

# *Children's Health Protection Advisory Committee*

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Stephen L. Johnson, Administrator  
United States Environmental Protection Agency  
1200 Pennsylvania Avenue, N.W.  
Washington, D.C. 20460

RE: National Water Program Strategy: Response to Climate Change

Dear Administrator Johnson:

The Children's Health Protection Advisory Committee (CHPAC) appreciates this opportunity to comment on the draft climate change strategy prepared by the National Water Program Climate Change Workgroup. The CHPAC appreciates the considerable effort involved in drafting the document, and is pleased that the Office of Water will be taking actions to respond to the numerous impacts that climate change will have on our nation's Clean Water and Safe Drinking Water Programs. The public health impacts of climate change are becoming clear. Because children are often more severely affected by environmental hazards, the CHPAC would like to offer comments from the perspective of protecting children's health. In our 2005 letter (attached), CHPAC urged you to move forward aggressively with actions to reduce greenhouse gas emissions, conduct research, outreach and education, and noted a number of major health risks to children exacerbated by climate change. Those directly related to water include: threats to water quality and quantity; water-borne infectious disease; asthma exacerbation (e.g., from increased aero-allergens and water damage related mold); disruption of social systems and displacement of populations; interruptions of food supply; and safety in weather-related disasters.

The CHPAC notes that human health impacts, including direct effects from severe weather events such as flooding and drought, and indirect effects related to changes in vector-borne, food- and water-borne diseases, and threats to food production, are not discussed in the strategy. While these water-related impacts of climate change will affect all people, we are especially concerned

that children will be most affected. Children consume more water per pound of body weight than do adults, and thus receive a greater amount of water-borne contaminants per unit of body weight; exposures through dermal uptake and inhalation of contaminants volatilizing from water are also greater. Climate change-related water quantity and quality issues are fundamental reasons for your office's engagement in managing the public health risks of climate change. With these points in mind, the CHPAC offers the following recommendations:

1. The final document should explicitly identify and describe the health risks to which children are particularly vulnerable, as well as make explicit linkages between impacts of climate change on water quantity and quality and impacts on human health generally. This information should be used now to the extent possible in prioritizing remedial actions, planning for the future, and allocating resources in a logical manner. Additional research on children's vulnerability to health impacts of climate change should also be a priority for the agency as a whole in the future.
2. The document should include a more careful consideration of the disparities in water-related health impacts associated with differences in income and ethnicity.
3. In addition to the outreach to water utility managers and other related professionals, the document should include plans to develop mechanisms to inform health practitioners, and public health officials about impacts of climate change on water-related health issues and engage them more fully on proposed mitigation and adaptation strategies. These professionals have needed expertise in these areas and will be on the front lines in dealing with children's health issues that arise as a result of climate change.
4. The document should address water recreational exposures, which are known from the literature to be an important route of exposure to microbial agents, and may pose greater risks with projected increases in extreme variability in rainfall and runoff over regions of the United States.
5. Where the document names key players with whom the Office of Water needs to work in implementing this strategy (p. 68), it should include sister federal agencies in the public health arena – i.e., explicitly including the Centers for Disease Control and Prevention. The document recognizes that coordination must happen within USEPA program offices. This is essential to effective planning and implementation of this strategy.
6. The CHPAC is concerned that our nation's deteriorating water infrastructure will not be able to handle the increased stress of climate change impacts, in light of projections for more extreme variability of the hydrologic cycle. We support the important work of taking an inventory of the nation's water infrastructure, which will provide a baseline to assess its capability to handle the increased pressures

caused by climate change. If the infrastructure is not able to handle these increased challenges, the CHPAC encourages EPA to identify a process to remedy the situation.

7. The document describes the importance of wetlands preservation and key actions to improve wetlands protection. The Office of Water should give emphasis to actions, such as preservation and restoration of riverine and coastal wetlands, as a means of mitigating the impact of storm runoff and/or surges. The Office of Water should support research on other activities that will mitigate climate-driven adverse changes on our shores, lakes and rivers.
8. The CHPAC is pleased that the strategy addresses improved energy efficiency at water and wastewater utilities and water conservation. There must be a strong emphasis on water conservation to ensure future availability, and to reduce the large carbon footprint associated with water use. As noted in the document, the processes of purification, pumping and heating are associated with enormous amounts of energy. Efforts to tighten the efficiency of these processes and to prevent leaks in the delivery system will reduce associated greenhouse gas emissions.
9. The final document should give due consideration to the need for greater collaboration among states and between adjacent countries regarding water quantity and quality, and to the many ways this interdependence may manifest in different regions. Examples include U.S. / Canadian issues over water supply in the West (resulting from changes in the timing of snowmelt and increased irrigation needs), the likely health impacts of falling Great Lakes water levels, and US/Mexico collaboration given future drought projections across Mexico and the region.

The CHPAC welcomes this opportunity to offer the Agency input related to the National Water Program Strategy: Response to Climate Change. We particularly urge you to consider as an immediate next step an inventory of children's vulnerability to health impacts associated with climate change, as a focus for strengthening plans to avert or minimize these impacts. The Office of Water's efforts are appreciated and are critical to the national response to climate change. We are happy to discuss these points with you or your designee.

Sincerely,



Melanie A. Marty, Ph.D., Chair  
Children's Health Protection Advisory Committee

Administrator Johnson

June 13, 2008

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