

# GlacierData.txt

This file contains definitions for HYPE's glacier module, see process descriptions in the [glaciers section of the HYPE model description](#). Glaciers are a special class, and can vary in size within its class area fraction.

*GlacierData.txt* is a tab-separated file located in the [modeldir](#) folder. Sub-basins with glaciers are listed row-wise. The first row contains a column header with variable names. Variable names are not case-sensitive (max. 10 characters, no spaces). Columns with headings unknown to HYPE are skipped while reading the file, but must not longer than ten characters. Columns containing character strings, e.g. descriptive meta-data, must not exceed a length of 100 characters. The columns may be in any order. A value must exist for every column and row, i.e. empty cells are not allowed.

Example for a *GlacierData.txt* file with two glaciers:

```
NAME SUBID GLACTYPE LOGVOLCORR
Glac1 157      0      0
Glac2 277      1      0
```

All *GlacierData.txt* variables are described in the table below.

Variable ID	Unit	Description
subid	-	subbasin ID (integer) (mandatory)
glactype	0/1/2/3	The default glacier type is (a small) glacier (0). The alternatives are; (1) ice cap (same equations different parameters), (2) ice sheet (same as ice cap except that the area is constant), and (3) infinit glacier (glacier melt independent of state).
logvolcorr	-	correction of volume-area relationship coefficient due to combining several glaciers into one class area (no correction=0)
slcdate	YYYYMMDD	date for which glacier slc-fraction is representative
annualmb	mm/yr	annual mass balance for correction of initial volume
slcvolume	m <sup>3</sup>	The initial glacier volume (at slcdate and with annualmb if these are set). Default is not to use slcvolume (-9999). It overrides the glacier state from the state file.