USGS
science for a changing world

Online Tools for Streamflow Analysis and Flood Response

IAFSM

March 7, 2013

Audrey Ishii, P.E.
Illinois Water Science Center

Streamflow and Watershed Analysis

streamstats.usgs.gov
waterwatch.usgs.gov

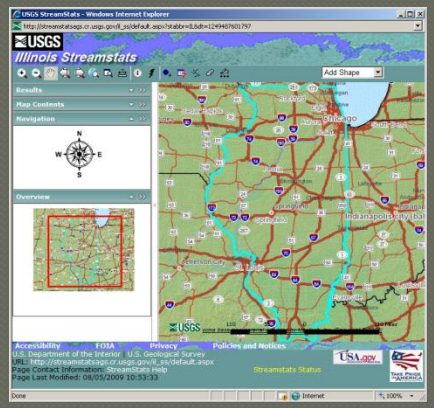
Flood Response

water.usgs.gov/waternow
water.usgs.gov/wateralert
il.water.usgs.gov/gmaps/precip/
Illinois rainfall map

USGS

StreamStats Web Application

- Provides published streamflow statistics and basin characteristics for gages.
- Computes basin characteristics for ungaged sites.
- Provides regression-based estimates of streamflow statistics for ungaged sites.



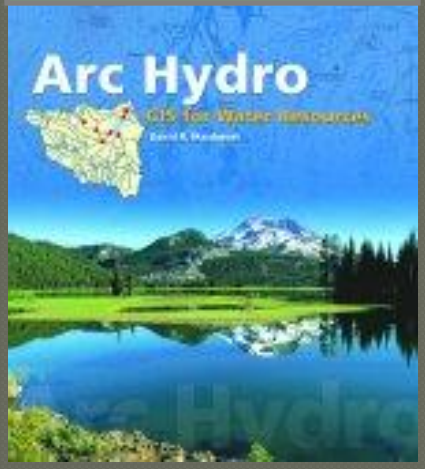
At a stream gage

Streamflow Statistics Database

At an ungaged location

NSS Calculation Program

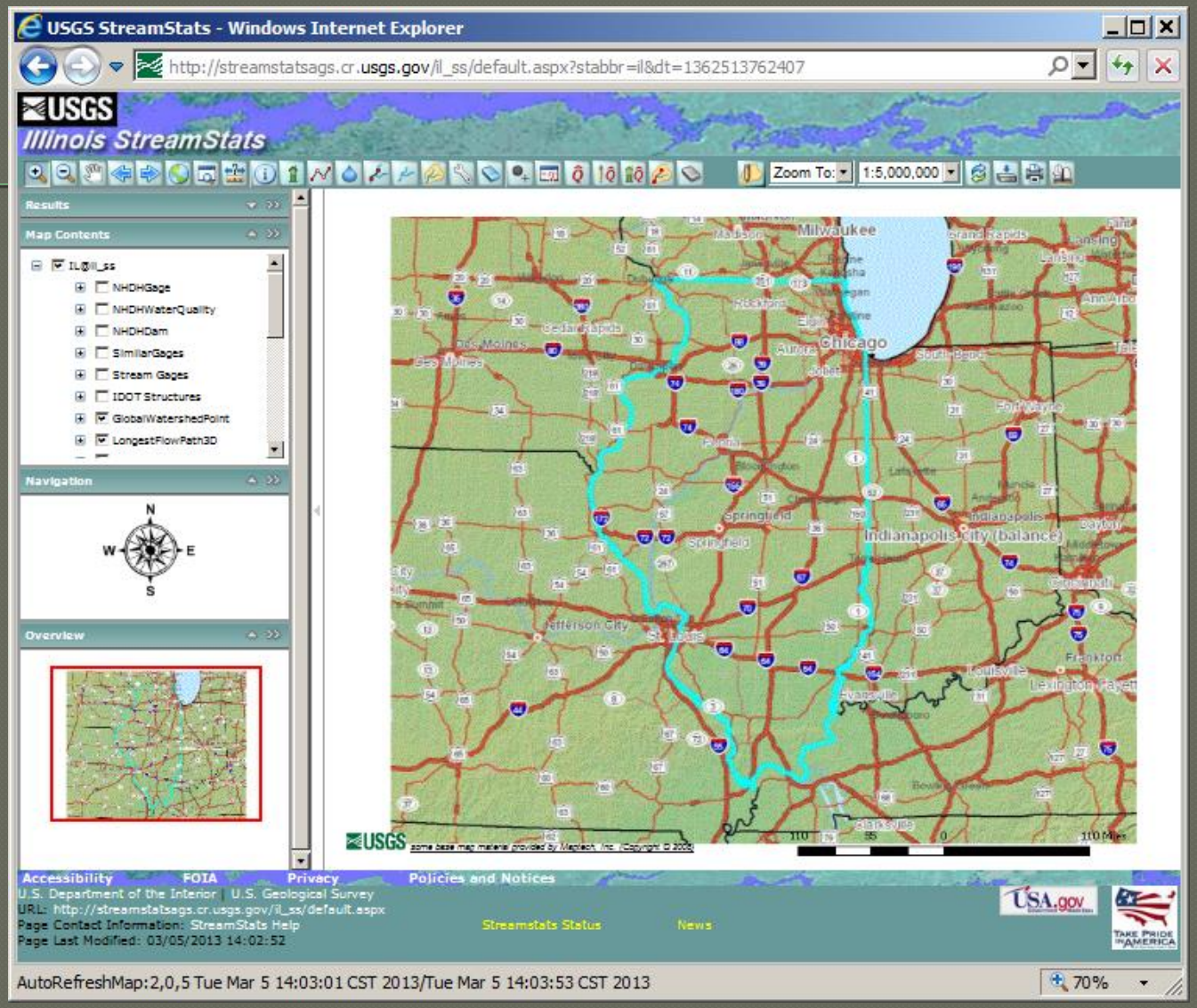
GIS Database



USGS

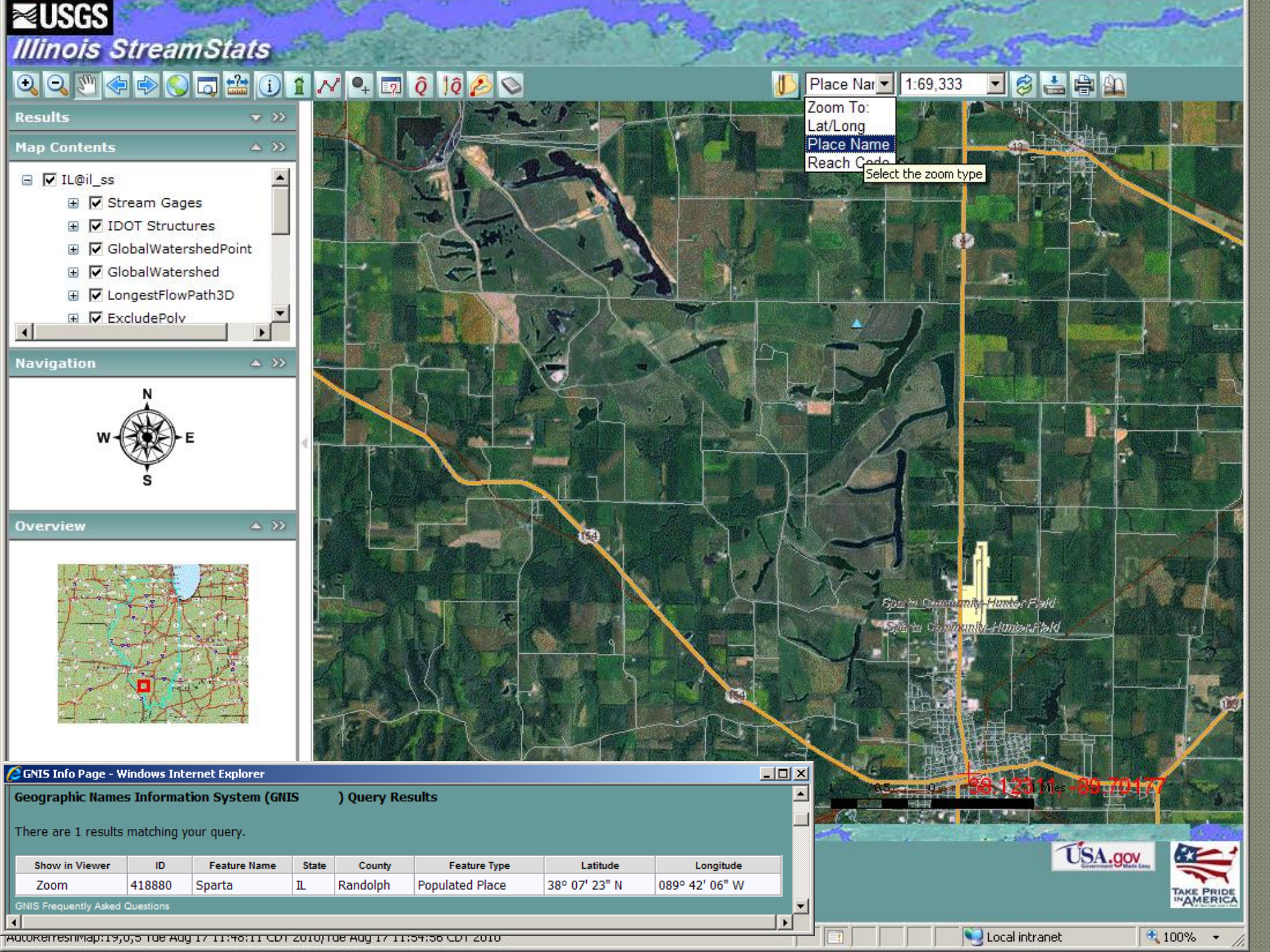
streamstats.usgs.gov

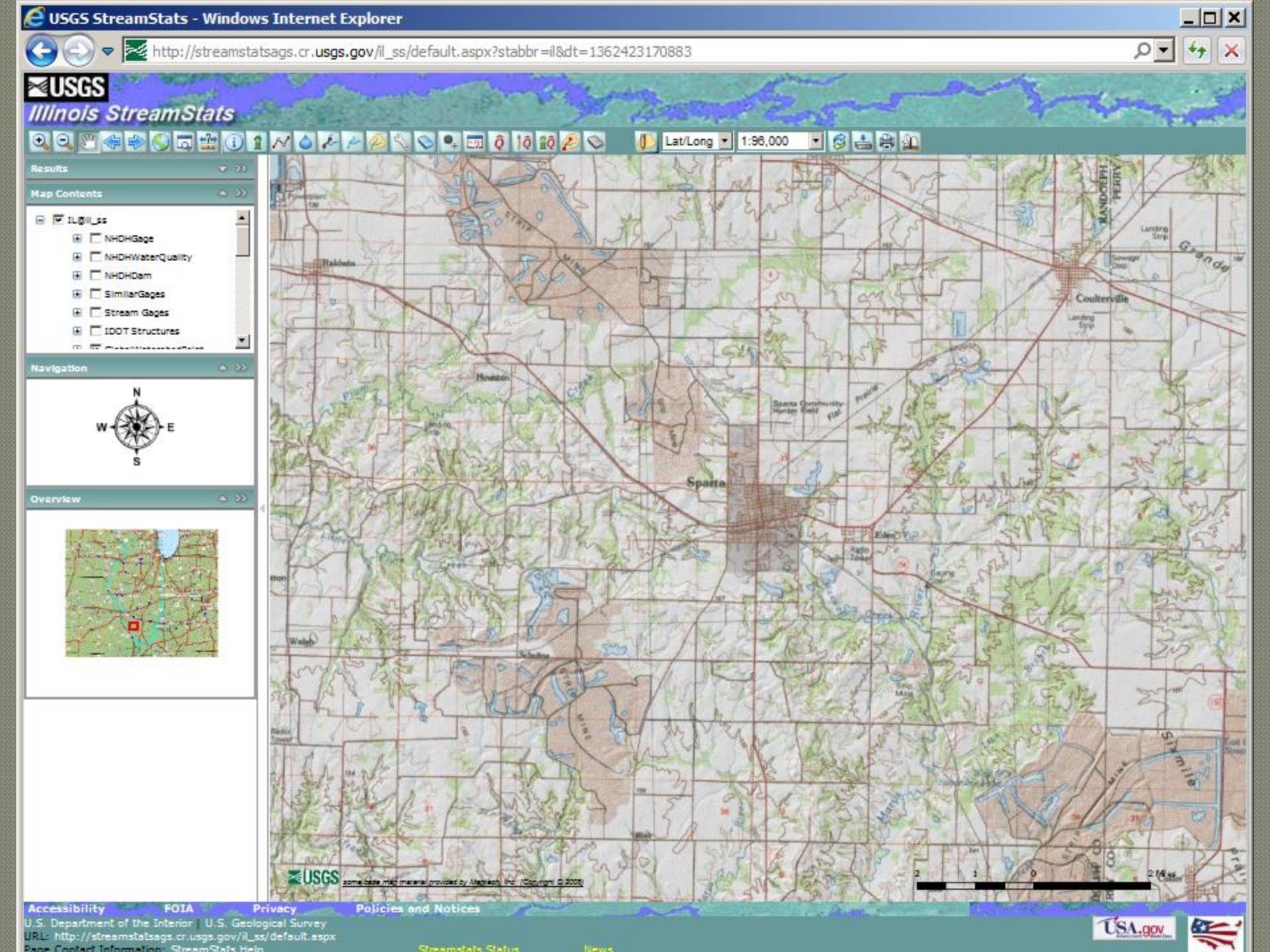
- Home
- News
- StreamStats Description
  - Ungaged Sites
  - Data-Collection Stations
- StreamStats Limitations
- State Applications
- USGS Station Statistics
- User Instructions
- Definitions
  - Basin Characteristics
  - Streamflow Statistics
- Stream Network Navigation
- StreamStats Fact Sheet
- Frequently Asked Questions
- Available Web Services
- Talks and Other Info
- Contact StreamStats Team
- Current Streamflow Conditions



USGS

streamstats.usgs.gov


USGS
Illinois StreamStats
Results
Map Contents
IL@il_ss
Stream Gages
IDOT Structures
GlobalWatershedPoint
GlobalWatershed
LongestFlowPath3D
ExcludePolv
Navigation
N
W
E
S
Overview
Place Nar
1:69,333
Zoom To:
Lat/Long
Place Name
Reach Code
Select the zoom type
Sparta Community-Hunter Field
GNIS Info Page - Windows Internet Explorer
Geographic Names Information System (GNIS) Query Results
There are 1 results matching your query.
Show in Viewer | ID | Feature Name | State | County | Feature Type | Latitude | Longitude
Zoom | 418880 | Sparta | IL | Randolph | Populated Place | 38° 07' 23" N | 089° 42' 06" W
GNIS Frequently Asked Questions
USA.gov
TAKE PRIDE IN AMERICA
Local intranet
100%


USGS StreamStats - Windows Internet Explorer
http://streamstatsags.cr.usgs.gov/il_ss/default.aspx?stabbr=il&dt=1362423170883
USGS
Illinois StreamStats
Lat/Long
1:96,000
Results
Map Contents
IL@il_ss
NHDHGage
NHDHWaterQuality
NHDHDam
SimilarGages
Stream Gages
IDOT Structures
Navigation
N
W
E
S
Overview
Sparta
Coulterville
Houston
Raldata
Welch
Accessibility
FOIA
Privacy
Policies and Notices
U.S. Department of the Interior | U.S. Geological Survey
URL: http://streamstatsags.cr.usgs.gov/il_ss/default.aspx
Page Contact Information: StreamStats Help
Streamstats Status
News
USA.gov

USGS StreamStats - Windows Internet Explorer

http://streamstatsags.cr.usgs.gov/il_ss/default.aspx?stabbr=il&dt=1282064578654

USGS Illinois StreamStats

Results

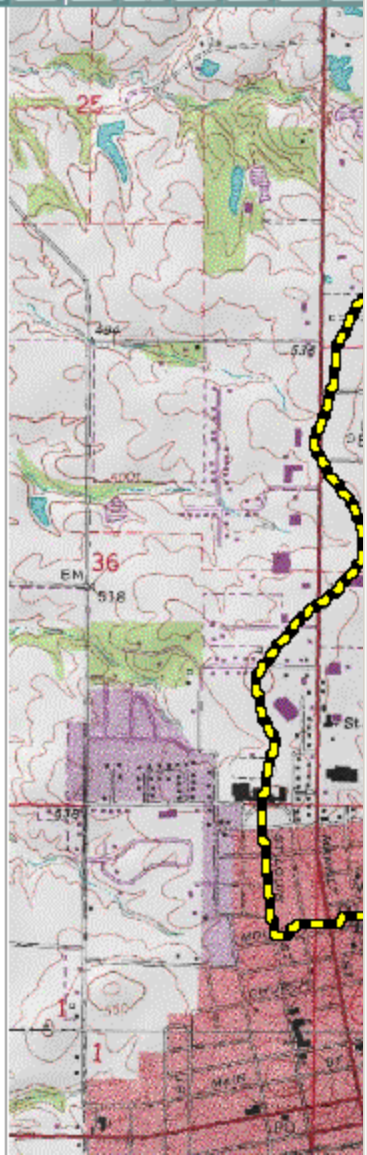
Map Contents

- StreamGrid
- ArcHydro
- Region Indicator
- Open Water
- Soil Permeability
- StreetMap USA

Navigation

N W E S

Overview



Streamflow Statistics Report - Windows Internet Explorer

USGS Illinois StreamStats

Streamstats Ungaged Site Report

Date: Tue Aug 17 2010 11:28:54 Mountain Daylight Time
Site Location: Illinois
NAD27 Latitude: 38.1288 (38 07 44)
NAD27 Longitude: -89.6856 (-89 41 08)
NAD83 Latitude: 38.1288 (38 07 44)
NAD83 Longitude: -89.6857 (-89 41 08)
Drainage Area: 2.91 mi2

Peak Flow Basin Characteristics

100% Region 4 AMS (2.91 mi2)

Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	2.91	0.03	9554
Stream Slope 10 and 85 Method (feet per mi)	18.168	0.81	317
Basin Length ArcHydro Method (miles)	2.21	0.3	190

Peak Flow Streamflow Statistics

Statistic	Flow (ft^3/s)	Prediction Error (percent)	Equivalent years of record	90-Percent Prediction Inte	
				Minimum	Maximu
PK2	314	41	2.5	156	
PK5	584	42	3	288	
PK10	794	43	3.7	382	
PK25	1080	46	4.5	499	
PK50	1300	48	5	581	
PK100	1540	50	5.4	663	

USGS

Illinois StreamStats

Zoom To: 1:5,963

Results

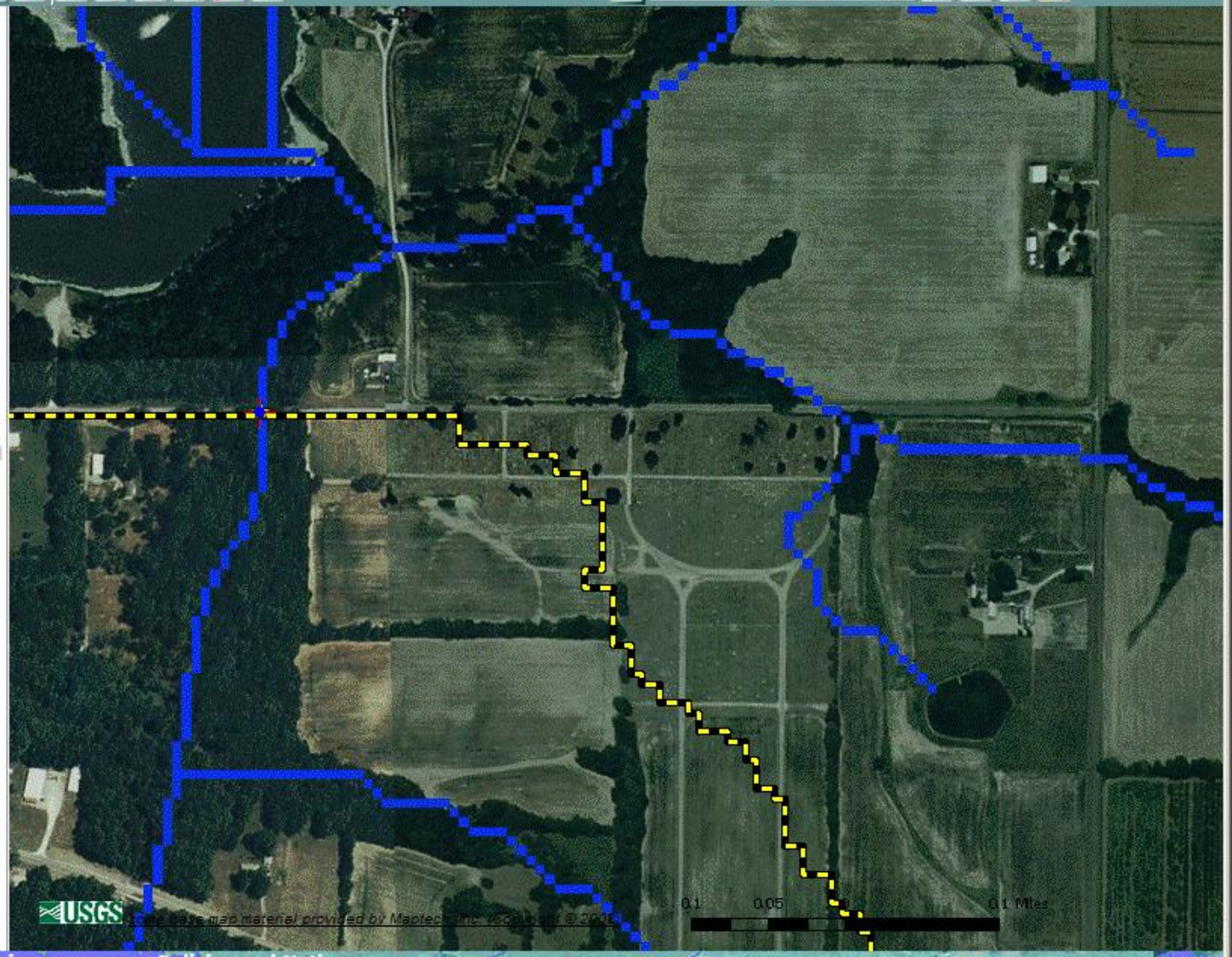
Map Contents

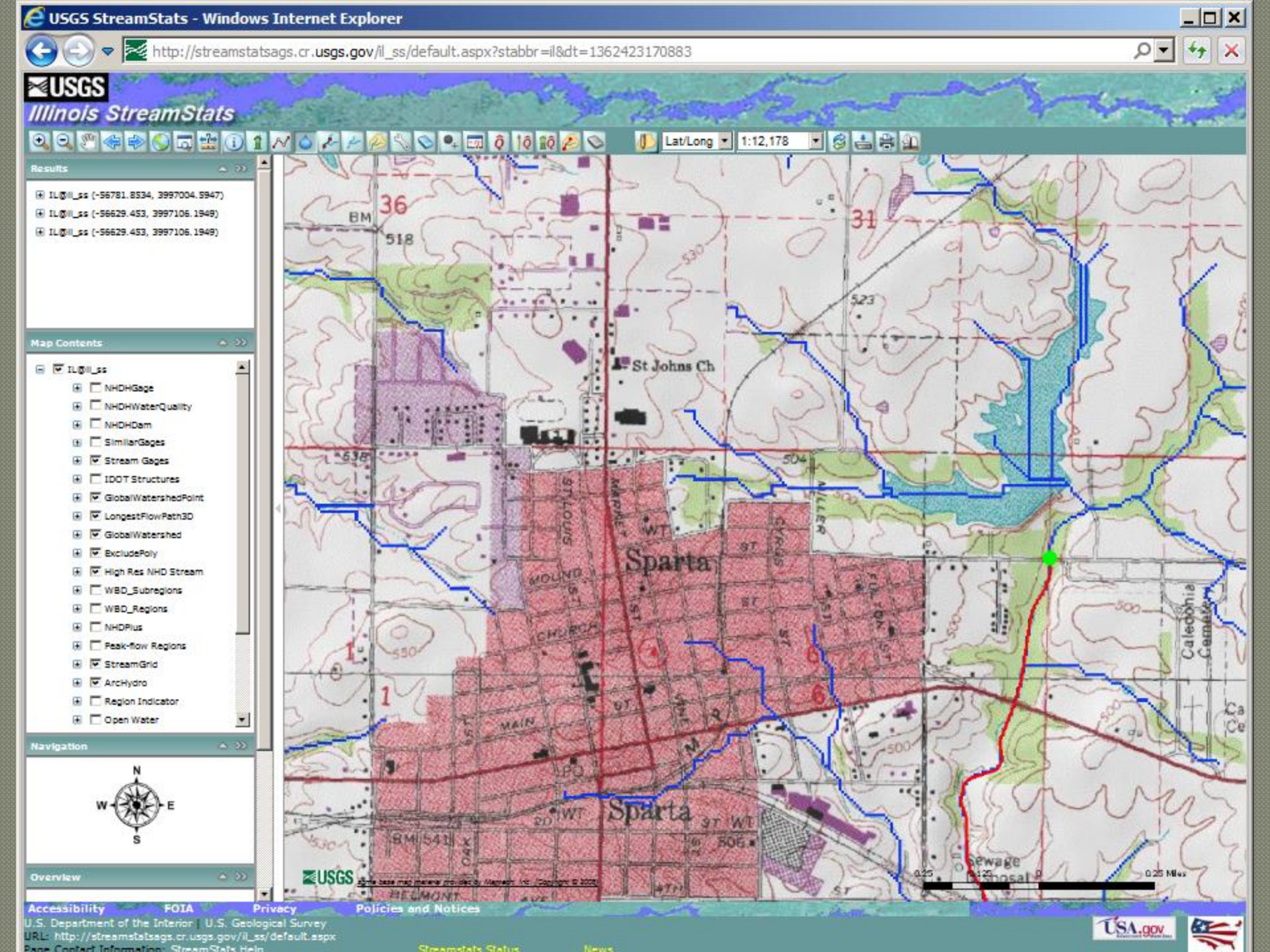
- ArcHydro
- Region Indicator
- Open Water
- Soil Permeability
- StreetMap USA
- I3_Imagery_Prime_Worl
- il_ss_base

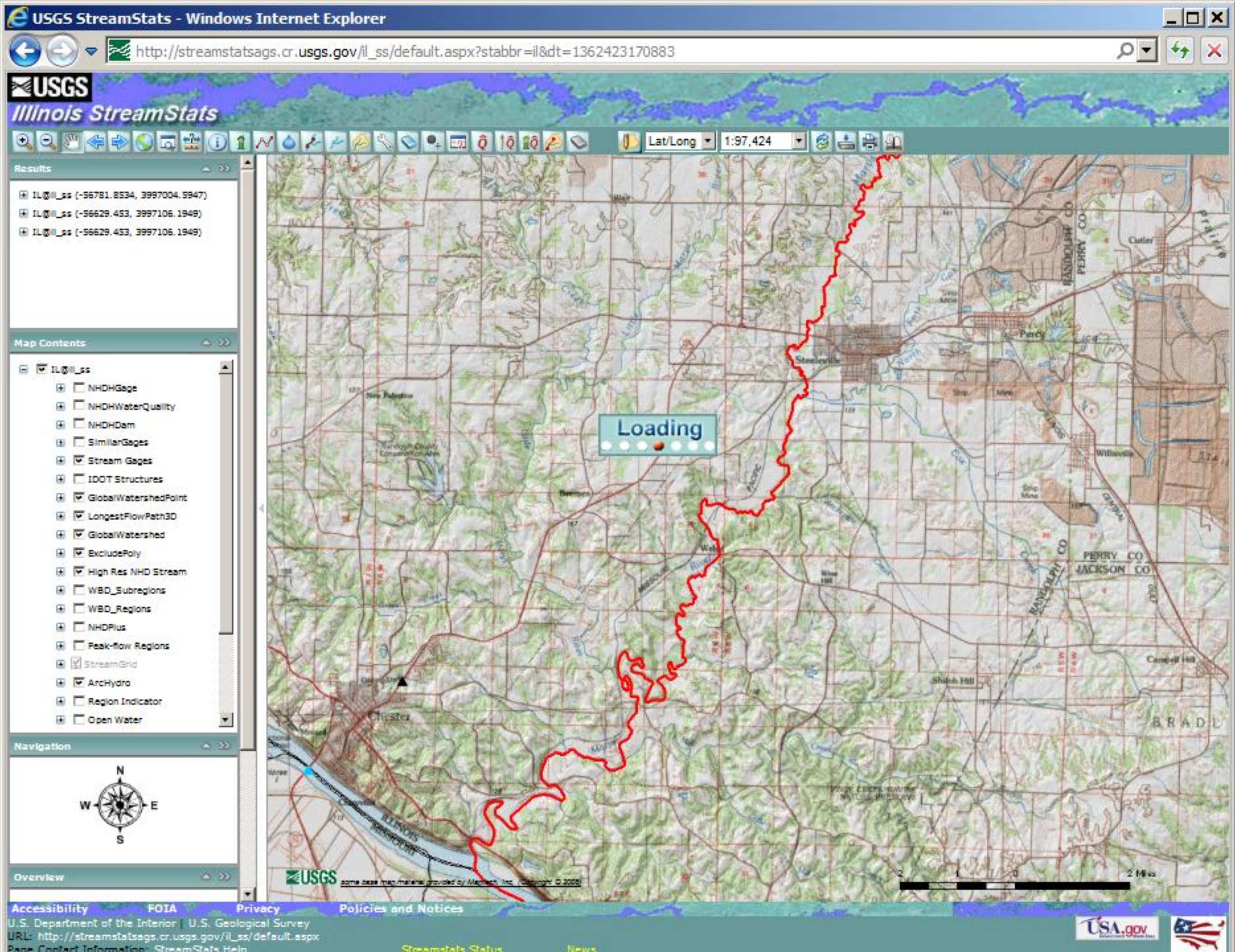
Navigation

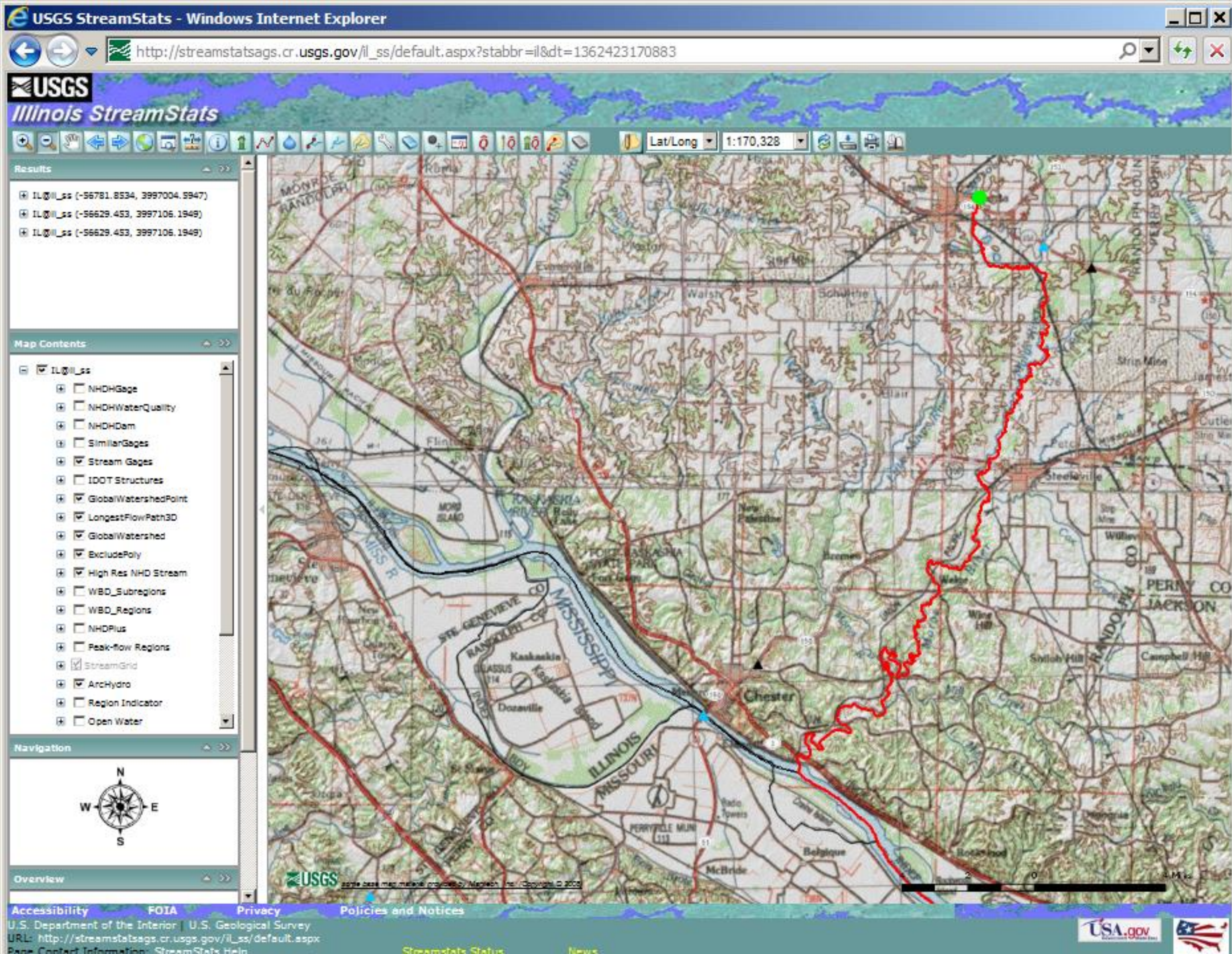
N W E S

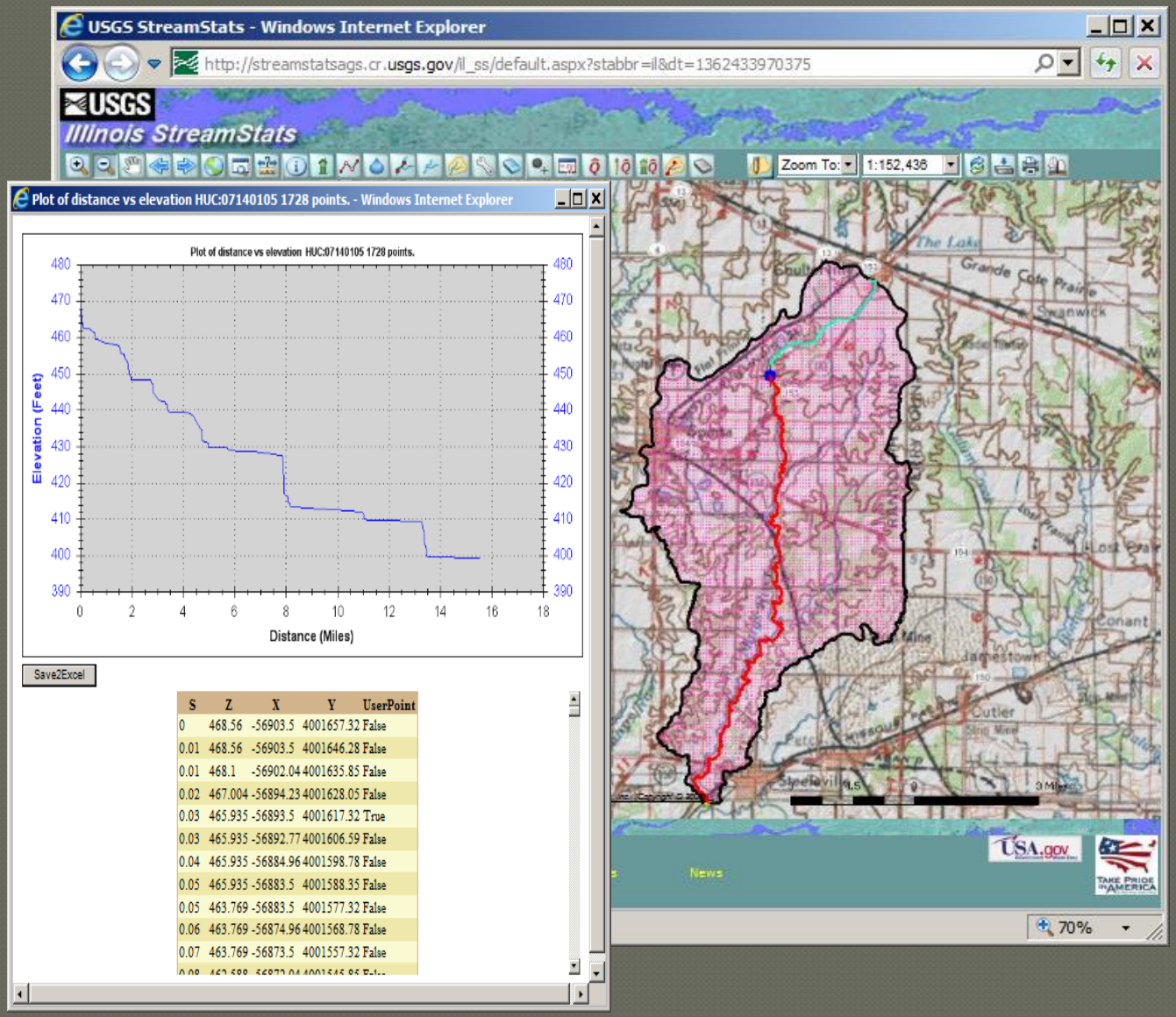
Overview




USGS StreamStats - Windows Internet Explorer
http://streamstatsags.cr.usgs.gov/il_ss/default.aspx?stabbr=il&dt=1362423170883
USGS
Illinois StreamStats
Lat/Long
1:12,178
Results
IL@il_ss (-96781.8534, 3997004.5947)
IL@il_ss (-96629.453, 3997106.1949)
IL@il_ss (-96629.453, 3997106.1949)
Map Contents
IL@il_ss
NHDHGage
NHDHWaterQuality
NHDHDam
SimilarGages
Stream Gages
IDOT Structures
GlobalWatershedPoint
LongestFlowPath3D
GlobalWatershed
ExcludePoly
High Res NHD Stream
WBD_Subregions
WBD_Regions
NHDPlus
Peak-flow Regions
StreamGrid
ArcHydro
Region Indicator
Open Water
Navigation
N
W
E
S
Overview
Sparta
St Johns Ch
Accessibility
FOIA
Privacy
Policies and Notices
U.S. Department of the Interior | U.S. Geological Survey
URL: http://streamstatsags.cr.usgs.gov/il_ss/default.aspx
Page Contact Information: StreamStats Help
Streamstats Status
News
USA.gov


USGS StreamStats - Windows Internet Explorer
http://streamstatsags.cr.usgs.gov/il_ss/default.aspx?stabbr=il&dt=1362423170883
USGS
Illinois StreamStats
Lat/Long
1:97,424
Results
IL@il_ss (-56781.8534, 3997004.5947)
IL@il_ss (-56629.453, 3997106.1949)
IL@il_ss (-56629.453, 3997106.1949)
Map Contents
IL@il_ss
NHDHGage
NHDHWaterQuality
NHDHDam
SimilarGages
Stream Gages
IDOT Structures
GlobalWatershedPoint
LongestFlowPath3D
GlobalWatershed
ExcludePoly
High Res NHD Stream
WBD_Subregions
WBD_Regions
NHDPlus
Peak-flow Regions
StreamGrid
ArcHydro
Region Indicator
Open Water
Navigation
N
W
E
S
Overview
Loading
Steeleville
Percy
Cutler
Willisville
Chester
Shiloh Hill
Campbell Hill
PERRY CO
JACKSON CO
RANDOLPH CO
2 Miles
Accessibility
FOIA
Privacy
Policies and Notices
U.S. Department of the Interior | U.S. Geological Survey
URL: http://streamstatsags.cr.usgs.gov/il_ss/default.aspx
USA.gov


USGS StreamStats - Windows Internet Explorer
http://streamstatsags.cr.usgs.gov/il_ss/default.aspx?stabbr=il&dt=1362423170883
USGS
Illinois StreamStats
Lat/Long
1:170,328
Results
IL@il_ss (-56781.8534, 3997004.5947)
IL@il_ss (-56629.453, 3997106.1949)
IL@il_ss (-56629.453, 3997106.1949)
Map Contents
IL@il_ss
NHDHGage
NHDHWaterQuality
NHDHDam
SimilarGages
Stream Gages
IDOT Structures
GlobalWatershedPoint
LongestFlowPath3D
GlobalWatershed
ExcludePoly
High Res NHD Stream
WBD_Subregions
WBD_Regions
NHDPlus
Peak-flow Regions
StreamGrid
ArcHydro
Region Indicator
Open Water
Navigation
N
W
E
S
Overview
Chester
Steeleville
MISSISSIPPI
ILLINOIS
MISSOURI
Kaskaskia
Accessibility
FOIA
Privacy
Policies and Notices
U.S. Department of the Interior | U.S. Geological Survey
URL: http://streamstatsags.cr.usgs.gov/il_ss/default.aspx
Page Contact Information: StreamStats Help
Streamstats Status
News
USA.gov



New tools

- Network trace
- Stream profiles
- Terrain sections
- Upstream and downstream gage options for weighting peak-flow quantiles.

USGS

Streamflow Statistics Report - Windows Internet Explorer

Site Location: Illinois
NAD27 Latitude: 42.4661 (42 27 58)
NAD27 Longitude: -88.0089 (-88 00 32)
NAD83 Latitude: 42.4662 (42 27 58)
NAD83 Longitude: -88.0090 (-88 00 32)
Drainage Area: 20.79 mi2

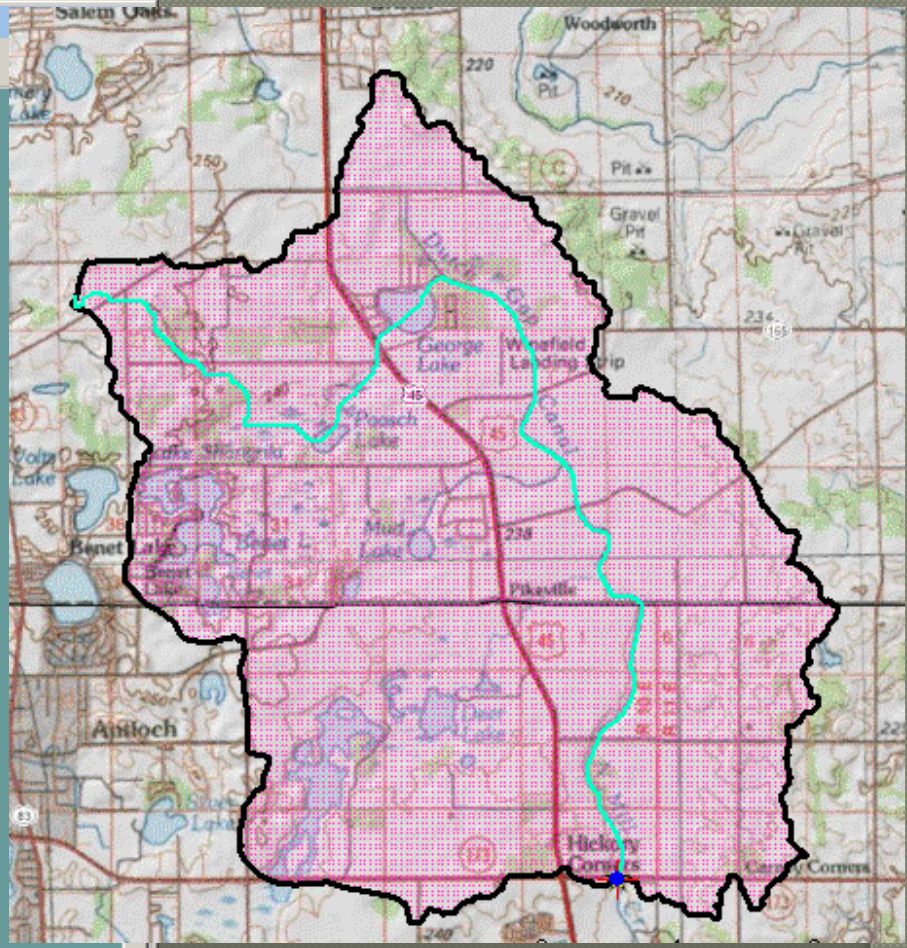
Peak Flow Basin Characteristics

100% Region 2 AMS (20.8 mi2)

Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	20.8	0.03	9554
Stream Slope 10 and 85 Method (feet per mi)	7.680	0.81	317
Percent Open Water AND Herb Wetland (percent)	5.789	0	8

Peak Flow Streamflow Statistics

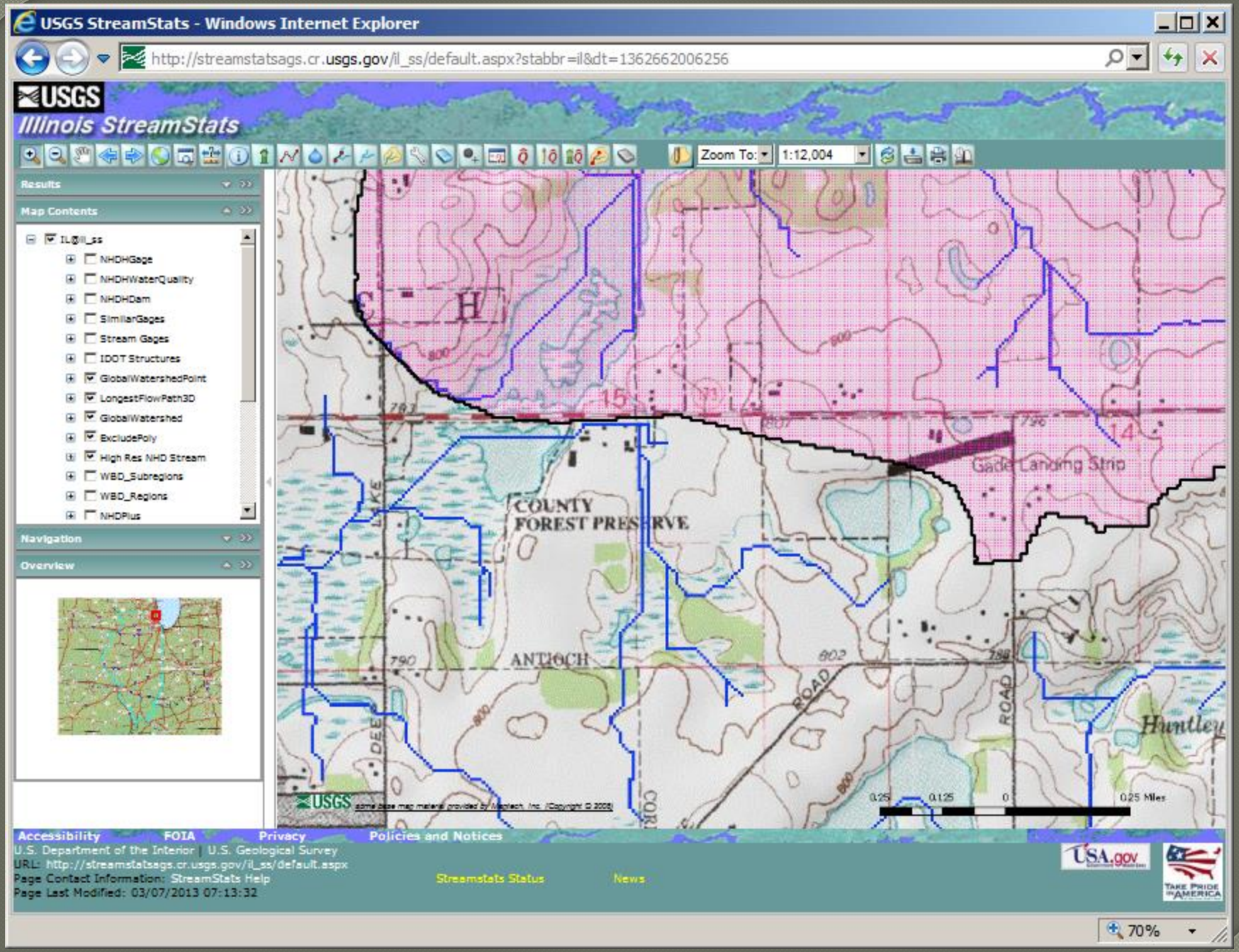
Statistic	Flow (ft^3/s)	Prediction Error (percent)	Equivalent years of record	90-Percent Prediction Interval	
				Minimum	Maximum
PK2	326	40	2.6	171	623
PK5	513	41	3.1	268	983
PK10	639	42	3.8	326	1250
PK25	788	45	4.6	387	1600
PK50	901	47	5.2	429	1890
PK100	1000	49	5.6	461	2170
PK500	1240	55	6.2	525	2910



100%

Basin Characteristic	StreamStats	Report	Gage	Weighted
Drainage Area	20.8	21.3		
Stream Slope	7.688	5.37		
%Water+5	10.789	10.15		
PK100	1,000	1,110	559	608

USGS


USGS StreamStats - Windows Internet Explorer
http://streamstatsags.cr.usgs.gov/il_ss/default.aspx?stabbr=il&dt=1362662006256
USGS
Illinois StreamStats
Zoom To:
1:12,004
Results
Map Contents
IL@il_ss
NHDHGage
NHDHWaterQuality
NHDHDam
SimilarGages
Stream Gages
IDOT Structures
GlobalWatershedPoint
LongestFlowPath3D
GlobalWatershed
ExcludePoly
High Res NHD Stream
WBD_Subregions
WBD_Regions
NHDPlus
Navigation
Overview
COUNTY
FOREST PRESERVE
ANTIOCH
Gade Landing Strip
Huntley
ROAD
DEE LAKE
0.25
0.125
0
0.25 Miles
Accessibility
FOIA
Privacy
Policies and Notices
U.S. Department of the Interior | U.S. Geological Survey
URL: http://streamstatsags.cr.usgs.gov/il_ss/default.aspx
Page Contact Information: StreamStats Help
Page Last Modified: 03/07/2013 07:13:32
Streamstats Status
News
USA.gov
70%

USGS StreamStats - Windows Internet Explorer

http://streamstatsags.cr.usgs.gov/il_ss/default.aspx?stabbr=il&dt=1351547889934

USGS

Illinois StreamStats

Zoom To: 1:9,757

Results

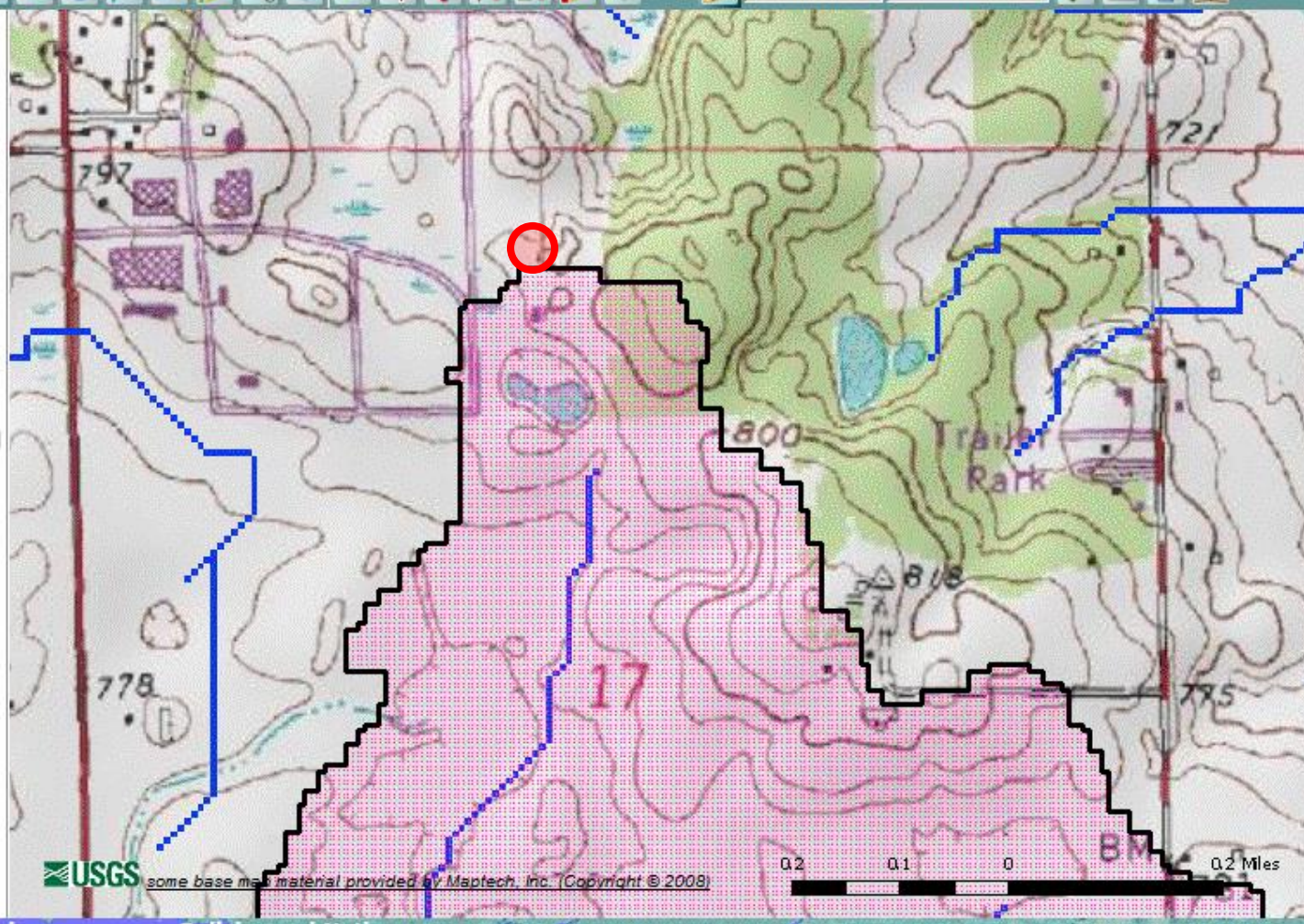
Overview

Map Contents

IL@il_ss

Navigation

N W E S



Accessibility FOIA Privacy Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey

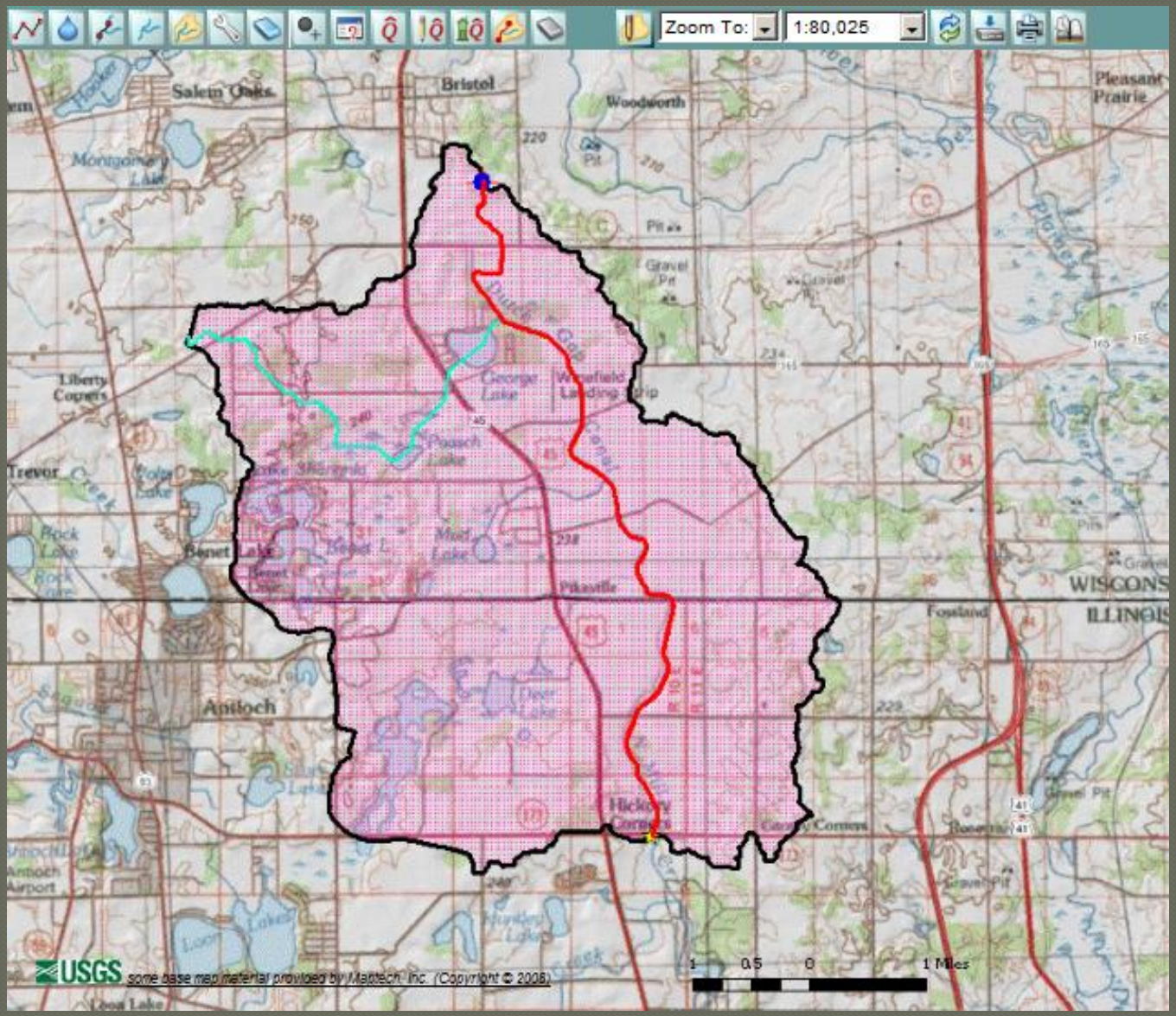
URL: http://streamstatsags.cr.usgs.gov/il_ss/default.aspx

Page Contact Information: StreamStats Help

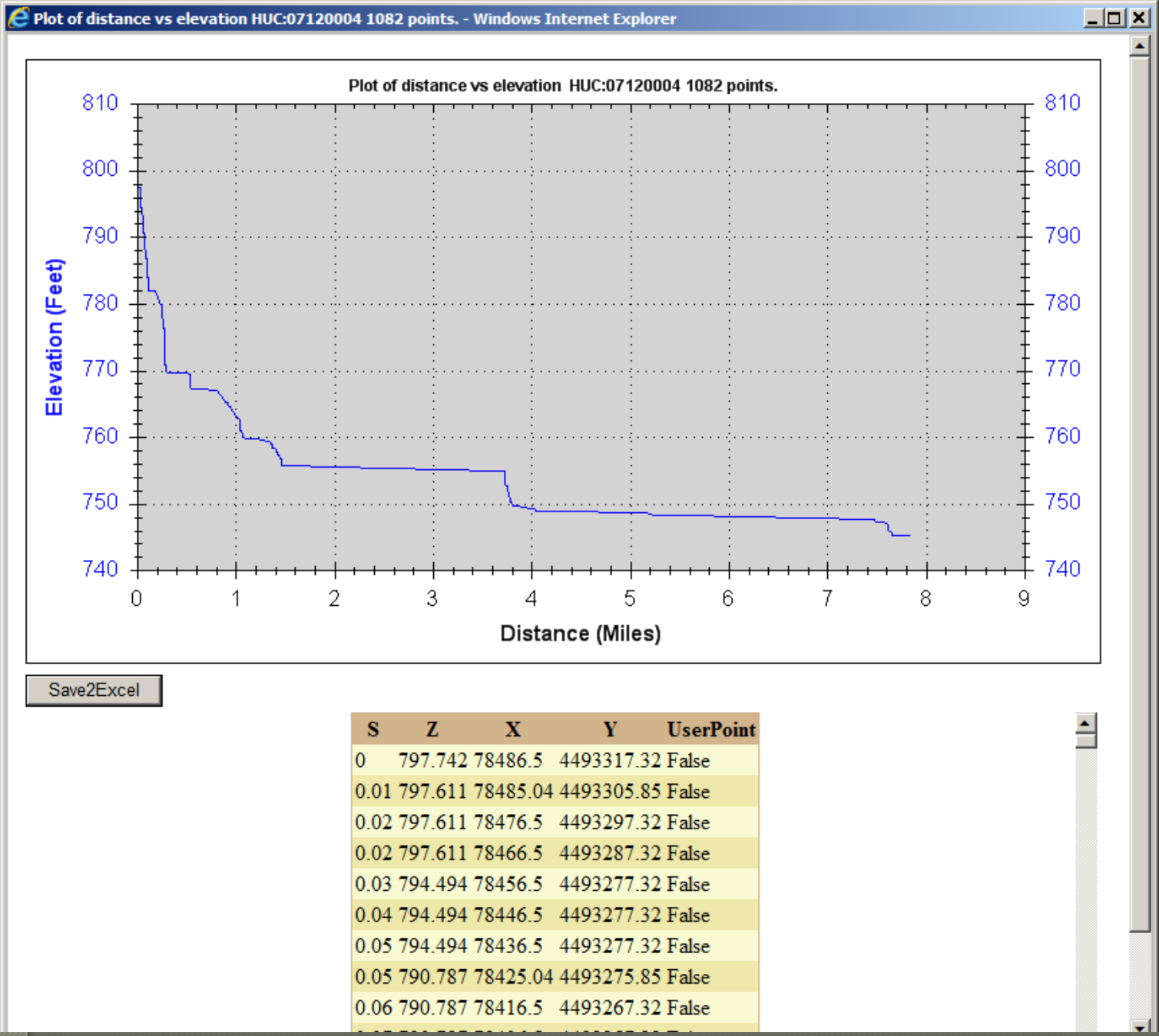
Page Last Modified: 10/29/2012 16:58:22

Streamstats Status News

USA.gov


Zoom To:
1:80,025
Salem Oaks
Bristol
Woodworth
Pleasant Prairie
Montgomery Lake
Liberty Corners
George Lake
Trevor
Rock Lake
Benet Lake
Mud Lake
Pikeville
Fosland
WISCONS
ILLINOIS
Antioch
Antioch Airport
Hickory Corners
Gravel Pit
USGS
some base map material provided by Maptech, Inc. (Copyright © 2008)
1 0.5 0 1 Miles

USGS



S	Z	X	Y	UserPoint
0	797.742	78486.5	4493317.32	False
0.01	797.611	78485.04	4493305.85	False
0.02	797.611	78476.5	4493297.32	False
0.02	797.611	78466.5	4493287.32	False
0.03	794.494	78456.5	4493277.32	False
0.04	794.494	78446.5	4493277.32	False
0.05	794.494	78436.5	4493277.32	False
0.05	790.787	78425.04	4493275.85	False
0.06	790.787	78416.5	4493267.32	False

Computing New Slope

Length is 7.83 miles

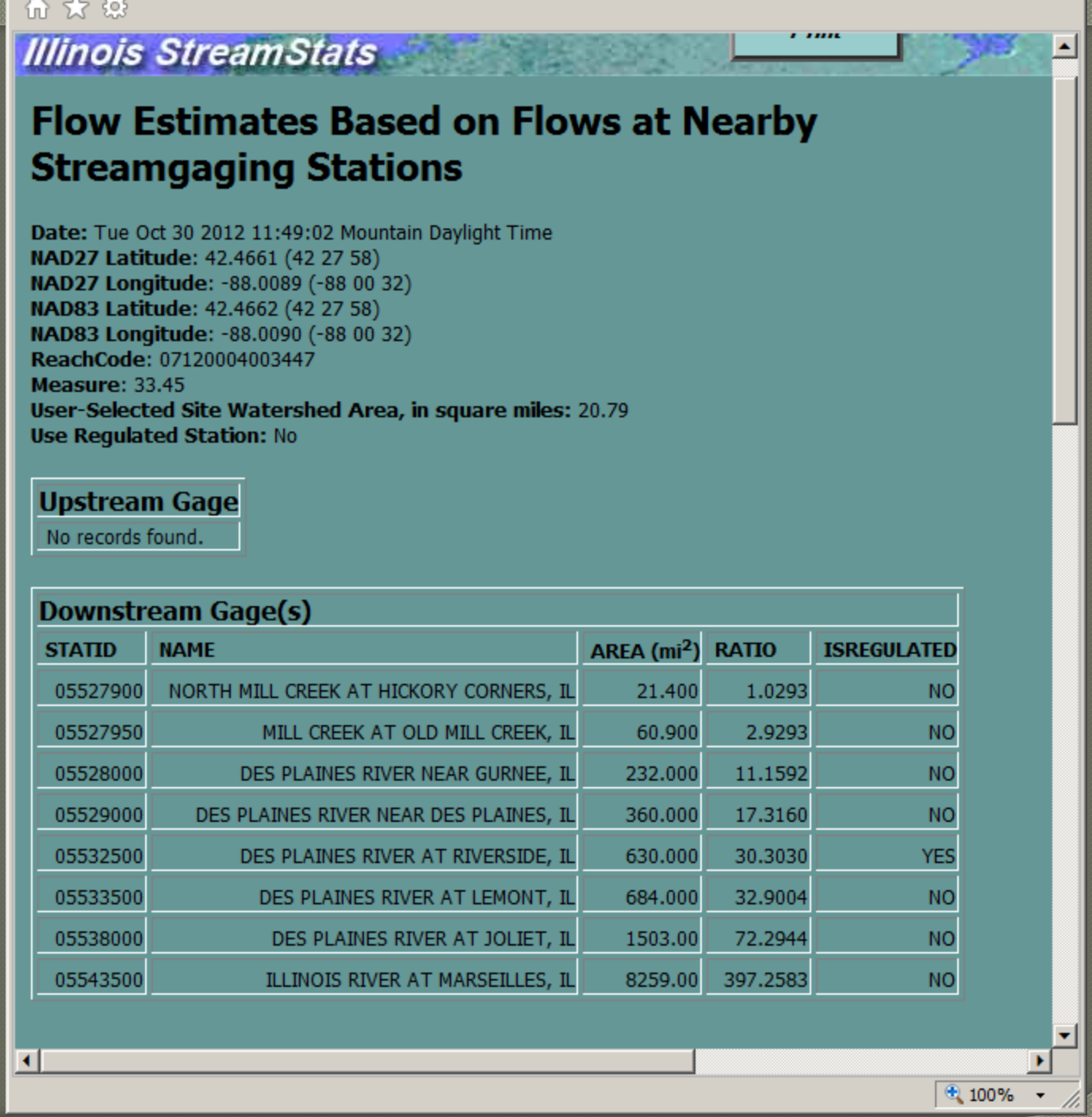
Total elevation change is 52.36 ft.

85% 1.17 759.8
10% 7.05 747.8

11.96/5.8725 = 2.0368 ft/mi

The effect of the new slope on peak flow quantile depends on the region.

Weighted peak flow quantiles will be computed using only streamgages within 50% and 150% of the drainage area of the selected site. The corrected method is reported on the Illinois StreamStats website.



Illinois StreamStats

Flow Estimates Based on Flows at Nearby Streamgaging Stations

Date: Tue Oct 30 2012 11:49:02 Mountain Daylight Time
NAD27 Latitude: 42.4661 (42 27 58)
NAD27 Longitude: -88.0089 (-88 00 32)
NAD83 Latitude: 42.4662 (42 27 58)
NAD83 Longitude: -88.0090 (-88 00 32)
ReachCode: 07120004003447
Measure: 33.45
User-Selected Site Watershed Area, in square miles: 20.79
Use Regulated Station: No

Upstream Gage

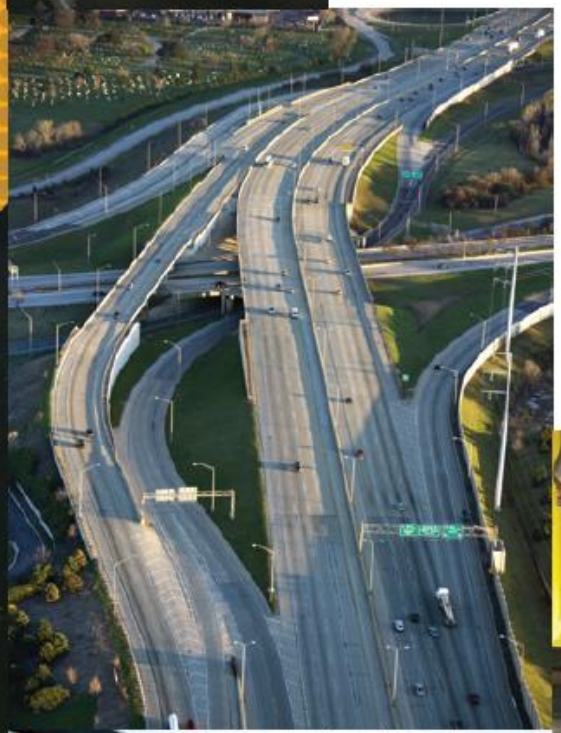
No records found.

Downstream Gage(s)

STATID	NAME	AREA (mi^2)	RATIO	ISREGULATED
05527900	NORTH MILL CREEK AT HICKORY CORNERS, IL	21.400	1.0293	NO
05527950	MILL CREEK AT OLD MILL CREEK, IL	60.900	2.9293	NO
05528000	DES PLAINES RIVER NEAR GURNEE, IL	232.000	11.1592	NO
05529000	DES PLAINES RIVER NEAR DES PLAINES, IL	360.000	17.3160	NO
05532500	DES PLAINES RIVER AT RIVERSIDE, IL	630.000	30.3030	YES
05533500	DES PLAINES RIVER AT LEMONT, IL	684.000	32.9004	NO
05538000	DES PLAINES RIVER AT JOLIET, IL	1503.00	72.2944	NO
05543500	ILLINOIS RIVER AT MARSEILLES, IL	8259.00	397.2583	NO

100%

USGS



ILLINOIS CENTER FOR TRANSPORTATION
http://ict.illinois.edu

USGS

Illinois Department of Transportation

ILLINOIS DEPARTMENT OF NATURAL RESOURCES

IDNR OWR

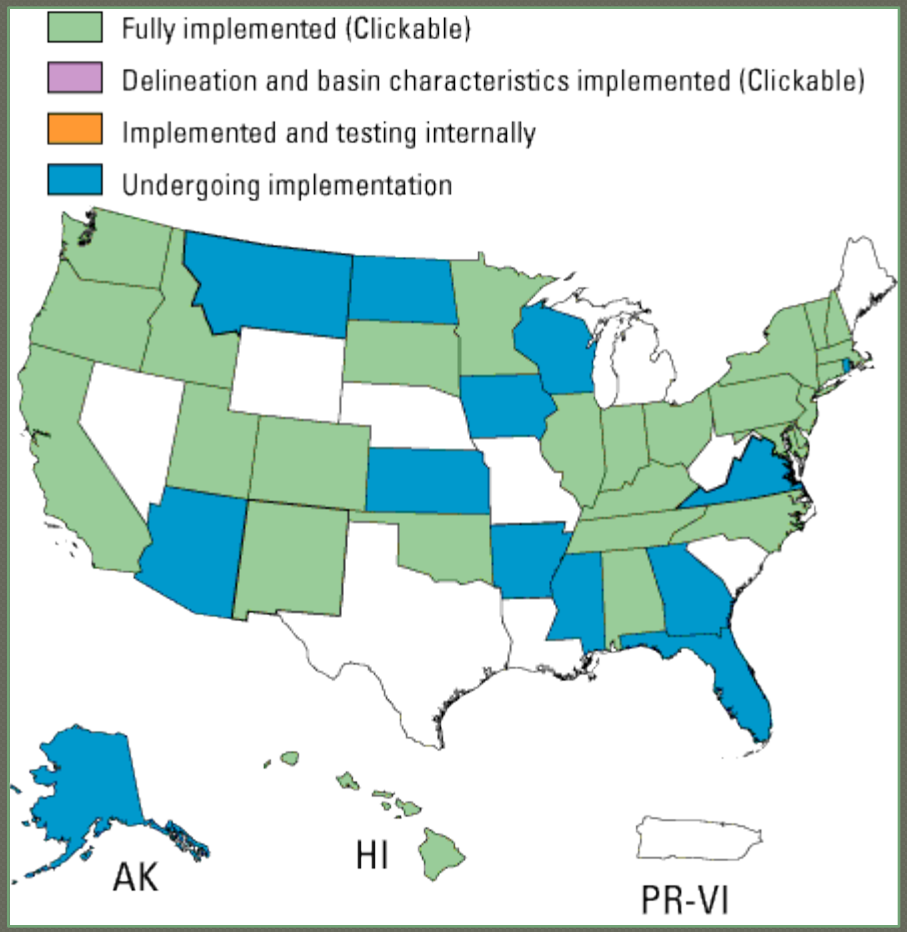
NOTABLE

In the first four months of 2010, Illinois StreamStats (ILSS) had the third highest number of Web requests on the main national StreamStats server that hosts 13 states' Streamstats sites. ILSS statistics show 1,533 determinations of flow quantile estimates for this period. In the past, determining peak-discharge estimates for floods of various frequencies (flood quantiles) could take from hours to weeks, depending on the size of the watershed. Now the watershed delineation, basin characteristics extraction, and flood frequency computations can all be completed by "pointing and clicking." ILSS can be accessed at http://streamstats.usgs.gov and clicking on State Applications.

StreamStats States Status

Since 2010:

- ~~22~~ 27 states up and running.
- ~~12~~ 13 additional states underway.
- National streamflow-gaging station statistics information.
- Peak flows most common statistics (only stat in IL/IN); low flows (e.g., 7Q10) and mean/median annual/monthly also common; FDCs relatively rare.
- Stay tuned for impervious area and possible urban update!



USGS

streamstats.usgs.gov

USGS
science for a changing world

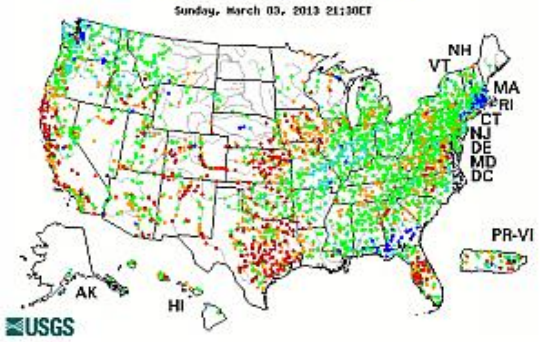
waterwatch.usgs.gov

WaterWatch

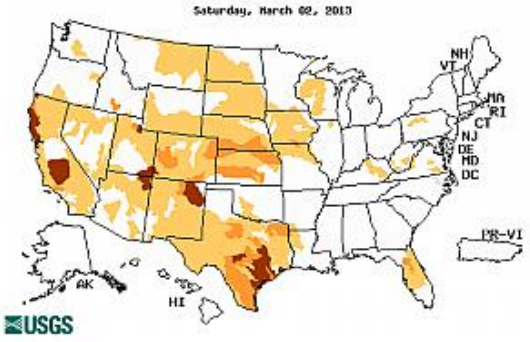
Search WaterWatch

- Home
- Current Streamflow
- Flood
- Drought
- Past Flow/Runoff
- Animation
- Toolkit
- Toolkit (internal)
- Annual Summaries
- Additional Information
- About WaterWatch

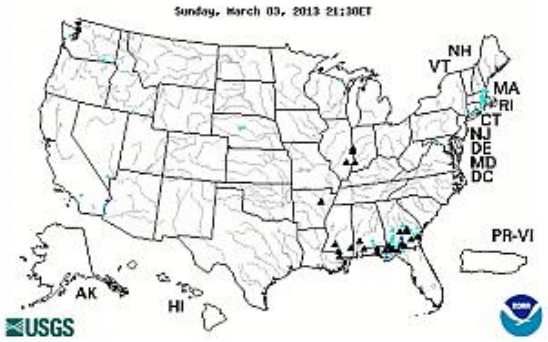
Current Streamflow



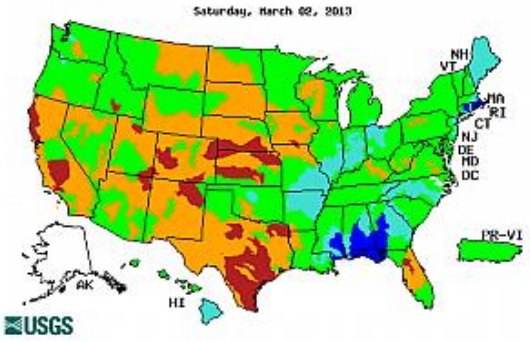
Drought



Flood



Past Flow/Runoff



USGS WaterWatch -- Streamflow conditions - Windows Internet Explorer

http://waterwatch.usgs.gov/index.php?id=ww_toolkit

Precipitation Data Google Maps | USGS WaterWatch -- Stream...

- Current Streamflow
- Flood
- Drought
- Past Flow/Runoff
- Animation
- Toolkit
- Toolkit (Internal)
- Annual Summaries
- Additional Information
- About WaterWatch

- Site Duration Hydrograph (streamflow)
- State Duration Hydrograph (runoff)
- Streamgage Statistics
- Rating Curve
- Streamflow Map
- State Google Map
- Flood Table
- Drought Table
- Map Comparison
- Site Visit
- Flood-Tracking Chart
- AHPS River Forecast
- Raster Hydrograph

WaterWatch Toolkit

waterwatch.usgs.gov

USGS

USGS WaterWatch Toolkit

Streamflow Conditions Map Builder

This builder is used to customize the streamflow conditions maps in size and color.

Duration Hydrograph Builder

The builder is used to present a time-history of streamflow for the past two years along with historical streamflow percentiles for individual streamgages.

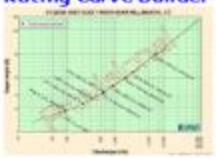
State Google Map Builder

A Google Maps version of the streamflow conditions map can be created in users web sites.

Streamflow Map Animation Builder

This tool is to create a streamflow map animation for a time period for real-time streamflow and flood-and-high flow maps, respectively.

Rating Curve Builder



The rating curve builder is used to create a USGS streamflow rating curve. The rating table is from the USGS ratings depot. Field measurements can also be appended to the curve.

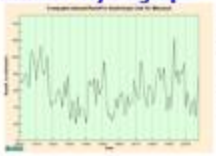
Hydrologic Unit Runoff Maps

Hydrologic unit runoff and runoff condition maps since 1901 are available.

Flood Table Builder

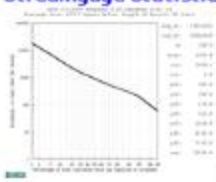
This tool summarizes the flood and high flow conditions for a state or a region for a given time period. Tables and Google Maps are used to summarize conditions and to show locations, respectively.

Runoff Hydrograph



Monthly, quarterly, and annual HUC runoff time-seris plots are avialable in a HUC area and a state.

Streamgage Statistics Retrieval Tool

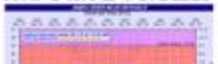


The "streamgage statistics" retrieval tool provides a list of basic summary statistics and duration graph for the selected streamgage, as computed from daily

Flood Tracking Chart

A URL is provided to create flood-tracking chart which shows current state, recent peak stage, historical highest peaks, and flood stage.

AHPS River Forecast



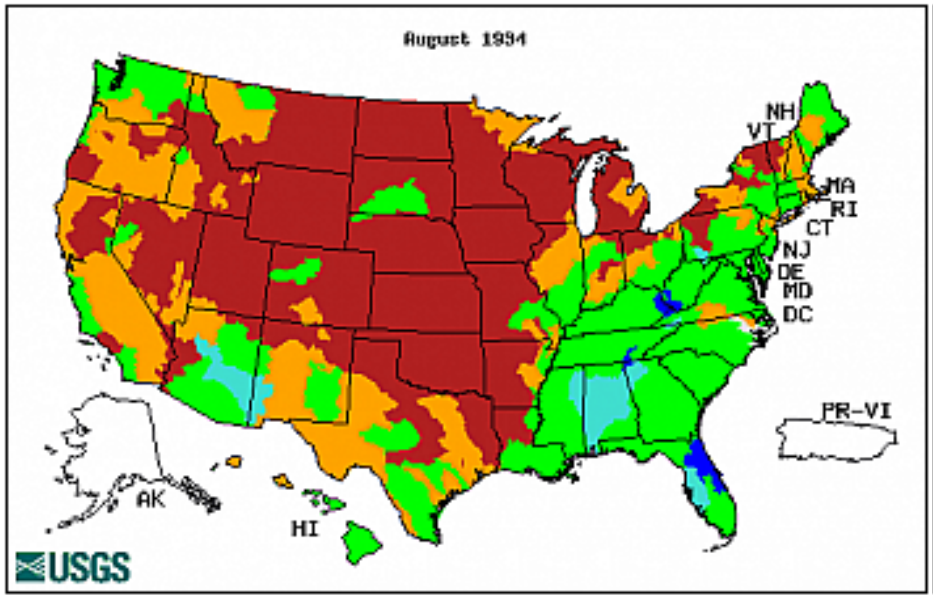
AHPS river forcast chart can be assessed

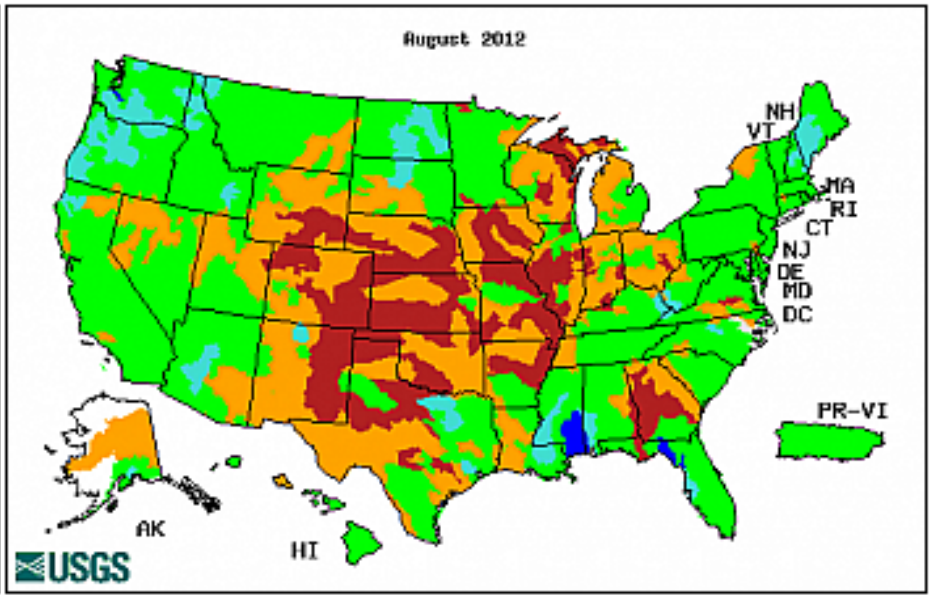
Comparison of Monthly Streamflow Maps

Geographic Area: United States | Water Resource Region: | Map Type: HUC | GO

Date (YYYYMM): 193408

Date (YYYYMM): 201208





Explanation - Percentile classes						
Low	<10	10-24	25-75	76-90	>90	High
	Much below normal	Below normal	Normal	Above normal	Much above normal	

USGS
science for a changing world

WaterWatch

Search Wa

- Home
- Current Streamflow
- Flood
- Drought
- Past Flow/Runoff
- Animation
- Toolkit
- Toolkit (Internal)
- Annual Summaries
- Additional Information
- About WaterWatch

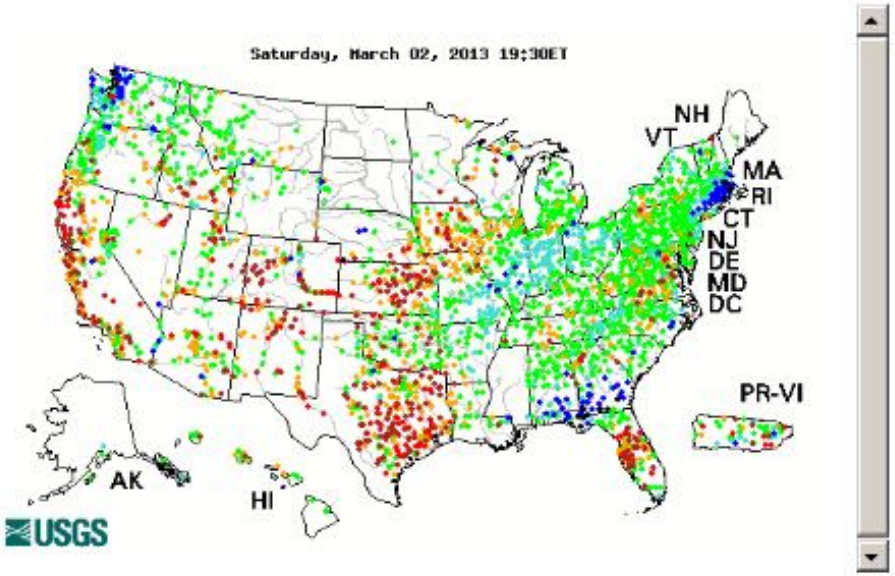
- Map Archive
- Monthly Map Archive
- Hydrologic Unit Runoff
- Annual Summary By State
- Streamgage Locations in KML

Archive of streamflow maps (United States)

Choose one of the following options to view a map.

Time Period : Real-time | Year: < 2013 > | Month: < March > | Day: < 2 > | Help

|<< | < | 2013-03-02 | > | >>| | Map Type: Streamflow Map



Explanation - Percentile classes

Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High

waterwatch.usgs.gov

USGS

http://waterwatch.usgs.gov/index.php?id=ww_past

USGS science for a changing world

WaterWatch

- Home
- Current Streamflow
- Flood
- Drought
- Past Flow/Runoff
- Animation
- Toolkit
- Toolkit (Internal)
- Annual Summaries
- Additional Information
- About WaterWatch

- Animation Builder
- Real-Time Maps by Month
- Flood Maps by Month

waterwatch.usgs.gov

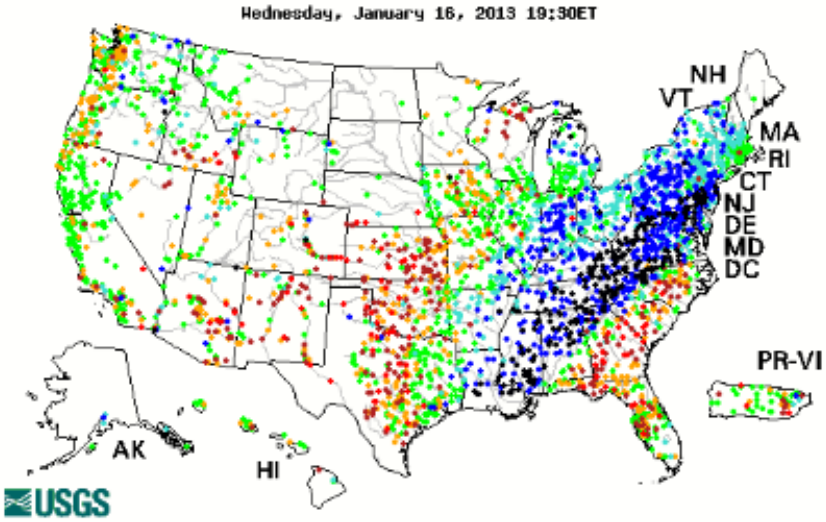
Streamflow Map Animation (United States)

(Warning: Building an animation longer than 365 days is not advised as it may cause the system to timeout)

Choose options to build a map animation — Go

Begin: 2013 January 7 End: 2013 January 20 Interval(days): 1

Map type: Real-time Delay(secs): 0.5 Loops: Continuous Width: px

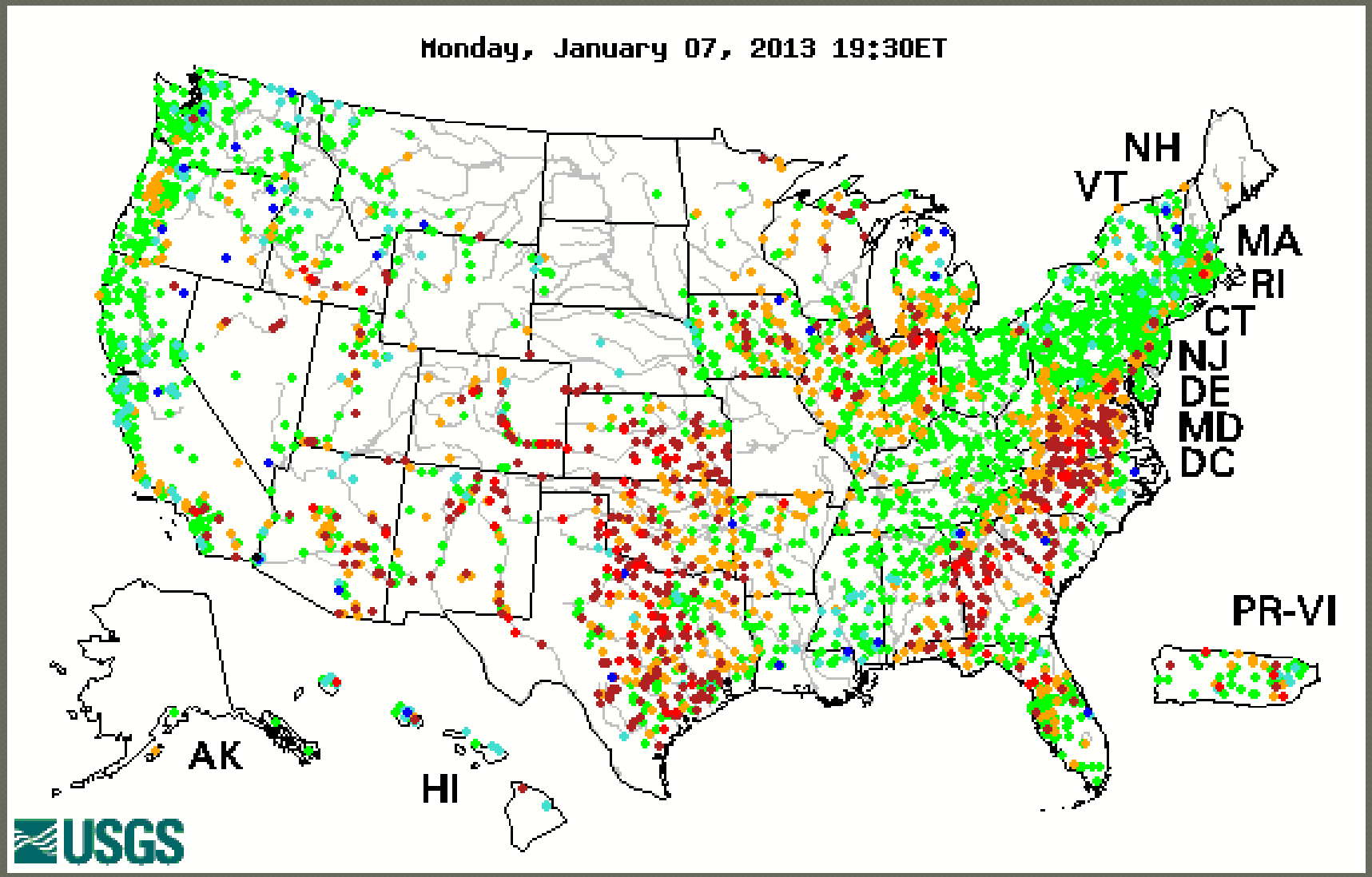


Explanation - Percentile classes						
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High

The data used to produce this map are provisional and have not been reviewed or edited. They may be subject to significant change.

USGS

http://waterwatch.usgs.gov/index.php?id=ww_animation


Monday, January 07, 2013 19:30ET
NH
VT
MA
RI
CT
NJ
DE
MD
DC
PR-VI
AK
HI
USGS

USGS WaterWatch -- Streamflow conditions - Windows Internet Explorer

http://waterwatch.usgs.gov/index.php

Precipitation Data Google Maps | USGS WaterWatch -- Stream...

USGS science for a changing world

WaterWatch

Search WaterW

- Home
- Current Streamflow
- Flood
- Drought
- Past Flow/Runoff
- Animation
- Toolkit
- Toolkit (Internal)
- Annual Summaries
- Additional Information
- About WaterWatch

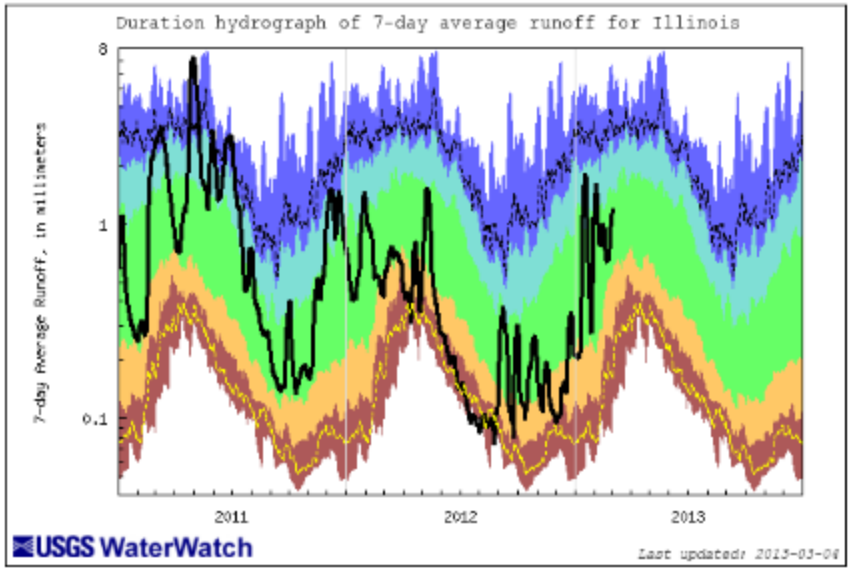
- Site Duration Hydrograph (streamflow)
- State Duration Hydrograph (runoff)
- Streamgage Statistics
- Rating Curve
- Streamflow Map
- State Google Map
- Flood Table
- Drought Table
- Map Comparison
- Site Visit
- Flood-Tracking Chart
- AHPS River Forecast
- Raster Hydrograph

USGS Area-Based Runoff Duration Hydrograph Builder

State	Water Res. Region	Year:	Runoff type:	No. of years:	
Illinois		2013	7-day	3	GO

Draw 5th and 95th percentiles as: Line Output: Hydrograph

For some streams, flow statistics may have been computed from mixed regulated and unregulated flows; this can affect depictions of flow conditions.



Explanation - Percentile classes

lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile-highest	Runoff
Much below Normal		Below normal	Normal	Above normal	Much above normal		

waterwatch.usgs.gov

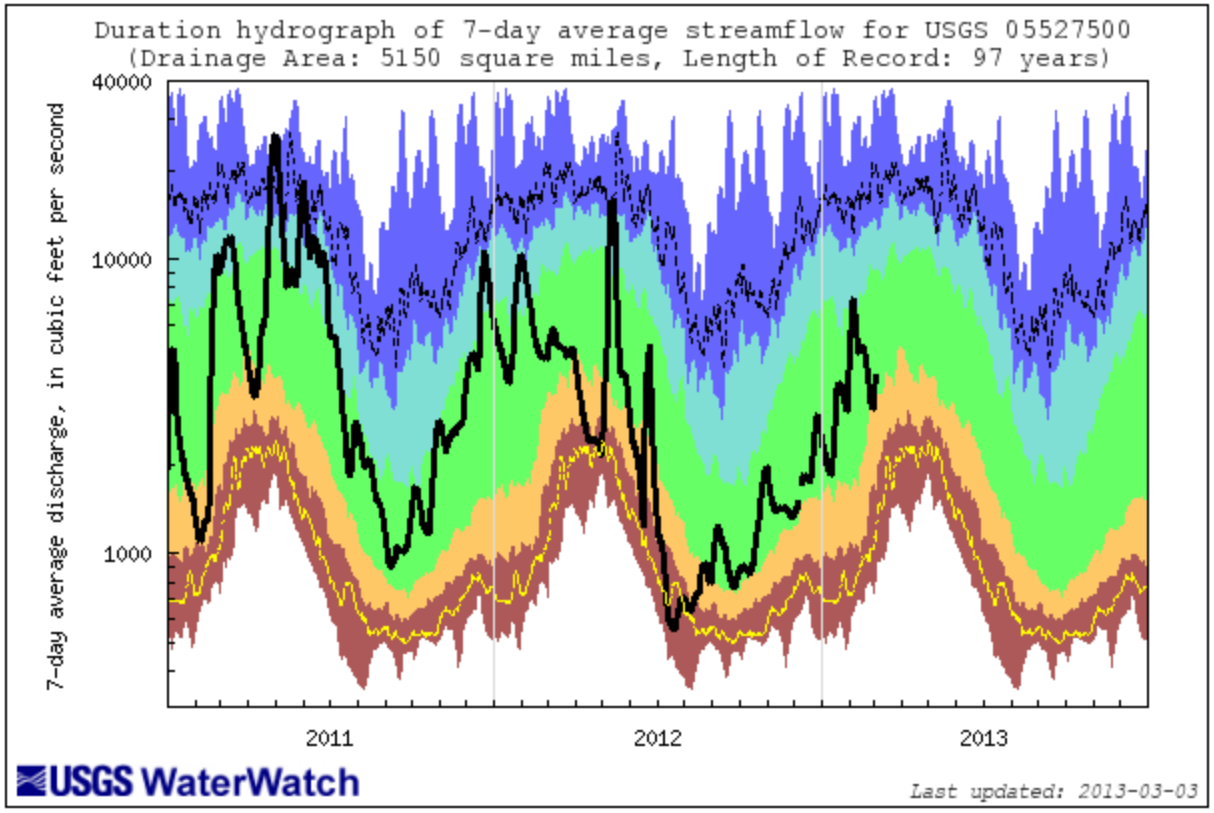
USGS

USGS Streamflow Duration Hydrograph Builder

Site Number: 05527500 | Year: 2013 | No. of years: 3 | Flow type: 7-day | GO

Draw 5th and 95th percentiles as: Line | Output: Hydrograph

For some streams, flow statistics may have been computed from mixed regulated and unregulated flows; this can affect depictions of flow conditions.



Explanation - Percentile classes

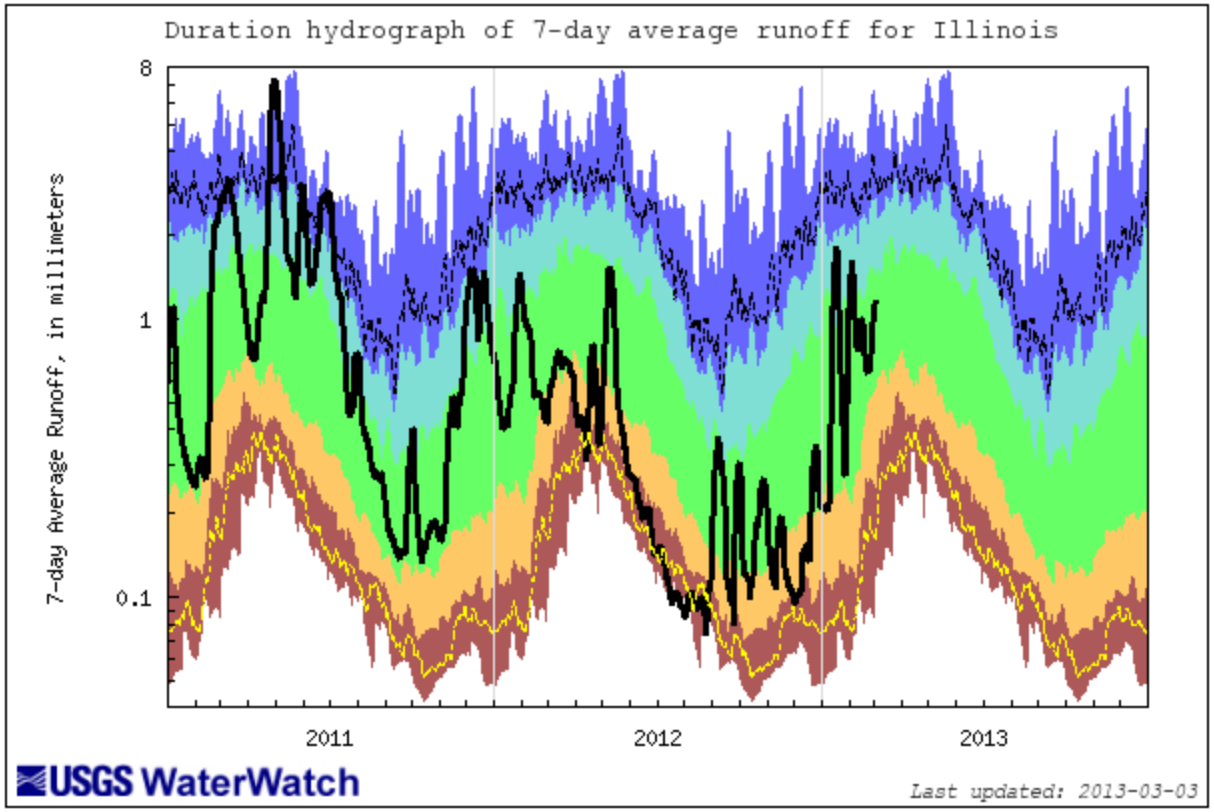
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile -highest	Flow
Much below Normal		Below normal	Normal	Above normal	Much above normal		

USGS Area-Based Runoff Duration Hydrograph Builder

State	Water Res. Region	Year:	Runoff type:	No. of years:	
Illinois		2013	7-day	3	GO

Draw 5th and 95th percentiles as: Line Output: Hydrograph

For some streams, flow statistics may have been computed from mixed regulated and unregulated flows; this can affect depictions of flow conditions.



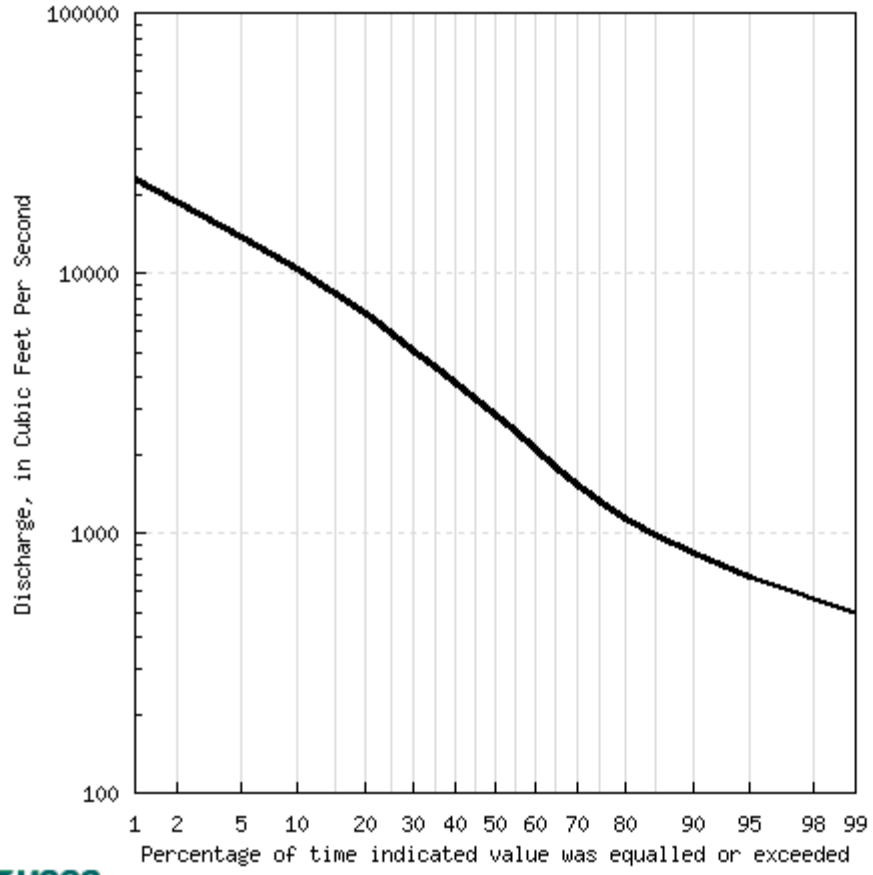
Explanation - Percentile classes							
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile -highest	Runoff
Much below Normal		Below normal	Normal	Above normal	Much above normal		

Enter USGS streamgage site information such as a site number, a river name, or a county name, choose streamflow type, and then click "GO" to retrieve streamflow statistics and flow duration curve.

Site keywords: 05527500 **Flow:** Daily flow GO

Percentile values are shown to the right of the graph and exceedance probability values are on the x-axis. These terms are defined on the **percentile description** page.

USGS 05527500 KANKAKEE RIVER NEAR WILMINGTON, IL
Drainage Area: 5150 Square Miles, Length of Record: 95 Years



beg_dt:	19141106
end_dt:	20111010
nval:	34851
mean:	4567.2
std:	4879.2
min:	250.0
p05:	680.0
p10:	840.0
p25:	1340.0
p50:	2880.0
p75:	5930.0
p90:	10500.0
p95:	14000.0
max:	55100.0

USGS

USGS WaterWatch -- Streamflow conditions - Windows Internet Explorer

http://waterwatch.usgs.gov/index.php

Precipitation Data Google Maps | USGS WaterWatch -- Stream...

WaterWatch

Search WaterWat

- Home
- Current Streamflow
- Flood
- Drought
- Past Flow/Runoff
- Animation
- Toolkit
- Toolkit (Internal)
- Annual Summaries
- Additional Information
- About WaterWatch

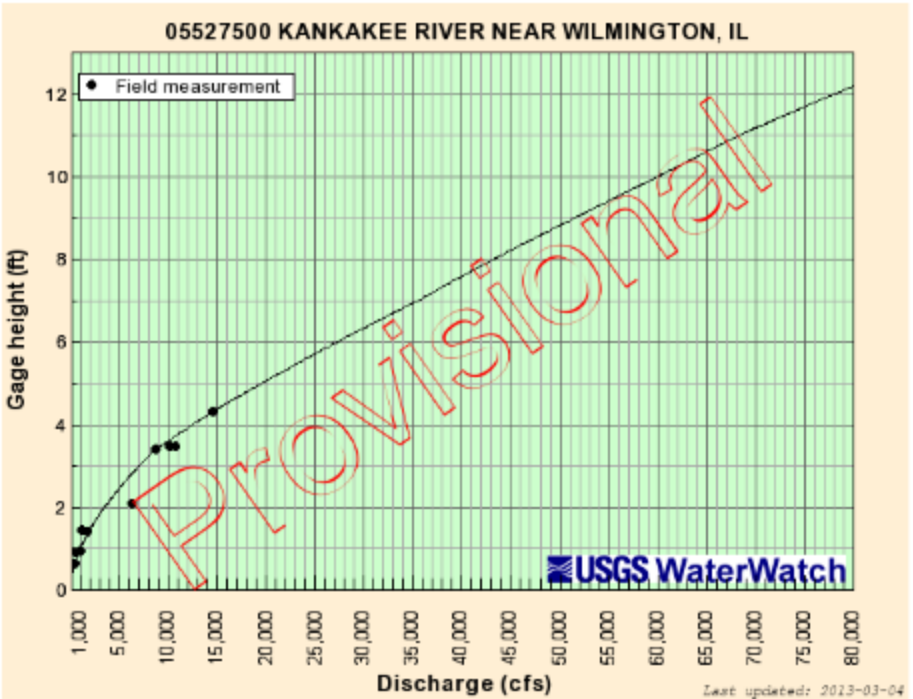
- Site Duration Hydrograph (streamflow)
- State Duration Hydrograph (runoff)
- Streamgage Statistics
- Rating Curve
- Streamflow Map
- State Google Map
- Flood Table
- Drought Table
- Map Comparison
- Site Visit
- Flood-Tracking Chart
- AHPS River Forecast
- Raster Hydrograph

waterwatch.usgs.gov

USGS

Customized Rating Curve Builder

Site number:	05527500 Go
Image size:	width (300-2000px): 650, height (300 - 2000px): 500
Field measurement:	◉ No ◉ Yes Most recent measurements, or 3 water-years Label: Date, Time, Discharge, Gage height Label is rotated by (0-90): 30
Gage height (Y-axis):	Axis type: ◉ Log10 ◉ Linear; Axis range: Minimum: , Maximum:
Discharge (X-axis):	Axis type: ◉ Log10 ◉ Linear Axis range: Minimum: , Maximum:



USGS WaterWatch -- Streamflow conditions - Windows Internet Explorer

http://waterwatch.usgs.gov/index.php

Precipitation Data Google Maps | USGS WaterWatch -- Stream...

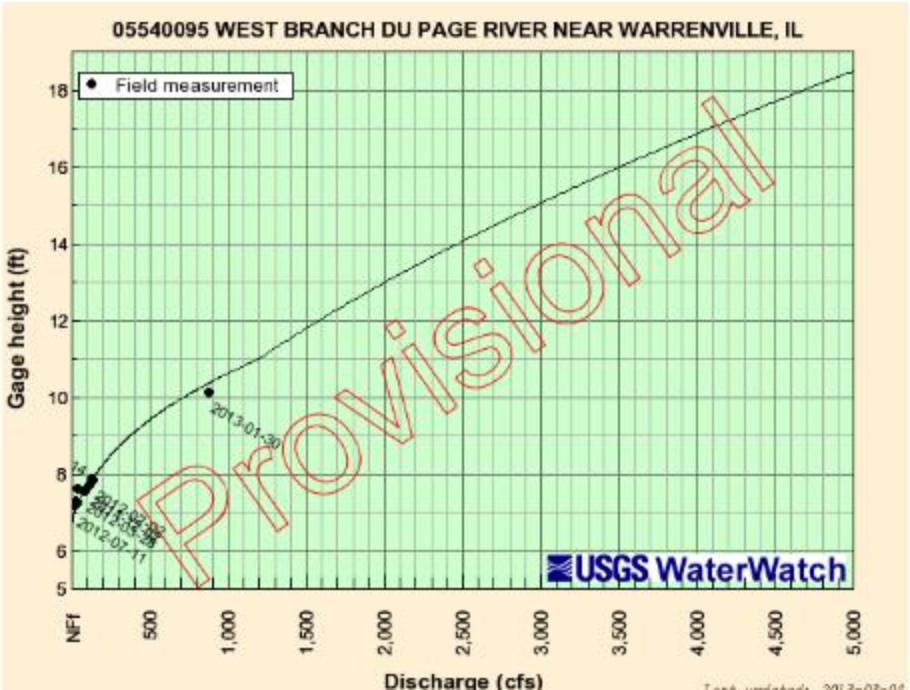
WaterWatch

Search WaterW

- Home
- Current Streamflow
- Flood
- Drought
- Past Flow/Runoff
- Animation
- Toolkit
- Toolkit (Internal)
- Annual Summaries
- Additional Information
- About WaterWatch

Customized Rating Curve Builder

Site number:	05540095 Go
Image size:	width (300-2000px): 650 , height (300 - 2000px): 500
Field measurement:	◉ No ○ Yes 10 Most recent measurements , or water-years Label: ☑ Date, ☐ Time, ☐ Discharge ☐ Gage height Label is rotated by (0-90): 30
Gage height (Y-axis):	Axis type: ◉ Log10 ○ Linear; Axis range: Minimum: , Maximum:
Discharge (X-axis):	Axis type: ◉ Log10 ○ Linear Axis range: Minimum: , Maximum:



waterwatch.usgs.gov

USGS

USGS WaterWatch -- Streamflow conditions - Windows Internet Explorer

http://waterwatch.usgs.gov/index.php

Precipitation Data Google Maps | USGS WaterWatch -- Stream...

USGS science for a changing world

WaterWatch

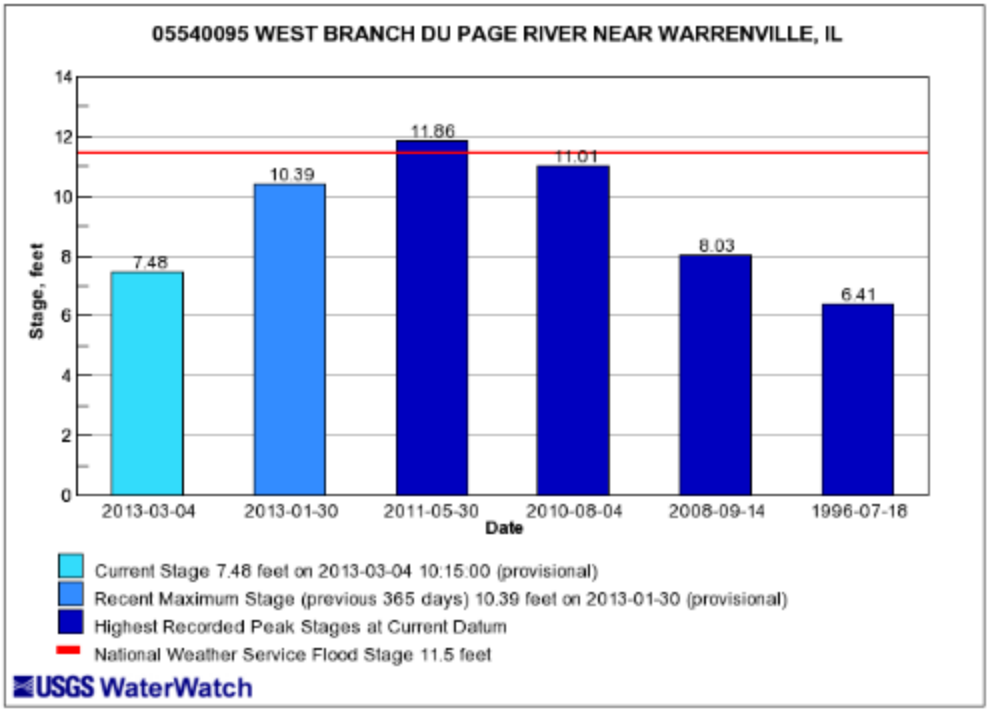
Search WaterW

- Home
- Current Streamflow
- Flood
- Drought
- Past Flow/Runoff
- Animation
- Toolkit
- Toolkit (Internal)
- Annual Summaries
- Additional Information
- About WaterWatch

- Site Duration Hydrograph (streamflow)
- State Duration Hydrograph (runoff)
- Streamgage Statistics
- Rating Curve
- Streamflow Map
- State Google Map
- Flood Table
- Drought Table
- Map Comparison
- Site Visit
- Flood-Tracking Chart
- AHPS River Forecast
- Raster Hydrograph

Flood Tracking Chart Builder

Site number: 05540095 | Value type: Gage Height | Size: Normal (700x500) | GO



Additional Information

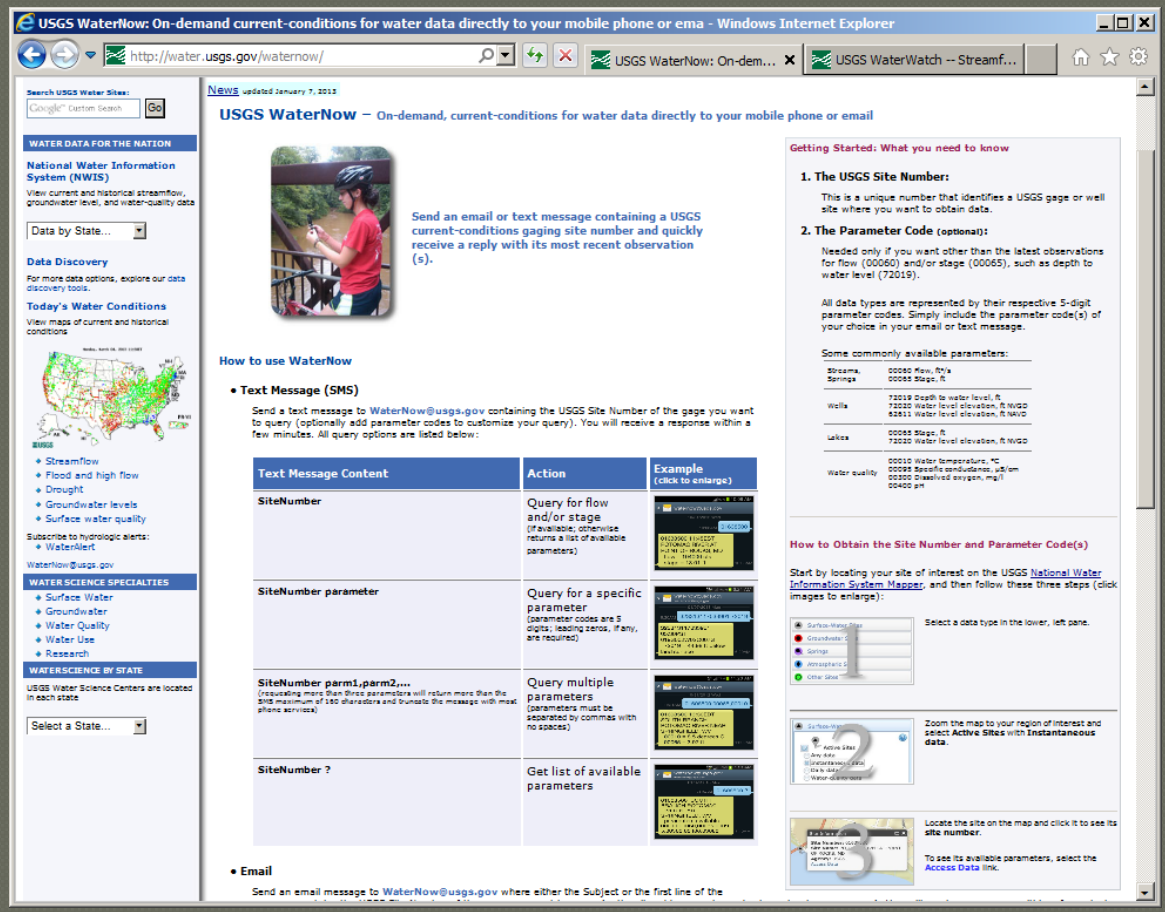
- USGS real-time streamflow data
- USGS peak streamflow

waterwatch.usgs.gov

USGS

WaterNow

- Get the current reading at streamgages, raingages, wells.
- If you know the parameters, you can put in, else you receive stage and discharge.



USGS

http://water.usgs.gov/waternow

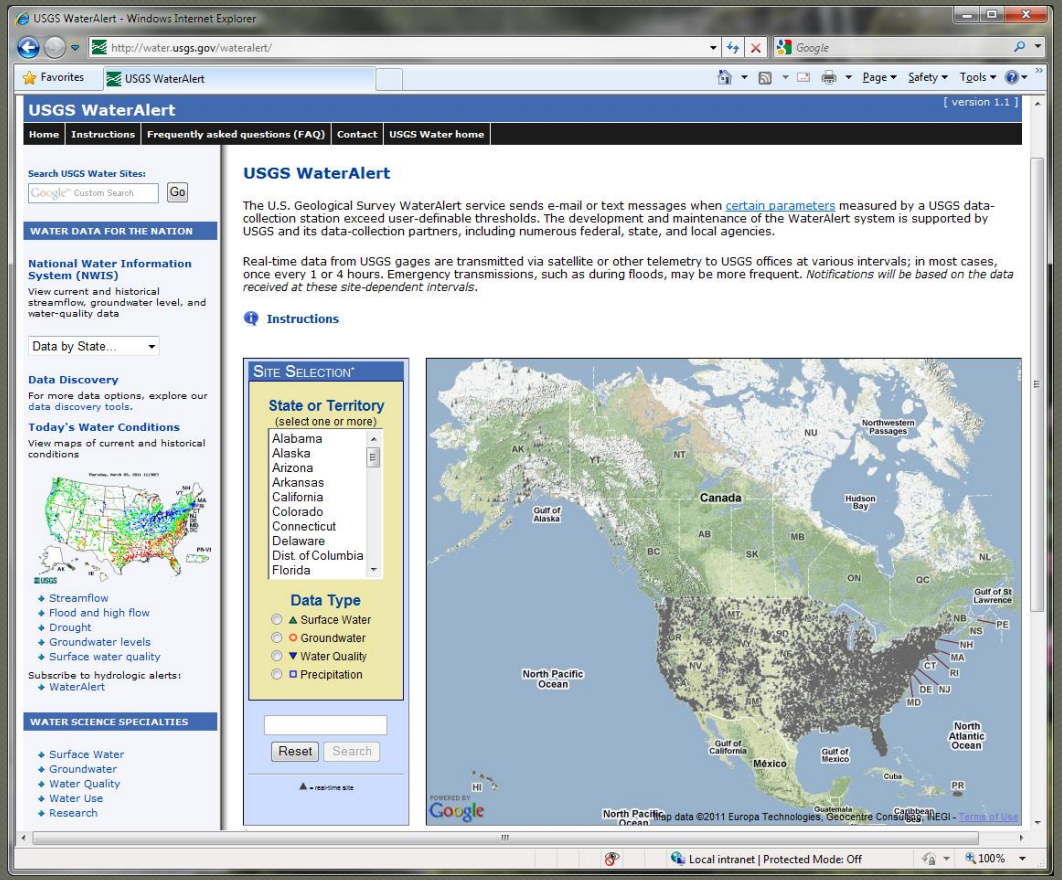
WaterNow Example

USGS

http://water.usgs.gov/waternow

WaterAlert

- Sends emails/texts based upon user pre-set thresholds
- Almost all real-time parameters
- Hourly or daily intervals
- Thresholds:
  - greater than
  - less than
  - between a range
  - outside a range

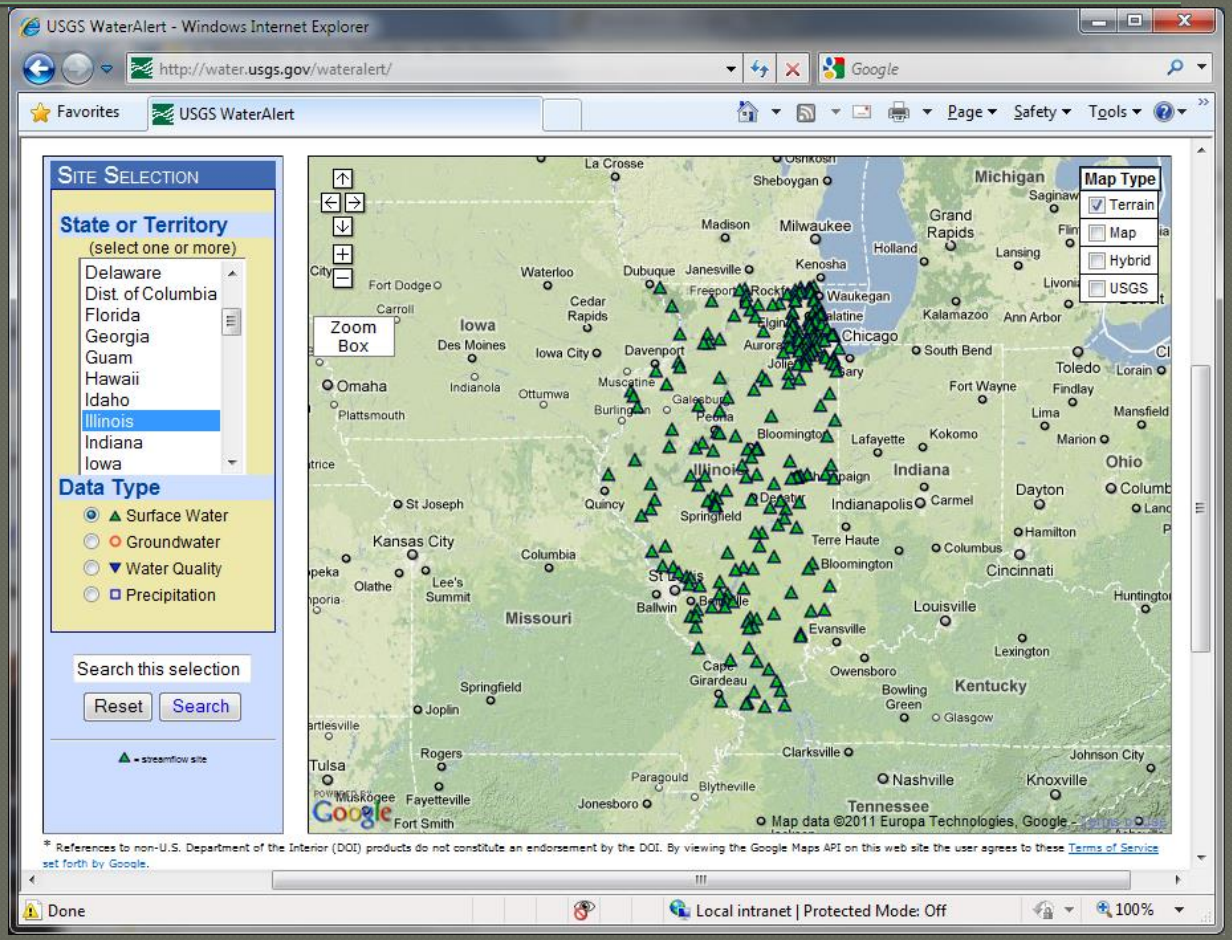


USGS

http://water.usgs.gov/wateralert/

WaterAlert Example

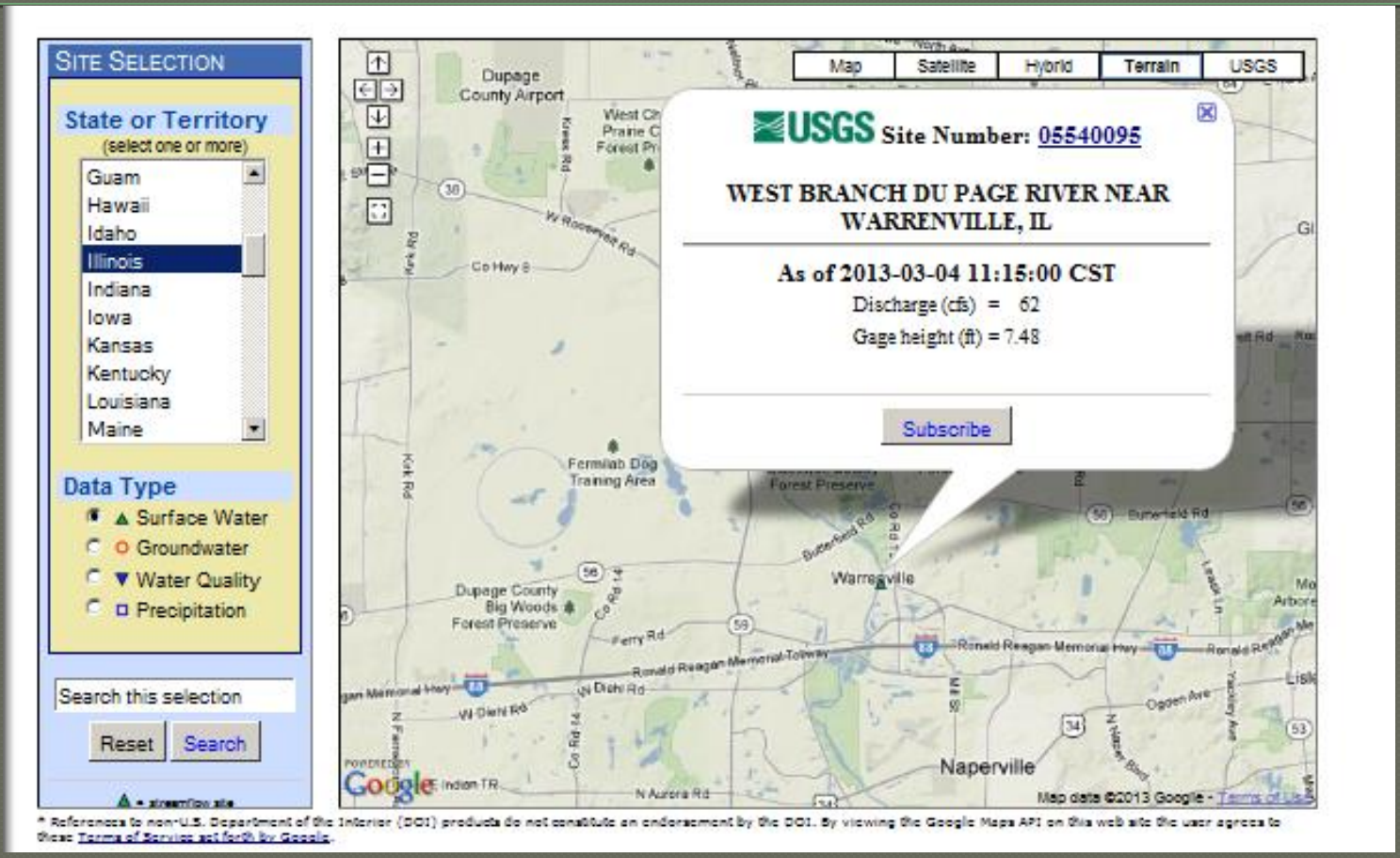
- Illinois
- Surface Water
- Zoom
- Select Gage



USGS

http://water.usgs.gov/wateralert/

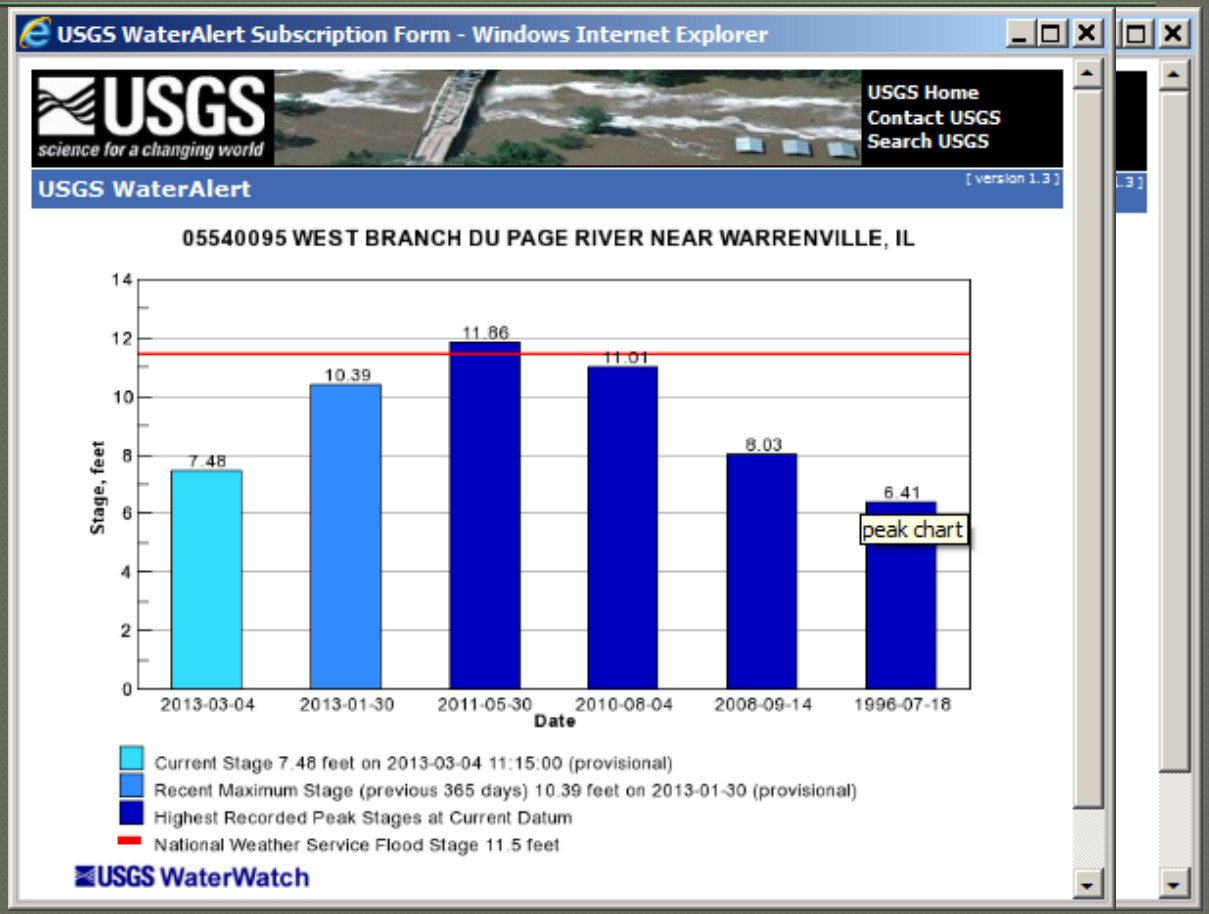
WaterAlert Example



USGS http://water.usgs.gov/wateralert/

WaterAlert Example

- Illinois
- Surface Water
- Zoom
- Select Gage
- Subscribe



http://water.usgs.gov/wateralert/

USGS

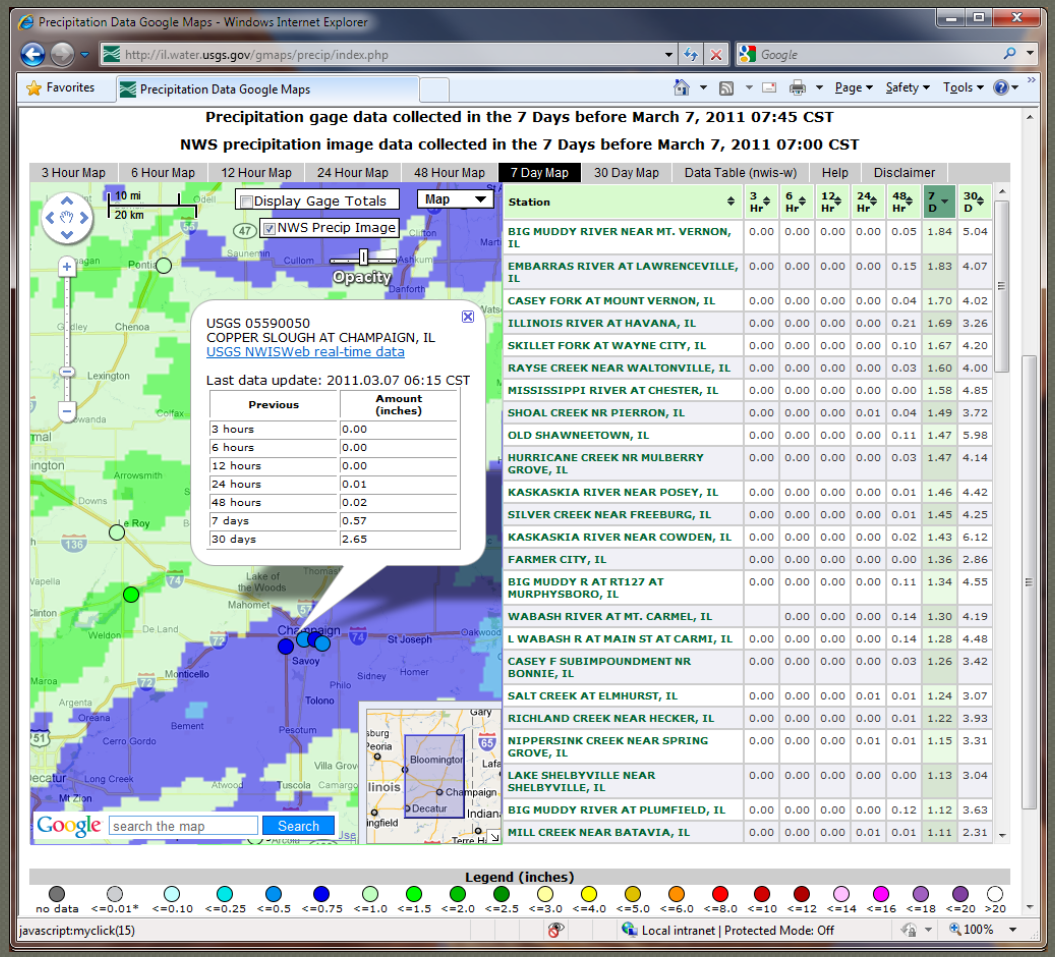
Illinois Precipitation Map

Near real-time data updates

3, 6, 12, 24, 48 hours 7, 14, 30 days

Includes NWS NEXRAD maps (similar color legend)

Sortable data table linked to map



Station	3 Hr	6 Hr	12 Hr	24 Hr	48 Hr	7 D	30 D
BIG MUDDY RIVER NEAR MT. VERNON, IL	0.00	0.00	0.00	0.00	0.05	1.84	5.04
EMBARRAS RIVER AT LAWRENCEVILLE, IL	0.00	0.00	0.00	0.00	0.15	1.83	4.07
CASEY FORK AT MOUNT VERNON, IL	0.00	0.00	0.00	0.00	0.04	1.70	4.02
ILLINOIS RIVER AT HAVANA, IL	0.00	0.00	0.00	0.00	0.21	1.69	3.26
SKILLET FORK AT WAYNE CITY, IL	0.00	0.00	0.00	0.00	0.10	1.67	4.20
RAYSE CREEK NEAR WALTONVILLE, IL	0.00	0.00	0.00	0.00	0.03	1.60	4.00
MISSISSIPPI RIVER AT CHESTER, IL	0.00	0.00	0.00	0.00	0.00	1.58	4.85
SHOAL CREEK NR PIERRON, IL	0.00	0.00	0.00	0.01	0.04	1.49	3.72
OLD SHAWNEETOWN, IL	0.00	0.00	0.00	0.00	0.11	1.47	5.98
HURRICANE CREEK NR MULBERRY GROVE, IL	0.00	0.00	0.00	0.00	0.03	1.47	4.14
KASKASKIA RIVER NEAR POSEY, IL	0.00	0.00	0.00	0.00	0.01	1.46	4.42
SILVER CREEK NEAR FREEBURG, IL	0.00	0.00	0.00	0.00	0.01	1.45	4.25
KASKASKIA RIVER NEAR COWDEN, IL	0.00	0.00	0.00	0.00	0.02	1.43	6.12
FARMER CITY, IL	0.00	0.00	0.00	0.00	0.00	1.36	2.86
BIG MUDDY R AT RT127 AT MURPHYSBORO, IL	0.00	0.00	0.00	0.00	0.11	1.34	4.55
WABASH RIVER AT MT. CARMEL, IL		0.00	0.00	0.00	0.14	1.30	4.19
L WABASH R AT MAIN ST AT CARMI, IL	0.00	0.00	0.00	0.00	0.14	1.28	4.48
CASEY F SUBIMPOUNDMENT NR BONNIE, IL	0.00	0.00	0.00	0.00	0.03	1.26	3.42
SALT CREEK AT ELMHURST, IL	0.00	0.00	0.00	0.01	0.01	1.24	3.07
RICHLAND CREEK NEAR HECKER, IL	0.00	0.00	0.00	0.00	0.01	1.22	3.93
NIPPERSINK CREEK NEAR SPRING GROVE, IL	0.00	0.00	0.00	0.01	0.01	1.15	3.31
LAKE SHELBYVILLE NEAR SHELBYVILLE, IL	0.00	0.00	0.00	0.00	0.00	1.13	3.04
BIG MUDDY RIVER AT PLUMFIELD, IL	0.00	0.00	0.00	0.00	0.12	1.12	3.63
MILL CREEK NEAR BATAVIA, IL	0.00	0.00	0.00	0.01	0.01	1.11	2.31

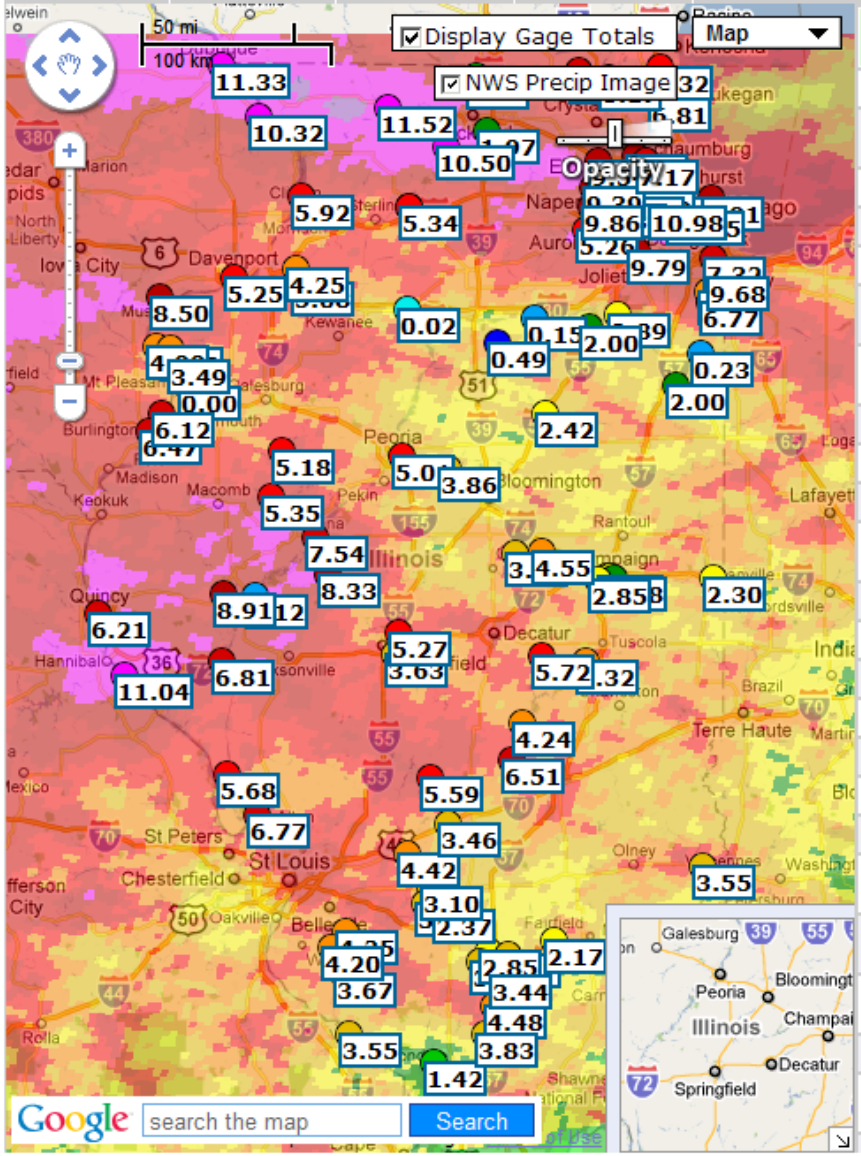
USGS

http://il.water.usgs.gov/gmaps/precip/

Precipitation gage data collected in the 30 Days before August 17, 2010 09:30 CST

NWS precipitation image data collected in the 30 Days before August 17, 2010 06:00 CST

3 Hour Map | 6 Hour Map | 12 Hour Map | 24 Hour Map | 48 Hour Map | 7 Day Map | **30 Day Map** | Data Table (nwis-w) | Help | Disclaimer



Station	3 Hr	6 Hr	12 Hr	24 Hr	48 Hr	7 D	30 D
SALT CREEK AT ELMHURST, IL	0.00	0.00	0.00	0.00	0.00	0.46	11.69
CAROL STREAM WWTF AT CAROL STREAM, IL	0.00	0.00	0.00	0.00	0.00	0.68	11.59
PECATONICA RIVER AT FREEPORT, IL	0.00	0.00	0.00	0.00	0.00	0.54	11.52
MISSISSIPPI RIVER AT DUBUQUE, IA	0.00	0.00	0.00	0.00	0.00	1.26	11.33
MISS R AT L & D 22 NR SAVERTON, MO	0.00	0.00	0.00	0.00	0.00	1.43	11.04
SALT CREEK AT 22ND STREET AT OAK BROOK, IL	0.00	0.00	0.00	0.00	0.00	0.75	10.98
DES PLAINES RIVER AT RIVERSIDE, IL	0.00	0.00	0.00	0.00	0.00	0.55	10.95
ROCK RIVER AT BYRON, IL	0.00	0.00	0.00	0.00	0.00	0.80	10.50
MISS R @ L & D 12 AT BELLEVUE, IA	0.00	0.00	0.00	0.00	0.00	1.01	10.32
MILL CREEK NEAR BATAVIA, IL	0.00	0.00	0.00	0.00	0.00	0.72	9.86
DES PLAINES RIVER AT ROMEOVILLE, IL	0.00	0.00	0.00	0.00	0.00	0.47	9.79
CHICAGO HEIGHTS, IL	0.00	0.00	0.00	0.00	0.00	0.72	9.68
TYLER CREEK AT ELGIN, IL	0.00	0.00	0.00	0.00	0.00	0.65	9.54
HARPER COLLEGE AT PALATINE, IL	0.00	0.00	0.00	0.00	0.00	0.30	9.48
FERSON CREEK NEAR ST. CHARLES, IL	0.00	0.00	0.00	0.00	0.00	0.34	9.39
KRESS CREEK AT WEST CHICAGO, IL	0.00	0.00	0.00	0.00	0.00	0.81	9.31
CHICAGO LOCK AT CHICAGO, IL	0.00	0.00	0.00	0.00	0.00	0.02	8.91
LA MOINE RIVER AT RIPLEY, IL	0.00	0.00	0.00	0.00	0.00	2.26	8.91
MISSISSISSPI RIVER AT MUSCATINE, IA	0.00	0.02	0.10	0.10	0.10	2.50	8.50
SANGAMON RIVER NEAR OAKFORD, IL	0.00	0.00	0.00	0.00	0.00	1.21	8.33
NIPPERSINK CREEK NEAR SPRING GROVE, IL	0.00	0.00	0.00	0.00	0.00	0.29	8.17
ILLINOIS RIVER AT HAVANA, IL	0.00	0.00	0.00	0.00	0.00	1.51	7.54
LITTLE CALUMET RIVER AT SOUTH HOLLAND, IL	0.00	0.00	0.00	0.06	0.08	1.33	7.32

Legend (inches)

no data | <=0.01* | <=0.10 | <=0.25 | <=0.5 | <=1.0 | <=1.5 | <=2.0 | <=3.0 | <=4.0 | <=5.0 | <=6.0 | <=8.0 | <=10 | <=15 | <=20 | >20

Streamflow and Watershed Analysis

streamstats.usgs.gov
waterwatch.usgs.gov

Flood Response

Illinois rainfall map
http://il.water.usgs.gov/gmaps/precip/
water.usgs.gov/waternow
water.usgs.gov/wateralert

USGS