

**NORTHERN RESEARCH BASINS QUESTIONNAIRE
WATER BALANCE STUDIES**

1) Name and location of research watershed	Heather Creek and Hot Weather Creek 80°N, 84.5°W, Ellesmere Island; McMaster River, 75°N, 95°W Cornwallis Island; Lake C2, Taconite Inlet, 82.5°N, 78°W, Northern Ellesmere Island; Perennial Snowbed-fed Catchment, Ross Point, 74°57'N, 107°19'W, Melville Island
2) Participants with address and email	Kathy L. Young Geography Department, York University, Toronto, ON, Canada, M3J 1P3 416-736-5107, 416-736-5988 (Fax) klyoung@yorku.ca Ming-ko Woo School of Geography and Geology McMaster University Hamilton, Ontario L8S 4K1 woo@mcmaster.ca
3) Watershed size	Heather Creek (Nival/polar oasis-6.1 km ²) and Hot Weather Creek (Nival/polar oasis-130 km ²) Ellesmere Island; McMaster River (Nival/polar desert-33 km ²) Cornwallis Island; Lake C2 (Pro-glacial/polar desert-21 km ²), Northern Ellesmere Island; Perennial Snowbed-fed Catchment (Transition/polar desert-0.08 km ²), Melville Island
4) Permafrost extent	Continuous with depth, about 400-600 m
5) Soils description	HC and HWC-silty-clay loam, tundra soil; McMaster River- Mainly barren polar desert and bedrock, low plant cover; Lake C2-polar desert, barren; Small Catchment-colluvial soils, raised beach ridges (polar desert)
6) Vegetation description	HC and HWC-lush plant cover; McMaster River-low plant cover; Lake C2-low plant cover; Small Catchment-moderate plant cover on colluvium, little on raised beach ridges.
7) Climate	HC and HWC-long cold winters, low annual precipitation, mostly continental, polar oasis-type; McMaster River-Arctic Maritime, polar desert-type ;Lake C2-Arctic Maritime, polar desert-type; Small Catchment-Arctic Maritime, polar desert-type;
8) Topography	HC and HWC-rolling topography, McMaster River-rolling topography; Lake C2-mountainous, 1200 m relief; Small Catchment-rolling topography
9) Period of record	HC and HWC-1989-91; McMaster River-1976-81; Lake C2-1990-92; Small Catchment-1986
10) Other	Additional hydrology info is being sought for QEIs