NORTHERN RESEARCH BASINS QUESTIONNAIRE
WATER BALANCE STUDIES
June 6, 2003

1) Name and location of research watershed	Wolf Creek (60^0 31'n; 135^0 08'w) – Yukon River tributary 15 km south Whitehorse, Yukon
2) Participants with address and email	J.R. Janowicz, Water Resources Branch, Yukon Department of Environment, Box 2703, Whitehorse, YT, Y1A 2C6; richard.janowicz@gov.yk.ca Raoul Granger, National Water Research Institute, 11 Innovation Blvd.,Saskatoon, Saskatchewan S7N 3H5 Canada; raoul.granger@ec.gc.ca Newell Hedstrom, National Water Research Institute, 11 Innovation Blvd.,Saskatoon, Saskatchewan S7N 3H5 Canada; newell.hedstrom@ec.gc.ca
3) Watershed size	Wolf Creek (a) 195, Wolf Cr bl Coal Lk (b) 71, Upper Wolf Cr (c)14.5 km^2 - nested – Granger sub-basin (d) – 4.3 km^2
4) Permafrost extent	(a) 43 % (b) 63 % (c) 74 % (d) 79 %
5) Soils description	Forest: 10 cm organic layer over 40 cm mineral layer of loamy sand to sandy loam – underlying parent material consists of stony glacial till mixed with alluvial and lacustrine materials Subalpine: 5 cm organic layer over silty loam with sandy loam below Alpine: 2 cm organic layer over silty loam
6) Vegetation description	3 ecosystem: Boreal Forest; Subalpine Taiga; Alpine Tundra Forest: white spruce-feather moss community with whitespruce and some trembling aspen; 10-20 cm feather moss mat w/ limited vascular understory development Subalpine: dwarf willow-birch shrubland community; 5 – 10 cm vegetation mats of grasses, mosses and some lichen; sporadic krummholtz communities of white spruce Alpine: low growing or ground creeping community of mosses, grasses and lichen; protected hollows sustain low growing (0.2m) dwarf willow and birch with forbs, grasses and lichen vegetation mats
7) Climate	Sub-arctic continental (large variation in temp, low RH, low annual precip) Mean annual temp -0.5 to -3 ^{0}C; summer monthly range 5^0 to 15^0, winter monthly range -20^0 to -10^0, summer and winter extremes 25^0 and -40^0; annual precip 300 – 400 mm
8) Topography	Mountainous with elevations ranging from 800 to 2250 m (median elev 1325m)
9) Period of record	Meteorological - Forest, Subalpine and Alpine baseline stations continuous operation from Sept 1993 to present; Granger Subcatchment: various instrumentation from 1998 Hydrometric – Wolf Creek: continuous annual records from 1993; Wolf bl Coal Lk, Upper Coal: continuous annual from 1994; Granger Subcatchment from 1998
10) Other	