

Massachusetts Water Indicators Map Viewer Guide

By Lance J. Ostiguy and Peter K. Weiskel

1. GETTING STARTED

1.1 Starting ArcReader by opening an existing published map

1. If you don't have a GIS, then get a current version of ESRI ArcReader¹ at the following Web address:
<http://www.esri.com/software/arcgis/arcreader/index.html> and install it.
2. Once ArcReader is installed on your computer, load the disk into the CD drive. Using Windows Explorer, navigate to the folder where the published map file (.pmf) is located:
appendixes/appendix_2/Massachusetts_Water_Indicators_Ltd.pmf
3. Using your mouse, double-click the left mouse button on the published map file **Massachusetts Water Indicators Ltd.pmf**. Windows will launch ArcReader. It will take several minutes for the GIS data to load and for the map to appear.

1.2 Starting ArcReader from Windows Explorer

1. Open Windows Explorer and right-click the Massachusetts_Water Indicators_Ltd.pmf
2. Point to Open With and click ArcReader.exe. If ArcReader.exe is not listed in the Open With list, you may not have installed ArcReader. If so, install ArcReader.

Once activated, the application will open a new window on your desktop, showing the electronic map you have chosen to run. Each time you reopen the electronic map file, the map appearance returns to the default map window, also known as Data View.

2. THE MAP INTERFACE

The display in the map window comprises several elements. These separate elements are shown in figure 2-1. Two view styles are available for the map user: Layout View and Data View (fig. 2-2). Data View (the default view) must be used when browsing map data using the Pan and Zoom tools (explained below). Layout View should only be used when the desired map data have been obtained in Data View, and the view is ready for printing a map as a hard copy or electronic file. The Layout View includes a map frame, explanation, and graphic scale. Maps printed from Layout View will include all of these elements.

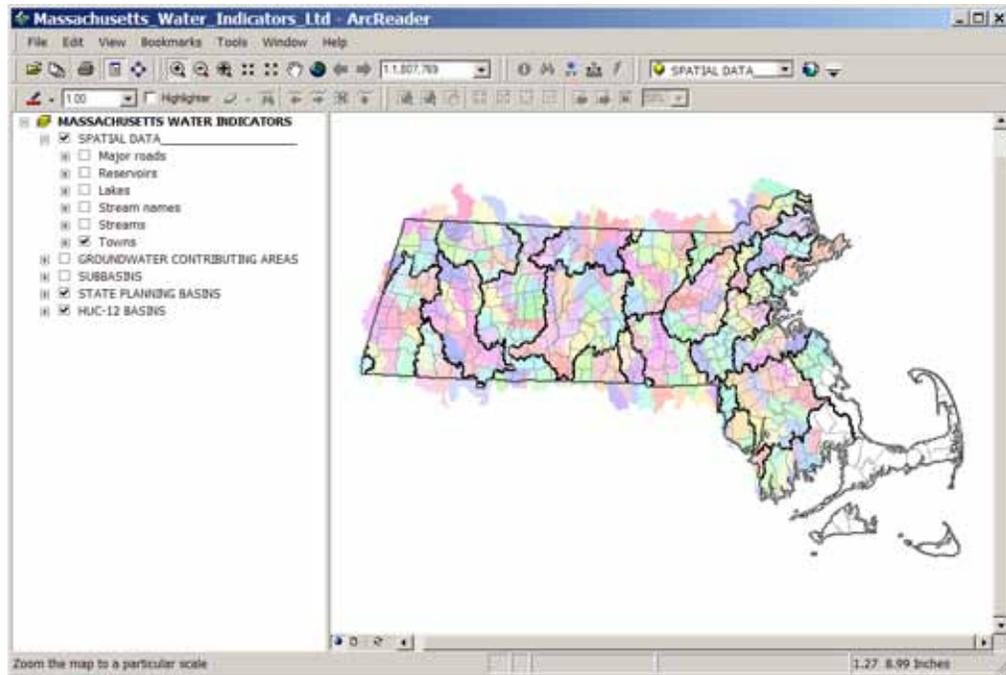
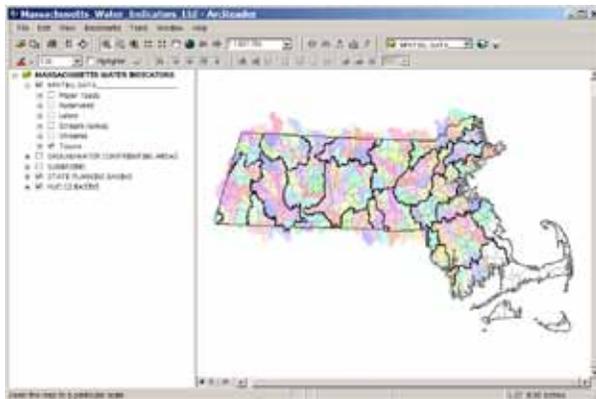
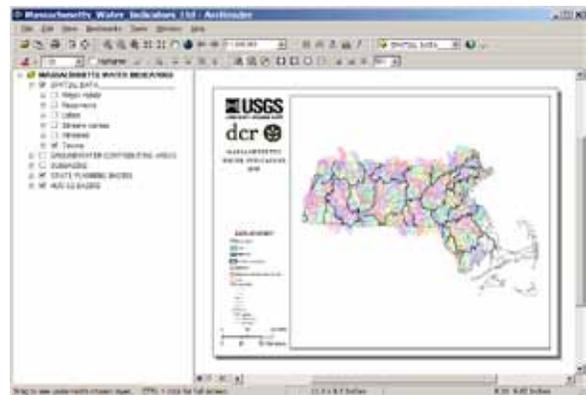


Figure 2-1. Elements within the default map window, also known as Data View.



A



B

Figure 2-2. Map views: (A) Data View (default map window), and (B) Layout View.

Figure 2-3 shows the controls for selecting a view style. When you wish to print your map, go to View menu pull-down and then select and click Layout View.

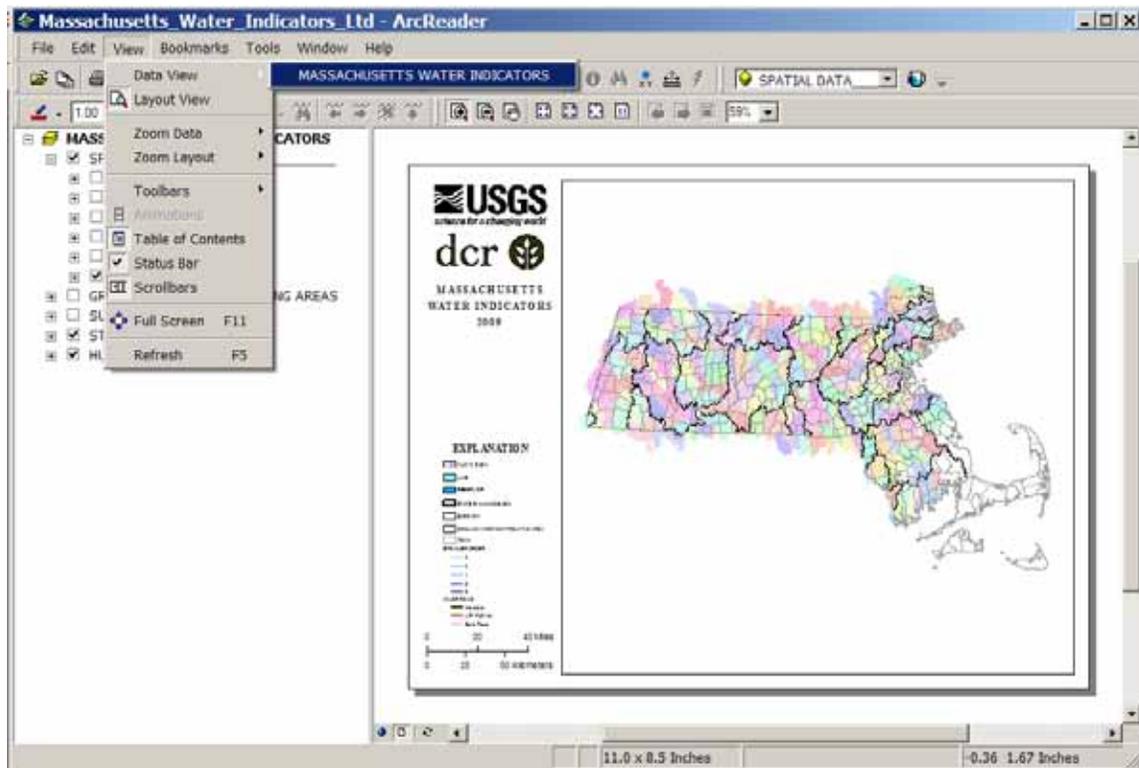


Figure 2-3. The location of the View control function.

3. TABLE OF CONTENTS (TOC)

The Table of Contents (TOC) box in the left panel contains links describing all of the available geographic and spatial data for this particular ArcReader application (fig. 2-4). The structure is hierarchical, forming a list. In addition to the map title MASSACHUSETTS WATER INDICATORS, shown in bold text on the top of the TOC box, the list contains two basic structure elements: groups and datalayers (or layers). Some layers are found within groups, and other layers are independent of any group.

The TOC functions similarly to the left panel of the Microsoft Windows Explorer¹ utility, except that a map user will find map data instead of computer folders and files. To look into a group, click the "+" sign; the TOC list will expand, showing the layers in the group. Clicking on the "+" control opposite a layer name will display the symbol representing a layer on the map (for example the line type and color for a particular type of road). Clicking the "-" sign will collapse the list and shorten the length of the TOC.

An upper layer in the TOC panel will obscure all the layers below it, if the upper layer is symbolized using color shading. Upper layers symbolized by line symbols will not obscure underlying layer(s). The default order of the TOC headings is shown in figure 2-4.

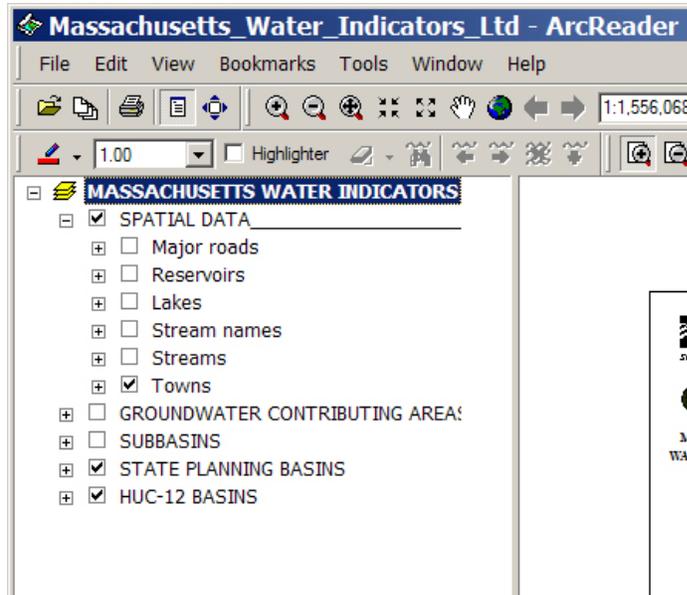


Figure 2-4. The Table of Contents for the Massachusetts Water Indicators Map Viewer.

4. THE DISPLAY PANEL DATA FRAME

The right-hand display panel is the location where all map data are shown. The panel includes a data frame which displays map features for each layer listed in the TOC. To make a layer visible inside the data frame, the user must click on the checkbox appearing to the left of the layer name in the TOC. In order for a layer within a group to display data, the checkbox of the group containing the layer must also be checked. As previously noted, upper layers obscure lower layers listed beneath them in the TOC list, if the upper layers are symbolized using a solid shade.

5. IDENTIFICATION OF MAP FEATURES

Selected features on the map, including towns, major roads, stream names, subbasins, and state planning basins, are automatically labeled. Labels turn on or off dynamically, depending on the map scale selected by the user. The user can change the map scale by using the Zoom In or Zoom Out tools on the main toolbar at the top of the map. Different feature labels will appear and disappear at different scales. For example, the user must zoom in further for stream names to appear than for the names of the state planning basins. (Note that stream names are not provided for all streams, because not all streams in the state are named.)

6. SPATIAL BOOKMARKS

A menu selection has been designed to help the map user quickly and easily navigate to a chosen state planning basin. This tool can be found under the View menu pull-down. Once the View menu opens, select Bookmarks to open a list of state planning basins. The user can then choose an appropriate state planning basin. The resulting change in map view will show the planning basin, as well as the immediate geographic area around the basin.

7. PRINTING A MAP OR CREATING A MAP GRAPHICS FILE

It is possible to print a map or create a graphics file in either Data View or Layout View. However, each view is somewhat different when setting up to print. In Data View, the image area (denoted by the map page in the right-hand panel of the main application) will be scaled automatically according to the page size indicated at the printer or within the printer's setup window. Printing from the Layout View will always contain the page's margin information. The map user should check the box next to the Scale to Fit Page option in the Page Setup window (fig. 2-5) to prevent parts of the layout from being printed outside the borders of the page.

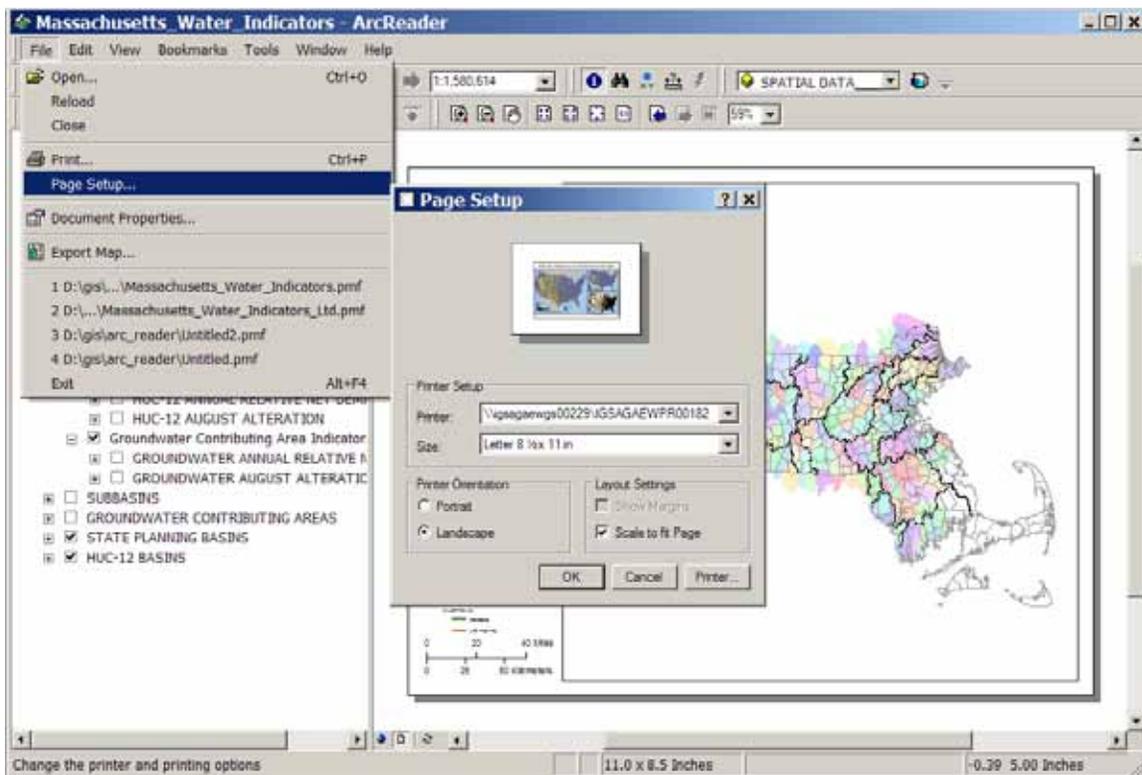


Figure 2-5. Page Setup option.

The user may also create a Postscript¹ graphics file of a map. The postscript file is created by clicking the Print To File checkbox in the Print window (fig. 2-6). After clicking OK, the user may enter a file name in the next popup window. The file will be generated in the same folder where the published map file (.pmf) resides. Be sure to apply the .ps extension to the file, so that it will be subsequently recognized as a Postscript file.

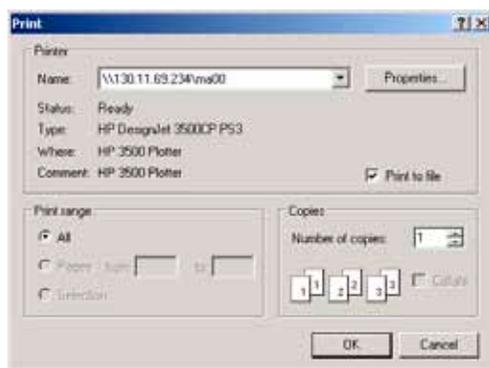


Figure 2-6. The Print to file option.

The generated Postscript file can be opened and edited in most graphics and drawing applications. Finally, a user may use the Export Map option located on the File pull-down menu. This option allows the user to export a gridded (or raster) image of a map. Although this image format is generally not suitable for editing within a drawing application, raster images can be easily imported into presentation software.

¹ Product names are for identification purposes only, and do not imply endorsement of the product by the U.S. Geological Survey.