

RELEASE NOTES

The following documents changes/corrections to the program with each Version Release. The latest release incorporates all changes listed.

MGSFlood Version 4.12 Upgrade – March 27, 2011

- ❖ Routing Routine was not stopping when routing flows for structures that were grossly undersized relative to the inflows passing to them. A line in the code that checked for small changes in storage was causing the program to miss the error flag used to terminate when the rating table is extrapolated. An additional error flag was inserted to terminate the program when this occurs.
- ❖ The constant infiltration option wasn't being utilized in initial infiltration pond sizing and resulted in oversized infiltration ponds in the optimizer.
- ❖ When specifying the pond geometry in the structure input screen and project report, a Runtime Error 9, subscript out of range error could occur if the max pond elevation is considerably higher than the riser crest elevation.
- ❖ When stats were computed for all links during a simulation, the program would produce an Error 5 message if there was a structure in the predeveloped condition. The scenario number wasn't being passed to the WQ routine, now corrected.

MGSFlood Version 4.09

- ❖ Precipitation scaling was not being performed correctly for projects that utilize precipitation station data. In many cases a scaling factor of 1.00 was being applied instead of the ratio of the site to station 25-year, 24-hour rainfall. This did not affect any projects that utilize the extended precipitation time series.
- ❖ Water surface elevation stats were not being computed for bio-retention facilities where the water level did not pond on the surface of the bio-soil.
- ❖ User defined HSPF parameters were not being implemented in the model or printed in the project report.
- ❖ The label for soil infiltration was changed from saturated hydraulic conductivity to infiltration rate on the bio-retention soil structure.
- ❖ Corrected flags that require runoff to be recomputed when station scaling factor is changed or when the HSPF default parameters are altered.
- ❖ The project report is automatically refreshed when the report screen is open and the user clicks the show report button on the tool bar.

Version 4.08

- ❖ Water quality flow rate calculations were corrected for simulations where a 15-minute time step was used. Previous versions underestimated the water quality rate when computed using a 15-minute time step,
- ❖ Reporting of water quality discharge rates was absent unless other water quality parameters were computed, this has been corrected,
- ❖ The Hydrograph plotting routine would crash when plotting at time steps less than 1-hour for certain date ranges,
- ❖ Drag and drop icons were not placed properly on the screen of the graphical interface when scroll bars were visible,
- ❖ A message was added warning users that the secondary outlet to a flow splitter must be connected to another reach before routing,
- ❖ The porous pavement hydraulic conductivity was labeled as infiltration rate to avoid confusion with the hydraulic conductivity specified in the Massmann method used in other links

Version 4.07

- ❖ Updated Routing Routine,
- ❖ Updated bioretention routine to include storage in soil
- ❖ Added pervious pavement routine
- ❖ Modified FlowDurationComp to better handle infiltration facilities
- ❖ Modified optimizer to include new RoutePuls and FlowDurationComp,
- ❖ New license file that sets program to read one timeseries (light version) or standard version.

Version 4.06

- ❖ Program would crash after optimizing if there were links connected to the optimized link downstream.
- ❖ Project report was corrected so that user defined rating tables would be displayed correctly.
- ❖ Corrected infiltration trench form, which would incorrectly display infiltration rate after closing form.

Version 4.05

- ❖ Corrected water surface elevation-frequency statistics output in project report, which was producing erroneous results.

Version 4.04

- ❖ Corrected several graphical interface errors relating to setting point of compliance and optimization toggle.
- ❖ Corrected number of hydrograph ordinates that can be plot. If more than 32000 points selected to plot then an overflow error (GS Server error) would occur.