

To cope with the new model for soil erosion, one needs to introduce new functions, new variables, as well as to modify some of the already existing functions.

The following tables contain the new functions, new variables, some modifications introduced in the code with short description for them.

Table 1: New functions

Function	Called by	Description
qroute_overland()	erodedepo()	evaluates the water mass flux and suspended sedim mass flux taking into account the density of the cover plant
erode_overland(int )	erodedepo()	performs soil erosion by considering the influence of the cover plant on the soil erosion rate
call_veg1_to_veg2_sds() modificare_mannings_sds()	erodedepo()	calculates the hydrologic parameters by taking into account the vegetation

Table 2: Modified functions

Function	Description
erodedepo()	main function in code
depth_update()	performs updates for the water depth and the mass of suspended sediment
initialise()	sets the values of parameters and the values of some data entry
zero_values()	intiallizes some data entry
drawwater()	draws water sediment and another stuff

Table 3: New variables

Variable	Used in	Description
int no_suspended_frac_sds  double msds_star  double energJ double power_stream_frac double [] ratio_frac	erode_overland()	number of sediment size classes parameters in the erosion models
double[, ] qxsds, qysds	erode_overland()	mass flux for all the sediment size classes
double[, ] mannings_sds  double[, ] solidity_sds double Diam_veg_sds	qrout_overland()	genarized Manning number to include vegetation vegetation parameters
bool suspended_frac_model_sds	qrout_overland()	size class partition of suspended sediment
double[, ] ssus	qrout_overland(), erode_overland()	suspended sediment partitioned on size classes
double[, ] msds		the mass of the sediment in bed soil partitioned on size classes
double[, ] msds_tot		variation of the total mass of the sediment in soil bed
double[, ] masa_erodata_sds		