plan, Community Plans, zoning ordinance, rule updates, design guidelines, and other special planning projects, and initiate liaison activities with the public, governmental agencies, consultants and other groups.

Minimum Qualifications: A combination of education and experience substantially equivalent to (1) Graduation from an accredited college or university with a bachelor's degree in urban or regional planning, architecture, civil engineering, geography, economics, sociology, public administration, or a related field; (2) four years of research and experience involving the analysis of statistical data, two of which involve the preparation of community plans, comprehensive plans, functional plans, or land use ordinances, and managing special planning projects or public participation programs.

Planner V – Current Planning Division
Civil Service - $47,448 - $67,536

The County of Maui is accepting applications for several senior planner (Planner V) positions in the Planning Department's Current Planning Division. The Planner V will process various land use permits, conduct design review, and process environmental documents as well as initiate and participate in promoting effective communication with the public, governmental agencies, and other groups.

Minimum Qualifications: A combination of education and experience substantially equivalent to (1) Graduation from an accredited college or university with a bachelor's degree in urban or regional planning, architecture, civil engineering, geography, economics, sociology, public administration, or a related field; (2) four years of research or analytical experience involving the compilation, examination, and interpretation of statistical and other data, two of which shall have been in community planning.

Official recruitment announcements for both positions (PLANNER V - EXAM NO. 2005-30). Applications available at:

County of Maui
Department of Personnel Services
Kalana O Maui Building, Sixth Floor
200 South High Street, Wailuku, Hawaii 96793
Telephone: (808) 270-7850
www.co.maui.hi.us/departments/Personnel

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NORTHERN SECTION CALENDAR

MARCH

1 **NSCCAPA Board meeting,** 6:30 – 8:30 PM, Planning offices of WRT, 1328 Mission Street, 4th Floor, San Francisco. Contact Michael Olin, molin@sf.wrtdesign.com

8 **Bruce Williams, TODs & parking.** Perspectives in Planning, Urban Planning Coalition Spring Speaker Series, San José State University, 6 to 7 PM, San José State/King Library, Room 255. Contact Brandi de Garmeaux, upcresponse@yahoo.com

16 **Visioning a Green Community for Marin.** County Supervisor Charles McGlashan, with architect Sim Van der Ryn. College of Marin, Olney Hall, 7 PM. Contact andres@andresedwards.com

23 **North Bay social**, Friday, March 23, 6 to 8 PM, 3rd Street AleWorks Brewpub, 610 Third Street, 2nd Floor, Santa Rosa. Contact Ladd Miyasaki (707) 523-1010

24 **2007 CCAPA Conference Steering Committee,** 10 AM – Noon, San José City Hall - Development Services Lobby (1st Floor of City Hall Tower), 200 East Santa Clara Street, San José. Contact Juan Borrelli, juan.borrelli@sanjoseca.gov or Hing Wong, hingw@abag.ca.gov

APRIL

12 **Dennis Klein, GIS planning.** Perspectives in Planning, Urban Planning Coalition Spring Speaker Series, San José State University, 6 to 7 PM, San José State/King Library, Room 255. Contact Brandi de Garmeaux, upcresponse@yahoo.com

14–18 **APA National Conference, Philadelphia** http://www.planning.org/2007conference/

26 **East Bay RAC and AEP: How green is our planning?** A panel and dialogue on emerging strategies. 6 to 9 PM, downtown Berkeley, location TBD

28 **2007 CCAPA Conference Steering Committee**, 10 AM – Noon, San José City Hall - Development Services Lobby (1st Floor of City Hall Tower), 200 East Santa Clara Street, San José. Contact Juan Borrelli, juan.borrelli@sanjoseca.gov or Hing Wong, hingw@abag.ca.gov

MAY

3 **Liz Cullinan, Regionalism vs. localism.** Perspectives in Planning, Urban Planning Coalition Spring Speaker Series, San José State University, 6 to 7 PM, San José State/King Library, Room 255. Contact Brandi de Garmeaux, upcresponse@yahoo.com

3 **NSCCAPA Board meeting, 6:30 – 8:30 PM,** Location TBD.

4 **CPF Bay Area sustainability tour**—trekking the streets of San Francisco. www.californiaplanningfoundation.org

18 **NSCCAPA Planning Awards Banquet**, 6 to 9 PM, Marines' Memorial Club, Crystal Ballroom, 609 Sutter Street, San Francisco. Contact Eileen Whitty, ewhitty@ebmud.com

19 **2007 CCAPA Conference Steering Committee**, 10 AM – Noon, San José City Hall - Development Services Lobby (1st Floor of City Hall Tower), 200 East Santa Clara Street, San José. Contact Juan Borrelli, juan.borrelli@sanjoseca.gov or Hing Wong, hingw@abag.ca.gov

25 **Peter Calthorpe**, Designing with a focus on environmental sustainability and human scale. College of Marin, Olney Hall, 7 PM. Contact andres@andresedwards.com

2007 CCAPA Conference, Sunday, September 30 – Wednesday, October 3, 2007, Fairmont Hotel, Downtown San José

MARCH

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