

National Weather Service AHPS Phase V End User Guide

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Introduction

The Phase V release of AHPS contains many new improvements that allow you to quickly gain hydrology information. The new version features faster loading HSA maps and hydrographs. There are a number of user interface improvements that have also been made including new navigation tabs and a new way of displaying HSA maps. The release also includes hydrology data RSS feeds for the nation. The new features and navigation are discussed in detail in this document.



Navigation

The AHPS pages are now arranged into subcategories for easy navigation; this is demonstrated in **Figure 1**. The categories include: River Observations, River Forecasts, Precipitation, River Download, and Other Information.

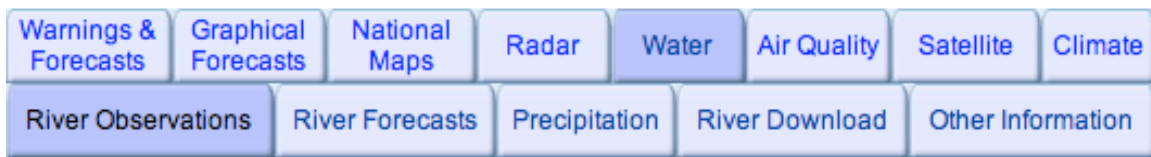


Figure 1 – Subcategorized Navigation



River Observations

The River Observations category allows you to display all of the gauges or filter the content to your liking. The filter is located immediately above the gauge map (**Figure 2**) and has the following options: All Locations, Hydrograph only Locations, and Hydrograph/Probability Forecast Locations. Once you find an area you would like more information on, simply click on it for the Hydrologic Service Area (HSA) of the Weather Forecast Office (WFO) that has responsibility for the gauges within the map area. From there you can gain access to all of the information that gauge contains. The key below contains the flood categories and their representative colors along with other filters. To see all gauges of a particular flood category simply click it in below the map. There are links below the map for outlying territories including: American Samoa, Guam, and Puerto Rico/Virgin Islands.

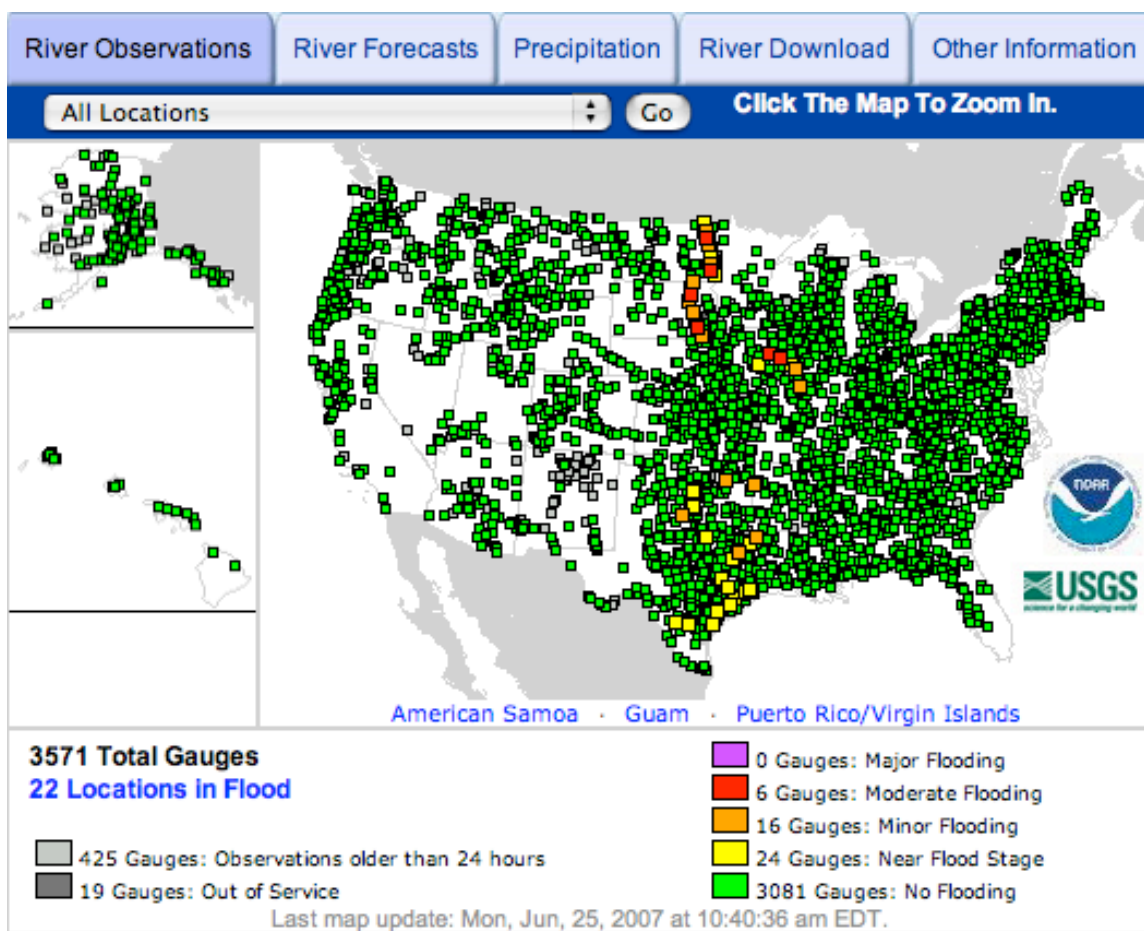


Figure 2 – River Observations



River Forecasts

The River Forecasts category allows you to view all of the national forecast gauge locations. The data are the highest forecasted river level during the period from the observed time to 48 hours in the future. It has the ability to be filtered with the same options that are contained in the River Observations category (*Figure 3*). You can zoom into any HSA and then select the gauge you would like to see more forecast information about. Like the River Observations tab, there are links below the map for the outlying territories including: American Samoa, Guam, and Puerto Rico/Virgin Islands.

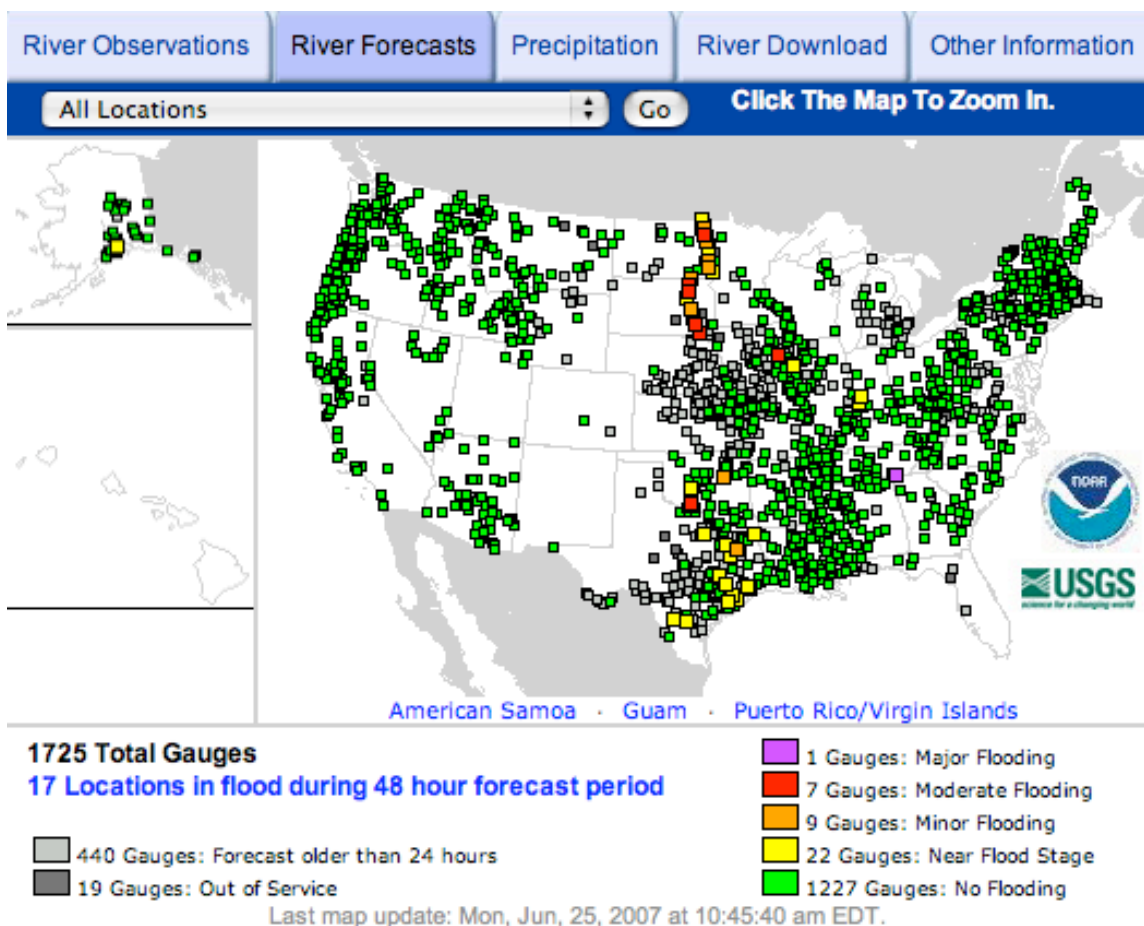


Figure 3 – River Forecasts



Precipitation

The Precipitation category is subdivided into additional categories (*Figure 4*), which include: Images, Download, About NWS Precip Analysis, Other Useful Information, Survey & Feedback, and Regional / RFC Precip Data. Other Useful Information contains links to pages outside of AHPS that contain Precipitation information. The Survey & Feedback page allows you to tell us what you think by completing a small survey.

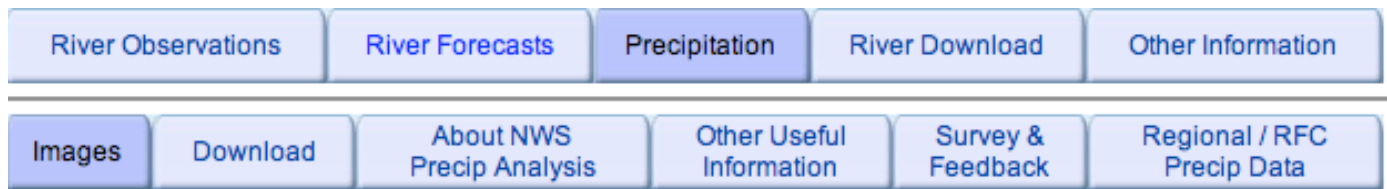
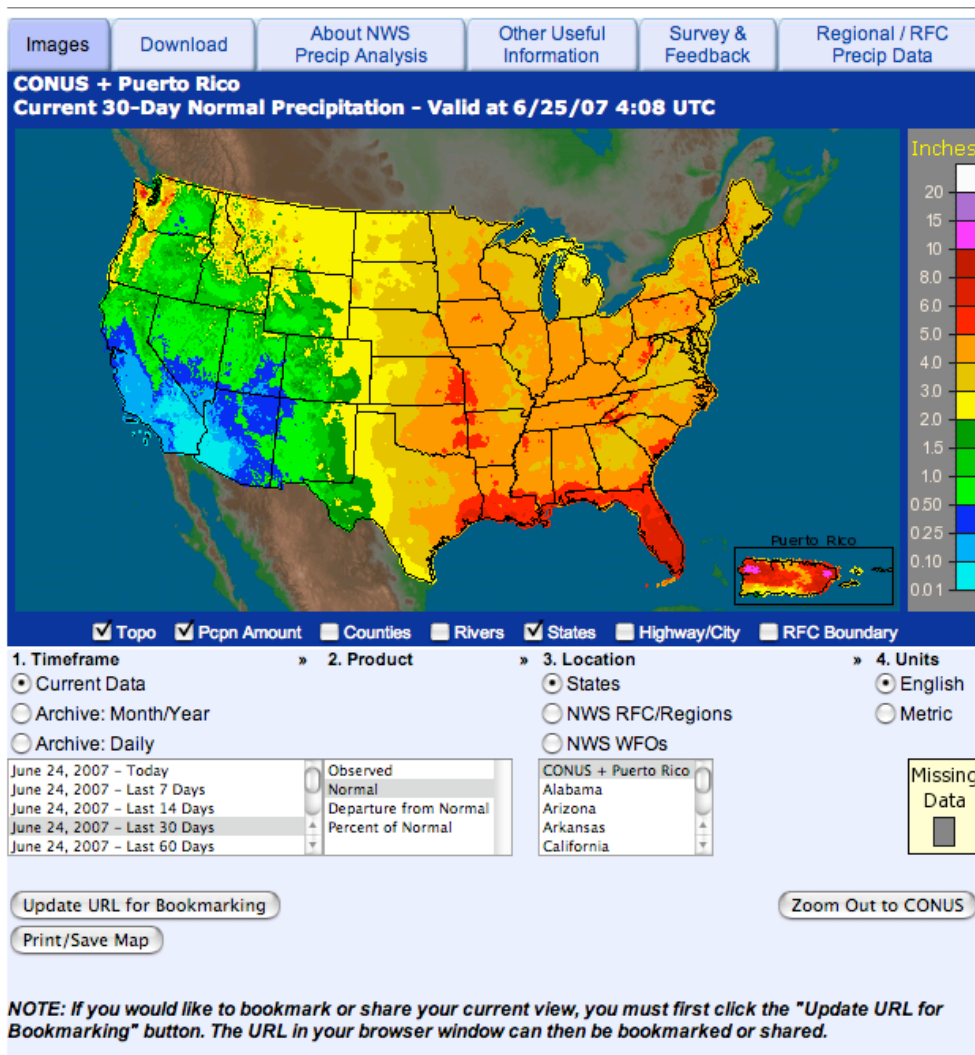


Figure 4 – Precipitation Subcategory Menu



Precipitation/Images

The Images tab of the Precipitation category allows you to view precipitation maps to your liking (**Figure 5**). It will default to the current data, however you can select the time frame you are interested in. The key indicates how much precipitation in inches the color represents. You can also zoom in on any particular state to get a more detail. The Product refers to what type of precipitation information you would like displayed on the map. The options include: Observed, Normal, Departure from Normal, and Percent of Normal. A more detailed explanation of these types is given on the About NWS Precip Analysis page.



[Ask questions about the Precipitation Analysis website](#)

Figure 5 – Precipitation Images



Precipitation/Download

The Download tab allows you to download both the map and the legend in one of two formats (**Figure 6**). You can either choose a Shapefile format or a netCDF format. You can also specify what timeframe you are interested in so that you get the exact map that you need. Additional information on the formats is listed on the page below the download options.

Images
Download
About NWS Precip Analysis
Other Useful Information
Survey & Feedback
Regional / RFC Precip Data

Downloading Gridded Rainfall Data

Last Update: 25/06/2007 1049 GMT

(1) Choose Format	(2) Select Download	(3) Select Date	(4) Press the "Download" Button
<input checked="" type="radio"/> Shapefile <input type="radio"/> netCDF	Continental U.S. & Puerto Rico Legend File	Jun ▾ 25 ▾ 2007 ▾	<input type="button" value="Download"/>

File Name	Files Included	Size
nws_precip_20070625.tar.gz	nws_precip_20070625.shp nws_precip_20070625.shx nws_precip_20070625.dbf	Approx 0.5 to 7.0 MB

Figure 6 – Precipitation Download



Precipitation/Regional / RFC Precip Data

This tab allows you to see all of the River Forecast Centers (RFC) in the Continental US (*Figure 7*). You can then click on any one of them to be directly taken to a page that contains up to date information on that particular RFC.

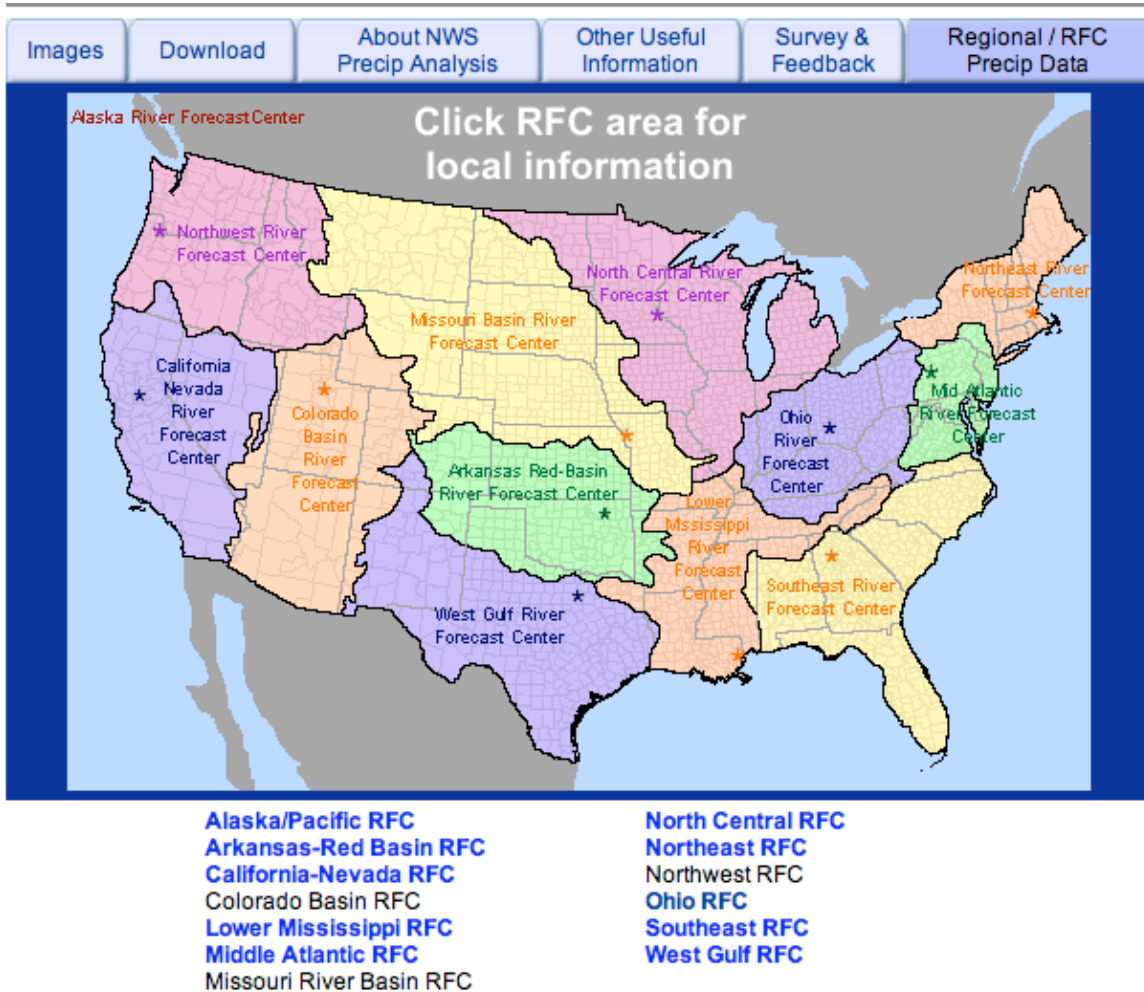


Figure 7 – Regional/RFC Precipitation Data

River Download

On the River Download tab you can download a Shapefile or a KMZ file that contains either all of the national observed data or all of the national forecast data (**Figure 8**). These data formats can be used in GIS software to show the location of a gauge and its current reading. There is a link on this page to a supported software page that will guide you in using these data formats. There is also a link to the AHPS RSS page, which allows you to subscribe to gauge information.

River Observations	River Forecasts	Precipitation	River Download	Other Information
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AHPS Downloads

While the AHPS display allows for the use of interactive toggles with the image, AHPS data can also be utilized within GIS software. This page links to "Shapefiles" and "KMZ" files which are compressed "KML" files compatible with several GIS software applications. [A list of some of the software applications that support Shapefiles and KML can be found here.](#) Or, visit the [NWS website Standards Description Website](#) which explains KML in more detail.

Shapefiles and KMZ Files

- [Shapefile \(Observed\)](#) (418k) Updated every 15 minutes
- [Shapefile \(Forecast\)](#) (419k) Updated every 15 minutes
- [KMZ \(Observed\)](#) (305k) Updated every 15 minutes
- [KMZ \(Forecast\)](#) (294k) Updated every 15 minutes

RSS

- [AHPS RSS](#)

Figure 8 – River Download



Other Information

The Other Information category contains many useful links that contain additional water related information. The links are placed in five categories, which include: Current Weather Information, Drought Information, Past Data (Climate), Snow information and Seasonal Information. With the Current Weather Information section you can type in your city and state and then retrieve your local forecast on the spot.



WFO HSA Map

Once an HSA map loads after selecting an area at the national level, you will notice that there are two different colors on the map (**Figure 9**). The HSA map now displays all gauges within the map area including gauges from surrounding a WFOs. The area in the center the map will not be shaded gray and the area outside of the center will be. This reflects the area that is under the control of this particular WFO.

Weather Forecast Office Binghamton, NY

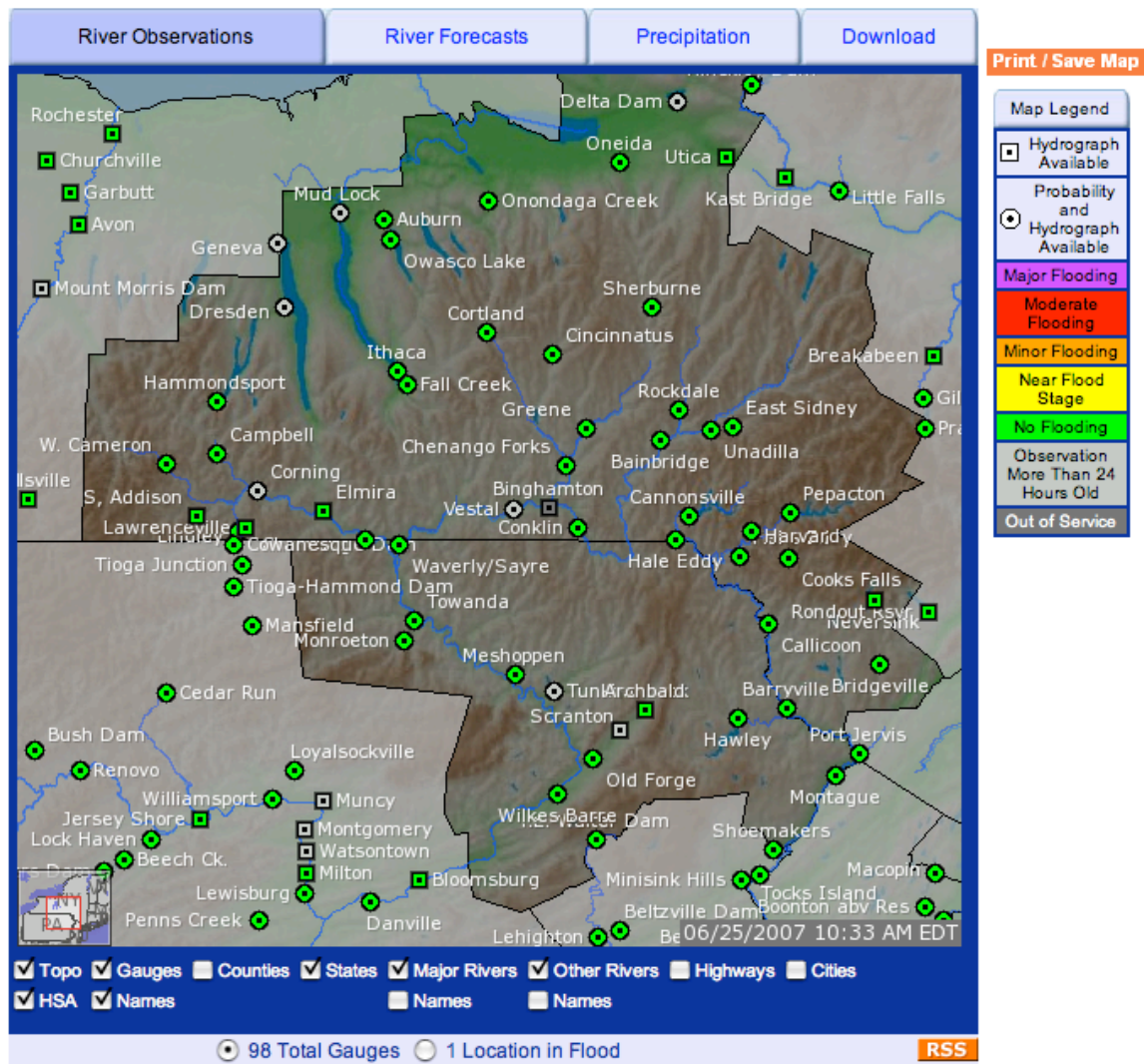


Figure 9 – HSA Map Representation



Hydrograph

Once a particular gauge location has been selected you will be directed to the corresponding Hydrograph page. On this page you can now see low flood impact statements, low flow information, as well as reference datums. The low flood impact statements can be viewed in the impact area, which is located below the hydrograph (*Figure 10*). You can also see the reference datums in the “About this Location” section located below the impacts (*Figure 11*). The Weather Forecast office also has the ability to specify the low flow or stage threshold. This is located below the Historical Crests and is printed in a brown.

Historical Crests

(1) 28.85 ft on 09/20/1999

(2) 27.30 ft on 10/05/1929

(3) 26.70 ft on 09/23/1945

(4) 26.21 ft on 09/12/1996

(5) 26.10 ft on 10/09/1964

[Show More Historical Crests](#)

Low Flow: 1.8 feet

Figure 10 – Low Flow Example

About This Location Collapse			
Latitude: 38.910000° N, Longitude: 81.100000° W, Horizontal Datum: NAD83			
River Stage Reference Frame	Gauge Height	Flood Stage	Uses
NWS stage	0 ft	36 ft	
Vertical Datum	Elevation (gauge height = 0)	Elevation (gauge height = flood stage)	Elevation information source
NAVD88	N/A	N/A	
NGVD 29	N/A	N/A	
MSL	N/A	N/A	
Other	N/A	N/A	

Figure 11 – About This Location (Datums)



RSS

RSS stands for Really Simple Syndication. It gives you a way to get important information without cluttering your email inbox. When viewing You can subscribe to a feed that will place all of the data for that feed in a folder. AHPS RSS feeds can provide the following information: river levels, forecasts, and alert stages.

RSS feeds are available now from a variety of locations within AHPS web pages. When viewing an HSA map, you will see an orange RSS button in the bottom right hand corner. (As seen in **Figure 9**) You can also access RSS from the River Download page. Once it has been selected you will need to decide what type of information you would like as well as the state and also which gauge location. Once you have picked your gauge you will be sent to an XML link that contains the RSS feed. You can subscribe to the feed using many RSS 2.0 compatible readers, as **Figure 12** demonstrates.

HFDC3 Connecticut River at Hartford (Connecticut)
1 Total

Observation - HFDC3 - Connecticut River at Hartford (Connecticut) Today, 06:20 PM

Flood Stage: 16 ft

Latest Observation: 2.06 ft
 Observation Time: Jun 18, 2007 07:30 AM EST

AHPS Hydrologic Service Area Homepage:
<http://newweb.erh.noaa.gov/ahps2/index.php?wfo=box> [Read more...](#)

Search Articles:

Article Length:

= =

Sort By:

[Date](#)
[Title](#)
[Source](#)
[New](#)

Recent Articles:

[All](#)
[Today](#)
[Yesterday](#)
[Last Seven Days](#)
[This Month](#)
[Last Month](#)

Source:

HFDC3 Connecticu...

Actions:

[Mail Link to This Page](#)
[Add Bookmark...](#)

Figure 12 – RSS Feed Downloaded