

## ReadMe file for Installing and Using Calibrated WARMF models

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Please reference the following EPRI report for a description of model calibration and datasets:  
*Implementation of the Watershed Analysis Risk Management Framework (WARMF) Watershed Model for Nutrient Trading in the Ohio River Basin. 2012. Report 1025820. EPRI, Palo Alto, CA.*

WARMF is available in the public domain through the EPA Ecosystem Research Division TMDL Modeling Toolbox:

<http://www.epa.gov/athens/wwqtsc/html/warmf.html>

You can download the model from the website. There is also support for the model from Systech Water Resources at [http://www.systechengineering.com/Warmf\\_Support.html](http://www.systechengineering.com/Warmf_Support.html)

From EPRI website or CD you can obtain the files for the models implemented so far for the Ohio River Basin Nutrient Trading Program. These models are at the HUC10 level.

The procedure for installing the models downloaded from EPRI is:

- 1) Copy the zip files into a folder in your desktop
- 2) Create a WARMF folder for your models, typically in the Program Files folder
- 3) Unzip the files

To obtain the executable files:

The WARMF models provided by EPRI do not contain the executable files. You need to download them from the USEPA website.

- 1) Download the [WARMF 6.1 Setup](#) file and install it following the instructions from the website.
- 2) Then copy the WARMF.exe and model.exe files to the main folder for each of the watershed models you are going to use from the EPRI website or CD.
- 3) In addition, place another copy of the model.exe file within the “model” folder

To use the WARMF models:

- 1) Within a given watershed model, double click on the warmf.exe file
- 2) The model will open to the initial screen (Watershed analysis Risk Management Framework, version 6.4)
- 3) Go to File > Open and select the “model” folder
- 4) Choose the Scioto or the Muskingum models by selecting their corresponding \*.WSM file.
- 5) In the next screen chose the Engineering module
- 6) To view the model output, go to Mode > Output
- 7) Click on any river segment or catchment to view the flow and water quality output
- 8) If there is a flow gage or water quality station in that river segment, you will see a comparison between simulation and observed values
- 9) Returning to the Engineering module (closing the model output screen), you can select to view the locations of gages, water quality stations or other spatial datasets using the View tab
- 10) If you want to explore the temporal data, you can also go to the Module tab and select Data.
- 11) Select a Type of Data from the pull-down menu and then you can scroll through the various datasets. You can view the data in graphical or tabular formats.

For more information on setting up a model run or modifying data, consult the WARMF Users Guide.pdf located in each watershed folder.

WARMF usually saves output files in C:\Program Files\Systemech\watershedname\