PONDS 3.2 TECHNICAL MEMO

Date: February 23, 2007
Re: **Interfacing PONDS 3.2 with AdICPR v3**

PONDS 3.2 has the ability to interface with earlier versions of AdICPR (v1.4 and 2.x) by importing hydrographs directly from, or exporting hydrographs directly to, an ICPR *.hyd or *.bdq file. Typically, this feature is used to calculate an infiltration hydrograph using PONDS, and export the infiltration hydrograph back to ICPR to simulate pond infiltration. This was possible in earlier versions of ICPR because the program used many component data files for a model, and PONDS could access the hydrograph files directly. However, Version 3 of ICPR uses a single large data file, whose internal structure is not known. Therefore, PONDS can not directly read hydrograph data from AdICPR v3.

It is still possible to exchange data between ICPR v3 and PONDS 3.2, but it is accomplished in a different manner, and may be more cumbersome.

When interfacing PONDS 3.2 and ICPR v3 there are generally two issues:

① Getting the inflow hydrographs out of ICPR and into PONDS, and

② Getting the infiltration hydrograph out of PONDS and into ICPR

First: Exporting the ICPR Inflow Hydrographs...

It is our understanding that ICPR v3 does not contain a feature to directly export an inflow hydrograph. However, it may be possible to construct a data report using one of ICPR's data report formats, then save this data report to a file, and import the data (copy and paste) to a spreadsheet. From the spreadsheet, you can paste the data into a Local Hydrograph data grid in PONDS 3.2, making sure that units are correct and any conversions are made (if necessary), and that the sign convention is correct.

Second: Getting the infiltration data from PONDS to ICPR

From the Detailed Results grid in PONDS you can copy the elapsed time and infiltration rates into a spreadsheet, making sure to do whatever unit/sign conversions ICPR might need. Then, within ICPR, create a Boundary Flow (time vs rate) and attach this boundary flow to the appropriate node. You can copy/paste the infiltration hydrograph from your spreadsheet into the data grid in the boundary flow dialog box in ICPR, or otherwise import the infiltration data.

We invite you to share your experiences on how this procedure can be made simpler, so that we can update this memo in the future.