

### **Questions and Answers**

1. Is HEC-GeoHMS currently implemented in ArcGIS Pro? Are Tc flowpath segment calculations implemented?

Parts of HEC-GeoHMS capabilities are implemented in Arc Hydro for Pro. Please review document" Arc Hydro - Support for Hydrologic Modeling" for specific capabilities and workflows to support HEC-HMS through Arc Hydro for Pro.

Also, webinars "Arc Hydro: Hydrology and Hillslope" and "Arc Hydro: Support for Hydrologic and Hydraulic Modeling" from last years "Arc Hydro in Action" webinar series discuss this topic and can be a good reference.

2. I have not taken any of those courses. However, I learned via institutional course designed for Advanced ArcGIS applications (SWAT modeling, watershed delineation). Do you think the training still required to get good grasp on Arc Hydro?

Arc Hydro training might still be useful as it is designed to teach you the principles of Arc Hydro implementation from the ground up so it will be easier for you to implement it into new water resources domain areas. If your focus is on the use of specific tools that were covered in the training you already took, then taking additional Arc Hydro training might not be as beneficial.

3. Is the "Arc Hydro: GIS for Water Resources 3rd Edition" from 2002 still relevant?

Yes, the book talks about the principles of Arc Hydro data model development and presents the Arc Hydro data model in great detail. This data model is the foundation of Arc Hydro today, so the book is relevant. Note that the book does not talk much about the tools, so for reference to the current tools you will have to use the online Arc Hydro documentation.

4. Will there be public classes scheduled anytime soon or are arc hydro courses usually private?

There will be public classes scheduled starting in Q3 2022. They will be Pro-based but note that about 90% of Arc Hydro capabilities are the same in ArcMap and Pro versions of Arc Hydro, and any key differences will be mentioned in the class, so the classes are not heavily version dependent.

5. Is the H&H class going to be offered using ArcGIS Pro anytime soon?

Please see answer to question #4.



#### 6. Are the classes stand-alone or do you need one for the other?

While the classes are stand-alone, it is strongly recommended that before taking H&H class you either take Arc Hydro class or have few years' experience in using Arc Hydro.

### 7. Are there modules, or smaller bites, in the e-versions of the training such that one would not have to do the whole class at once?

This is an area that we are working on right now. There will be modules that will focus on specific areas of Arc Hydro that will be released starting in April of this year. We will be adding content over time.

#### 8. Any linkages to HEC-EFM?

We are currently working with HEC on moving HEC-GeoEFM into ArcMap version 10.8. Once that is done, there will be activity to port that functionality to ArcGIS Pro (most likely Q3/Q4 2022).

### 9. Arc Hydro can do so many varied tasks. Are there example problems and datasets available on the ESRI site that demonstrate basic watershed delineation and characterization using ArcGIS Pro right now?

Please see answer to question #7. Basic watershed delineation will be one of the early modules we will be releasing. Probably April/May of this year. In the meantime, webinars "Arc Hydro in ArcGIS Pro" and "Arc Hydro: Hydrology and Hillslope" from last years "Arc Hydro in Action" webinar series discuss this topic and can be a good reference and starting point.

We will provide some sample data once the module is released, but the Arc Hydro tools can be applied to "any" data and you can and should try them on your own data (of the same type).

#### 10. To get the hydro tool to work, is spatial analyst extension required? Are there any other requirements?

There are many Arc Hydro tools that do not require additional extensions (e.g. tools that work with vector data only). But for most of the Arc Hydro tools you will need Spatial Analyst (SA) extension (e.g. all tools that deal with raster/terrain processing will need SA).

We also recommend that you have Advanced license of ArcGIS Pro as the foundation. While most of the Arc Hydro tools use Basic, there are some tools that do require Advanced license. As you go more into data processing and assembly (even without Arc Hydro) you will find that Advanced license provides more options and flexibility.



#### 11. Perhaps this is a silly question, but can I use Arc Hydro on the personal version of ArcGIS Pro?

Yes, Arc Hydro will work on personal version of Pro. Check answer to question 10 as well.

#### 12. What would be the best hydro tool for modeling water piping for irrigation?

That depends on your definition of "modeling" and "piping". From Arc Hydro point of view (terrain "modeling") you treat pipes either as open channels (if they are really canals and not pipes) or as pipes in Arc Hydro stormwater representation. So your workflows for terrain processing and then watershed delineation will be either based on open channel or stormwater Arc Hydro representation. And it will be more than one tool (workflow with many steps and tools to get the data ready) for terrain preprocessing and then one tool for watershed delineation for the two approaches.

#### 13. Can Arc Hydro perform 2D-Groundwater Flow Models?

For that you can use Aquaveo's Arc Hydro for Groundwater MODFLOW extension. So the data is prepared in Arc Hydro but the actual groundwater modeling is done in MODFLOW.

#### 14. Is the getting started with Arc Hydro for Pro?

We have a very basic, 2-page document "Getting Started with Arc Hydro".

A more extensive document is under development and will tie with the short training modules being developed.

#### 15. If we are running Pro 2.9 which Arc Hydro would we download?

In general, the highest number referencing your specific version. So for Pro, the download site is:

http://downloads.esri.com/archydro/archydro/Setup/Pro/

Since you are using Pro 2.9, look for folder that starts with 2.9 and get the one with the largest last number (as of 3/18/22, that will be 2.9.24), or you can look at the date of the folder. Since there can be changes between Pro version, make sure you match the first two numbers with your Pro version).



## 16. Is there a discount on these course prices for people, especially volunteers, working for 501C(3) organizations?

Any discounts applicable to standard Esri classes apply to Arc Hydro classes.

#### 17. The courses cost are very expensive, is there any discount for students?

Please see answer to question #16.

#### 18. Are there any free courses available?

Please see answer to questions #7, #9, and #14.