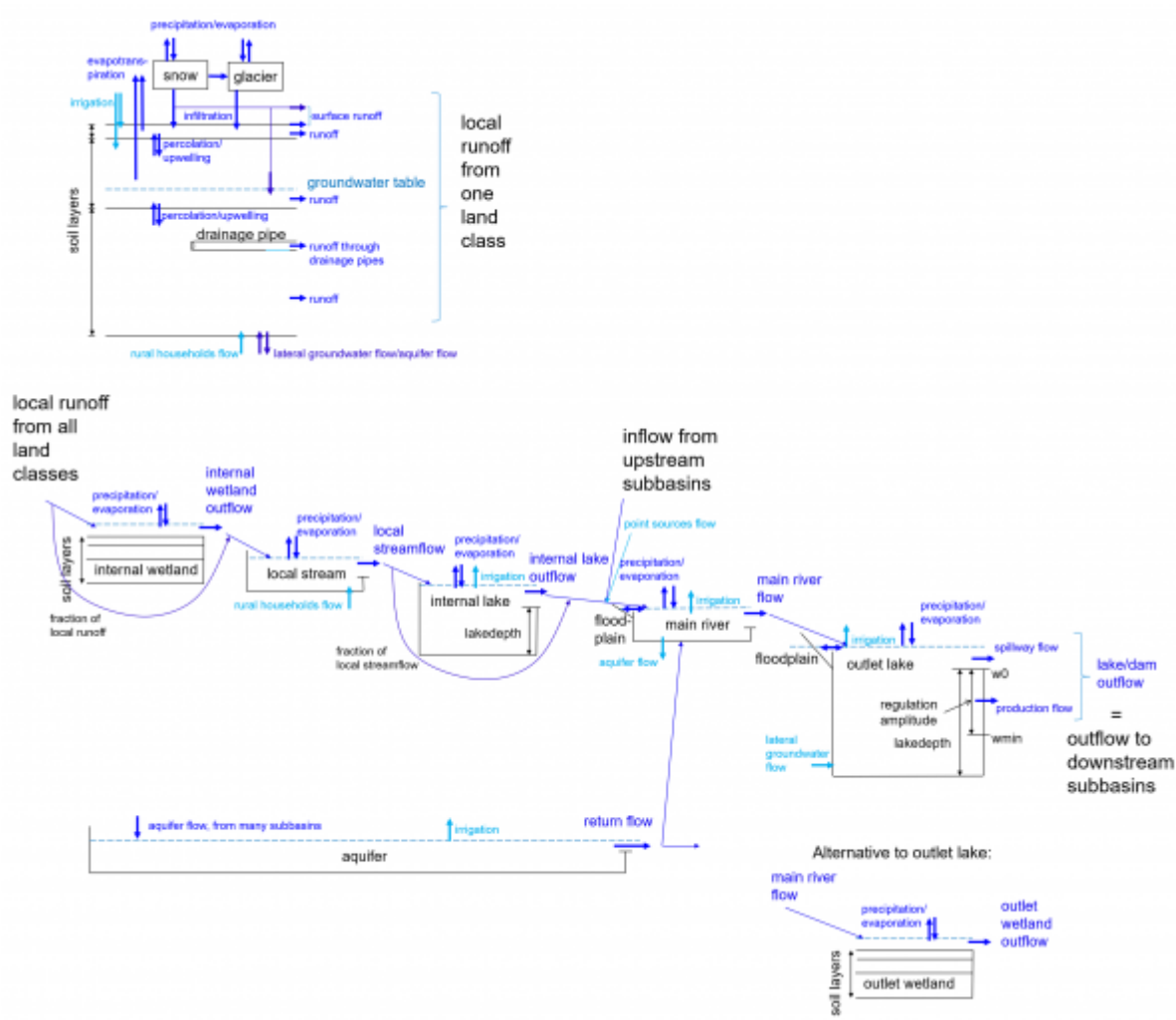# The HYPE wiki pages

Welcome to the HYPE wiki pages. HYPE is an open source, dynamic and semi-distributed hydrological model integrating fluxes of water, nutrients and other substances. It is developed and maintained by the Swedish Meteorological and Hydrological Institute (SMHI).
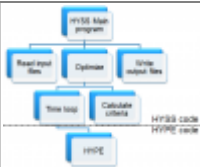

HYPE model results are used for operational forecasts, climate-change impact assessments and scientific research (explore results on hypeweb).

HYPE is short for *HY*drological *P*redictions for the *E*nvironment. This wiki provides documentation for the HYPE model.

Available documentation

HYPE model description on this wiki. As exported pdf-file.

HYPE file reference on this wiki. As exported pdf-file.

	The structure of the HYPE code. Download the pdf-file with an overview of HYPE code structure and watch the video series.
	Detailed code description. Webpages describing Fortran-files, modules, data types and all procedures with their arguments and calls.
	HYPE water balance. Download pdf-file with description of the special water balance output. The file gives an overview of all water flows in HYPE.

NOTE: File reference pages and more technical parts are under development.

How to run HYPE

HYPE does not provide a graphical user interface. Users provide model set-up options and input data to HYPE using input text files. Model outputs are returned as text files as well. The compiled HYPE executable is run by double-clicking (on Windows) or by call from a command line (Windows or Linux). A system installation is not required. When invoked from the command line, HYPE takes up to three command line arguments: The search path to the folder where the info.txt file with model setup arguments is stored which is mandatory, a sequence number which is optional, and an optional flag for name of parameter file.

flag	argument
-infodir *or* -i	path
-sequence *or* -s	seqnr
-p	*no argument*

The path can either be given as an absolute address or relative from the folder in which the program is started. The path may have a maximum of 200 characters and need surrounding apostrophes 'path' if blanks are included in the path. The search path should end with a slash. The sequence number is an integer between 0 and 999. The sequence number determines which forcing files to use. The parameter flag determines that the sequence number should be applied to parameter file as well as the forcing files. Seqnr 0 uses forcing files without sequence number. If no argument is found. e.g. when double-clicking on the executable, the program tries to find a file filedir.txt in the starting folder and read the path to info.txt there. It is also possible to give the path as the only argument without the -i flag.

Tutorials

Tutorials can be found on the tutorial page on the HYPE wiki, both written and videos. The collection is expanded as more introductions are written. Some useful tutorials are:

- Short version on using HYPE

- HYPE set-up tutorial

- Updating with discharge and other observations