Surface-Water Daily Data

What are Daily Data?

Daily data are derived by summarizing time-series data for each day for the period of record. The time-series data used to derive daily values, sometimes referred to as real-time or instantaneous values may be collected as often as every minute. These data are used to calculate daily data, such as the daily mean, median, maximum, minimum, and/or other derived values. Daily data include approved, quality-assured data that may be published, and provisional data, whose accuracy has not been verified.

General steps to retrieve Surface-Water Daily Data

Retrieving daily data is a multi-step process. The general steps are summarized here. These steps permit users to control the amount and types of data that are retrieved. A more detailed example and explanation follows.

1. **Choose Site Selection Criteria –** Identify the site-selection criteria that will be used to search for sites; for example, to obtain a particular Site type and County, check the Site type and County boxes.

2. **Define the specific Site Selection Criteria –** Define specific choices for site selection criteria. For example, if "County" were selected as a criterion, specify the desired county name(s).

3. **Choose the Output format –** Output options include either summaries or actual data for selected sites.

Example: Retrieval for Surface-Water Daily data

To begin, click the **Daily Data** button from the Surface-Water screen. For this example, Surface-Water data for Maryland is used.

The number of possible sites for the data category is listed in parentheses to the right of the data category button.

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Step 1 - Choose Site Selection Criteria

Step 1 involves choosing the criteria for Site Selection. Select one or more boxes from the four categories: Site Location, Site Identifier, Site Attribute, and Data Attribute. In the next step, specific site selection criteria are defined.

> **Note**: Under the Site Attribute category, **Site type** is preselected by default when starting from the surface-water or ground-water data category.

> With site type selected (the default), the output will include all the sites meeting those criteria, which in this example would lead to a retrieval of 304 sites.

In this example, County and Site type are selected.

Step 2 - Define the specific Site Selection Criteria

In Step 2, because County was selected in the previous step, one or more specific County name(s) can now be defined by using the shift and control keys. The Site types that apply to surface–water retrievals are highlighted by default: Spring, Estuary, Lake/Reservoir, and Stream/River. Meteorological and Ground Water data categories can also be specified at this point.

Specification of daily data parameters is an option that provides a more advanced search. If no Available parameters are selected, output will include all surface water sites in Harford County that have Daily data.

Important: All **available parameters** for Daily Data are listed by default. Not all parameters are available for all sites. When a specific site has been selected, the available parameters will be shown.

Step 3 – Choose the Output format

Choose from one of the two output options.

The first set of options, **Display Summary of Selected Sites,** provides tables of sites or descriptive site information.

The second set of options, **Retrieve USGS Surface-Water Daily Data for Selected Sites,** provides tables or graphs of data.

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In this example for Maryland, the defaults are used and the result is a table of sites sorted by site number.

USGS Surface-Water Daily Data for Maryland

Site Selection Results -- 15 sites found

| Site type = Spring, Estuary, Lake, Surface Water |
| County = Harford |

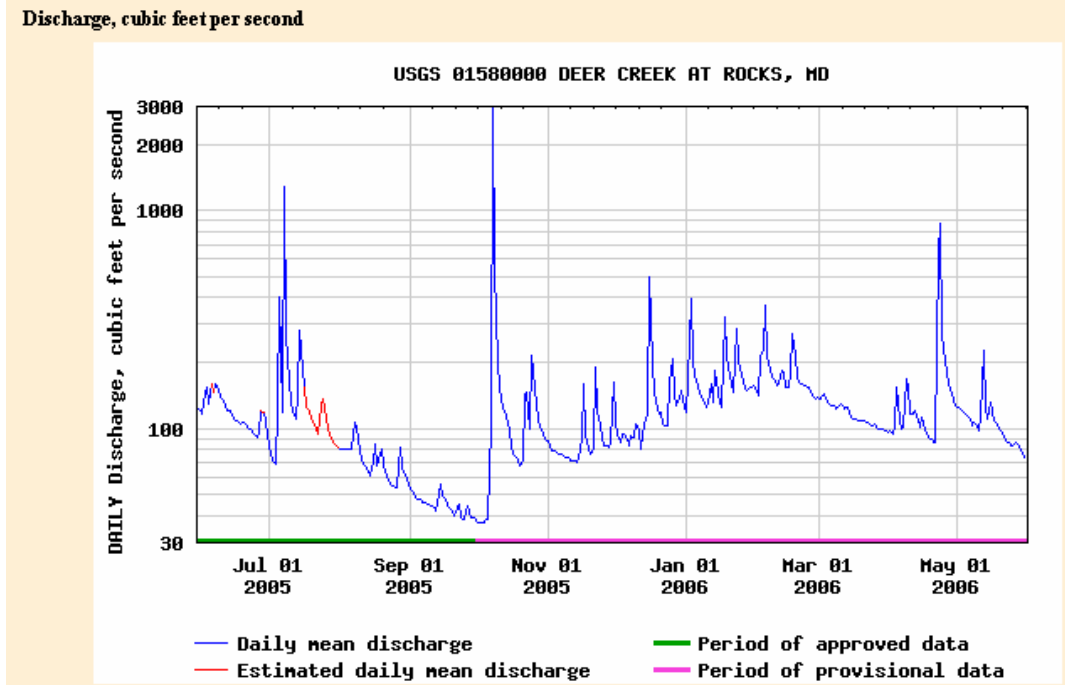Save file of selected sites to local disk for future upload

Data for individual sites can be obtained by selecting the site number below

Agency	Site Number	Site Name
USGS	01578000	BROAD CREEK AT MILL GREEN, MD
USGS	01578310	SUSQUEHANNA RIVER AT CONOWINGO, MD
USGS	01580000	DEER CREEK AT ROCKS, MD
USGS	01580200	DEER CREEK NEAR KALMIA, MD
USGS	01580500	DEER CREEK NEAR CHURCHVILLE, MD
USGS	01580520	DEER CREEK NEAR DARLINGTON, MD

When the surface-water site, 01580000, is selected, the result is a display of the available parameters for the site and graphs of the Daily data for the last 365 days.
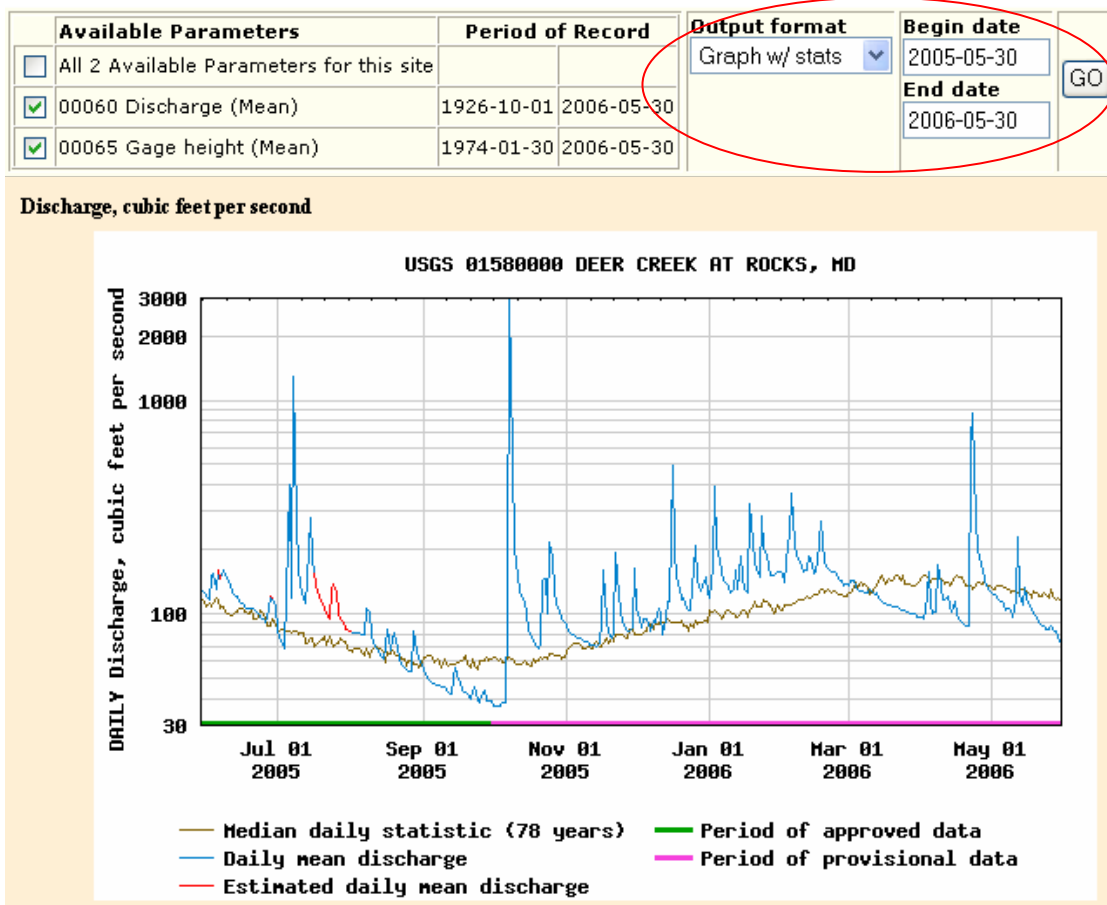
The graph for daily discharge is shown as an example. Approved and provisional data are shown on the same graph highlighted by green and magenta lines, respectively.

Available Parameters	Period of Record		Output format	Begin date	
☐ All 2 Available Parameters for this site			Graph	2005-05-30	GO
☑ 00060 Discharge (Mean)	1926-10-01	2006-05-30		End date	
☑ 00065 Gage height (Mean)	1974-01-30	2006-05-30		2006-05-30	

Discharge, cubic feet per second

USGS 01580000 DEER CREEK AT ROCKS, MD

— Daily mean discharge
— Estimated daily mean discharge
— Period of approved data
— Period of provisional data

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Another useful output format is the **Graph w/stats** option which shows the daily mean discharge plotted with the median daily discharge. Approved and provisional data are shown on the same graph highlighted by green and magenta lines, respectively.

In the hydrograph for Deer Creek, the median daily flow is based on 78 years of approved data and is shown as a brown line. The daily mean discharge is plotted in blue.