

Fusion Forecasting Team

One-Stop Dashboard

(Prototype)

Alex Flanigan
USACE Omaha District

Fusion Team

- Born from 2008 Mississippi Valley Flood
- Better agency coordination
- **Public Input**
 - **“All the water information in 1 location”**

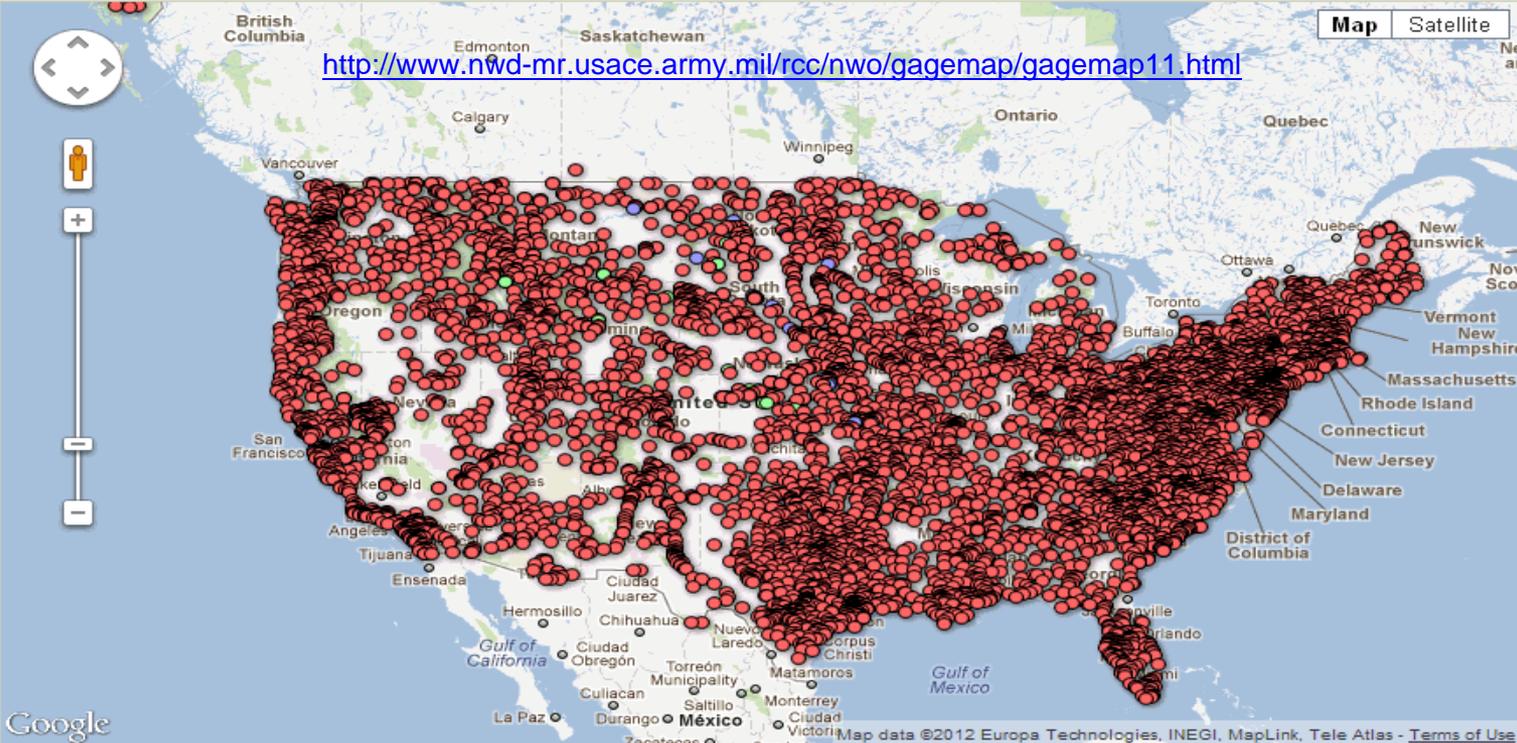
Solution?

- One-Stop Shop for **any** existing data
- Leverage existing databases/websites
- Consolidates familiar products
- Benefit other inter-agency ventures

One-Stop Shop Website

Fusion Team Gage Map

<http://www.nwd-mr.usace.army.mil/rcc/nwo/gagemap/gagemap11.html>



Google

Use ZoomBox Tool-
Hold down the Shift
key while dragging a
box.

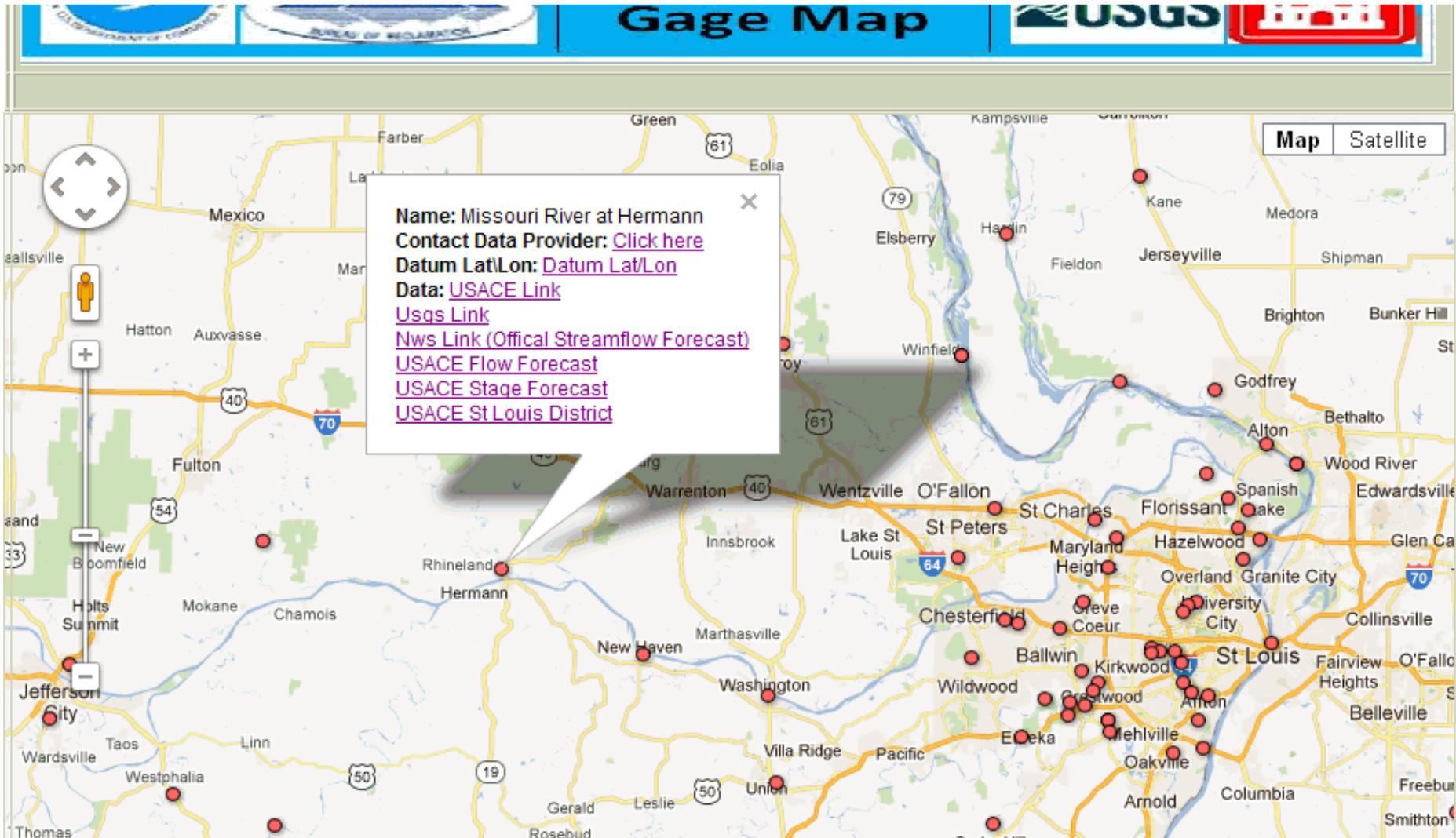
Legend

- Stream Gage
- USACE Reservoir
- USACE Lock and Dam
- Other Reservoir

Other Links:

- [Missouri Basin River Forecast Center](#)
- [HPC Precip Forecast \(QPFs\)](#)
- [CPC 3-Month Forecasts](#)
- [USGS Iowa Stream gages](#)
- [NRCS Mountain Snowpack](#)

Streamgage Site



Contact Data Provider

[News](#) updated November, 2011

USGS Water Data Inquiry: M

Please enter your general or specific question about data collected at the sites in the text box below. The more you include it, will only be used to help us answer your question if possible. Please [see the USGS privacy page](#) for more information on the National Water Information System and please contact us if you have any questions.

(*) = required field.

Send to:

Name:

Organization/company:

Mailing address:

Telephone number:

Email address: (*)

Subject: (*)

Question about sites/data: (*)

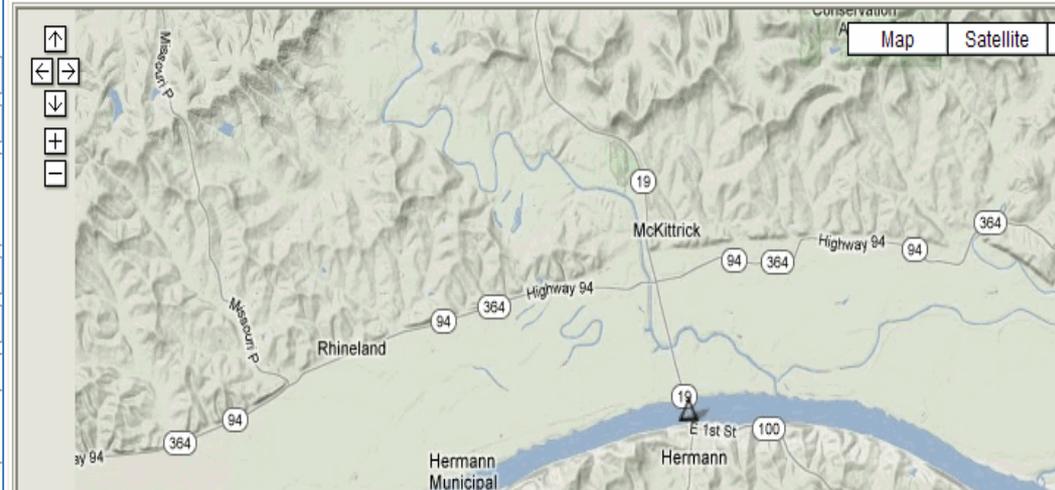
Datum/Lat/Lon

Available data for this site

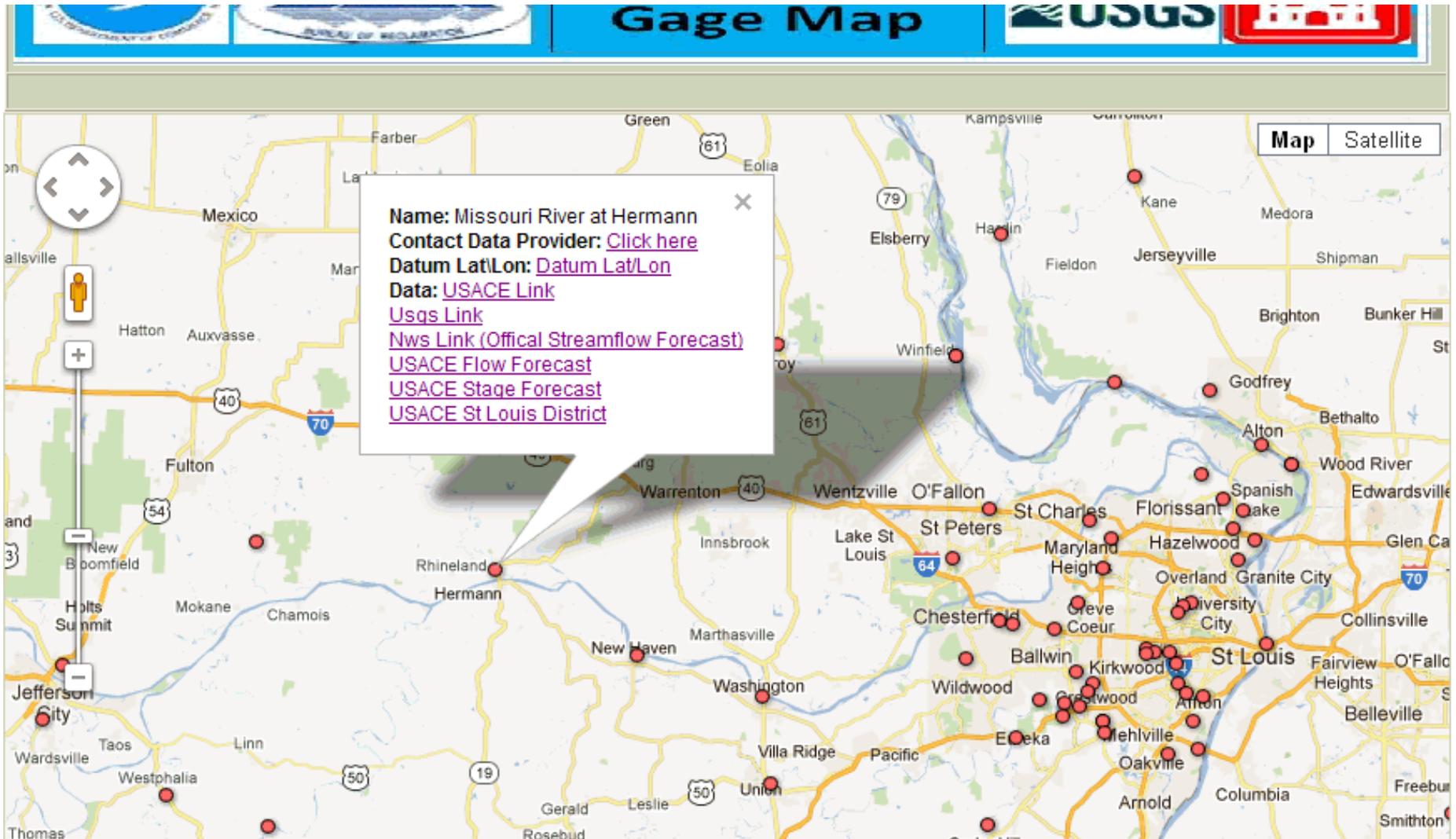
Location map

Montgomery County, Missouri
Hydrologic Unit Code 10300200
Latitude 38°42'35.3", Longitude 91°26'18.6" NAD83
Drainage area 522,500 square miles
Gage datum 481.56 feet above NGVD29

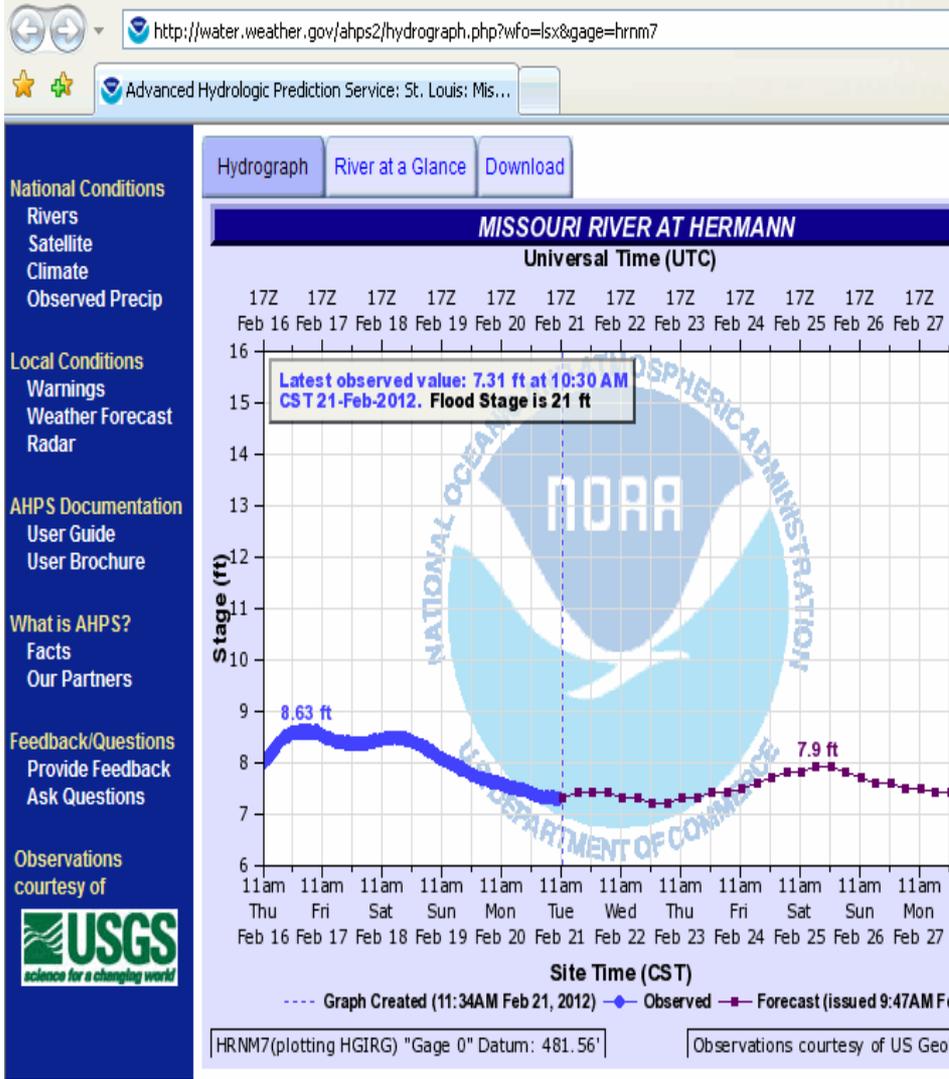
Location of the site in Missouri.



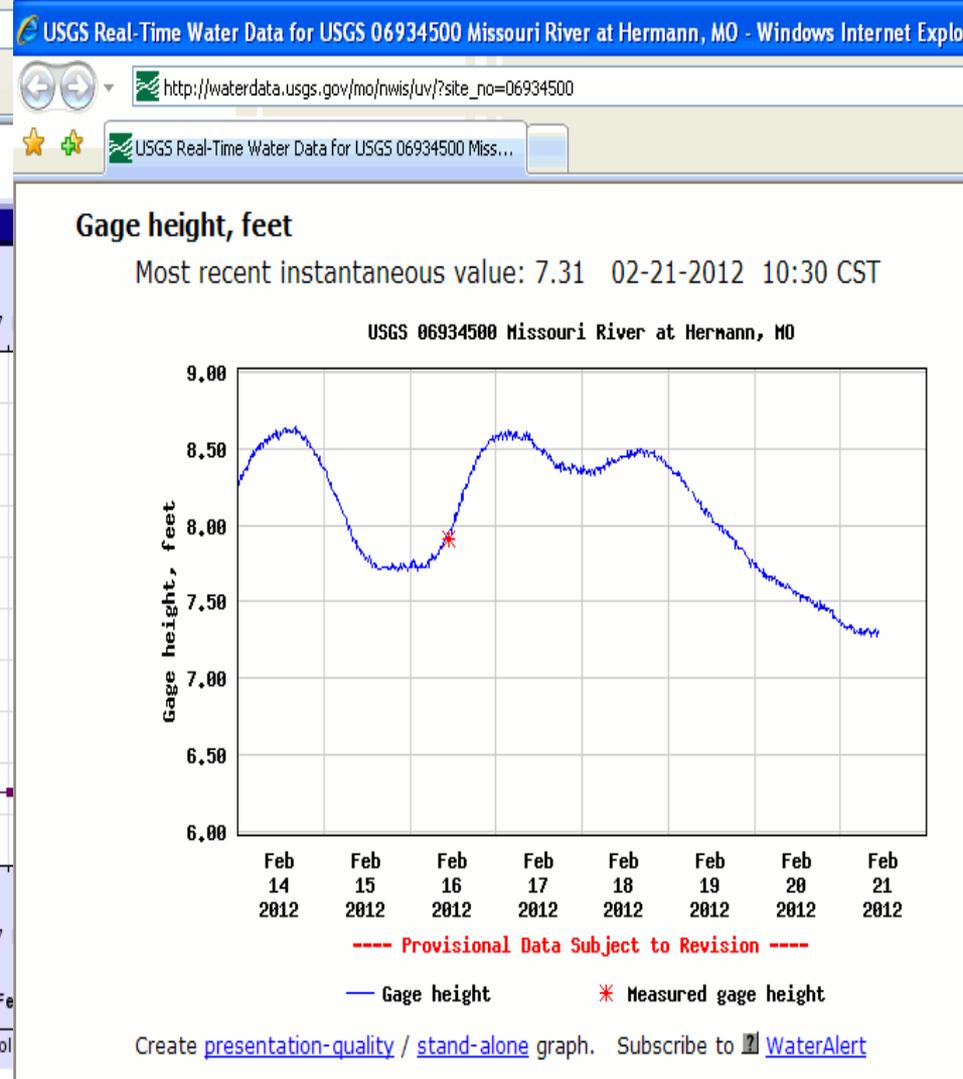
Streamgage Site



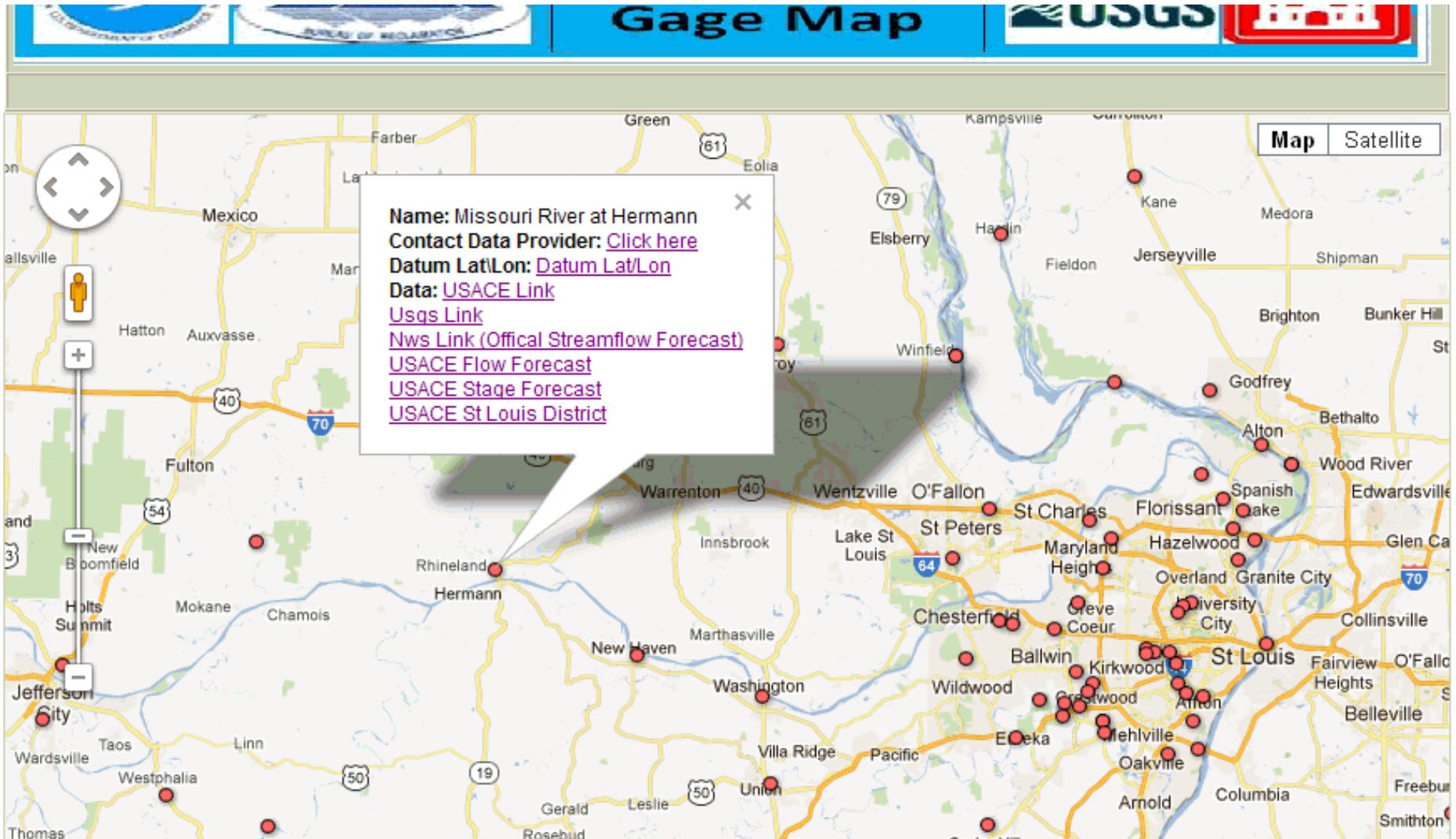
NWS Data



USGS Data



Streamgage Site



Corps Data

St. Louis District



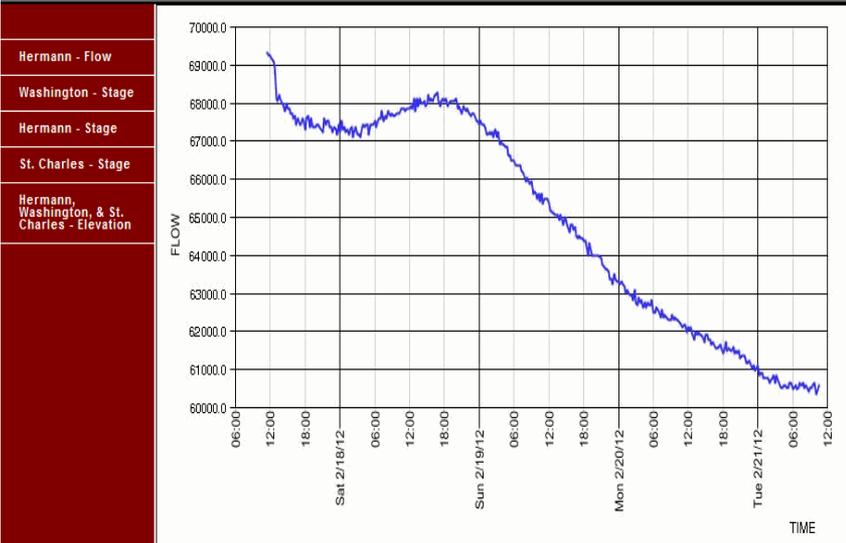
US Army Corps of Engineers

St. Louis District

BUILDING STRO

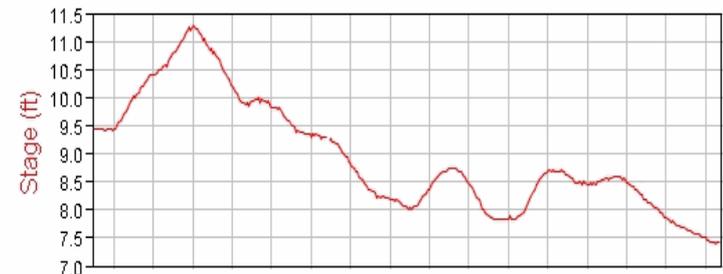
Missouri River

February 21, 2012



Kansas City District

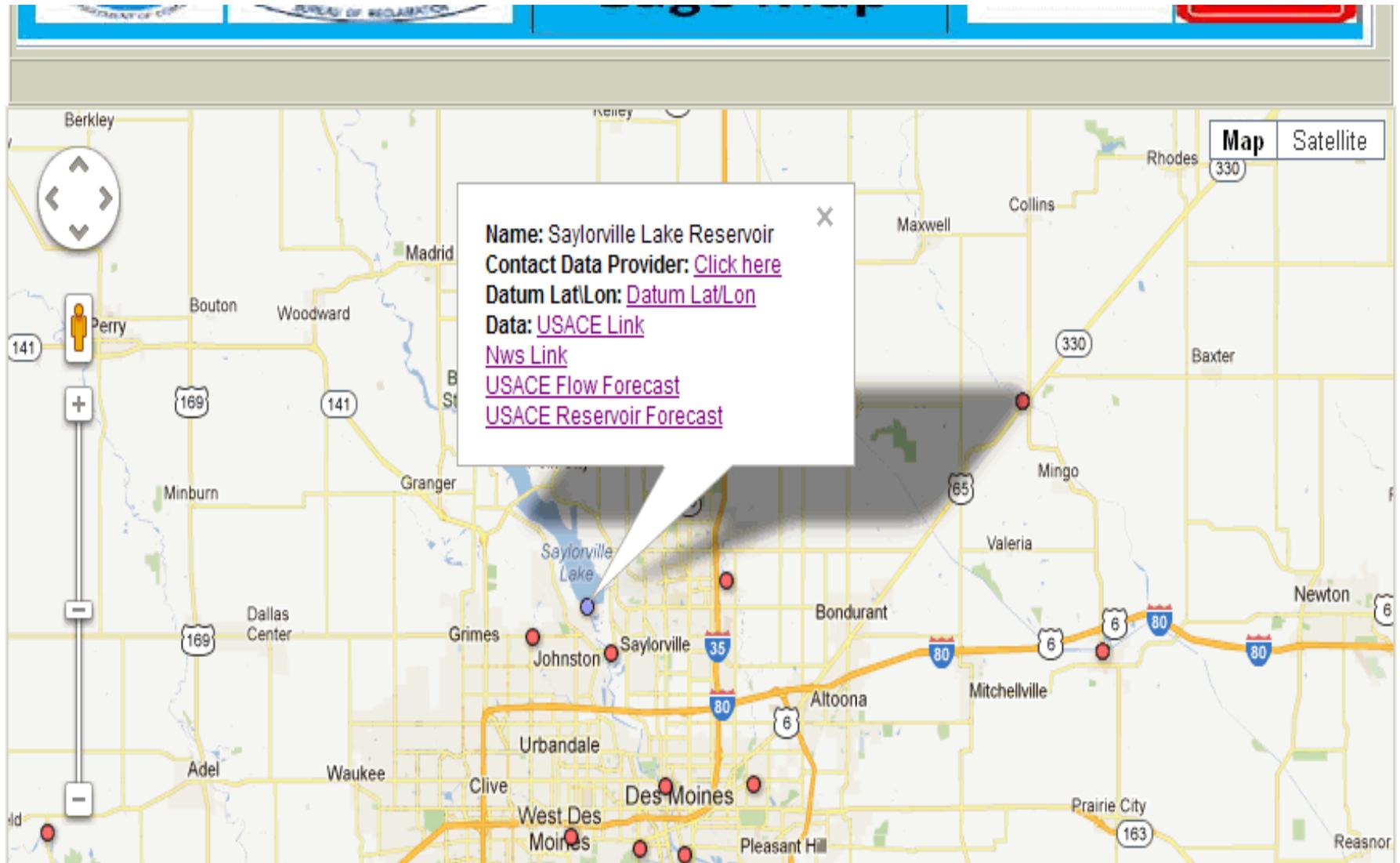
Missouri River at Hermann, MO; FS = 21'



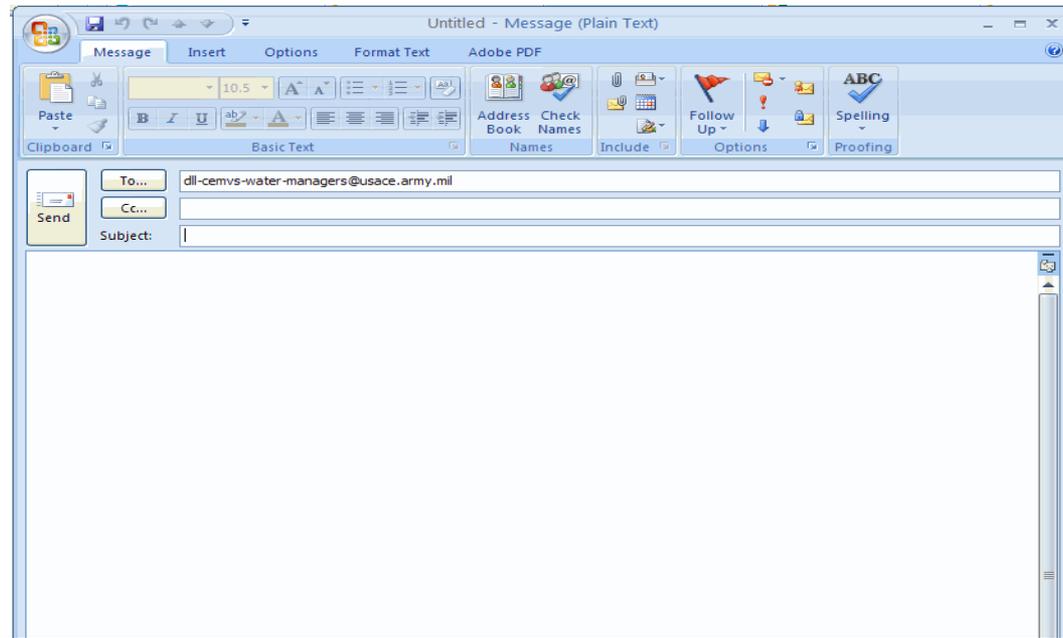
— HEMO Combined-rev Stage

— HEMO Combined-rev Flow

Reservoir Data



MVR Contact Data Provider



COE Datum/ Lat/Lon

RIVERGAGES.COM
Water Levels of Rivers and Lakes

US Army Corps of Engineers

Home Search This Site Related Websites Data Mining Glossary Reports Who We Are Contact Us

Water Levels By:
Choose An Option

National Weather Service Products

Bookmark

Google Earth [What's This?](#) Google Map

Saylorville Lake Reservoir

Stream Name: Des Moines River
Gage Zero: 0 Ft. NGVD29
Record High Stage: 892.03 Ft.

Longitude: -93.68917000
Latitude: 41.70361000
River Mile: 213.7 miles above the mouth of the Des Moines River
Record High Stage Date: 07/11/1993

Drainage Area : 5823.00 Mi²
Location of Gage :

Located in Polk County, IA. 3.2 miles northwest of Saylorville and 4.2 miles upstream from Beaver Creek.

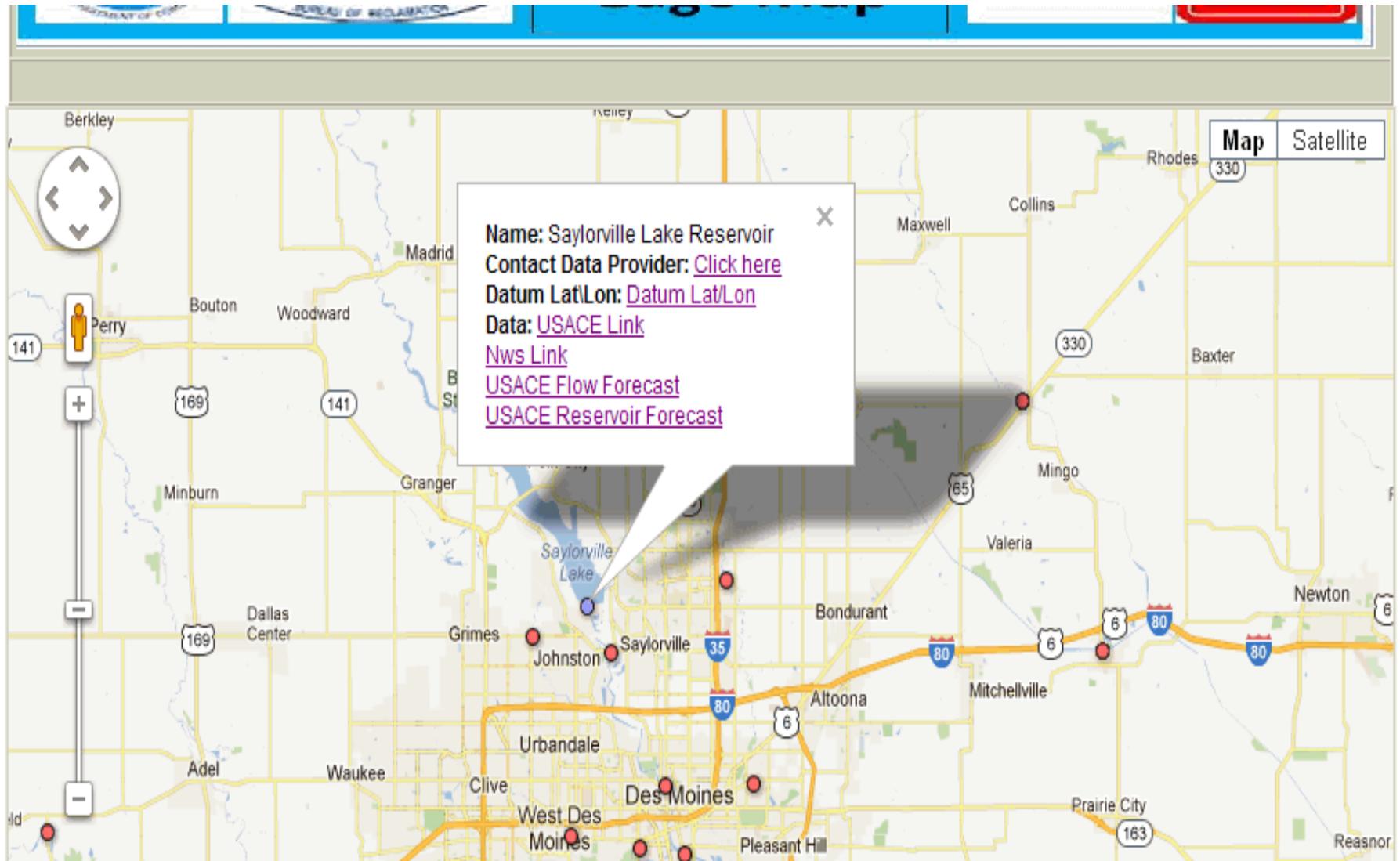
The Saylorville Lake Reservoir Forecast can be found here:

<http://www2.mvr.usace.army.mil/WaterControl/Districts/MVR/Forecast/sayforecast.html>

The National Weather Service information is also linked in the Additional Links for this station.

This gage is operated by the US Army Corps of Engineers (Rock Island District).

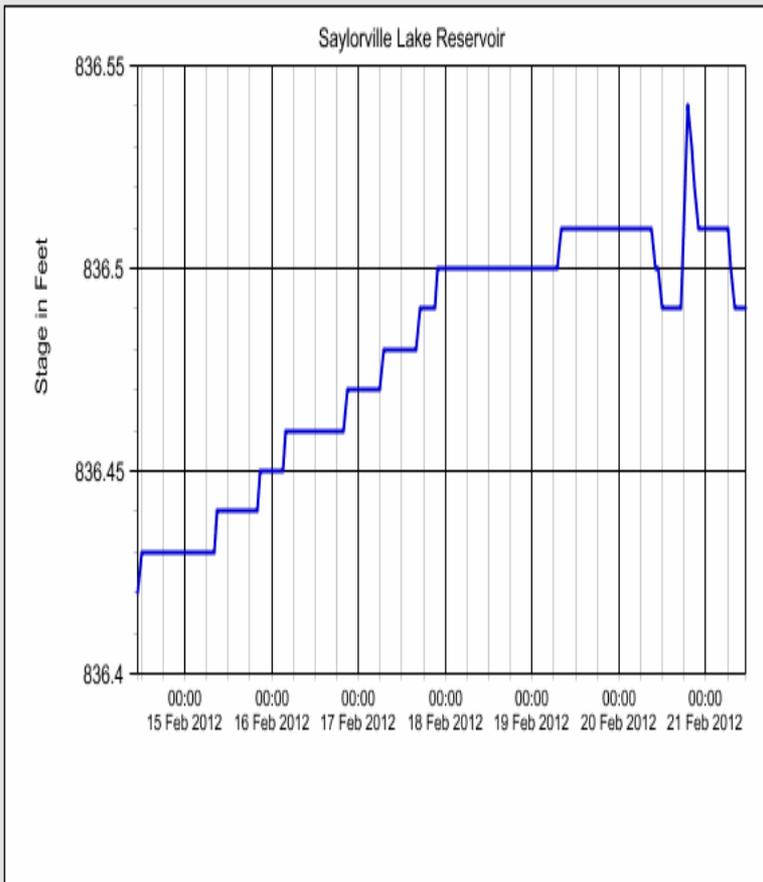
USACE Reservoir Data



COE Data

NWS Data

Saylorville Lake Reservoir
(Central Time Zone)



Record High Stage
 On Off

Normal Conservation Pool
 On Off

Spillway Crest
 On Off

Historic Year
 None

Hydrologic Prediction Service: Des Moines: Des Moines River at Saylorville Reservoir - Windows Internet Exp

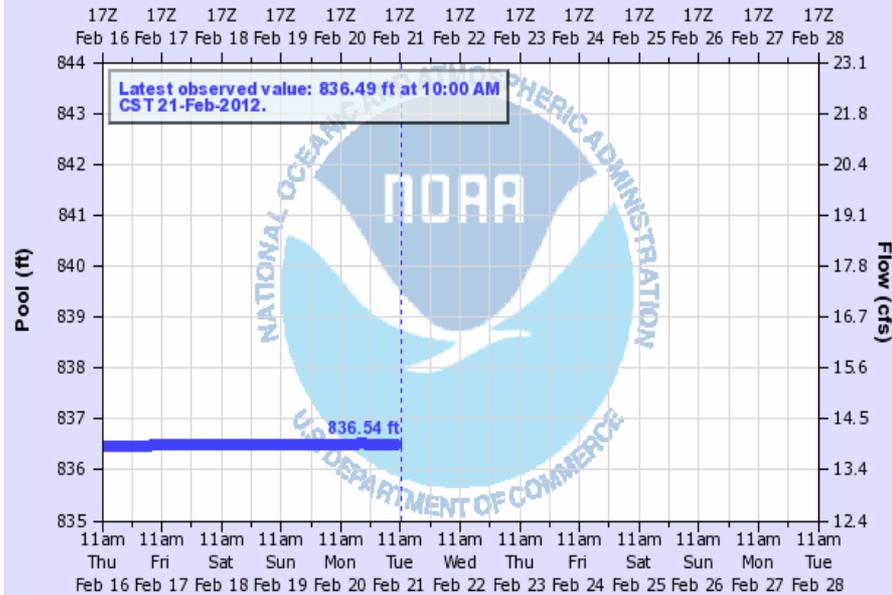
http://water.weather.gov/ahps2/hydrograph.php?wfo=dmx&gage=sayi4

Hydrologic Prediction Service: Des Moines: ...

Hydrograph River at a Glance Download

DES MOINES RIVER AT SAYLORVILLE RESERVOIR

Universal Time (UTC)

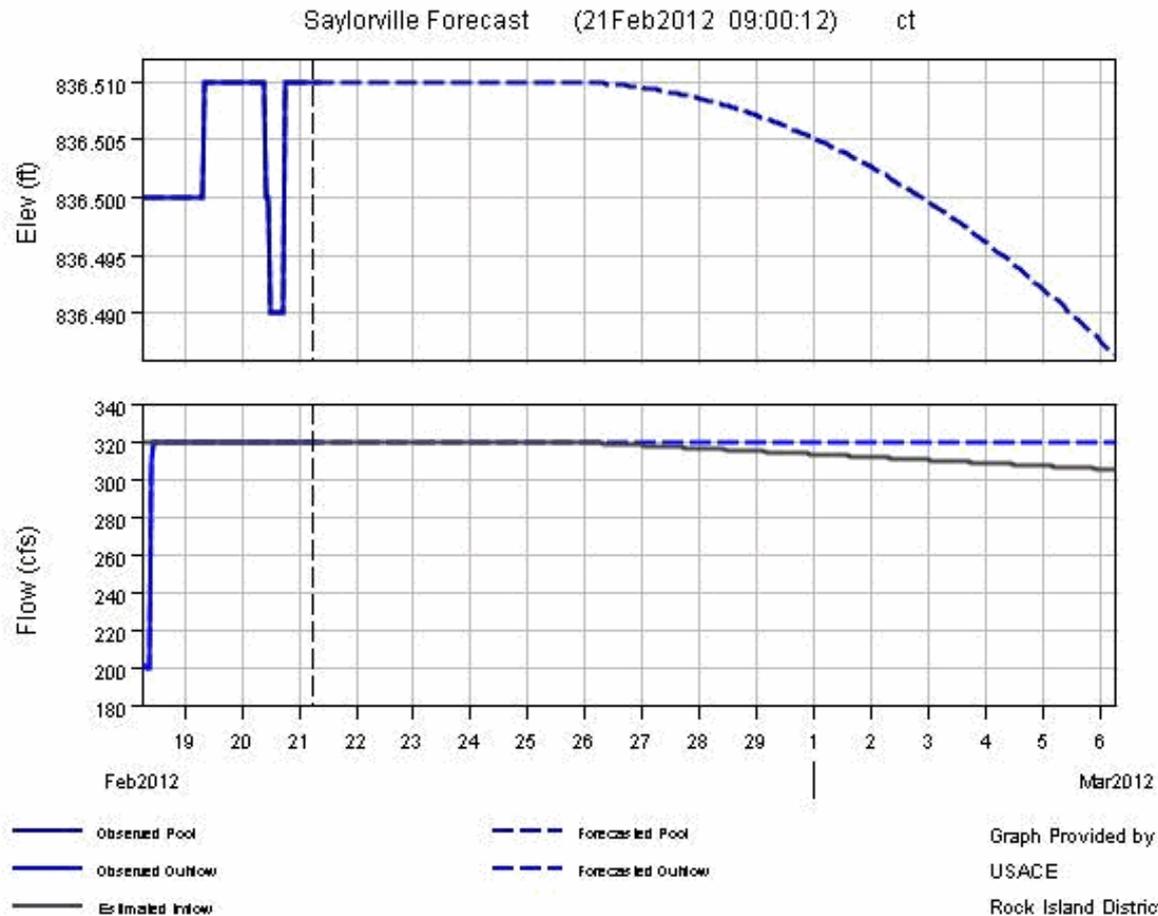


SAYI4(plotting HPIRG) "Gage 0" Datum: n/a

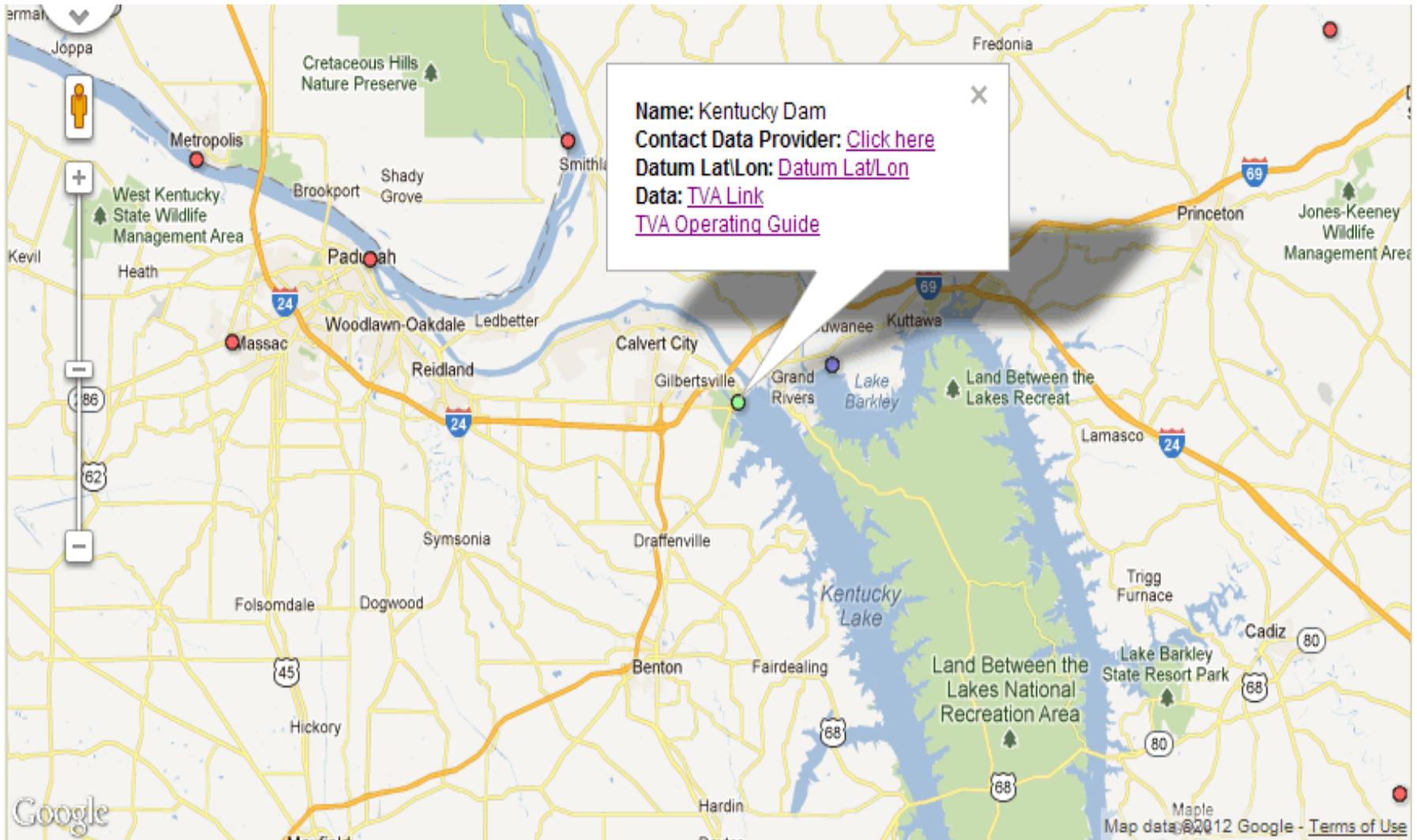
Observations courtesy of US Army Corps of Engineers

Reservoir Forecasts

Saylorville Lake Forecast



Non – Corps Reservoir



Non – Corps Reservoir Data

Kentucky

Latest Operating Information

Please note! Water release schedules often change without notice due to unanticipated changes in weather conditions and power system requirements.

Use caution near dams. A large amount of water may be discharged without warning at any time. Your safety depends on obeying all posted safety regulations and warnings. [Learn more.](#)

Generation Releases

Day	Time Period (Central)	Generators
2/29/2012	7am - midnight	4 or more

Observed Data

Day	Time (Central)	Upstream Elevation	Tailwater Elevation (below dam)*	Average Hourly Discharge*
2/28/2012	11 pm	355.63	306.20	60,607
2/28/2012	midnight	355.69	306.45	60,543
2/29/2012	1 am	355.70	306.34	60,625
2/29/2012	2 am	355.65	306.33	60,833
2/29/2012	3 am	355.62	306.44	60,881
2/29/2012	4 am	355.64	306.64	61,075
2/29/2012	5 am	355.65	306.44	61,077
2/29/2012	6 am	355.63	306.58	61,752

*Elevations are in feet above sea level. Discharges are in cubic feet per second and are reported at the end of the hour.

Other Links

- Links can go **anywhere** on web
- **Any** Existing Website

Inter-Agency Cooperation

- **Huge** Task
- Gives us a Baby-step
- Bridge to future development

? Questions / Discussion ?

- Alex Flanigan

Water Control Section

USACE Omaha District

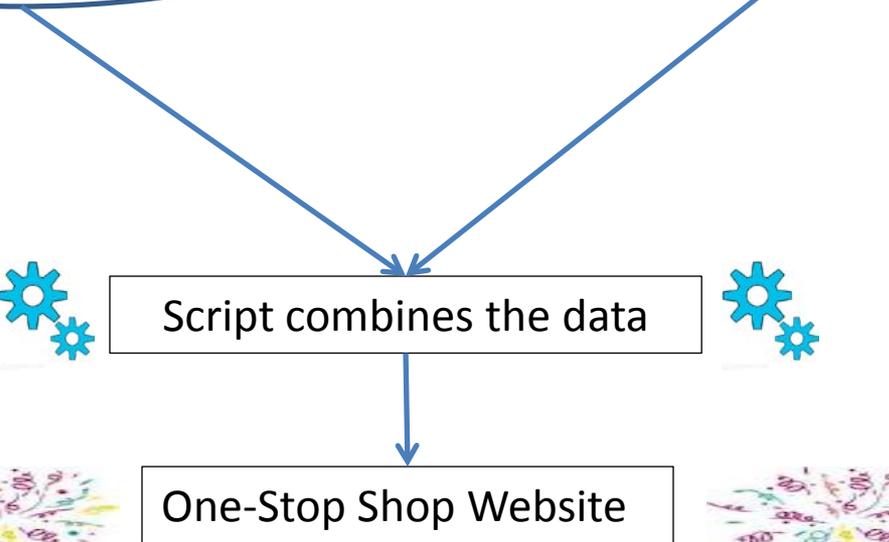
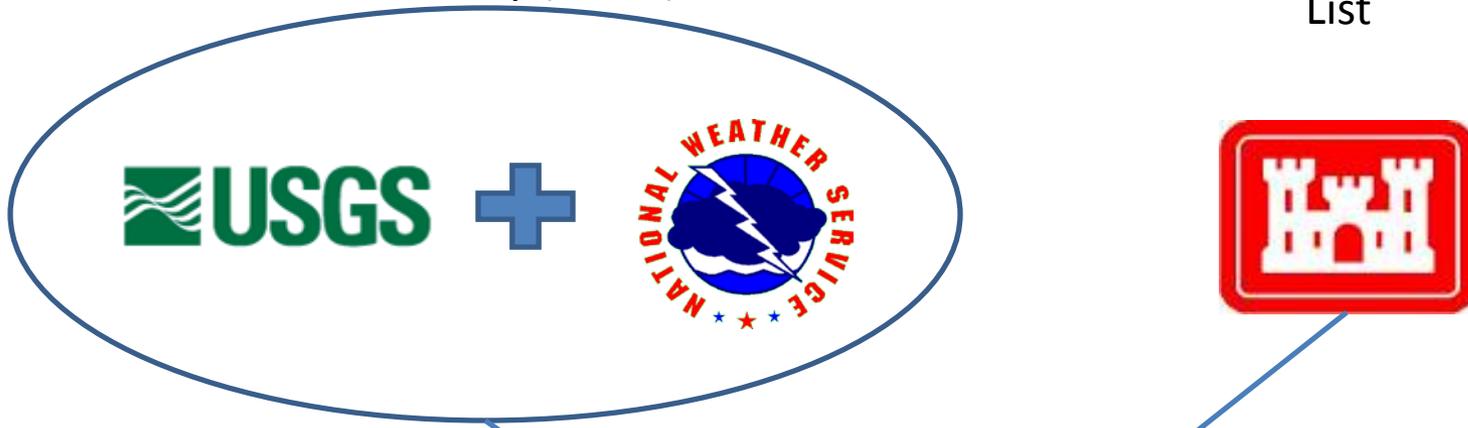
402-995-2315

Alexander.J.Flanigan@usace.army.mil

Solution?

NOAA combines NWS and USGS Data
Automatically (HADS)

Corps Districts Populate Customizable
List

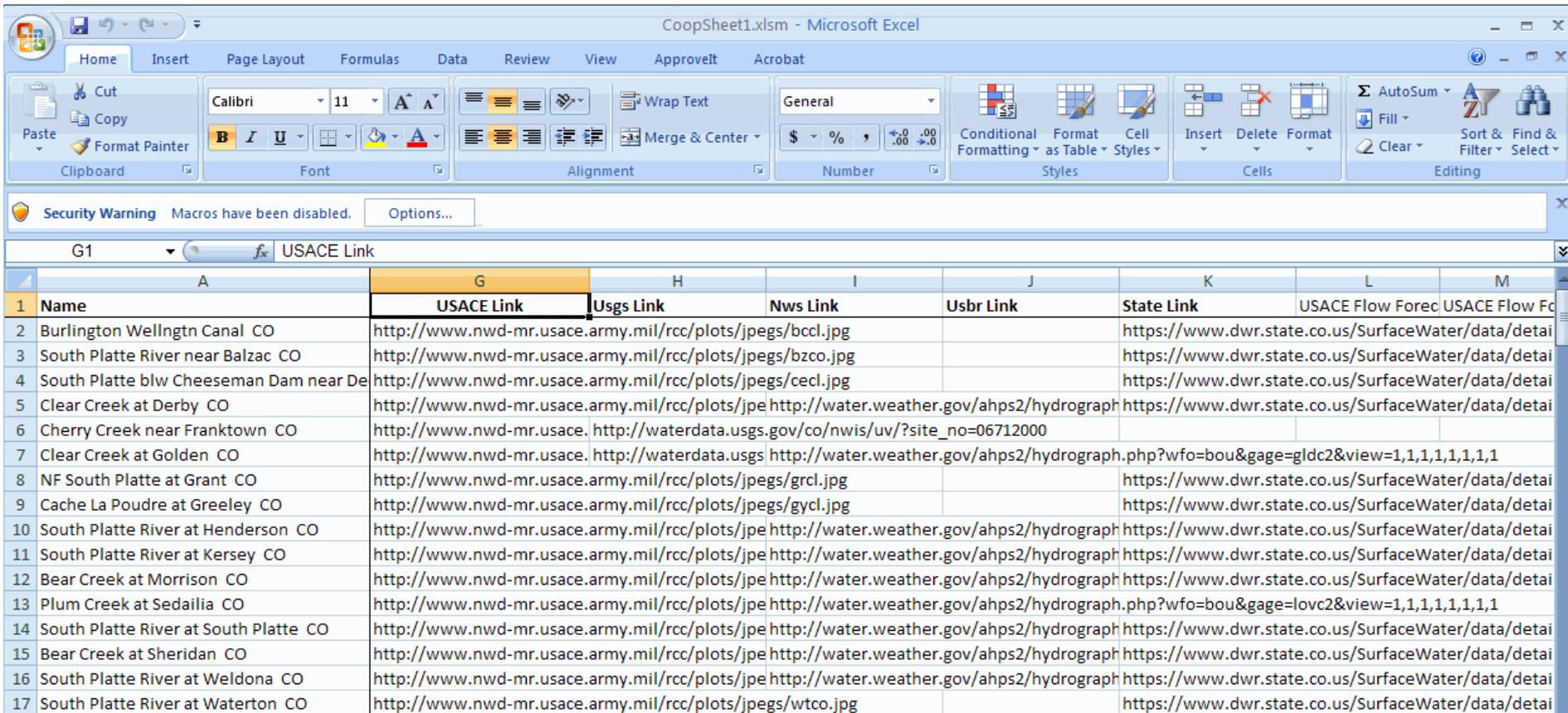


Water Website Sidekick

- ~~Magic Johnson and Larry Bird~~
- ★ Michael Jordan and Scottie Pippen ★
- Technology could benefit a current water website
- Enhance website value to stakeholders and citizens
- WaterWatch, CorpsMap, NWIS Mapper, etc.

Collecting Corps Data

Corps Districts Populate List (One Time)

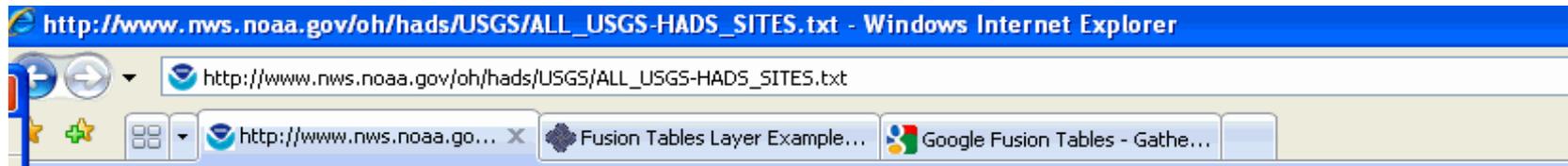


The screenshot shows a Microsoft Excel spreadsheet titled "CoopSheet1.xlsm". The ribbon includes Home, Insert, Page Layout, Formulas, Data, Review, View, ApproveIt, and Acrobat. A security warning states "Macros have been disabled." The spreadsheet contains a table with the following data:

	A	G	H	I	J	K	L	M
1	Name	USACE Link	Usgs Link	Nws Link	Usbr Link	State Link	USACE Flow Forec	USACE Flow Fc
2	Burlington WellIngtN Canal CO	http://www.nwd-mr.usace.army.mil/rcc/plots/jpegs/bccl.jpg				https://www.dwr.state.co.us/SurfaceWater/data/detai		
3	South Platte River near Balzac CO	http://www.nwd-mr.usace.army.mil/rcc/plots/jpegs/bzco.jpg				https://www.dwr.state.co.us/SurfaceWater/data/detai		
4	South Platte blw Cheeseman Dam near De	http://www.nwd-mr.usace.army.mil/rcc/plots/jpegs/cecl.jpg				https://www.dwr.state.co.us/SurfaceWater/data/detai		
5	Clear Creek at Derby CO	http://www.nwd-mr.usace.army.mil/rcc/plots/jpe		http://water.weather.gov/ahps2/hydrograph		https://www.dwr.state.co.us/SurfaceWater/data/detai		
6	Cherry Creek near Franktown CO	http://www.nwd-mr.usace	http://waterdata.usgs.gov/co/nwis/uv/?site_no=06712000					
7	Clear Creek at Golden CO	http://www.nwd-mr.usace	http://waterdata.usgs	http://water.weather.gov/ahps2/hydrograph.php?wfo=bou&gage=glc2&view=1,1,1,1,1,1,1				
8	NF South Platte at Grant CO	http://www.nwd-mr.usace.army.mil/rcc/plots/jpegs/grcl.jpg				https://www.dwr.state.co.us/SurfaceWater/data/detai		
9	Cache La Poudre at Greeley CO	http://www.nwd-mr.usace.army.mil/rcc/plots/jpegs/gycl.jpg				https://www.dwr.state.co.us/SurfaceWater/data/detai		
10	South Platte River at Henderson CO	http://www.nwd-mr.usace.army.mil/rcc/plots/jpe		http://water.weather.gov/ahps2/hydrograph		https://www.dwr.state.co.us/SurfaceWater/data/detai		
11	South Platte River at Kersey CO	http://www.nwd-mr.usace.army.mil/rcc/plots/jpe		http://water.weather.gov/ahps2/hydrograph		https://www.dwr.state.co.us/SurfaceWater/data/detai		
12	Bear Creek at Morrison CO	http://www.nwd-mr.usace.army.mil/rcc/plots/jpe		http://water.weather.gov/ahps2/hydrograph		https://www.dwr.state.co.us/SurfaceWater/data/detai		
13	Plum Creek at Sedallia CO	http://www.nwd-mr.usace.army.mil/rcc/plots/jpe		http://water.weather.gov/ahps2/hydrograph		https://www.dwr.state.co.us/SurfaceWater/data/detai		
14	South Platte River at South Platte CO	http://www.nwd-mr.usace.army.mil/rcc/plots/jpe		http://water.weather.gov/ahps2/hydrograph		https://www.dwr.state.co.us/SurfaceWater/data/detai		
15	Bear Creek at Sheridan CO	http://www.nwd-mr.usace.army.mil/rcc/plots/jpe		http://water.weather.gov/ahps2/hydrograph		https://www.dwr.state.co.us/SurfaceWater/data/detai		
16	South Platte River at Weldona CO	http://www.nwd-mr.usace.army.mil/rcc/plots/jpe		http://water.weather.gov/ahps2/hydrograph		https://www.dwr.state.co.us/SurfaceWater/data/detai		
17	South Platte River at Waterton CO	http://www.nwd-mr.usace.army.mil/rcc/plots/jpegs/wtco.jpg				https://www.dwr.state.co.us/SurfaceWater/data/detai		

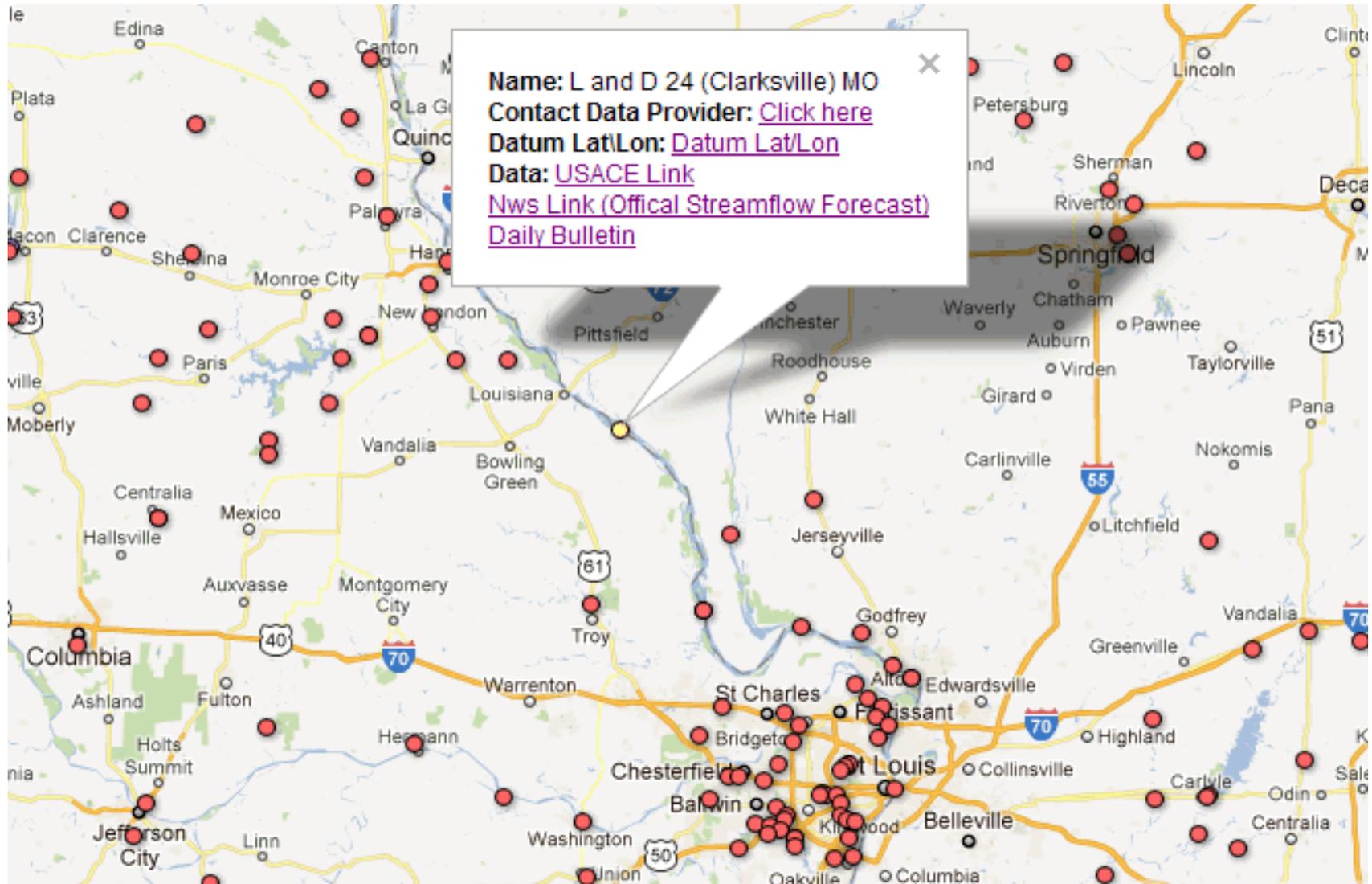
Collecting USGS/NWS Data

- USGS / NWS Data
 - Automatically Compiled



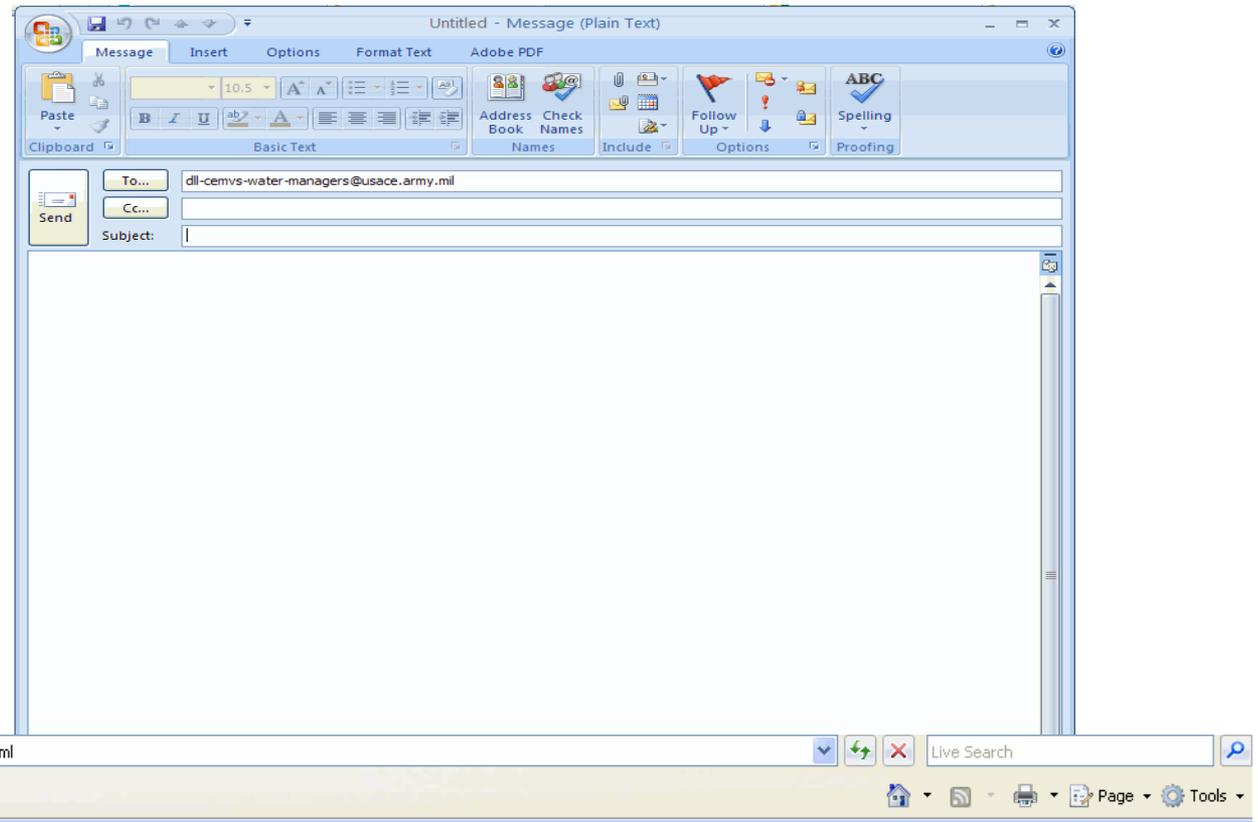
NWS	USGS					
5 CHR	STATION	GOES	NWS	LATITUDE	LONGITUDE	LOCATION
IDENT	NUMBER	IDENTIFR	HSA	dd mm ss	ddd mm ss	NAME
ALNA2	15301500	171B07DC	AFC	60 09 00	-158 44 00	ALLEN R NR ALEKNAGIK
APTA2	15239900	DD20B5D0	AFC	59 44 50	-151 45 11	ANCHOR R NR ANCHOR POINT AK
BATA2	15238986	17332478	AFC	59 45 44	-150 57 11	BATTLE C 1.0 MI AB MOUTH NR HOMER AK
BCGA2	15238982	1733419E	AFC	59 44 19	-150 53 49	BATTLE CREEK BL GLACIER NR HOMER AK
BLOA2	15297584	1712428A	AFC	56 24 54	-158 56 22	BLACK LK AB OUTLET NR CHIGNIK LAKE AK
BNZA2	15209750	173A91AA	AFC	61 29 39	-142 52 54	BONANZA C NR MC CARTHY AK
BRKA2	15300100	DD9ED596	AFC	59 49 28	-154 52 56	BEAR C NR ILIAMNA AK
BRMA2	15239050	DE0B45F4	AFC	59 46 42	-150 45 15	MF BRADLEY R NR HOMER AK
BRNA2	15239060	17DC771C	AFC	59 47 54	-150 51 48	MF BRADLEY R BL NF BRADLEY R NR HOMER AK
BRRA2	15239001	17DC8798	AFC	59 45 30	-150 51 02	BRADLEY R BL DAM NR HOMER AK
BRTA2	15239070	1711809A	AFC	59 48 06	-150 52 58	BRADLEY R NR TIDEWATER NR HOMER AK
BRUA2	15238990	17DCA174	AFC	59 42 02	-150 42 09	UPPER BRADLEY R NR NUKA GLACIER NR HOMER AK
CCPA2	15300320	17126466	AFC	59 42 16	-153 42 36	CHINKELYES C BL SUMMIT LK NR PEDRO BAY AK
CESA2	15274600	DDCD95D0	AFC	61 08 22	-149 55 24	CAMPBELL C NR SPENARD AK
CHLA2	15511000	DDC625F6	AFC	64 53 10	-147 14 50	L CHENA R NR FAIRBANKS AK
CHRA2	15275100	DDCDA04A	AFC	61 12 19	-149 53 43	CHESTER C AT ARCTIC BOULEVARD AT ANCHORAGE AK
CJXA2	15304000	172F7206	AFC	61 52 10	-158 06 41	KUSKOKWIM R AT CROOKED CREEK AK

USACE Lock and Dam Site



MVS Contact Data Provider

COE Datum/ Lat/Lon



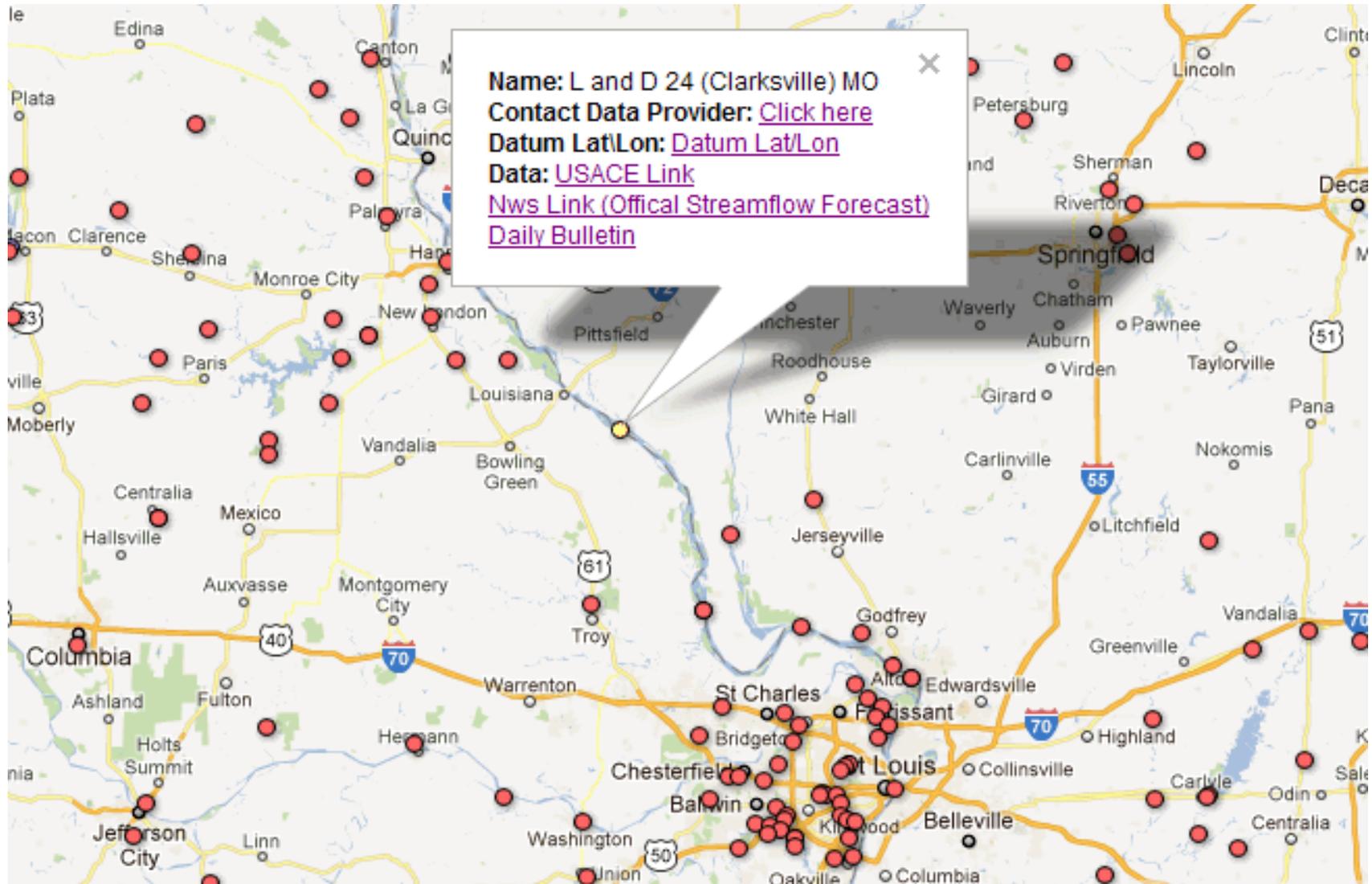
ALL VALUES RECORDED AT 8AM. ELEVATION IN FT:



[Return to Gage Page](#)

 [Google Earth Geo Referenced Position](#)

USACE Lock and Dam Site



MVS Daily Bulletin

Mississippi Ohio Salt Cuivre Illinois Missouri Meramec Kaskaskia Big Muddy Castor
 St. Francis



Plot Macros

Mississippi River (St. Louis District)

Gage	Stage (24hr)	Flow (24hr)	Precip		WQ/Temp (24hr)	River Mile	Datum	Flood Level	Records
			6hr	24hr					
L&D 19 (Keokuk), IA	<input type="button" value="POOL"/> <hr/> <input type="button" value="TW"/> 517.92 ft (-0.17) <small>01-18-2012 10:00</small> <hr/> 482.06 ft (-0.66) <small>01-18-2012 10:00</small>	-	-	-	-	364.20	MSL 1912	493.83	
L&D 20 (Canton), MO	<input type="button" value="POOL"/> <hr/> <input type="button" value="TW"/> 12.30 ft (-1.07) <small>01-18-2012 8:00</small> <hr/> 3.17 ft (0.18) <small>01-18-2012 8:00</small>	-	-	-	-	343.20	MSL 1912	14.00	
L&D 21 (Quincy), IL	<input type="button" value="POOL"/> <hr/> <input type="button" value="TW"/> 12.35 ft (-0.56) <small>01-18-2012 10:00</small> <hr/> 3.27 ft (0.47) <small>01-18-2012 10:00</small>	-	-	-	-	324.90	MSL 1912	17.00	
Hannibal, MO	10.33 ft (0.06) <small>01-18-2012 10:15</small>	-	<input type="button" value="0.00"/> <input type="button" value="0.00"/> 28.66 in <small>01-18-2012 10:15</small>	-	-	309.00	NGVD 29	16.00	
L&D 22 (Saverton), MO	<input type="button" value="POOL"/> <hr/> <input type="button" value="TW"/> 13.20 ft (-0.22) <small>01-18-2012 10:00</small> <hr/> 3.81 ft (-0.38) <small>01-18-2012 11:00</small>	42770 cfs (7280) <small>01-18-2012 10:00</small> COE-MVR	<input type="button" value="0.00"/> <input type="button" value="0.01"/> 37.93 in <small>01-18-2012 11:00</small>	33.00 F (-1.00) <small>01-18-2012 6:00</small> Temp-Water OMNI <hr/> 13.00 F (-23.00) <small>01-18-2012 6:00</small>	301.20	NGVD 29	16.00	29.46 ft <small>25JUL1993 TW MAX</small> -2.90 ft <small>01JAN1940 TW MIN</small>	