

Gulf of Maine Council

Press Release

For immediate release: October 27, 2006 **Contact:** Bill Burtis, co-chair, Gulf of Maine Climate Change Network, 603-422-6464, x 105; bburtis@cleanair-coolplanet.org

Report pinpoints changing climate across Northeastern US, Canada

Cooperative science through Gulf of Maine Council

St. Andrews, New Brunswick – A pattern of warmer winters, less snow, earlier springs, more intense precipitation, and rising sea levels – signs of a changing climate – is revealed in a report released here this week by the Climate Change Task Force of the Gulf of Maine Council on the Marine Environment (GOMC).

The 40-page *Cross Border Indicators of Climate Change over the Past Century* chronicles data in 10 separate indicators, including temperature, precipitation, snowfall, lake and river ice, growing season, sea-surface temperature and sea-level rise.

"With rare exception, the trends in all of these indicators show a steady change in the climate of the region from Pennsylvania on the US side through Nova Scotia and Prince Edward Island on the Canadian side," said Gary Lines of the climate section of Environment Canada. Line, co-chair of the GOMC climate task force, was an author of the report, along with Cameron Wake and Elizabeth Burakowski of the Climate Change Research Center at the University of New Hampshire.

"We have seen this very consistent signal before on the US side," said Wake, a paleoclimatologist and author of *Indicators of Climate Change in the Northeast, 2005*, along with Clean Air - Cool Planet Executive Director Adam Markham. "It certainly supports the conclusion that our climate is changing to find trends holding across land and sea so much further to our north."

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Among the findings in the report:

- Average annual temperature has increased .8° C (1.4° F) over from 1900 to 2002, according to data from 136 stations and 1° C (1.8° F) over just the last 33 years.
- Average winter temperatures in the region have shown an even more dramatic increase (1.4° C [2.5° F] – and "an even more striking" 2.4° C (4.3° F) increase between 1970 and 2002.
- Precipitation in the region increased an average of five inches (129 mm) over the century, but decreased across the region over the last 30 years although four years since 1970 have seen record-breaking precipitation amounts in excess of 55 inches (1400 mm) and eight of the ten wettest years on record.
- The amount of winter precipitation falling as snow is decreasing across the region, with average annual snowfall amounts decreasing in a range form 25 to 75 cm (9.8 to almost 30 inches) across the northern half of the region from northern New York to Nova Scotia.
- Sea level in the cross-border region has risen (as a result of expanding warmer ocean waters) from 400 mm (15.74 inches) in New York City since 1850, and 250 mm (9.84 inches) in Atlantic Canada since 1920, a rate of about an inch a decade for the region as a whole.
- Sea surface temperature in four measured regions, from the Gulf of St. Lawrence to New York and New Jersey, has risen by a half to two-thirds of a degree Celsius (.9° to 1.18° F) over the past 100 years.

The authors note that the amount of winter warming "is comparable to the average wintertime temperatures of Halifax...being shifted more than 250 km (150 miles) southward to the 'average" wintertime temperatures of Boston...or of the average wintertime temperatures in Boston being shifted...to...Philadelphia."

The data sets for the new, cross-border report originated from the earlier work by Wake and Markham; matching Canadian data was provided by Lines and Kyle McKenzie from Environment Canada, and Burakowski provided analysis.

The report was commissioned by the Gulf of Maine Council, a U.S.-Canadian partnership of government and non-government organizations working to maintain and enhance environmental quality in the Gulf of Maine. The report, which was released at the Council's working groups meeting in St. Andrews, will inform the work of the Council's working groups in areas such as ecosystem monitoring and maintenance and habitat restoration.

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"It is an unfortunate fact that changes in climate will affect so much of the work the Council does," said Lines. "Understanding where our climate has been and where it's going will help us to predict more accurately how to take future changes into account in planning and working to protect the watershed and waters of the Gulf."

The report is available on line at www.gulfofmaine.org/council/publications

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In December 1989, the governors and premiers of Massachusetts, New Hampshire, Maine, New Brunswick, and Nova Scotia signed an agreement creating the Gulf of Maine Council on the Marine Environment (GOMC). The Council's efforts are focused on promoting sustainable development of marine and coastal resources, raising public awareness about the Gulf of Maine, and cultivating support for stewardship at the local level. For more information visit the Council's website at <u>www.gulfofmaine.org</u>

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