

NORTHERN RESEARCH BASINS QUESTIONNAIRE
WATER BALANCE STUDIES
March 12, 2004

1) Name and location of research watershed	Bayelva, Spitsbergen, Svalbard. 78° 55'N, 11° 56'E
2) Participants with address and email	Ånund Killingtveit - Department of Hydraulic and Environmental Engineering, Norwegian University of Science and Technology, NO-7491 Trondheim, Norway. E-mail aanund.killingtveit@ntnu.no Knut Sand – SWECO-Grøner AS, Box 331, NO-7403 Trondheim, Norway. Lars-Evan Pettersson – Norwegian Water Resources and Energy Directorate, Box 5091 Majorstua, NO-0301 Oslo, Norway
3) Watershed size	30.9 km ²
4) Permafrost extent	Continuous
5) Soils description	Moraines, riverbed, tundra, rock
6) Vegetation description	Uniform lichen cover with patches of Rock Sedge (<i>Carex rupestris</i>) and Mountain avens (<i>Dryas octopetala</i>). There are no trees or tall shrubs. At higher elevations mostly gravel, stones and rock.
7) Climate	High Arctic, mean annual temperature -6.3 °C Average annual precipitation (measured) 403 mm/year
8) Topography	It consists of a flat river plain in the centre, on the west an east-facing slope towards the Schetelig mountain. There are steep tall mountains in southeast and southwest, the Zeppelin and the Schetelig mountains. Elevation ranges from 4 up to 742 m.a.s.l., average elevation is 265 m.a.s.l. 55% of the catchment is covered by glaciers
9) Period of record	Runoff from 1974-1978 and 1990-today Precipitation and climate from 1950 Sediment transport measured 1974-1978 and from 1989-today
10) Other	There is a permanent research station located in Ny Ålesund, and an airport with regular flights. Excellent conditions for field oriented research.