# NHDPlus Exercise # 0 - Last Updated 04/30/2008

There are eight NHDPlus exercises:

Exercise 1 – Setting Up The Data

Exercise 2 – Linking Data to the NHD

Exercise 3 – Navigating with Geometry

Exercise 4 – Navigating with the VAAs and Flow Table

Exercise 5 – Network Analysis

Exercise 6 – Raster Datasets

Exercise 7 – Watershed Delineation

Exercise 8 – A Simple Model

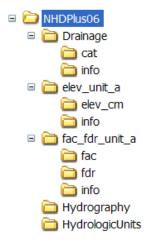
## **Preparation**

- 1. The NHDPlus exercises assume a working knowledge of ArcCatalog, ArcMap and ArcToolbox. The exercises also assume the use of ArcGIS 9.x.
- 2. Download the hydrologic region 06 data from

http://www.horizon-systems.com/NHDPlus/HSC-wthMS.php

Download all the files that begin with NHDPlus06 except for NHDPlus06V01\_01\_QAQC Sinks

- 3. Select a location on your harddisk into which you will uncompress the Region 06 data.
- 4. Uncompress each .zip file into the place you selected in step 3. Direct your compression utility (e.g. WINZip) to preserve the paths that are stored in the .zip files.
- 5. When you are finished uncompressing the data, you should have the following data structure:



6. Download the following zip files and uncompress the data into the NHDPlus06 folder as shown in step 5:

ftp://ftp.horizon-systems.com/nhdplus/exercises/NHDPlusExerciseEvents.zip
ftp://ftp.horizon-systems.com/nhdplus/exercises/NHDPlusModelingData.zip

#### CONVENTIONS USED IN THESE EXERCISES

Menu Choices, Dialogs and specific user responses are in **bold** text

Tools and Buttons are represented as follows:

- If the button/tool contains text, it is represented by boxed text, e.g. OK or ADD.
- If the button/tool contains an icon, it is either represented with a box containing the ArcGIS mouse-over text. Or, in some cases, the ArcGIS icon is used.

### **NHDPlus TOOLS**

 In order to complete the NHDPlus exercises, download the NHDPlus navigation tools from <a href="http://www.horizon-systems.com/NHDPlus/tools.php">http://www.horizon-systems.com/NHDPlus/tools.php</a> The tool names are:

NHDPlus VAA COM Object Navigator NHDPlus Flow Table Navigator

2. Install the tools according to the instructions contained in the .zip file.

### **ArcHydro TOOLS**

The ArcHydro Tools are available at no cost from ESRI. If you do not have the ArcHydro tools installed, download and install them using these instructions:

1. If you have an old version of the ArcHydro Tools and ApFramework, uninstall them. (Go to Control Panel, Add or Remove Programs to do this.) After uninstalling, go in and delete anything remaining in the installation folder. By default, the installation folder is:

### C:\Program Files\ESRI\WaterUtils

2. Download the latest version of the ArcHydro Tools. Note it's easiest to do this in Internet Explorer, just copy/paste the following URL into the address box:

ftp://RiverHydraulics:river.1114@ftp.esri.com

Then navigate to the folder described below, right-click and copy/paste the files to the folders where you want them.

/ApFramework/Setup9.x/ (where x is the highest version number listed)

If there is more than one sub-folder, go to the folder with the most recent date.

Open Windows Explorer and create a directory for the ApFramework. Drag all files from the Internet Explorer window to the new folder in Windows Explorer. You may also wish to obtain a copy of the documentation from the /ApFramework/Doc folder.

Next, navigate to the folder below, right-click and copy/paste the files to the folders where you want them.

/ArcHydro/Setup9. x/ (where x is the highest version number listed)

Go to the folder containing the word "Final" with the most recent date.

Open Windows Explorer and create a directory for ArcHydro. Drag all files from Internet Explorer window to the new folder in Windows Explorer. You may also wish to obtain a copy of the documentation from the /ArcHydro/Doc folder

3. Run the ApFramework setup.exe (i.e. Water Utilities Application Framework9).

Note: If you get a message saying that the ApFramework is already installed, go to Start>Run and type regedit to access the registry, then delete the key

HKEY\_LOCAL\_MACHINE\SOFTWARE\ESRI\Applications\WaterUt ilities\ApFramework9. Rerun the setup.

- 4. Run the ArcHydro setup.exe.
- 5. These exercises will use just a small component of the ArcHydro tools. If you would like additional information about the tools and how to use them, download Arc Hydro Tools 1.x Overview.pdf and /ArcHydro/Doc/Arc Hydro Tools 1.x Tutorial.pdf
- 6. Once the ArcHydro tools are installed, add the tools to the ArcMap toolbar.

### **Questions?**

Questions about the exercises may be directed, via email, to NHDPlus@hscnet.com.