Using the ‘dataRetrieval’ package in R, data pertinent to the water quality modeling effort for Skaneateles Lake were queried following the general workflow outlined in the built-in vignette. Sites were identified for a period of interest (since the year 2000) using the ‘whatNWISsites(…)’ function and a bounding box around the lake. Available sites were examined using the ‘whatNWISdata(…)’ function, and data from sites of interest were downloaded using the various ‘readNWISdata(…)’ functions.

Only two sites were identified that contain stream data (Grout Brook and Skaneateles Creek (lake outlet)). No water quality data existed at either of these sites, and the general function ‘getNWISdata(…)’ returned daily flow data for the period of interest.

Using the same workflow for the lake data resulted in only two stations data returned, however, use of the water quality specific function ‘readNWISqw(…)’ resulted in numerous sites returned from multiple years. In the year 2000, 2001, and 2002 it looks like the program was aimed to examine micropollutants and will not be useful for this project. In 2018, 2019 there seems to be a significant amount of data from multiple sites throughout the lake.

Because of the discrepencies I encountered when using the different query functions (the generalized ‘readNWISdata(…) vs. ‘readNWISwq(…)’ vs ‘readNWISdv(…)’), it is my hope that someone more familiar with the ‘dataRetrieval’ package can review the R script that I created to pull data that will be useful to the Skaneateles Lake modeling effort. We hope to ensure that all available data is accounted for and available for use in set up and calibration of the lake water quality model and that none was missed due to incorrect use of the data query functions.

The data search and query script is housed in a GitHub repository here:

<https://github.com/andrews518/USGS-data>

The script to be reviewed is named “Skaneateles\_datasearch.R”

Resulting data are contained in excel workbooks named:  
 1) USGS\_Skan\_lake\_WQ.xlsx   
 2) USGS\_Skan\_streamflow.xlsx

Feel free to push commits directly to the master branch if any edits are required.