

# Australian Hydrological Geospatial Fabric (Geofabric) Tutorial

Access Water Storage information

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**Australian Government**  
**Bureau of Meteorology**



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## **1 Introduction**

External data can be incorporated with Geofabric data for hydrological analysis.

This tutorial shows how the Bureau of Meteorology's (Bureau) Water Storage website is accessed from the Geofabric using the AHGFWaterbody feature class, which is are part of the Surface Cartography and Surface Network products.

Method 3 – HTML Popup tool is the default method of access in the Surface Cartography and Surface Network LYR symbology files.

The Bureau of Meteorology's Water Storage website is:

<http://water.bom.gov.au/waterstorage/awris/>

### **1.1 ArcGIS version**

The steps outlined in this tutorial use ArcGIS 10 (SP 3).

## 2 Tutorial

The AHGFWaterbody feature class contains the attribute "SLAKE\_URN" which is the Universal Resource Name for publicly-owned water storages on the Bureau's website:

<http://water.bom.gov.au/waterstorage/awris/>

Information about these water storages is available at this website:

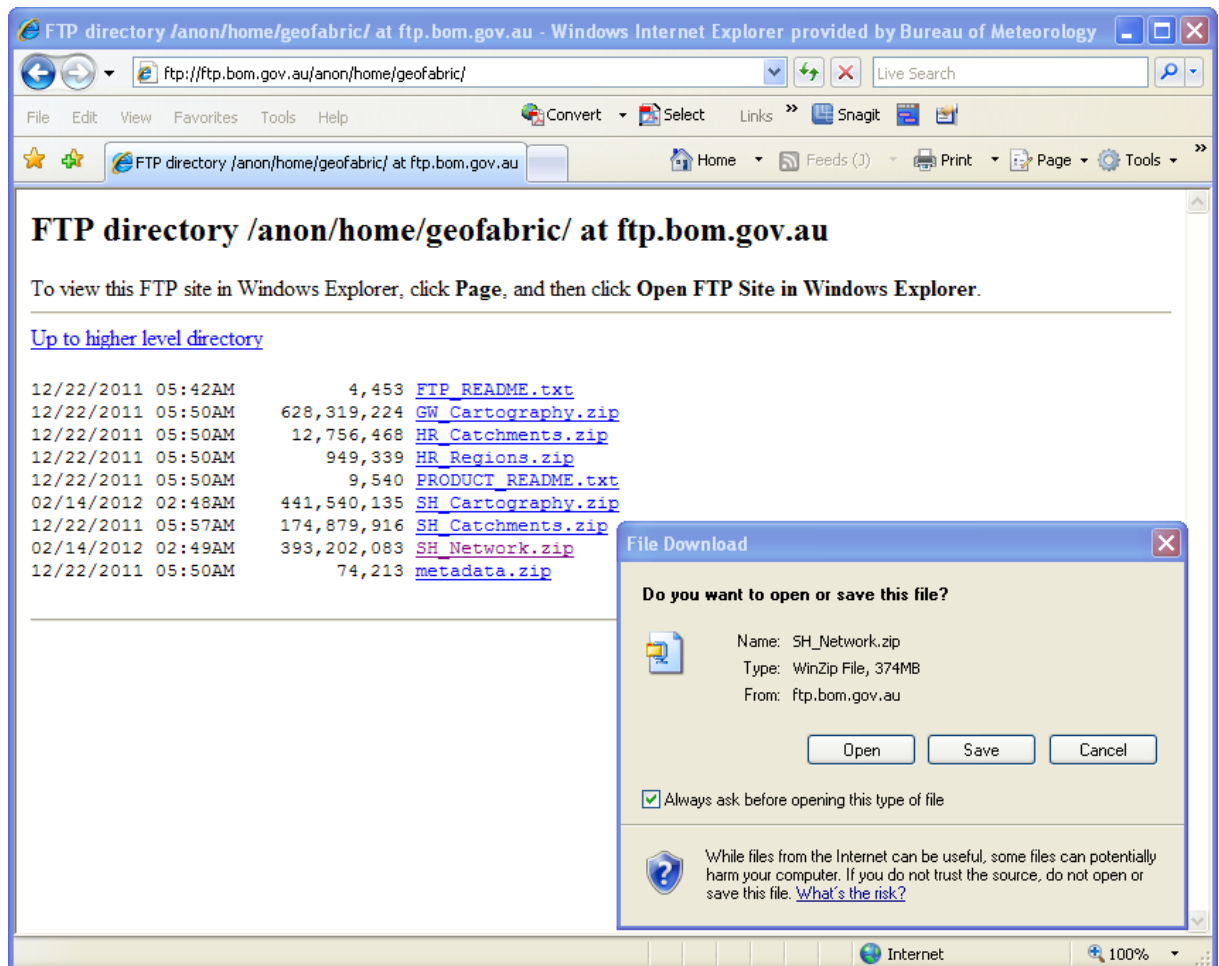
<http://www.bom.gov.au/water/waterstorage/index.shtml>

The AHGFWaterbody feature class is included in both the Surface Cartography and Surface Network products. In ArcMap, there are several ways to link to, and display, the Water Storage web pages for each water storage feature.

The following steps will continue to use the MXD and same subset of Geofabric data as used in the tutorial Calculate rainfall summary statistics for a derived catchment.

## 2.1 Download the Surface Network File Geodatabase

1. From the [Bureau of Meteorology Geofabric](#) website browse to Downloads and select [Download the Geofabric data from the Geofabric FTP site](#). Select Surface Network's SH\_Network.zip file and save this to disk



2. Unzip the downloaded file, making sure that the resulting folder ends with gdb (e.g. the contents of the file SH\_Network.zip should be unzipped to a folder called SH\_Network\_GDB).

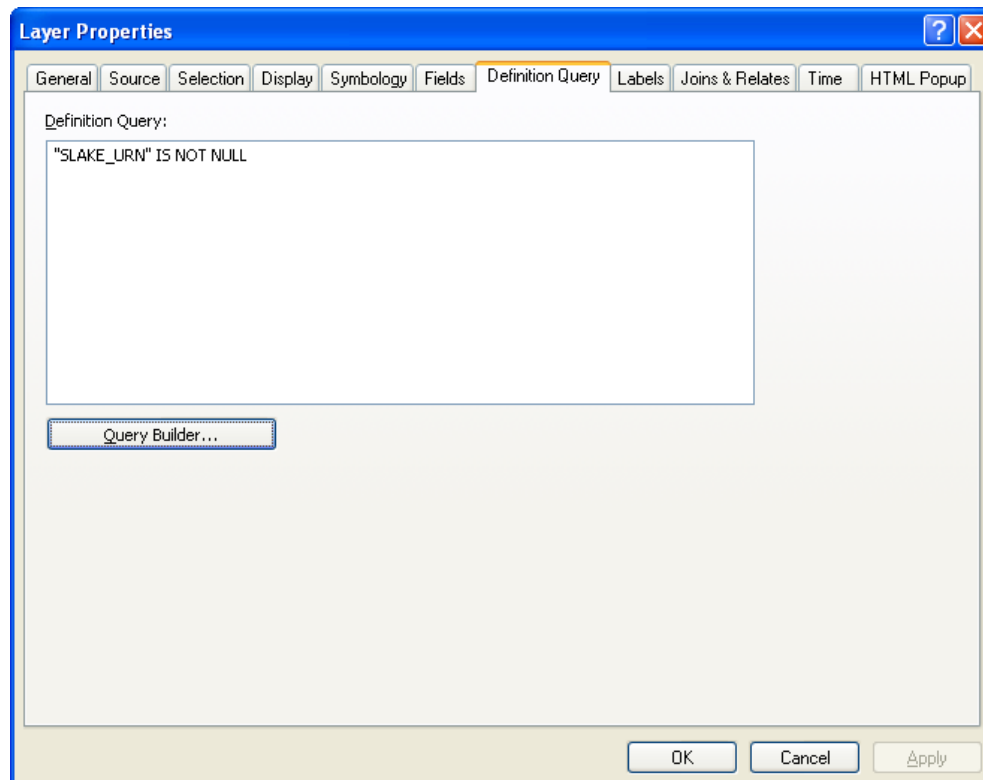
## 2.2 Download the Surface Cartography File Geodatabase

Follow the same process as described in step 2.1, selecting Geofabric Surface Cartography's SH\_Cartography ZIP file instead.

The unzipped folder will be called SH\_Cartography\_GDB.

## 2.3 AHGFWaterbody – symbolising water storages

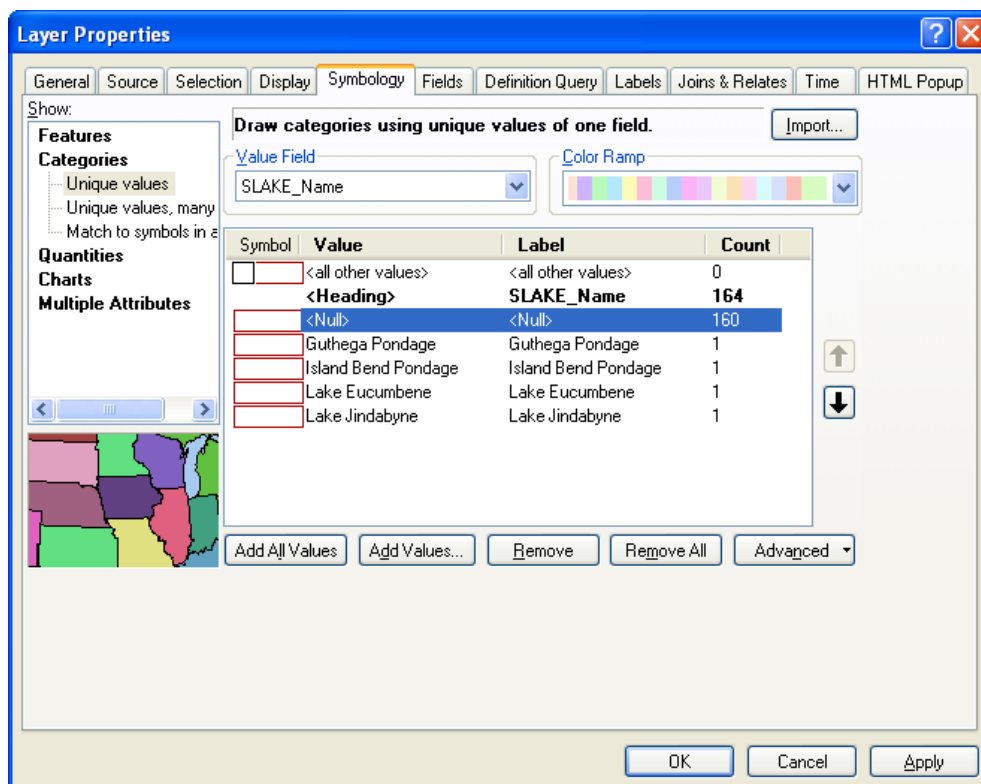
1. Add the AHGFWaterbody feature class in the TOC.
2. Symbolise the SLAKE URN layer:
  - Define a query to extract features where SLAKE\_URN is populated





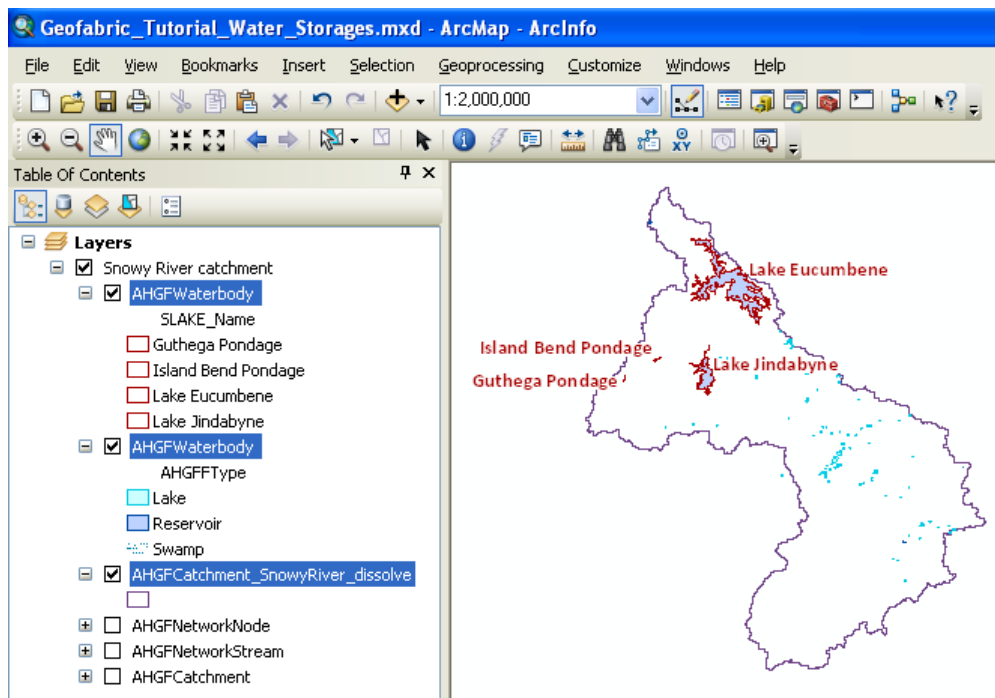
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- Symbolise SLAKE water storages using the SLAKE\_Name attribute and Remove any <Null> values so that only Named storages will be symbolised



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- Label the SLAKE storages using the SLAKE\_Name field

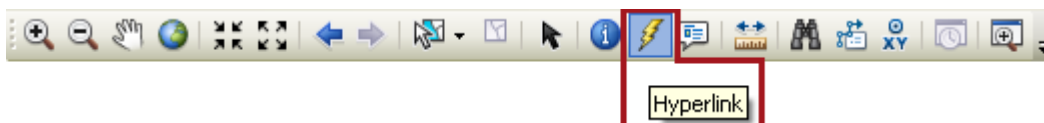


### 2.4 Accessing the Water Storage website – defining and using hyperlinks

There are several methods to utilise the AHGFWaterbody's SLAKE\_URN field.

#### 2.4.1 Method 1 – Hyperlink tool and Hyperlink Base

This method uses the Hyperlink tool in the Tools toolbar.

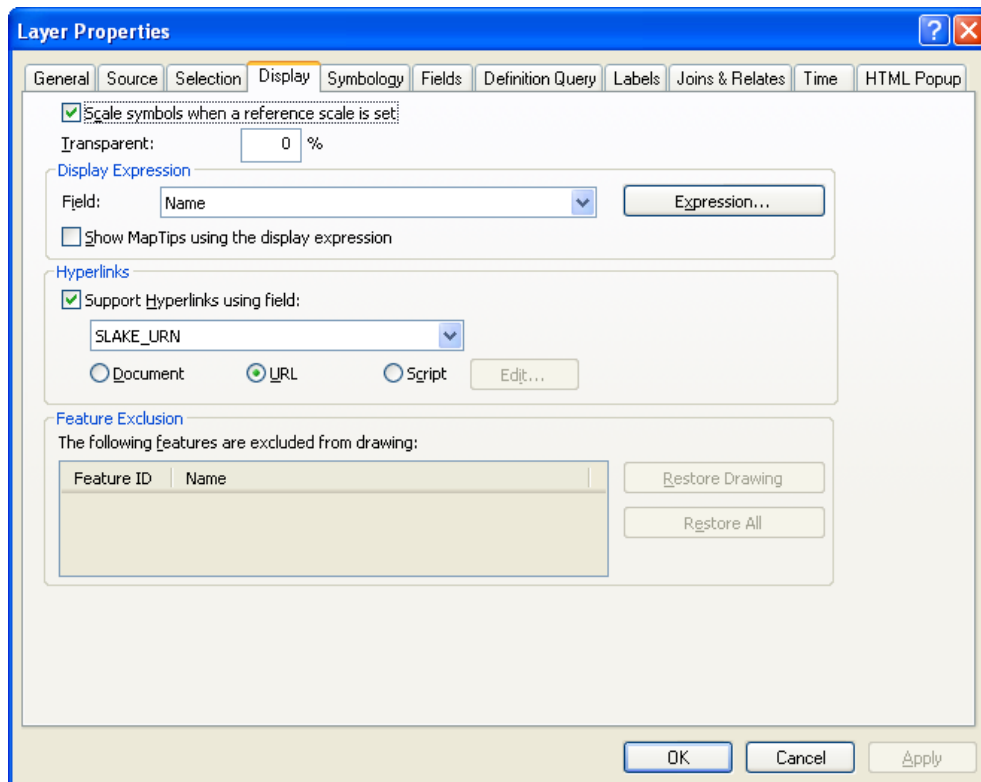


The water storage website is accessed by defining the SLAKE\_URN field in the AHGFWaterbody Layer Properties and defining the URL prefix in the Map Document Properties.

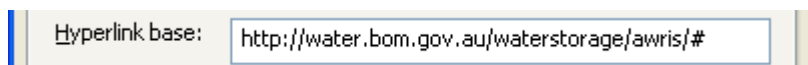
3. Right click on the AHGFWaterbody layer and select Properties
4. Select the Display tab
5. Check the Support Hyperlinks using field: button
6. Select SLAKE\_URN from the drop down list
7. Select the URL button

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8. Click [OK]



9. Go to the File menu and select Map Document Properties
10. In Hyperlink base: type in the URL prefix  
<http://water.bom.gov.au/waterstorage/awris/#>



11. Click [OK]
12. Select the Hyperlink tool, click on a SLAKE water storage and its web page will automatically open in the web browser.

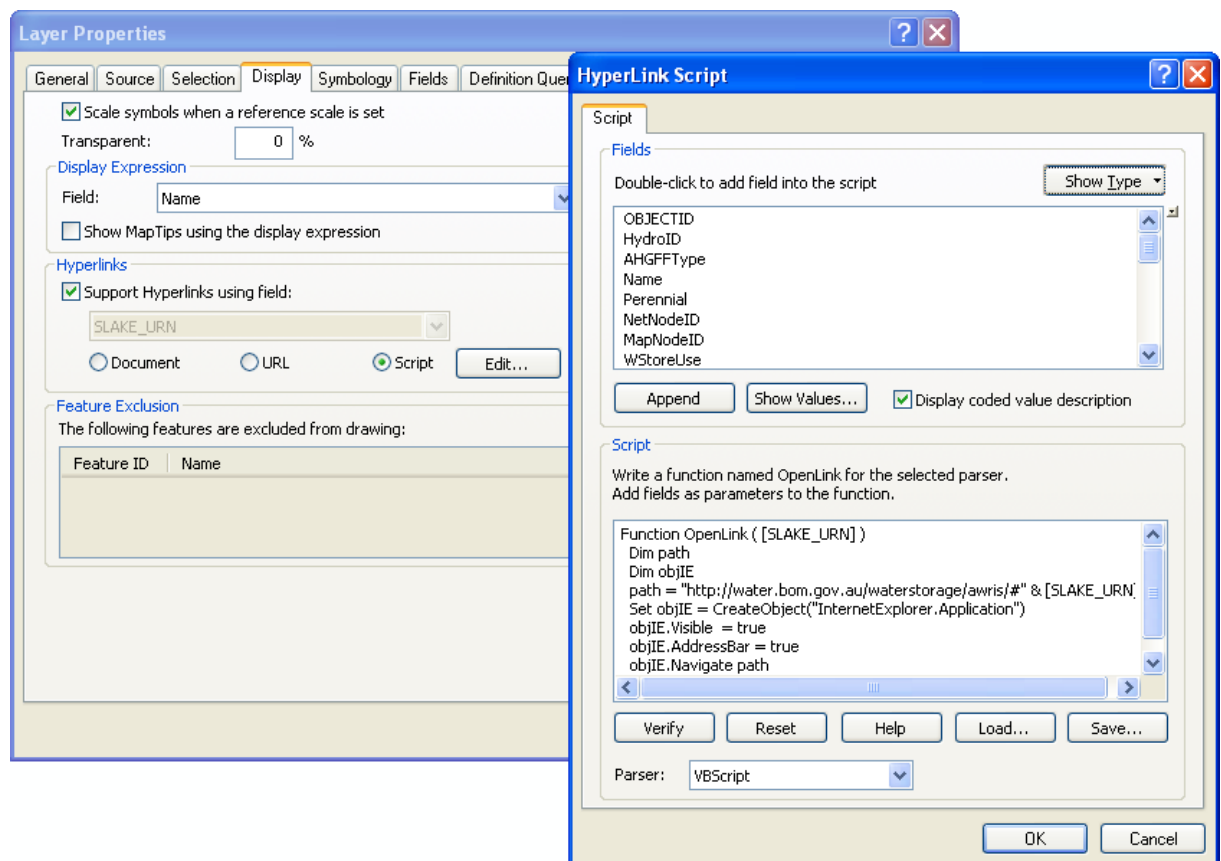
### 2.4.2 Method 2 – Hyperlink tool and Hyperlink script

This method uses the Hyperlink tool in the Tools toolbar with a script.

1. Right click on the AHGFWaterbody layer and select Properties
2. Select the Display tab
3. Check the Support Hyperlinks using field: button
4. Select SLAKE\_URN from the drop down list
5. Select the Script button, click on the Edit button and the HyperLink Script window will open

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6. In the HyperLink Script window, add the following.  
Function OpenLink ( [SLAKE\_URN] )  
Dim path  
Dim objIE  
path = "<http://water.bom.gov.au/waterstorage/awris/#>" & [SLAKE\_URN]  
Set objIE = CreateObject("InternetExplorer.Application")  
objIE.Visible = true  
objIE.AddressBar = true  
objIE.Navigate path  
End Function
7. Click [Verify] to check that the Bureau's Water Storage web page opens
8. Click [OK]

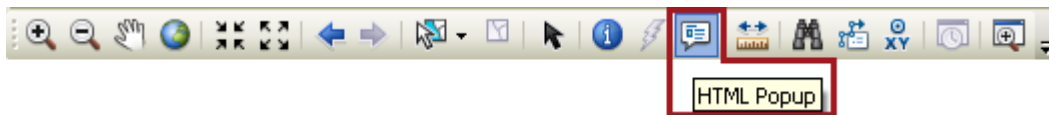


9. Select the Hyperlink tool, click on a SLAKE water storage and its web page will automatically open in Internet Explorer.

### 2.4.3 Method 3 - HTML Popup tool

This is AHGFWaterbody's default method of access to the Bureau's Water Storage website.

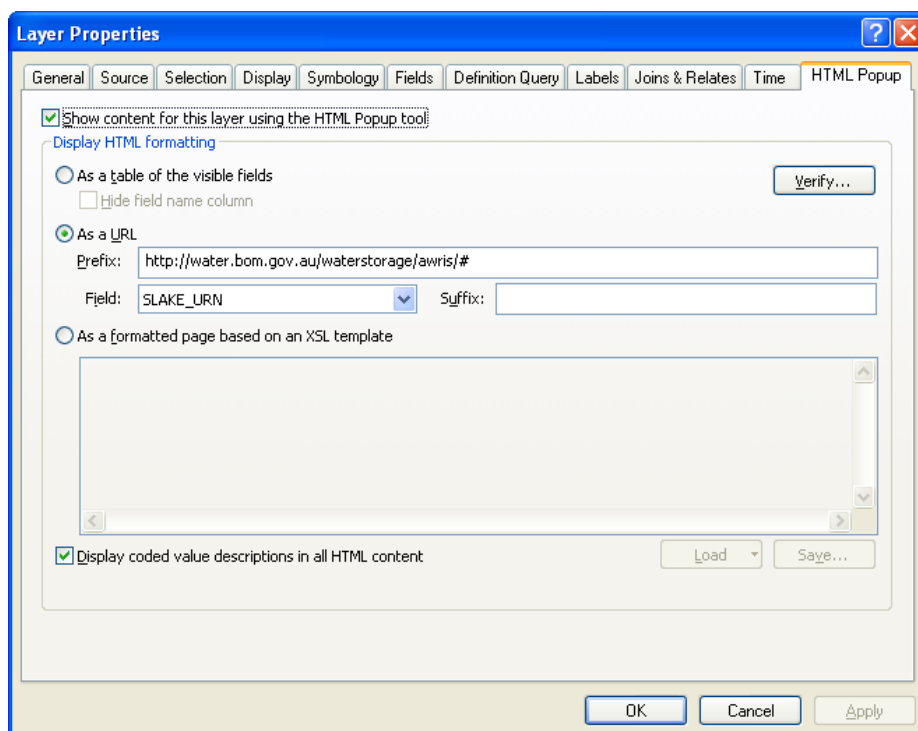
The HTML Popup tool is part of the ArcMap Tools toolbar.



Defining the HTML Pop-Up properties will enable the SLAKE\_URN field to link to the Bureau's Water Storage website and the selected water storage web page to pop up in ArcMap.

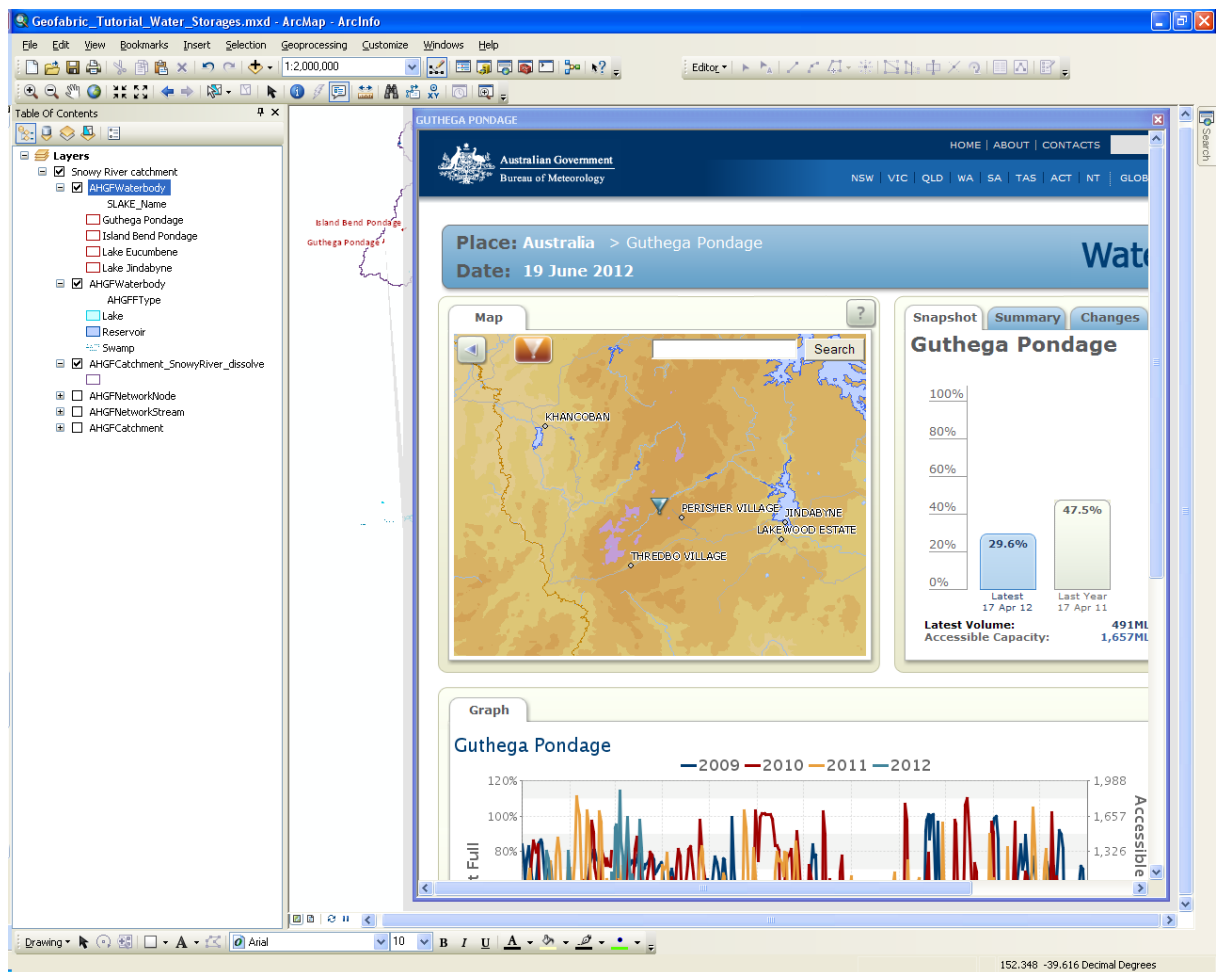
1. Right click on AHGFWaterbody and select Properties
2. Select the HTML Popup tab.
3. Check Show content for this layer using the HTML Popup tool.
4. Click the option to display HTML formatting as a URL.
5. Type the base URL in the Prefix text box:  
<http://water.bom.gov.au/waterstorage/awris/#>
6. Click the Field drop-down arrow and select the 'SLAKE\_URN' Field.
7. Check Display coded value descriptions in all HTML content
8. Click the Verify button to make sure the URL is working.

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9. Click [OK].
10. Select the HTML Popup tool from the Tools toolbar and select a SLAKE water storage. The web page will display in ArcMap.

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Through the *Water Act 2007*, the Australian Government has given the Bureau of Meteorology responsibility for compiling and delivering comprehensive water information across Australia.

**For more information**

Visit our website at [www.bom.gov.au/water](http://www.bom.gov.au/water)

Send an email request to [waterinfo@bom.gov.au](mailto:waterinfo@bom.gov.au)



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