Notes on revision of zip-archive file, , associated with automated-execution of the NFSEG v1.1 model.

Description of revision process:

1. Copy file, [\\POSEIDON\Water\_Use\_Research\Modeling\NFSEG\version\_1.1\auto\_execution\working\_nfseg.zip](file:///\\POSEIDON\Water_Use_Research\Modeling\NFSEG\version_1.1\auto_execution\working_nfseg.zip), to temporary directory, E:\temp\nfseg\_v1\_1\_autotesting\, then unzip contents to new subdirectory, working\_nfseg.zip.
2. Copy file, sim\_cup\_sjr.bat, to file, sim\_cup\_sjr\_old.bat
3. Copy file, sim\_cup.bat to file sim\_cup\_sjr.bat. Edit this file as follows:
   1. change line 16 to ‘c:\python27\ArcGIS10.6\python update\_wellpkg\_nfseg\_sjr.py
   2. search and replace string, ArcGIS10.6, with string, ArcGIS 10.2.
4. Copy file, E:\temp\nfseg\_v1\_1\_autotesting\working\_nfseg\preproc\wellpkg\_update\update\_wellpkg\_nfseg.py, to file, E:\temp\nfseg\_v1\_1\_autotesting\working\_nfseg\preproc\wellpkg\_update\update\_wellpkg\_nfseg\_sjr.py, then edit as follows:.
   1. Comment out line 33, which contains the expression, spRef\_state\_plane\_north = os.path.join(this\_dir, "state\_plane\_north.prj")
   2. below line 33, insert the following line:
      1. spRef\_utm\_zone17n\_meters\_sjr = os.path.join(this\_dir, "utm\_zone17N\_linear\_unit\_meters\_sjr.prj")
   3. change the line with the ‘MakeXYEventLayer’ command (now line 43) to the following:
      1. arcpy.MakeXYEventLayer\_management(in\_Table, x\_coords, y\_coords, cup\_wells\_layer\_state\_plane\_north, spRef\_utm\_zone17n\_meters\_sjr)

The list of files, and where they go, that need to be included in a complete set of model files:

To the preproc\wellpkg\_update directory\

1. wellpkg\_header\_nfseg.asc
2. wellpkg\_stress\_period\_01\_records\_nfseg.asc

Changes to the model files that go to the <model>\ directory:

1. What is included in the nam file: nfseg\_auto\_2009.nam
   1. LIST 7 nfseg\_auto.lst
   2. BAS6 1 nfseg.bas
   3. DIS 29 nfseg.dis
   4. UPW 11 nfseg.upw
   5. ZONE 21 nfseg.zone
   6. MNW2 25 nfseg\_sp1\_and\_sp2\_are\_2009.mnw2
   7. WEL 12 nfseg\_auto.wel
   8. DRN 13 nfseg\_sp1\_and\_sp2\_are\_2009.drn
   9. RIV 14 nfseg\_sp1\_and\_sp2\_are\_2009.riv
   10. EVT 20 nfseg\_sp1\_and\_sp2\_are\_2009.evt
   11. GHB 17 nfseg\_sp1\_and\_sp2\_are\_2009.ghb
   12. RCH 18 nfseg\_sp1\_and\_sp2\_are\_2009.rch
   13. CHD 40 nfseg.chd
   14. OC 22 nfseg.oc
   15. NWT 15 nfseg.nwt
   16. DATA(BINARY) 50 nfseg\_auto.cbb
   17. DATA(BINARY) 54 nfseg\_auto.cbw
   18. DATA(BINARY) 51 nfseg\_auto.crc
   19. DATA(BINARY) 16 nfseg\_auto.hds
   20. DATA(BINARY) 19 nfseg\_auto.ddn
   21. DATA(BINARY) 23 nfseg\_sh.hds
2. Model files that need to be modified from their original downloaded state: copying the 2009 condition to both stress periods:
   1. nfseg.mnw2 🡪 nfseg\_sp1\_and\_sp2\_are\_2009.mnw2
   2. nfseg.drn 🡪 nfseg\_sp1\_and\_sp2\_are\_2009.drn
   3. nfseg.riv 🡪 nfseg\_sp1\_and\_sp2\_are\_2009.riv
   4. nfseg.evt 🡪 nfseg\_sp1\_and\_sp2\_are\_2009.evt
   5. nfseg.ghb 🡪 nfseg\_sp1\_and\_sp2\_are\_2009.ghb
   6. nfseg.rch 🡪 nfseg\_sp1\_and\_sp2\_are\_2009.rch
   7. nfseg.chd 🡪 nfseg\_sp1\_and\_sp2\_are\_2009.chd
3. For nfseg\_sp1\_and\_sp2\_are\_2009.evt : evt\_rate\_after\_mul\_2009.ref should be the file listed for both stress periods – the 2009 evapotranspiration arrays only –
4. For nfseg\_sp1\_and\_sp2\_are\_2009.rch : The files referenced for reading the recharge arrays in nfseg\_sp1\_and\_sp2\_are\_2009.rch should be recharge\_mul\_2009.ref – the 2009 recharge arrays only – for both stress periods
5. nfseg.nwt – increase number of iterations from 100 to 1000 (3rd column I believe)
6. nfseg\_auto.wel will be created by the tool from the 2nd stress period wells. After downloading the model, the file header and 2nd stress period wells will need to be isolated into their own files:
   1. wellpkg\_header\_nfseg.asc
   2. wellpkg\_stress\_period\_01\_records\_nfseg.asc