

yyyy_ss.txt

These output files hold modelled annual load results. yyyy stands for a year during the simulation period and ss stands for one of the HYPE-modelled nitrogen (IN, ON) and phosphorus (PP, SP) species (an actual file name would be e.g. 2001_IN.txt). The files contain modelled annual nutrient loads before and after retention/removal along the modelled nutrient transport pathways.

yyyy_ss.txt are tab-separated files written to the [resultdir](#) folder if requested in [output options of info.txt](#). The first row contains a column header with variable names. The following rows contain values for all variables, in one row per sub-basin.

The table below describes all variables written column-wise in yyyy_ss.txt. Variables with a _nn suffix are calculated for each SLC class separately, with nn numbers corresponding to numbers in [GeoClass.txt](#), so that the number of columns varies depending on the number of SLC classes in the model set-up.

Variable ID	Unit	Description
subid	-	Sub-basin ID
WetAtm_nn	kg/year	gross load in wet atmospheric deposition on SLC class area in the sub-basin
DryAtm_nn	kg/year	gross load in dry atmospheric deposition on SLC class area in the sub-basin
Fertil_nn	kg/year	gross load in fertilizer application on SLC class area in the sub-basin
PDdecay_nn	kg/year	gross load from decaying plant matter on SLC class area in the sub-basin
RuralA_nn	kg/year	gross load from rural household source fraction which is routed into lowest soil layer (see parameter <i>locsoil</i> in par.txt), land SLC classes only
GrwSl_nn	kg/year	gross load from groundwater flows into lowest soil layer (regional groundwater routine 1, see code deepground in info.txt model options , land SLC classes only)
IrrSrc_nn	kg/year	gross load in irrigation water, land SLC classes only
Runoff_nn	kg/year	total load in runoff to local stream, including soil runoff, tile drainage, and surface runoff
RuralB	kg/year	gross load from rural household source fraction which is routed into local stream (see parameter <i>locsoil</i> in par.txt)
Urban1	kg/year	gross load in point source type 1, see description in PointSourceData.txt
Urban2	kg/year	gross load in point source type 2, see description in PointSourceData.txt
Urban3	kg/year	gross load in point source type 3, see description in PointSourceData.txt
Rgrwmr	kg/year	gross load from groundwater flows into main river (regional groundwater routine 2, see code deepground in info.txt model options)
Rgrvol	kg/year	gross load from groundwater flows into outlet lake if GeoData.txt variable //grwolake// != 0 (regional groundwater routine 1, see code deepground in info.txt model options)
A	kg/year	load to local stream from all SLC classes
B	kg/year	load to local stream from all SLC classes and from rural household source local stream fraction (A + RuralB)
C	kg/year	load to local stream (B) including the effect of local wetlands (defined in GeoData.txt , see also wetlands in model description)
D	kg/year	load after passage of local streams but before internal lakes
E	kg/year	load in fraction of local stream discharge that bypasses local lakes (see variable <i>icatch</i> in GeoData.txt)

Variable ID	Unit	Description
F	kg/year	load in fraction of local stream discharge that passes through local lakes (see variable <code>icatch</code> in GeoData.txt)
G	kg/year	load in fraction of local stream discharge that has passed through local lakes (see variable <code>icatch</code> in GeoData.txt)
H	kg/year	net load in local stream after local lake passage ($E + G$)
I	kg/year	total load to main river, consisting of: net local load, upstream load, point source loads (Urban1 - 3), and groundwater load (Rgrwmr)
J	kg/year	load to main river (I) including the effect of main river wetlands (defined in GeoData.txt , see also wetlands in model description)
K	kg/year	net load in main river, after river passage and before outlet lake
L	kg/year	net load in main river with added regional ground water sources ($K + Rgrwmr$)
M	kg/year	net load in main river after outlet lake passage
N	kg/year	load in bifurcation branch (see BranchData.txt)