# Use ArcGIS Online Analysis Tools to Create Watersheds

Must be logged into an organizational account with publisher rights

- 1. Create a new map.
- 2. Add the hydrography layer. Add, Search for layers, World Hydrography.
- 3. Back up address below, use the "add from server" option if needed.

http://hydrology.esri.com/arcgis/rest/services/WorldHydroReferenceOverlay/MapServer

#### Trace downstream

Trace Downstream		0 4
Point features used as the starting locations for each downstream trace		0
shenandoah downsream (Points) +	0	
Trace downstream settings (optional)		
Split the trace into line segments		0
Mies		
Haximum distance of the trace		0
Mis	÷	
Clip output to		0
Choose study area -	1	
Result layer name		0
shenandoah downsream (Points) Trace		
Service result in Mago_R_Us		
🗇 Use, current mag autant.	850	+ INNERS
RUN ANALYSIS		

1. Add a Map Note

2. Select Analysis from the layer's name in the Table of Contents to ensure the right layer is being used

3. Use the image to the left as a guide.

4. Each name in an organizational account must be unique. Add your initiations and shorten the title of the layer.

- 5. Uncheck use current map extent
- 6. Click Show credits to see if you can afford the test.

Credit Usage Report	
Total records:	1
Credits required:	0.001

- 7. Click RUN ANALYSIS.
- 8. A line will be added to the map, tracing the path of the river to the sea.
- 9. The pop-up provides information on the length of the downstream path

If needed use the following formulas to convert between measurement units Miles to kilometers—multiply by 1.609344

Kilometers to miles-multiply by .6213711922

### **Create a Watershed**

- 1. Add a Map Notes layer with the name of the river as the title and the word watershed.
- 4. Place a point near the river's mouth to mark the end of the watershed. (The trace should be useful in determining the place the software has chosen for the mouth of the river.)
- 5. Use the measure tool to get a rough estimate of the distance from the tributaries to the pin for the source. Straight line distance would be fine.
- 6. Click the layer's title. Select the Analysis button. Select: Find Locations, Create Watersheds.

Perfor	m Analysis	4
+ Suto	narize Data	0
* Find i	ocations	0
	Find Existing Locations	ø
RP	Derive New Locationa	0
	Find Similar Locations	o
1	Choose Best Facilities	0
2	Create Viewlibed	0
152	Create Watersheds	0
3	Trace Downstream	0

## Fill out the parameters for the search

- 1. Select the correct point layer, add the distance value.
- 2. Change the unit of measurement.
- 3. Rename the layer with your initials at the tail. Every file in the org must have a unique name.
- 4. Uncheck current map extent.
- 5. Click show credits for the "price" of the operation.
- 6. Click RUN ANALYSIS.

Data are not authoritative because of the varying levels of resolution and scale of the map. But the procedure does provide a good approximation.

Create Watersheds	•
Point features to use for calculating watersheds	0
Volge (Points) +	
🕗 Search distance to nearest drainage (optional)	0
1000 Kilometers +	
Result layer name	0
Volga (Points) Watersheds	
Save much in Haps_R_Us	
Die nament map einert Ste	ni credita
HUN ANALYNS	

### Results



		×
Volga (Poir	nts) Watersheds	
Pour Point ID	1	l
Description	HydroSHEDS 90m	
Data Resolution	0.000832999998238	l
Area Square Kilometers	1,296,179.06	
Title	Volga	1
Visible	1	1
Description	Volga Watershed, what distance should be used?	ł
Image URL		
Image Link IIRI Zoom to G	et Directions	

- Looks like most of the tributaries were captured.
- Pop-up has lots of information.
- Use Configure Pop-up from the 3 dots to select which fields to show.
- This was compiled from a 90 meter aerial photo.

Look in My Content—the watershed is a feature layer. If shared it can be added to other maps.