## Command Reference: ReadUsgsNwisDaily()

Read 1+ time series from the USGS NWIS Daily Value web service

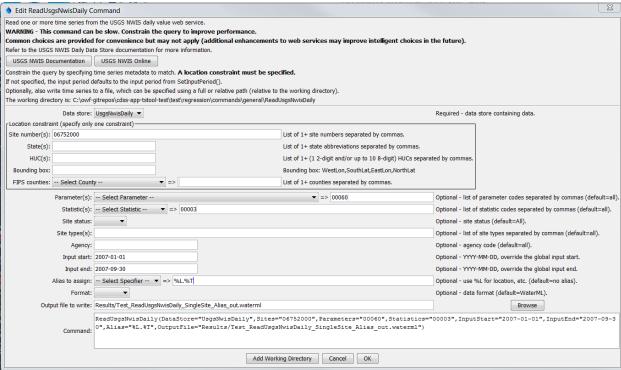
Version 11.13.00, 2017-03-07

The ReadUsgsNwisDaily() command reads one or more time series from the United States Geological Survey (USGS) National Water Information System (NWIS) Daily Value web service (see the UsgsNwisDaily Data Store Appendix). The command provides parameters to constrain the web service query and also allows the result to be saved as an output file. For example, if WaterML is chosen as the time series format, a WaterML file can be saved and can be read later using the ReadWaterML() command. See also the WebGet() command, which also can be used to retrieve data files from the USGS website.

The USGS NWIS web service allows station and time series data type information to be filtered, both as a convenience and to maintain reasonable web service performance. Many of the choices that are available for limiting queries allow 0+ values to be provided. For example, specifying no requested parameter will return all available parameters for a location. Specifying a list of parameters (separated by commas) will return only the requested parameters.

USGS codes are used in order to generate a unique time series identifier (TSID). For example, the TSID data type is formed from the parameter code, a dash, and the statistic code. The numerical codes currently are used to ensure uniqueness but in the future the string name may be allowed as an option. In order to have more human-friendly identifiers for time series, one strategy is to request only a specific parameter and statistic and then use the alias to specify a text equivalent to the numeric codes. For example, specify Parameters=00060 (for streamflow discharge) and Statistics=00003 and assign the alias with Alias=%L.Streamflow-Mean.

The following dialog is used to edit the command and illustrates the syntax. Note that some choices are provided as a convenience. However, full listing of choices (such as all the thousands of streamflow stations that are available) is not provided due to performance issues. Additional query features will be enabled as web service integration is enhanced.



ReadUsgsNwisDaily() Command Editor

The command syntax is as follows:

ReadUsgsNwisDaily(Parameter=Value,...)

## **Command Parameters**

Parameter	Description	Default
Sites	A list of site numbers to read, separated	None – one of the locational
	by commas. Can be specified using	parameters must be provided to
	\${Property} syntax.	constrain the query.
States	A list of state codes (e.g., AL), separated	None – see above.
	by commas. Can be specified using	
	\${Property} syntax.	
HUCs	A list of hydrologic unit codes, separated	None – see above.
	by commas. See the limitations on the	
	NWIS site for more information. Can be	
	specified using \${Property} syntax.	
BoundingBox	A bounding box consisting of west	None – see above.
	longitude, south latitude, east longitude,	
	and north latitude, separated by spaces.	
	Longitudes in the western hemisphere	
	are negative. Can be specified using	
G	\${Property} syntax.	NY 1
Counties	A list of Federal Information Processing	None – see above.
	Standards (FIPS) county codes, separated	
	by commas. Can be specified using	
Parameters	\${Property} syntax.	All available management and
ratameters	Data parameter codes for the stations	All available parameters are returned.
	(e.g., 00060 for stream discharge),	returned.
	separated by commas. Can be specified	
Statistics	using \${Property} syntax.	All available statistics are
Statistics	Statistic codes (e.g., 00003 for mean), separated by commas. Can be specified	returned.
	using \${Property} syntax.	returned.
SiteStatus	Filter for stations, one of:	All
Dicebeacus	All – all stations are returned	AII
	• Active – only active stations are	
	returned	
	• Inactive – only inactive stations	
Q'I F	are returned	A11 11 12 2
SiteTypes	Site types to return, separated by	All available site types are
	commas. Can be specified using	returned.
7 con cir	\${Property} syntax.	All available agarcies are
Agency	Agency code to return (e.g., USGS). Can	All available agencies are returned.
TabutCtoxt	be specified using \${Property} syntax.	
InputStart	The start of the period to read data –	Use the global query period.
	specify if the period should be different from the global query period. Can be	
	specified using \${Property} syntax.	
	specified using $\mathfrak{s}\{\text{rioperty}\}$ syntax.	

Parameter	Description	Default
InputEnd	The end of the period to read data – specify if the period should be different from the global query period. Can be specified using \${Property} syntax.	Use the global query period.
Alias	The alias to assign to the time series, as a literal string or using the special formatting characters listed by the command editor. The alias is a short identifier used by other commands to locate time series for processing, as an alternative to the time series identifier (TSID).	None – must be specified.
Format	<ul> <li>The data format for output, one of:</li> <li>JSON - JavaScript Object Notation (currently used only for downloads but will not result in time series in TSTool)</li> <li>RDB - tab-delimited format (also see ReadUsgsNwisRDB() command; currently used only for downloads but will not result in time series in TSTool).</li> <li>WaterML - XML format (also see the ReadWaterML() command).</li> </ul>	WaterML
OutputFile	The name of the output file to create.  The path to the file can be absolute or relative to the working directory. Can be specified using \${Property} syntax.	No output file will be created.