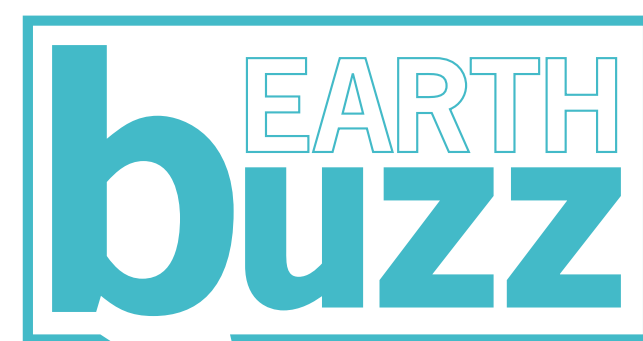


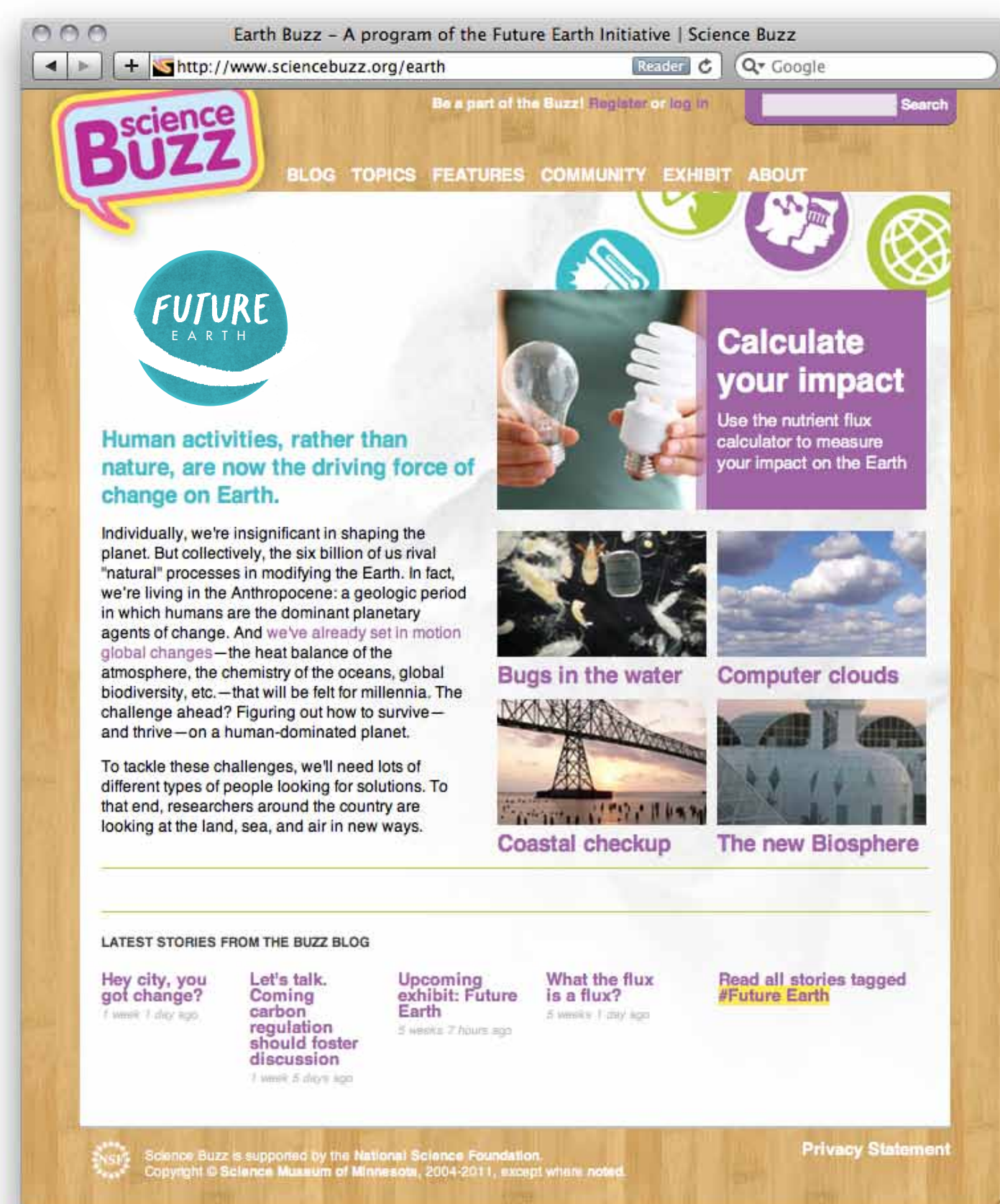
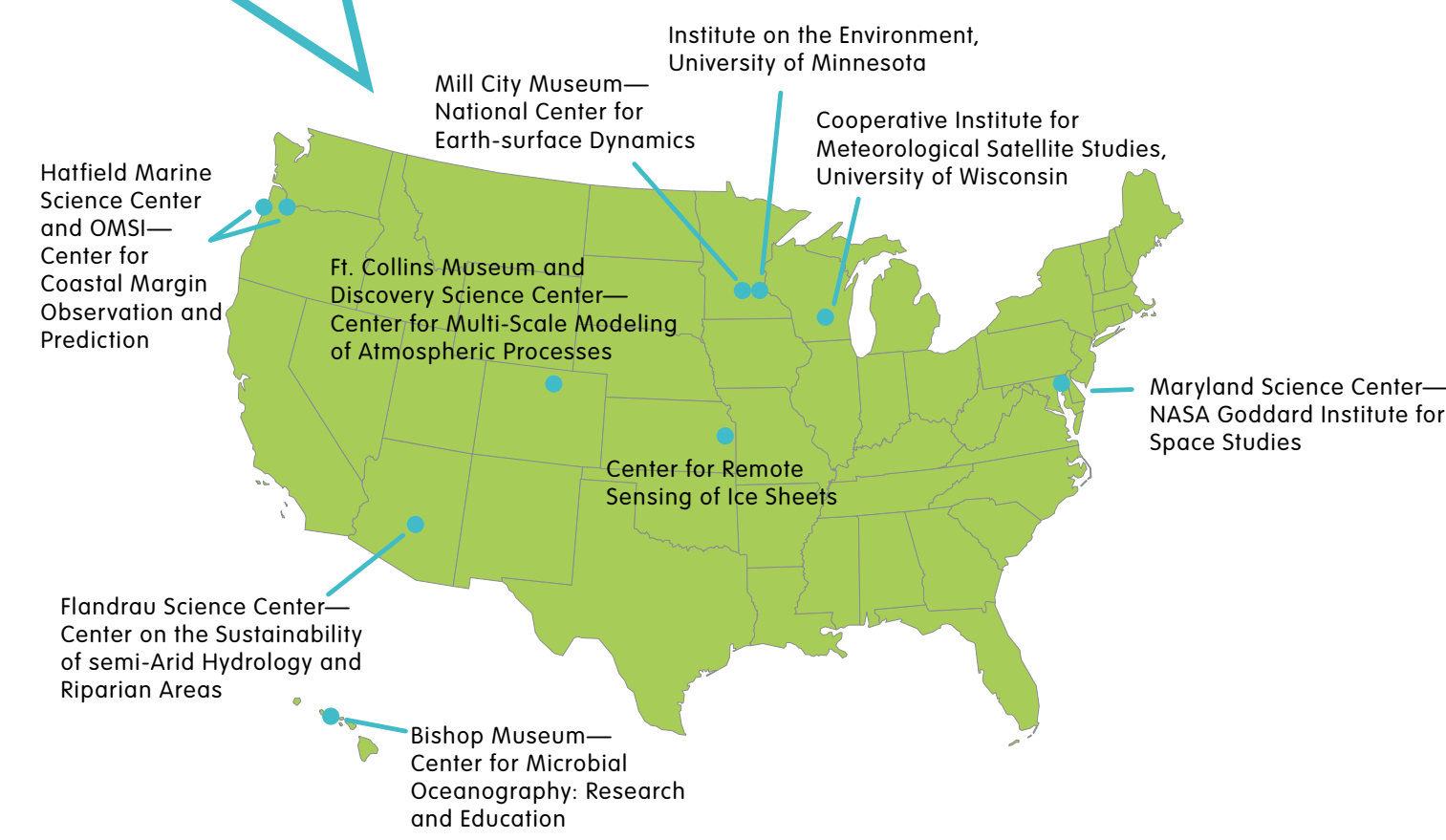


EARTH BUZZ

Earth Buzz are portable, web-enabled kiosks set up in public locations that highlight the global change work of the Science Museum of Minnesota's research center partners.



Earth Buzz provides both onsite and online audiences access to topical global change science news through the perspectives of a wide range of research centers.



An integrated portfolio of projects and programs to help a wide range of audiences appreciate that all seven billion people on Earth now surpass natural processes in creating global change and that a diverse set of innovations are needed for people to thrive on a human-dominated planet.

PLANET EARTH DECISION THEATER

The Science Museum of Minnesota and its partners will produce for the Science-on-a-Sphere (SOS) community new films about the role of humans as the dominant agents of global change and two new presenter-led SOS programs based on the film with one version utilizing an audience feedback mechanism called iClickers.

SCIENCE-ON-A-SPHERE FILMS BY THE SCIENCE MUSEUM OF MINNESOTA

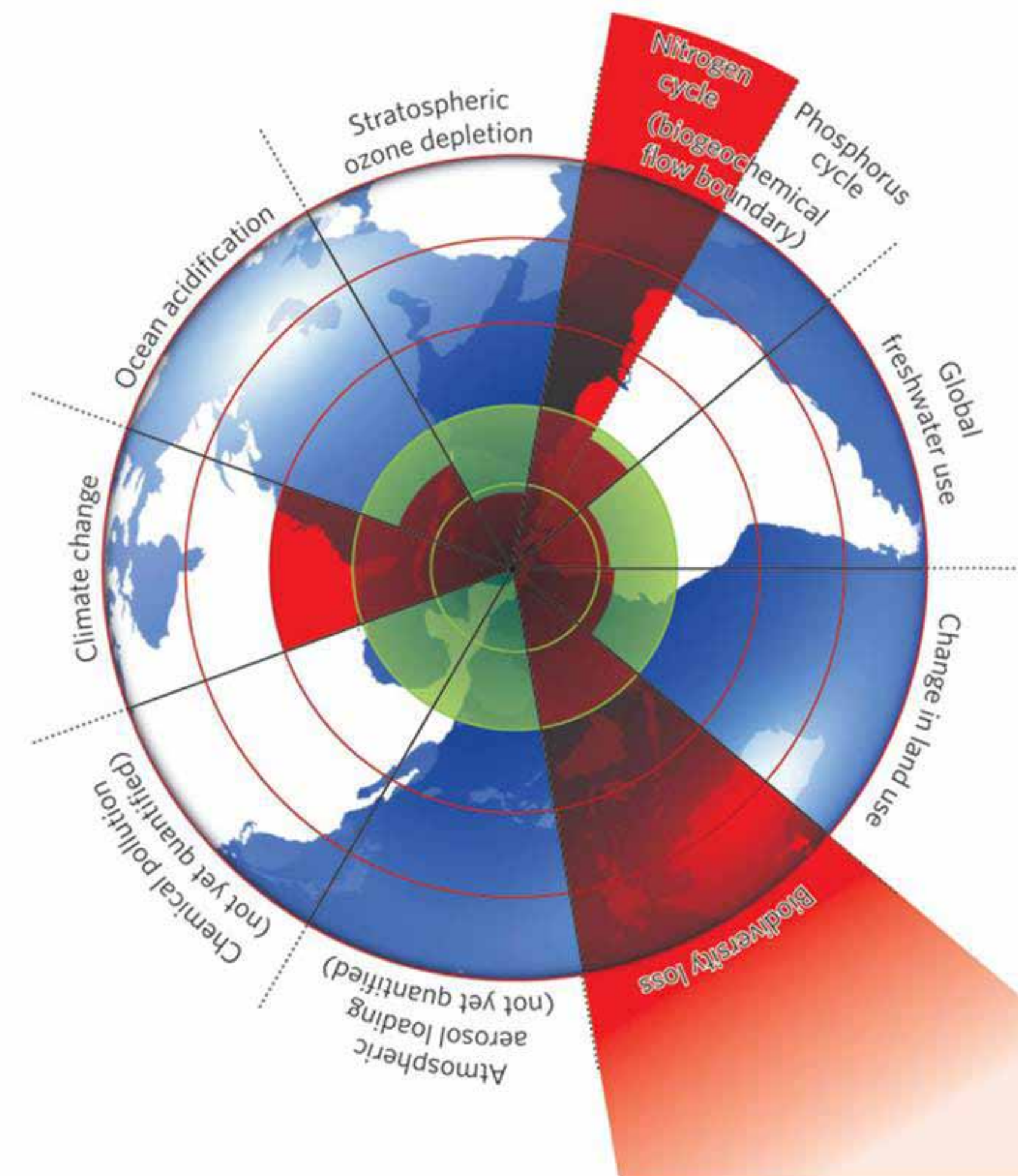
- EXISTING:**
 - Blue Planet
 - Flow: Currents and Climate
 - Two Billion More Coming to Dinner
- PENDING:**
 - Welcome to the Anthropocene



Science-on-a-Sphere at the Science Museum of Minnesota

FUTURE EARTH EXHIBIT

Opening April 21, 2012, this 3,500 square-foot exhibit with a Science-on-a-Sphere object theater will explore how we might create an enduring prosperity on a human-dominated planet.



CLIMATE CHANGE EDUCATION

QUESTION OF CARBON DISTANCE LEARNING COURSE
Columbia University's Center for Climate Change Research QOC is developing an online course for middle- and high-school science educators about carbon's role in many major Earth systems.

CLIMATE CHANGE EVENTS
Adventures of a Climate Scientist in the Area of Politics and Punditry, October 6, 2011

City of Saint Paul Climate Change Adaptation Scenario Planning Workshop, October 26-28, 2011

City of Saint Paul Climate Change Adaptation Scenario Public Forum, April 26, 2012

Climate Science Workshop for TV Meteorologists, June 15-16, 2012

CLIMATE CREW YOUTH TEAM
SMM's Kitty Andersen Youth Science Center engages groups underrepresented in STEM fields, especially girls, youth of color, and youth from low-income backgrounds. The Climate Crew works on ways to make climate change relevant to their diverse communities.



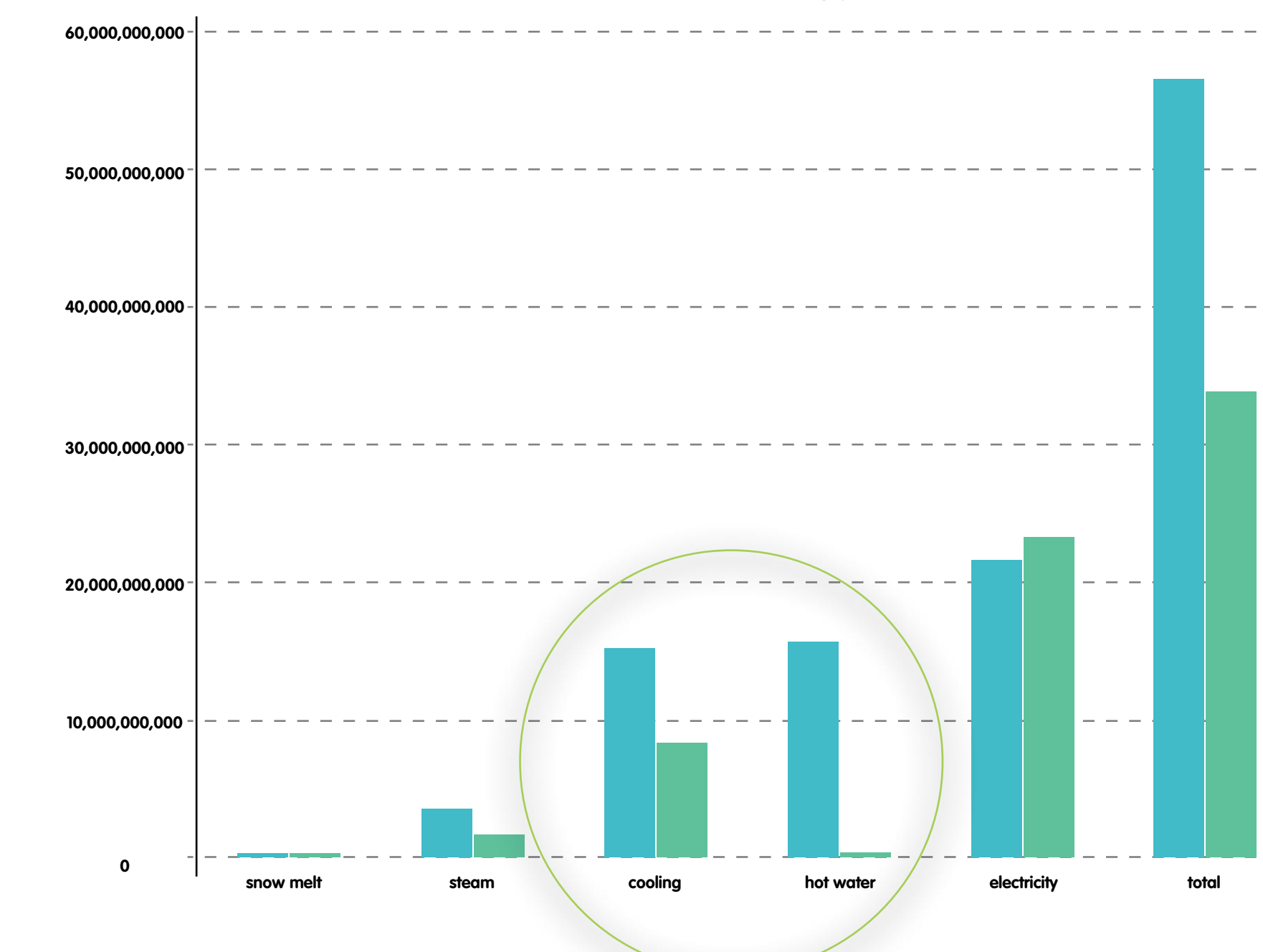
EXERGY



Exergy is a novel way of analyzing the quality and quantity of energy used by buildings to achieve dramatic reductions in energy consumption. The large amounts of heat generated by buildings typically are discarded to the environment and then high-quality energy sources such as electricity and natural gas are commonly used to satisfy the low-quality energy demands of heating water, space heating and cooling although much of this work could be accomplished through the capture and reuse of waste heat.

An exergy analysis of the Science Museum of Minnesota identified opportunities to reduce heating needs by 98 percent and cooling needs by 46 percent for an annual savings of \$220,000.

Forecasted Reductions in Energy Use in BTUs/Yr. from SMM Exergy Retrofit



SIX AMERICAS

In fall 2008 and in early 2010, The Yale Project on Climate Change and the George Mason University Center for Climate Change Communication surveyed adults nationwide.

SIX DIFFERENT POSITIONS ON GLOBAL WARMING WERE IDENTIFIED IN THE AUDIENCE SEGMENTATION ANALYSES:

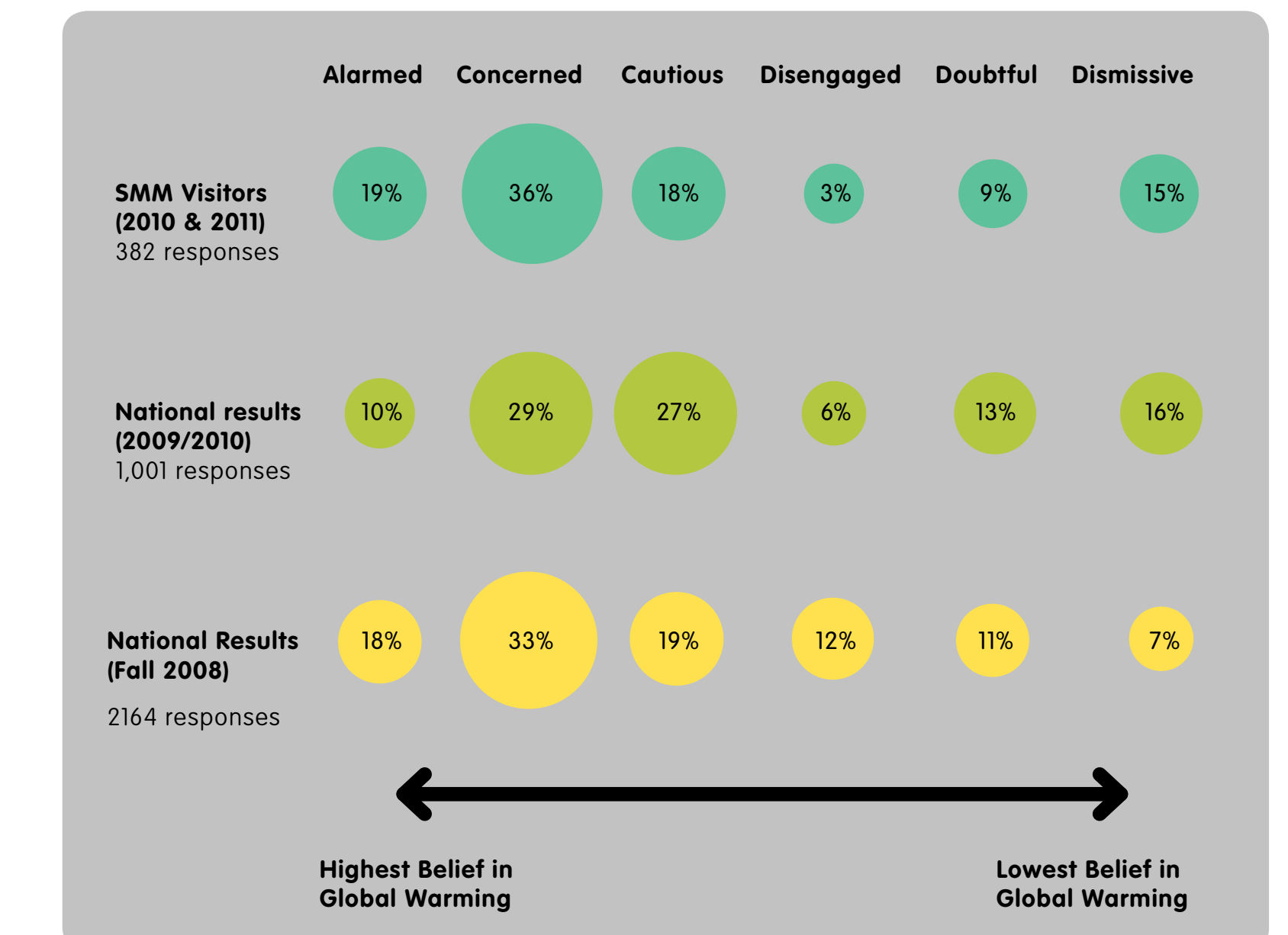
The **Alarmed** are convinced of the reality and seriousness of climate change and are taking individual, consumer, and political action to address it.

The **Concerned** are also convinced that global warming is happening and (is) a serious problem, but have not yet engaged the issue personally.

The **Cautious**, the **Disengaged** and the **Doubtful** represent different stages of understanding and acceptance of the problem and none are actively involved.

The **Dismissive** are very sure it is not happening and are actively involved as opponents of a national effort to reduce greenhouse gas emissions.

The Science Museum of Minnesota conducted a survey of its visitors in January 2010. We found no significant differences between our visitors' attitudes toward global warming and those nationally. We encourage others to consider replicating our study.



Visitors in the Science Museum of Minnesota's lobby