

MEMORANDUM

TO: City Council

FROM: David J. Deutsch
City Manager

SUBJECT: Climate Change Resolution

DATE: July 2, 2009

The Climate Change Resolution was before City Council in January 2009, at which time it was tabled. This Resolution is only slightly revised from the earlier version.

The Council of Governments' "Climate Change Report", also presented to Council in January 2009, presents a compelling case concerning environmental degradation and climate change impacts. Although staff supports the goals of the Climate Change Resolution, there are a number of concerns that need to be raised:

Item Number 2. Since staff is engaged in developing greenhouse gas emission baseline data, it may be premature to specify greenhouse gas reduction targets at this time.

Item Number 3. A reduction of overall energy use by 15% by 2015 is a bit problematic. For example, the police fleet is expected to contain 12 more units in 2015 than the FY09 total. Also, a new City Hall and an upgraded, more complex Wastewater Treatment Plant will become part of the City building inventory. References to retrofits of street lighting should be qualified by the word "consider".

Item Number 4. Staff continues to investigate conversion of the diesel fleet to alternative fuels. It is too early to commit to a full fleet conversion. The main issue is the convenient availability of a fueling station.

Item Number 5. Council should examine the budget implications of increasing renewable energy purchases from the current 4% level.

Item Number 6. Given that site plan review must occur within the M-NCPPC framework, this is not an option for Council unless County regulations are changed.

Item Number 9. A proposed tree reimbursement would need to be examined for its budget implications. The same comment applies to the notion of mitigating for all trees removed under the BGE Electric Reliability Action Plan.

Staff is prepared to facilitate your discussion of the Climate Change Resolution.

DJD/asf

Attachments

MEMORANDUM

To: Bowie City Council
From: Gary Allen, Chairman, Environmental Advisory Committee
Subject: Proposed Bowie Climate Change Resolution
Date: July 1, 2009

Concern continues to grow, action taken, new reports have been issued (note news release attached - June 16, www.globalchange.gov/usimpacts.) and even the Congress has at last taken the first steps toward a National Climate Action strategy. Energy, climate and other emerging environmental concerns are already having profound effects on the region by polluting and warming the Bay, creating dryer summers, reshaping energy use and individual transportation choices. For cities like Bowie, future economic growth will likely depend on finding reliable low-carbon alternatives to build a sustainable future.

Bold Action is needed. In January you were briefed on the National Capital Region Climate Change Report. It is one of the nation's first initiatives to address local greenhouse gas emissions on a regional level. COG officials view this work as one that provides a framework for improving the environment and providing for a prosperous and sustainable Regional future. New State action passing the Greenhouse Gas Reduction Act and new national reports on climate change issues have been released over past several months. Included in each are recommendations on what actions local government should take now to reduce the future effects of its activities on the local climate and how it can serve as an example to both citizens and other local governments.

Your Environmental Advisory Committee (EAC) has reviewed these actions, discussed them in depth and further reviewed the proposed Resolution (attached) for your action reflecting a set of challenging but doable goals and actions, which are based on the need to be comprehensive and cost effective while serving as a catalyst for community change on this timely, critical and visible issue.

The Bowie Climate Change Resolution has the unanimous support of the EAC. If adopted, Bowie would be the first municipality in the Washington area to act on climate change. As local government decision makers you have a unique opportunity to commit our community to actions in the months ahead that will significantly reduce the conditions that are the basis for area climate change predications.

The impacts of climate change are already being observed in our area, if they continue some of these effects will be dramatic, not just on the Bay and its many sub-ecosystems, but on our residents and economy. It is therefore appropriate and important that Bowie take an active role in leading the effort to reduce our community's contribution to this global problem.

It is important to note that the Resolution sets GOALS for City not mandates on staff (except for reporting and planning steps). The Committee and I believe that these are important, bold and pacesetting actions for local government. Staff support and your leadership will be critical to the launch and progress of this effort. Realistic concerns about cost will be an important input coupled with an assessment of

benefits and an appreciation of the equally real costs of doing too little too late to alter the projected consequences of inaction on this issue. One such issue is the status of the City's base line carbon footprint study. Staff is working on completion and may have a timeline when you meet. As the Resolution reads, this baseline is not prerequisite to passage but an important step in implementation.

Cost specifics will emerge in the budget year ahead. A study by the Baltimore-based International Center for Sustainable Development shows that Maryland could create between 144,000 and 326,000 "green collar" and research and development jobs by developing clean energy industries, contributing \$5.7 billion in wages and salaries thereby boosting local tax revenues by \$973 million and increasing gross state production by \$16 billion by its action on Greenhouse gas reductions in the Act noted above. One of your early opportunities to contribute to this projected outcome will be to increase your renewable energy purchase next year as defined in the Resolution.

The Environmental Advisory Committee recommends the Council to establish a "Climate Change" policy by passage of this Resolution, in addition to its Green Infrastructure policy, addressing energy efficiency, consumption and alternative sources, transportation, recycling, tree canopy expansion and land use planning and to exercise of its power as a participant in the marketplace to ensure that purchases and expenditures of public monies are made in a manner consistent with a policy of improving local air quality and reducing greenhouse gas emissions. Below is a summary of the goals set out in the proposed Resolution.

Summary -- Climate Change Goals

1. Inventory global warming greenhouse gas emissions from City operations.
2. Achieve reductions in City greenhouse gas emissions of 10% by 2012, 15% by 2015 and 20% by 2020 and develop a long-term goal for carbon neutrality for all city buildings.
3. Identify best practices to support reducing overall City energy use by 15% by 2015.
4. Establish measures of fleet average mileage based on appropriate vehicle classes and implement and report on a procurement vehicle program to achieve at least an overall 3% mileage improvement in the total fleet average annually for the next decade.
5. Establish a municipal goal of 10% renewable energy purchase by 2010 and 20% by 2015 in cooperation with other local governments in the Washington Metro area through regional cooperative purchase.
6. Ensure all new city facilities meet "LEED Silver" or higher standard; and make energy efficiency a priority through building code improvements.
7. Promote a variety of transportation options to reduce vehicle miles traveled.

8. Increase the community rate of recycling waste as a percentage of total waste at a rate of at least 2% per calendar year, for the next five years.
9. Adoption of a community canopy goal in 2009 which commits to mitigate (through tree planting) the total number of trees removed as part of the current utility tree removal process and by adopting incentives to promote tree planting on private lands.
10. Conduct public outreach through its web site, staff and the Environmental Advisory Committee.
11. Actively pursue Federal, State, and other incentive and cooperative programs and grants to assist in achieving the goals.
12. Report to the Council (each year) on progress toward these goals.

June 16, 2009

Government Study Warns of Climate Change Effects

By JOHN M. BRODER

WASHINGTON — The impact of a changing climate is already being felt across the United States, like shifting migration patterns of butterflies in the West and heavier downpours in the Midwest and East, according to a government study to be released on Tuesday. Even if the nation takes significant steps to slow emissions of heat-trapping gases, the impact of global warming is expected to become more severe in coming years, the report says, affecting farms and forests, coastlines and floodplains, water and energy supplies, transportation and human health.

The study was prepared by the United States Global Change Research Program, a joint scientific venture of 13 federal agencies and the White House. Under a 1990 law, the group is required to report every 10 years on natural and human-caused effects on the environment. The current study, which began in the George W. Bush administration, builds on the findings of the 2000 one.

The study, overseen by the White House Office of Science and Technology Policy, will be posted at www.globalchange.gov/usimpacts. Some of the effects being seen today and cited in the report are familiar, like more powerful tropical storms and erosion of ocean coastlines caused by melting Arctic ice. The study also cites an increase in drought in the Southwest and more intense heat waves in the Northeast as a result of growing concentrations of carbon dioxide and other climate-altering gases in the atmosphere.

Reduced mountain snowpack means earlier melt-offs and reduced stream volumes across the West and Northwest, affecting residential and agricultural water supplies, habitats for spawning fish and reduced hydroelectric power generation, the study found.

But the speed and severity of these effects in the future are expressed with less certainty in the report and will depend to some extent on how quickly the United States and other nations move to reduce emissions. "What we would want to have people take away is that climate change is happening now, and it's actually beginning to affect our lives," said Thomas R. Karl, director of the National Climatic Data Center at the National Oceanic and Atmospheric Administration and a principal author of the report. "It's not just happening in the Arctic regions, but it's beginning to show up in our own backyards."

Dr. Karl said that unless the country acted soon to reduce emissions and to adapt to inevitable effects of a changing climate, the costs would be severe.

"Our destiny is really in our hands," he said. "The size of those impacts is significantly smaller with appropriate controls." Dr. Karl said the section of the 188-page report dealing with human-health effects generated the most discussion and uncertainty among the agencies. The study said rising average temperatures would cause more heat-related illnesses and deaths, along with some reduction in deaths from extreme cold.

The study also showed that higher temperatures combined with air pollution would cause a higher incidence of asthma and other respiratory ailments.

Michael C. MacCracken, a leader of the 2000 study and a principal outside reviewer of the current one, said in an e-mail message that the new report was a useful overview of the state of current climate science in the United States, but "there is not much that is new."
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Proposed Climate Change Resolution (**CHANGES from January draft in BOLD**)

WHEREAS, The City of Bowie is committed through its actions and policies to work in partnership with its citizens, businesses and schools as active and informed stewards of the environment; to promote clean air, water and land and protect wildlife, in furtherance of the physical, environmental and economic health of the community; and

WHEREAS, The Metropolitan Washington Region is experiencing the effects of climate change with rising temperatures, drier summers and a warmer Chesapeake Bay; with uncertain and possibly severe consequences to the future health and well-being of the citizens of Bowie; and

WHEREAS, both the State of Maryland and the Metropolitan Washington Council of Governments have issued reports on the status of climate change in Maryland, calling for local governments to lead by example; and these reports rely in part on the findings of the Intergovernmental Panel on Climate Change, which concluded that industrialized nations need to take substantial early action to stem the growth of and reduce greenhouse gas emissions; and

WHEREAS, governmental bodies around the country, in partnership with the private sector have adopted climate change and green fleet policies, and are providing public leadership benefitting the environment, operating fleets more efficiently, improving public health, and providing positive examples to the private sector; and

WHEREAS, transportation source emissions have been linked to increased incidents of asthma, exposure to benzene and other harmful chemicals, and the formation of ground level ozone all of which negatively impact the public health; and

WHEREAS The City of Bowie recognizes that it plays a role in improving local air quality and reducing greenhouse gas emissions by improving the energy efficiency of its buildings and vehicle fleet and reducing emissions from fleet operations, and that encouraging participation from the public and private sectors in these areas will contribute to energy use reductions, efficiency improvements and a reduction in greenhouse gas emissions that contribute to global climate change; and

WHEREAS, the City of Bowie recognizes it can and should reduce its contributions to these climate effects by reducing its green house gas emissions, thereby creating greater budgetary and operational flexibility; and

WHEREAS, the City of Bowie recognizes that energy use associated with the operation of its motor vehicle fleet exacerbates local air quality problems and results in greenhouse gas emissions that contribute to global climate change; the City of Bowie maintains a fleet of vehicles which are routinely replaced; and by improving the energy efficiency of its fleet, monetary savings will result in the long term; and

WHEREAS, the City of Bowie has adopted policies in Green Infrastructure Planning, Wildlife Habit Protection and Green Building; and has developed services such as recycling and composting (through the Leaf Collection Program), and other active environmental stewardship efforts such as growth limits, bicycle trails, transit studies, hybrid car purchases, cooperative purchases of renewable energy, energy efficiency initiatives and tree planting; and

WHEREAS, the City of Bowie wishes to establish a "Climate Change" policy, in addition to its Green Infrastructure policy, addressing energy efficiency, consumption and alternative sources, transportation, recycling, tree canopy expansion and land use planning; and wishes to establish a "Green Fleet" policy addressing the management, operation and procurement of fleet vehicles under the control of the City of Bowie, in order to improve the energy efficiency of its fleet, reduce emissions from its fleet, and increase the capacity of the fleet to save municipal tax dollars; and by exercise of its power as a participant in the marketplace to ensure that purchases and expenditures of public monies are made in a manner consistent with the policy of improving local air quality and reducing greenhouse gas emissions.

NOW, THEREFORE, BE IT RESOLVED, that the City of Bowie will

1. Build on existing policies and programs to make progress toward achieving consistent reductions in greenhouse gas emissions and reducing the vulnerability of its citizens, natural resources and built environment to environmental damage and other climate change impacts; and
2. Inventory global warming greenhouse gas emissions from City operations and create an action plan to achieve reductions in city greenhouse gas emissions of 10% by 2012, 15% by 2015 and 20% by 2020 and develop a long-term goal for carbon neutrality for all government buildings; and
3. Identify best practices to support reducing overall local government energy use by 15 % by 2015; place priority on the purchase Energy Star equipment and appliances for all appropriate City uses; directing staff to provide a **phased** plan for retrofitting city facilities with energy efficient lighting and heating systems **by fall 2010**, including **future** street lighting **retrofits**, and urging employees to conserve energy and save on energy costs; and

4. Manage the operation and procurement of fleet vehicles under the control of the City of Bowie in order to improve the energy efficiency of its fleet, reduce emissions from its fleet, and increase the capacity of the fleet to save municipal tax dollars; and direct staff to investigate conversion of city diesel vehicles to alternative fuels and report by the next budget cycle on the cost and schedule to make such a conversion of all appropriate vehicles within six years. The Council will direct staff to establish measures of fleet average mileage based on appropriate vehicle classes and implement and report on a procurement vehicle program to achieve at least an overall 3% mileage improvement in the total fleet average annually for the next decade; and with **replacement purchase of** hybrid and alternative fueled vehicles, raising the fleet's average mileage; and explore the use of electric vehicles for appropriate city functions; and
5. Establish a municipal goal of 10% renewable energy purchase by 2010 and 20% by 2015 in cooperation with other local governments in the Washington Metro area through regional cooperative purchase, to facilitate green power implementation and use and to encourage investments in clean low greenhouse gas emitting energy sources; and
6. Continue to practice and promote sustainable building practices using the U.S. Green Building Council's LEED program to ensure all new city facilities meet "LEED Silver" or higher standard; and make energy efficiency a priority **in site plan review** ~~building code improvements~~; and
7. Promote transportation options such as bicycle/pedestrian trails, commuter trip reduction programs, and incentives for car pooling and public transit; **encourage** ~~expand~~ existing and develop new programs to enhance use **of public access** ~~to~~ transit and alternative transportation modes, commuter connections, guaranteed ride home, telework programs, park and ride lots and smart bike programs.
8. Promote increased citizen and business participation in all areas of recycling, increasing the rate of recycling waste as a percentage of total waste at a rate of at least 2% per calendar year, for the next five years; and
9. Maintain healthy a urban forest and street tree population through the adoption of a community canopy goal in 2009 and by adopting incentives to promote tree planting on private lands to increase shading, energy savings and to absorb CO₂; and within one year of adoption of that goal **consider the** establish a "Community Greening Fund" for tree purchase reimbursement of up to \$25 for trees costing over \$50 for any native tree purchased and planted by a homeowner on their property outside of the BGE utility corridor. Furthermore, the City commits to mitigate (through tree planting) the total number of trees removed as part of the current utility tree removal process based upon data reported by BGE as a component of the City's future adopted urban canopy goal; and

10. Adopt, refine and follow land-use guidelines that reduce sprawl, preserve open space and create a cooler, compact and walkable community by identifying practices for Bowie that include greenhouse gas reduction, energy efficiency and renewable energy as an element in the local planning review process. Council directs the Environmental Advisory Committee to recommend criteria which include practices that address climate change and energy efficiency for use in the City's Development Review Guidelines; and

11. Conduct public outreach through its web site, staff and the Environmental Advisory Committee to educate the public, schools and local businesses about the benefits of reducing greenhouse gas emissions; to encourage the purchase of more efficient and alternative-fueled vehicles by both public and private entities, and to encourage the provision of energy audits and retrofits for individuals and businesses through regional cooperative efforts; and

12. Ensure that these policies will further dictate procurement procedures and management changes to be reported to the Council within one year of enactment of this Resolution unless otherwise specified **and each year in the City's Environmental Report**; and

BE finally RESOLVED that the City of Bowie shall actively pursue Federal, State, and other incentive and cooperative programs and grants to assist in achieving the goals and policies in this Resolution.