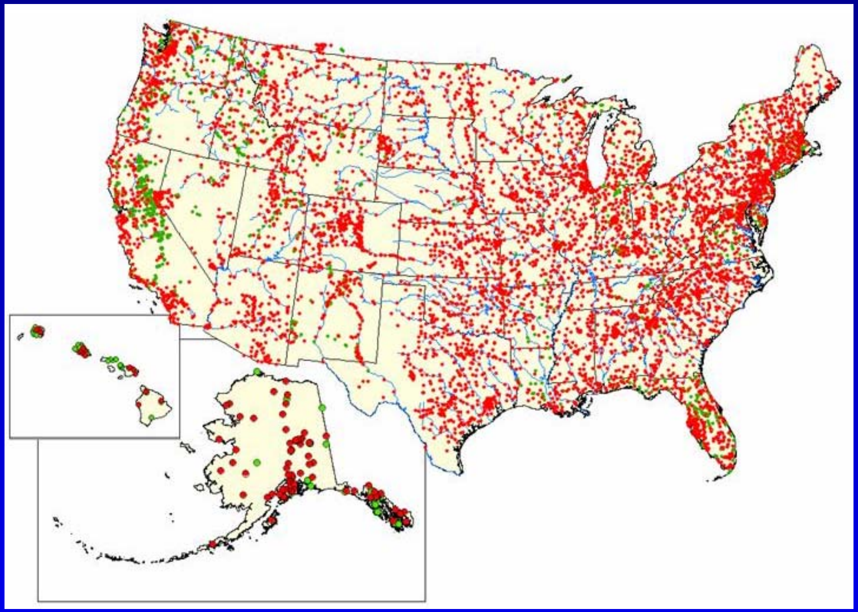
The USGS Streamgaging Program and Related Activities

Steve Blanchard
Chief, Office of Surface Water
703-648-5629
sfblanch@usgs.gov

USGS National Streamgaging Program



Streamgage Network

7,500 streamgages
97 % real-time

$136.6M per year

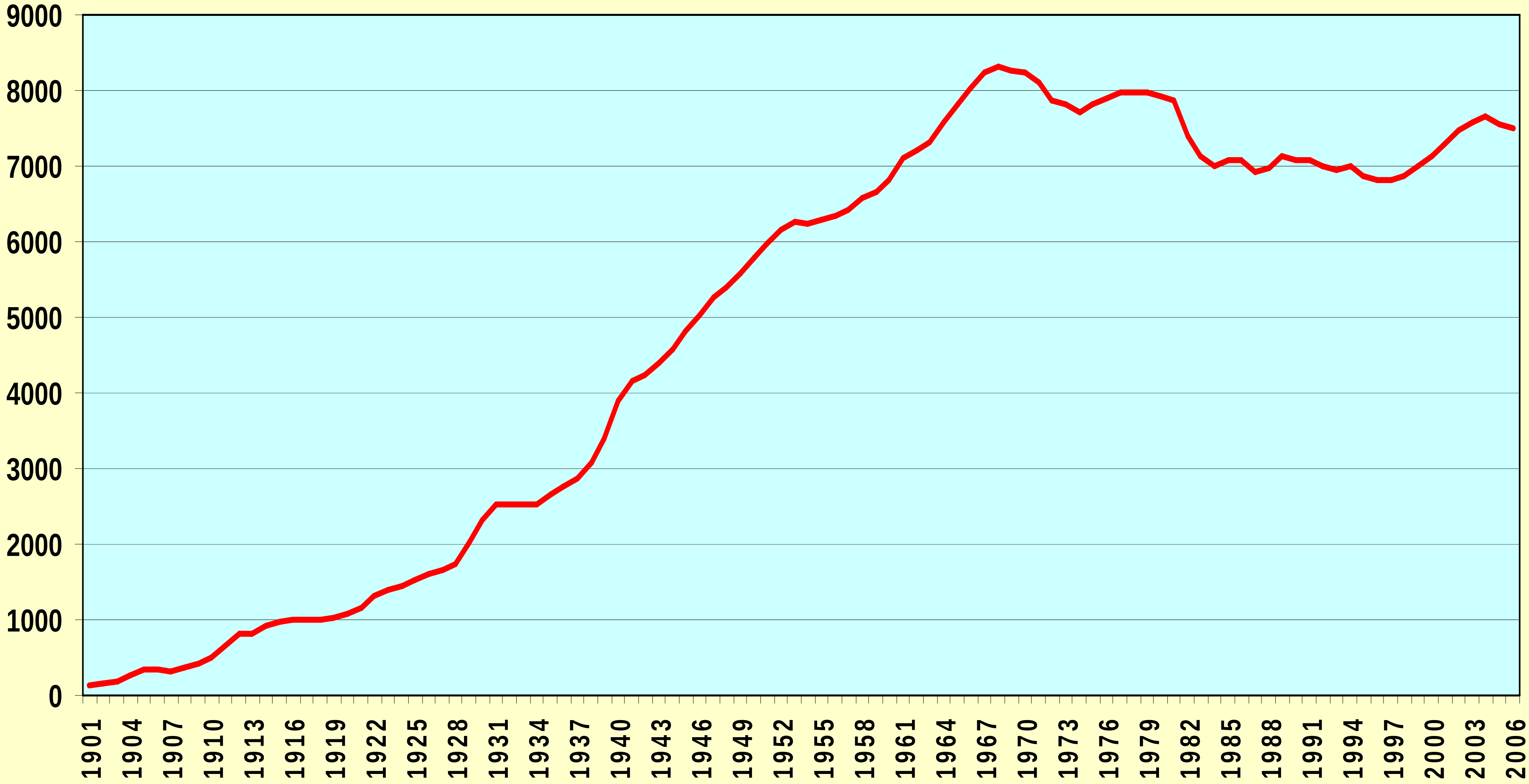
850+ Cooperators

Funding Sources (2008)

State / Local agencies ($63.8M)	46%
Other Federal agencies ($28.5M)	21%
USGS Cooperative Water Program ($24.2M)	18%
USGS NSIP ($20.1M)	15%

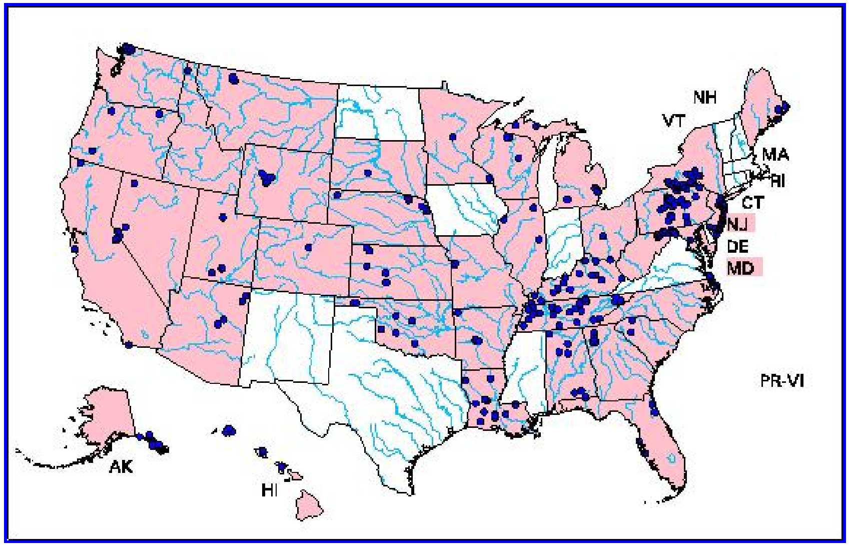
Number of Active USGS Streamgages

1901 - 2006



USGS Nationwide List of Threatened Streamgages

The following streamgages have been discontinued or are being considered for discontinuation or for conversion from continuous record discharge to stage-only st
is the lack of funding to support the continued operation of the streamgages. Funds for these streamgages are from the U.S. Geological Survey and other Federal
streamgages that have already been discontinued, extensive efforts were made to find another funding source; however, when no funding was made available the
those streamgages at risk for discontinuation, the current funding source has indicated that it can no longer fund the streamgage. Efforts are currently underway
operation of these streamgages; however, if no funding is identified, then these streamgages will have to be discontinued also. If you have questions about speci
contact the individual identified for each State. If you have questions about the US Geological Survey National Streamflow Information Program in general please
mnorris@usgs.gov) or Steve Blanchard (703-648-5629; sfblanch@usgs.gov).



Click on a State to see State map.

Alaska
Alabama
Arizona
Arkansas
California
Colorado
Florida
Georgia
Hawaii
Idaho
Illinois
Kansas
Kentucky
Louisiana
Maine
Michigan
Minnesota
Missouri
Montana
Nebraska
Nevada
New Jersey
New York
North Carolina
Ohio
Oklahoma
Oregon
Pennsylvania
South Carolina
South Dakota
Tennessee
Utah
Washington
Wisconsin
Wyoming

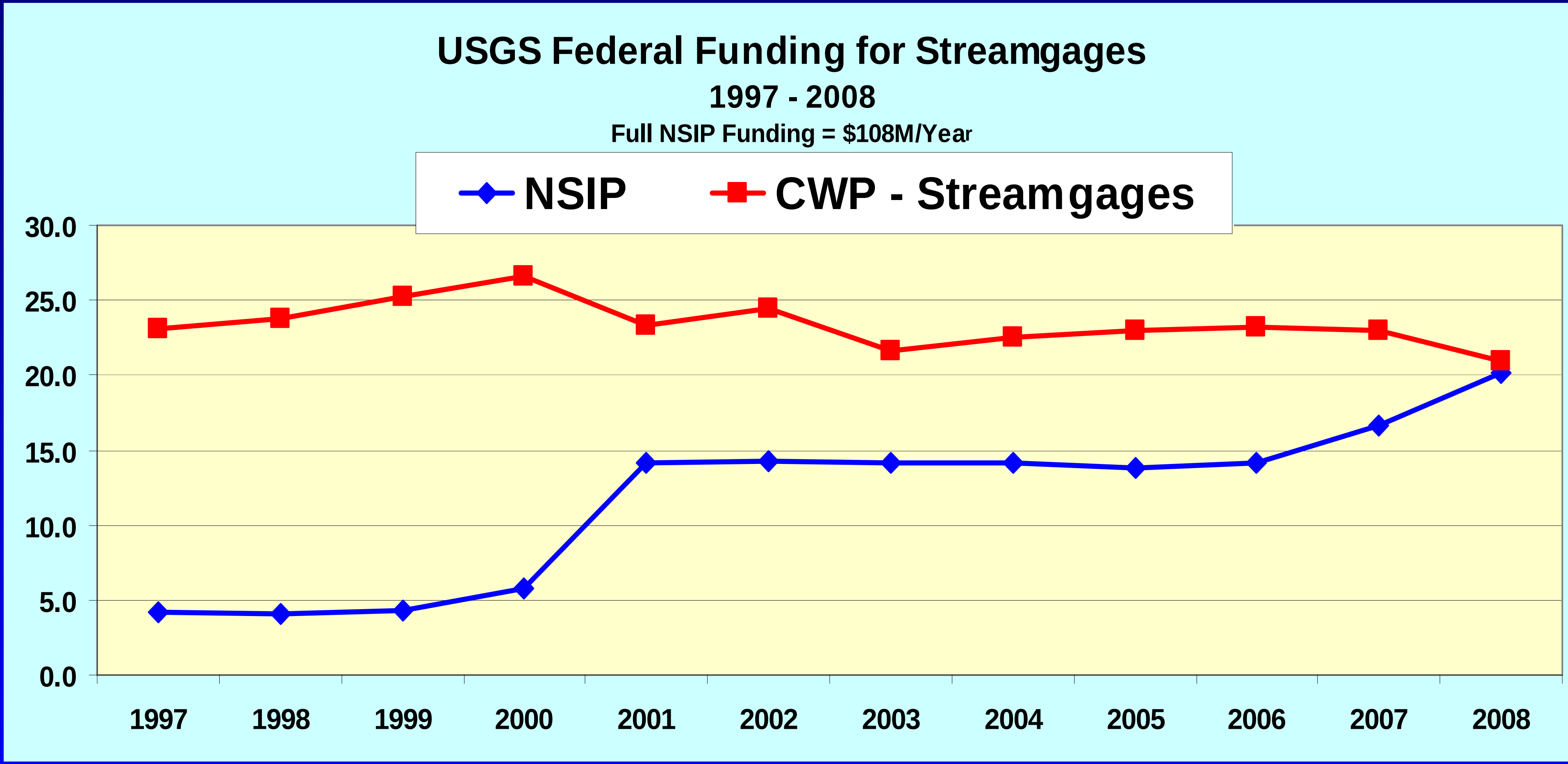
Pennsylvania

If you have questions about specific streamgages or would like additional information, please contact Bob Hainly (717-730-6971, rahainly@usgs.gov).

Gage Number	Stream Gage Name	Length of Record	Comment
01516350	Tioga River near Mansfield, PA	33 years	May be discontinued October 1, 2008 due to funding reductions from partner agencies.
01518000	Tioga River at Tioga, PA	71 years	May be discontinued October 1, 2008 due to funding reductions from partner agencies.
01518420	Crooked Creek at Middlebury Center, PA	23 years	May be discontinued October 1, 2008 due to funding reductions from partner agencies.
01519200	Cowanesque River at Elkland, PA	28 years	May be discontinued October 1, 2008 due to funding reductions from partner agencies.
01520000	Cowanesque River near Lawrenceville, PA	58 years	May be discontinued October 1, 2008 due to funding reductions from partner agencies.
01531500	Susquehanna River near Towanda, PA	96 years	May be discontinued October 1, 2008 due to funding reductions from partner agencies.
01534300	Lakawanna River near Forest City, PA	51 years	May be discontinued October 1, 2008 due to funding reductions from partner agencies.
01536500	Susquehanna River at Wilkes-Barre, PA	110 years	May be discontinued October 1, 2008 due to funding reductions from partner agencies.
01540500	Susquehanna River at Danville, PA	104 years	May be discontinued October 1, 2008 due to funding reductions from partner agencies.
01541000	West Branch Susquehanna River at Bower, PA	96 years	May be discontinued October 1, 2008 due to funding reductions from partner agencies.
01541200	West Branch Susquehanna River near Curwensville, PA	54 years	May be discontinued October 1, 2008 due to funding reductions from partner agencies.
01541500	Clearfiled Creek at Dimeling, PA	96 years	May be discontinued October 1, 2008 due to funding reductions from partner agencies.
01542500	West Branch Susquehanna River at Karthaus, PA	59 years	May be discontinued October 1, 2008 due to funding reductions from partner agencies.

National Streamflow Information Program Designed by USGS in Response to Stakeholder & Congressional Concerns

1. **Enhance network – 4,400 gage backbone**
2. **Intensify monitoring of floods & droughts**
3. **Assess regional characteristics and streamflow trends**
4. **Improve information delivery and reliability**
5. **Improve gaging methods - research**


USGS Federal Funding for Streamgages
1997 - 2008
Full NSIP Funding = $108M/Year
NSIP
CWP - Streamgages
30.0
25.0
20.0
15.0
10.0
5.0
0.0
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008

FY09 Appropriations

- **FY08 National Streamflow Information Program (NSIP) enacted**
  $20.16 M
  > $1.368 M one time congressional add

- FY09 Presidents Budget Request
  $23.812 M
  > + $5 M above FY08 Water for American Initiative
  - http://water.usgs.gov/wsi/
  - $2.0 M for High Data Rate DCPs
  - $725K Reactivate 50 discontinued NSIP gages
  - $2.275 M for regional water census studies

- **FY09 Enacted**
  > $22.4M +$2M to the field to directly support gages

- **FY10 Looks promising**

Stakeholder Support for the Streamgaging Network

ICWP
Interstate Council on Water Policy

ICWP

- Home
- Mission
- About ICWP
- Join
- Board
- Members
- Interstate Water Organization Committee
- Legislation & Policy
- Conferences
- Streamgage Funding
- Contact

ICWP National Water Policy Charter (.pdf) <<click here>>

Streamgage Funding

In March 2005, a group of 26 representatives of the 1400+ cooperating agencies met with USGS officials to discuss the progress and capabilities of the USGS Cooperative Water Program and National Streamflow Information Program. One of the results of this groundbreaking meeting was a clear recognition that, among the non-federal Cooperators, we share a strong concern that restoring federal funding to match the non-federal share 50:50 is essential if we are going to assure sufficient science to plan for and avoid the most damaging impacts of future floods, droughts and violent storms and to protect water quality, wildlife and the ecosystems associated with our lakes, rivers, streams and wetlands.

WE NEED YOUR HELP! We will focus on key Congressional Committee members, of course, but we want your help now to inform all 435 Members of the House of Representatives and all 100 Senators in the process. When the Congress reviews the President's proposed budget next spring (announcement expected the first week in February 2006), we intend to demonstrate the powerful assistance that these relatively inexpensive streamgaging programs provide in all 50 states based on the great benefits that so many communities derive and the risks that recent funding limits are causing.

OVERVIEW: Water supply and flood protection issues are becoming increasingly important as pressure on existing supplies and land use along our rivers continues to grow. Increasing population and recurrent drought in many areas, combined with increasing demand for water for recreation, scenic value, and to meet fish and wildlife needs, have resulted in conflicts throughout the country. Streamflow and groundwater measurements are essential to intelligent water resource and community planning decisions, affecting countless lives and the economy in all 50 states.

With the monitoring, prediction and prevention programs that we currently have in place, on average, we suffer between $6B - $8B in damage and loss due to drought every year in the US, primarily in our agriculture, transportation, recreation and tourism, forestry, and energy sectors. Flooding is estimated, on average, to cause another $4B - $6B in damage and loss each year despite our best efforts with the available science. These cost estimates don't take into account a long list of social and environmental losses, but they demonstrate the importance of maintaining our data collection networks.

The future value of this crucial information, collected at over 7000 streamgaging stations and monitoring wells operated by the US Geological Survey (USGS), is threatened by federal, state and local budget limitations. These measurements are

Chako John, President
Association of American State Geologists

Lori Spragens, Executive Director
Association of State Dam Safety Official

Al Goodman, President
Association of State Floodplain Managers

Linda Eichmiller, Executive Director
Association of State & Interstate Water Pollution Control Administrators

Katherine Andrews, Executive Director
Coastal States Organization

James H. Steele Jr, Tribal Council Chairman
Confederated Salish & Kootenai Tribes

Carol R. Collier, Executive Director
Delaware River Basin Commission

Roger L. Gauthier, Interim Executive Director
Great Lakes Observing System

John Seebach, Chair
Hydropower Reform Coalition

Hal Beecher, President
Instream Flow Council

Sue Lowry, Chair
Interstate Council on Water Policy

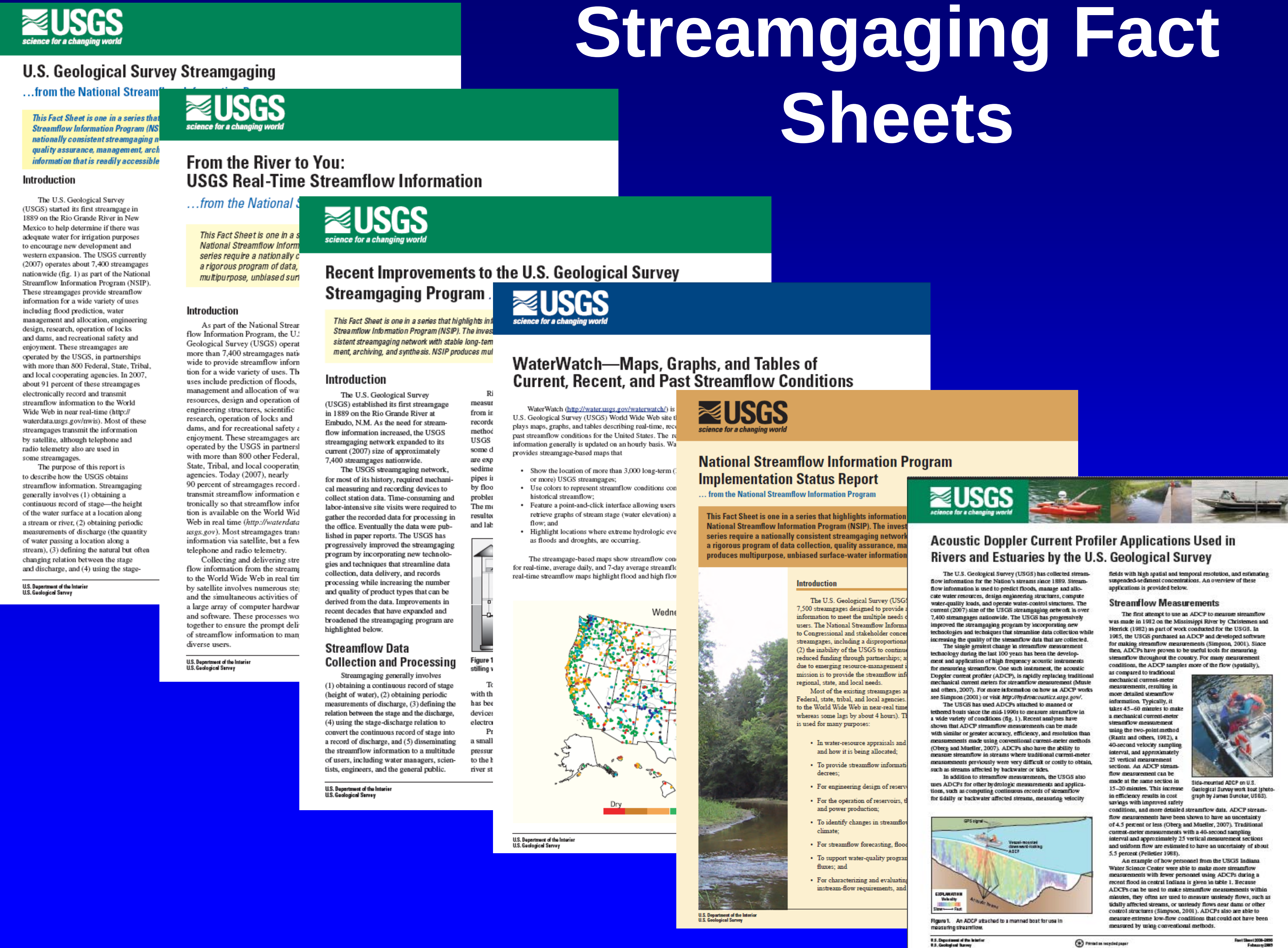
Deborah Hamlin, Executive Director
Irrigation Association

Derek Guthrie, President
National Association of Flood and Stormwater Management Agencies

John M Johnson, Executive Director
National Association of State Boating Law Administrators

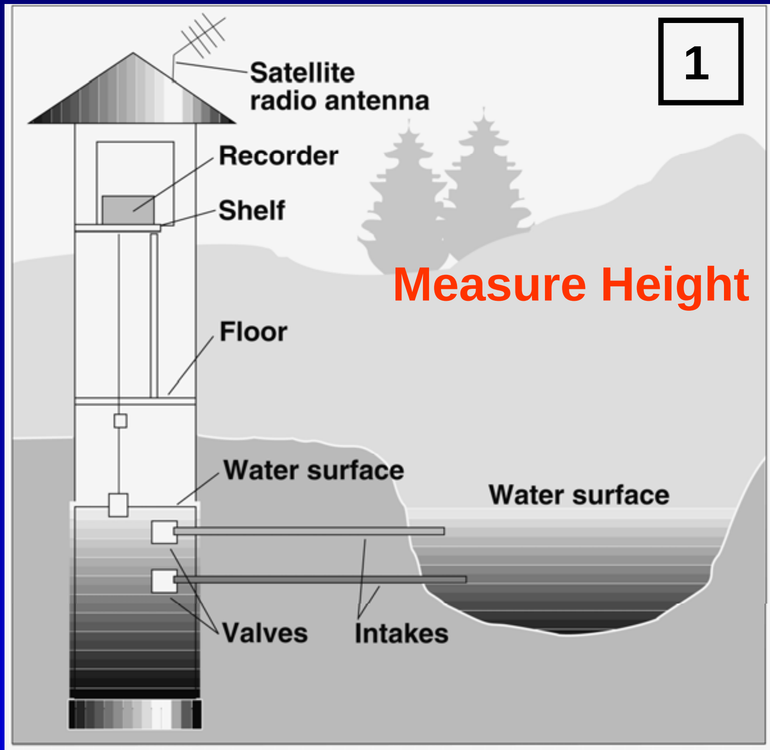
http://www.icwp.org/ **53 organizations signed in March 2009**

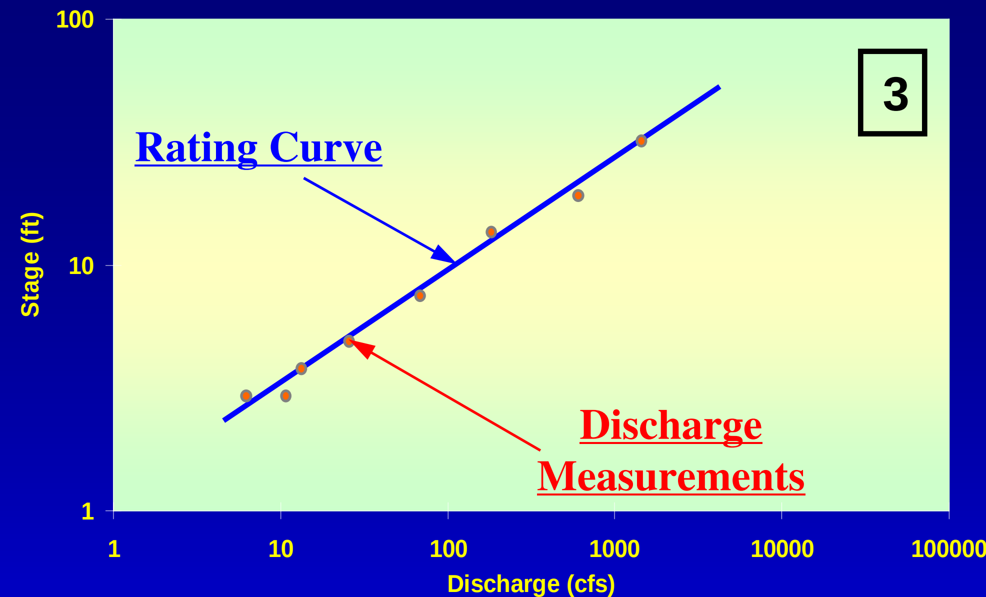
Streamgaging Fact Sheets

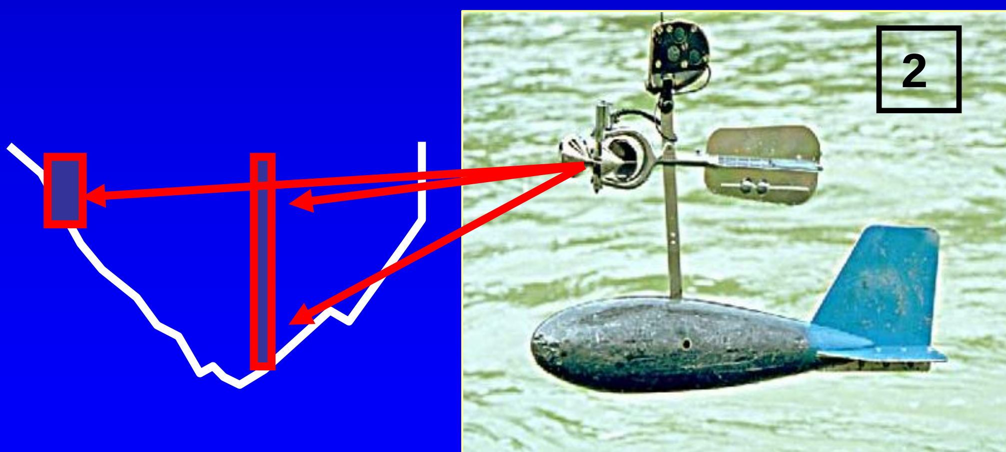


Stimulus Funding

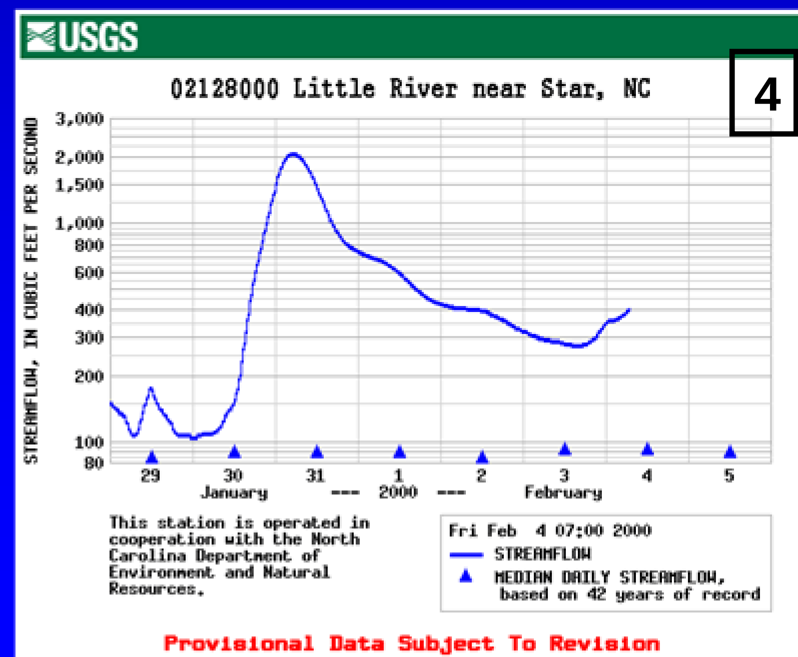
- $15M for Streamgaging upgrades to new technologies
  - $10M for HDR DCPs
  - $5M for other new technologies –hydroacoustic equipment
  - Purchases only through the HIF; limited set of equipment
- $15M for Deferred Maintenance
  - Removal of discontinued streamgages, cableways, and wells in DM-CI database





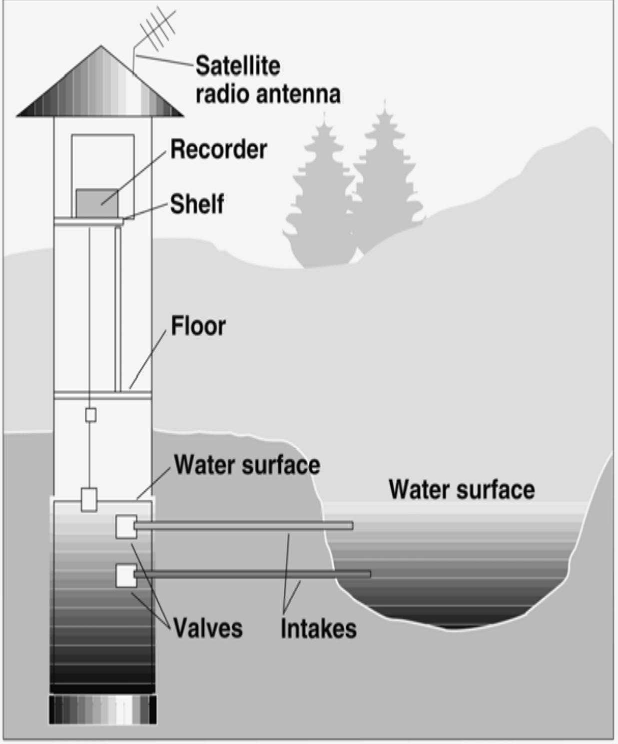


Measure Quantity



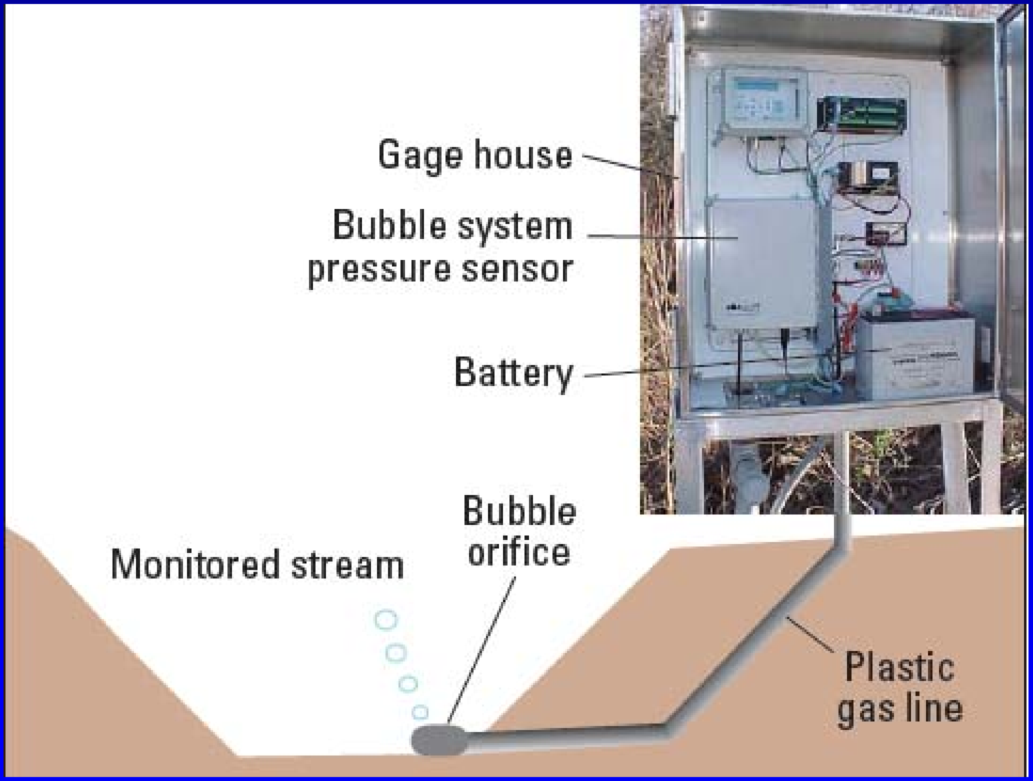
Stream Gage - Measures Stage

Stilling Wells



- Produces very accurate stage record
- Expensive to install
- Expensive to maintain
- Creates a confined space
- Subject to channel changes and debris
- Difficult to get above flood stage

Stage Measurement - Pressure Sensors



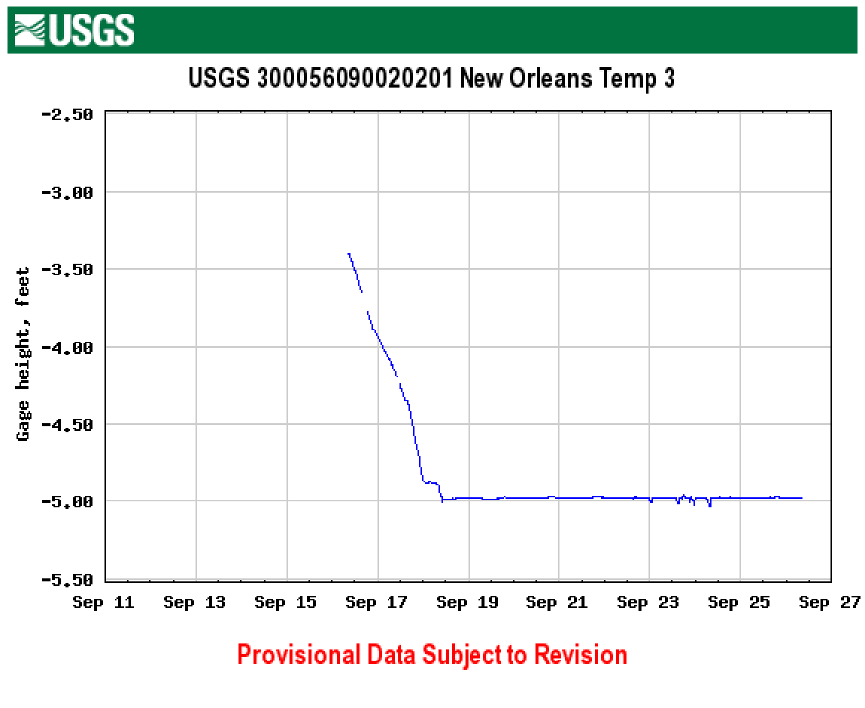
- Easier to install
- Easier to maintain
- Easier to get above flood stage
- No confined space
- Subject to channel changes and debris

Non-Contact Radar Stage Measurement

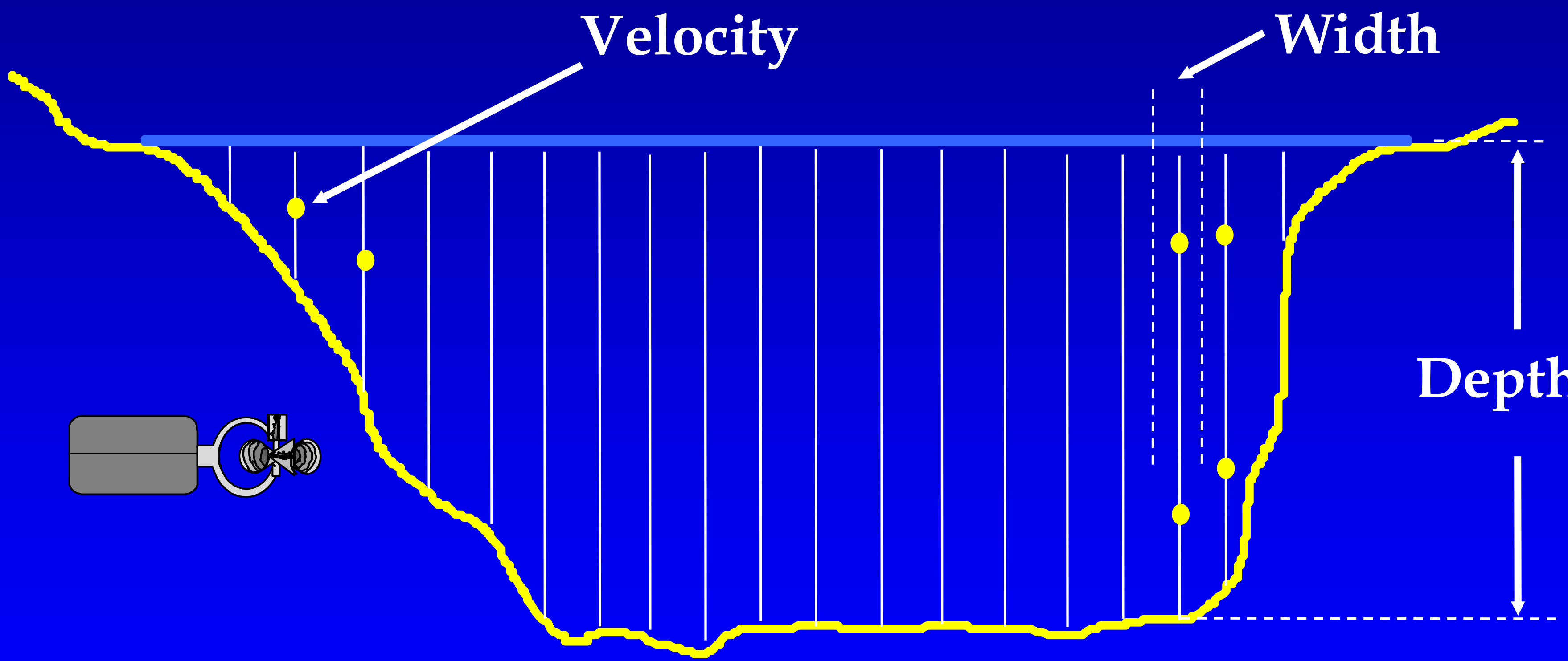
- **Easiest to install**
- **Easiest to maintain**
- **Easier to get above flood stage**
- **Least potential impact from channel changes and debris**
- **No confined space**
- **Not applicable to ice affected rivers**
- **Have to have a structure over the river**

USGS

Rapid Deployment Gages

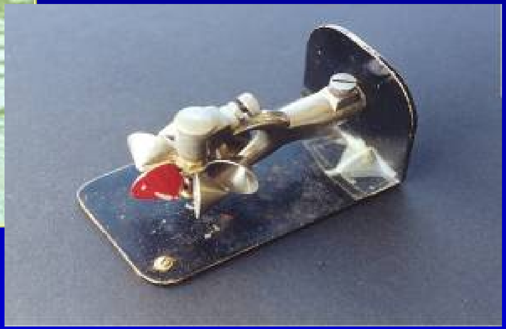


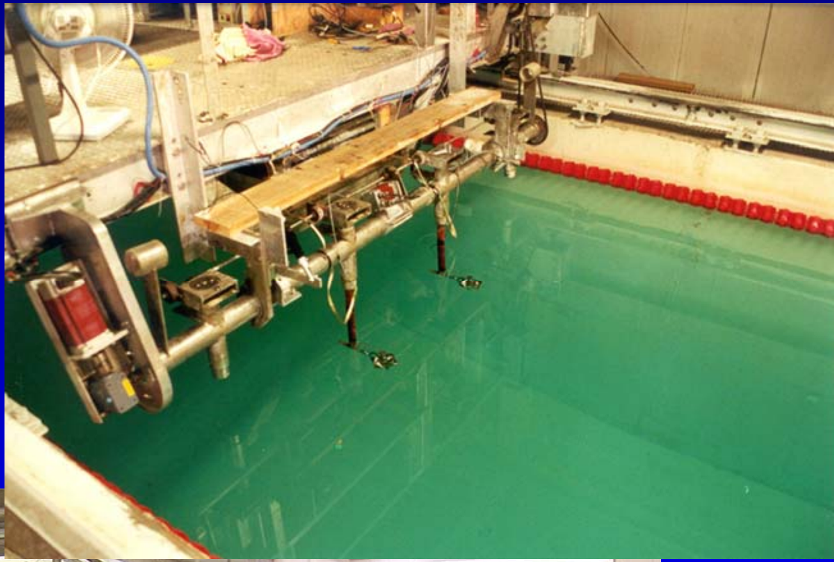
Conventional Discharge Measurement



Q = A * V

Current Meter to Measure Velocity





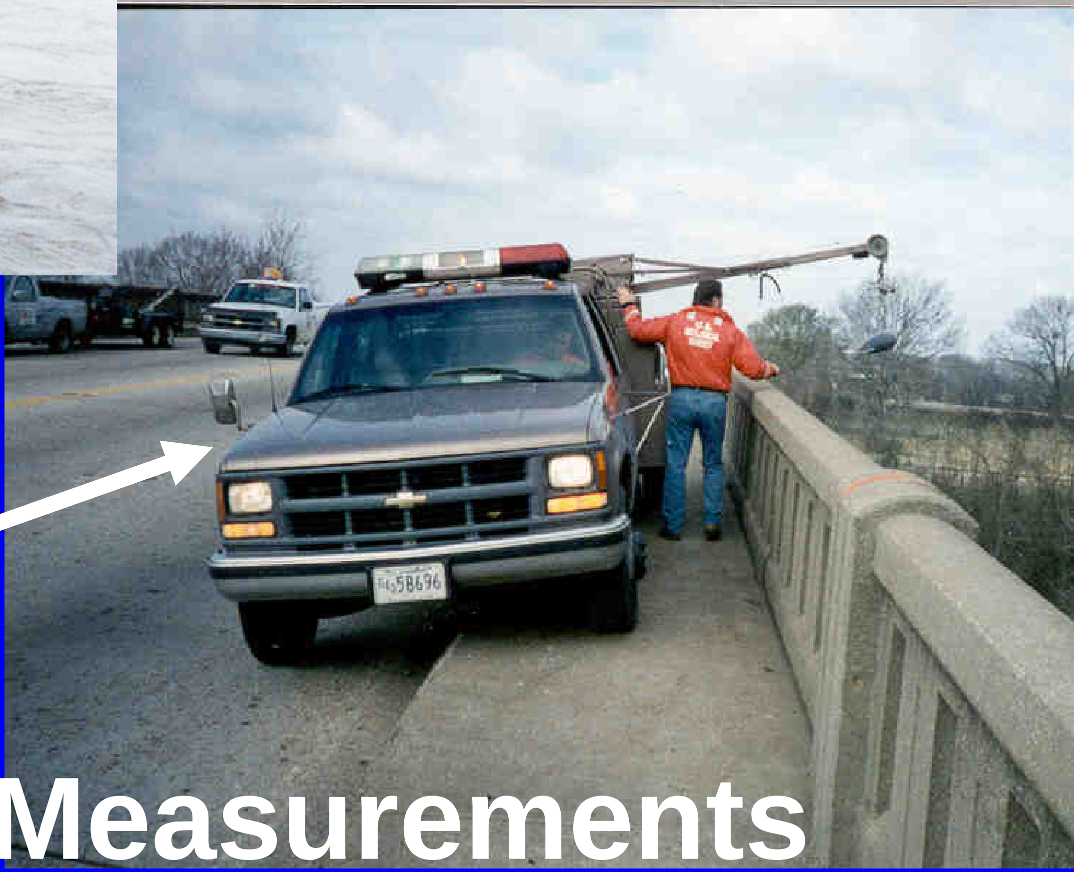
450 feet long tow tank

Wading Measurement

Boat Measurement

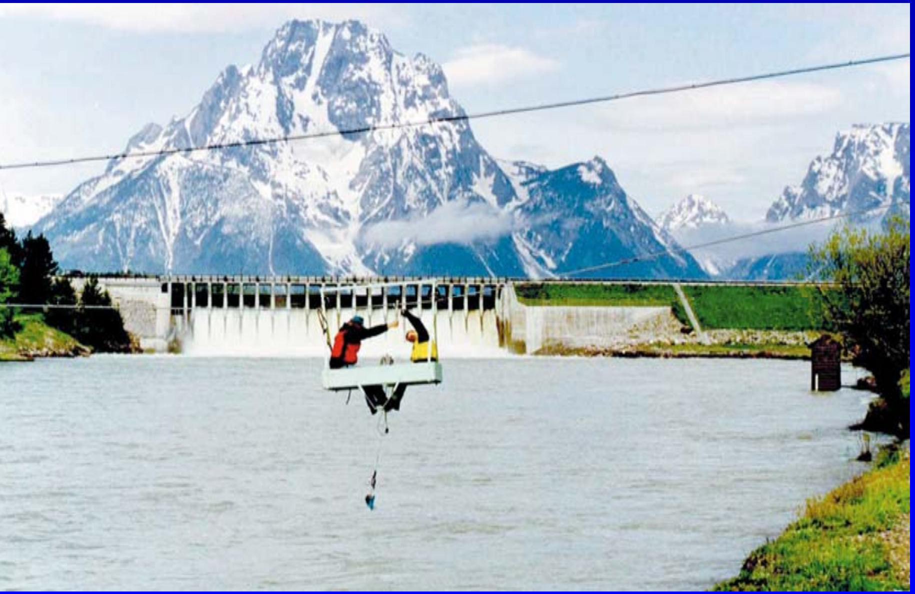
Bridge Measurements

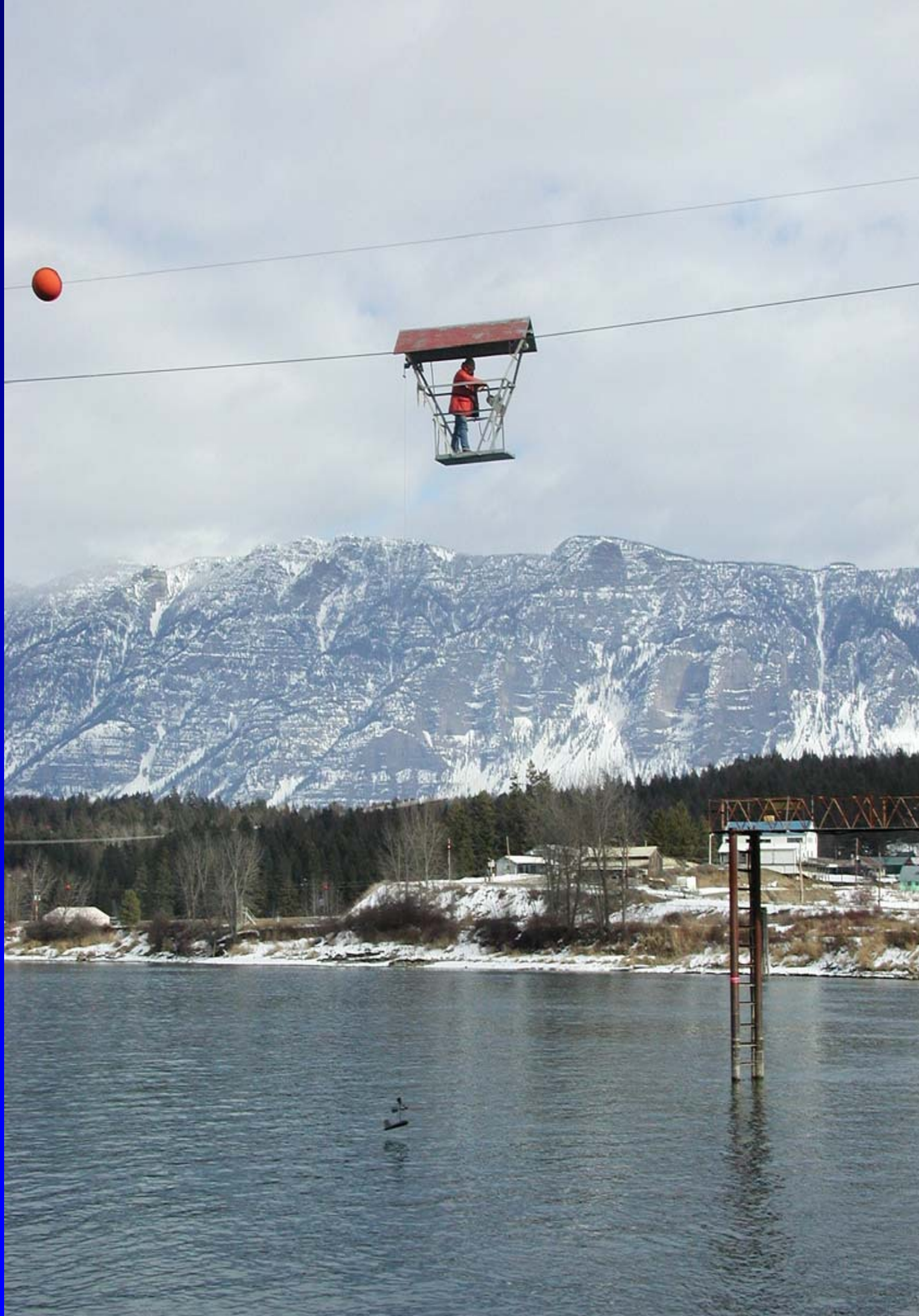
Crane on 4-wheel base



Crane on truck

Cableway Measurement





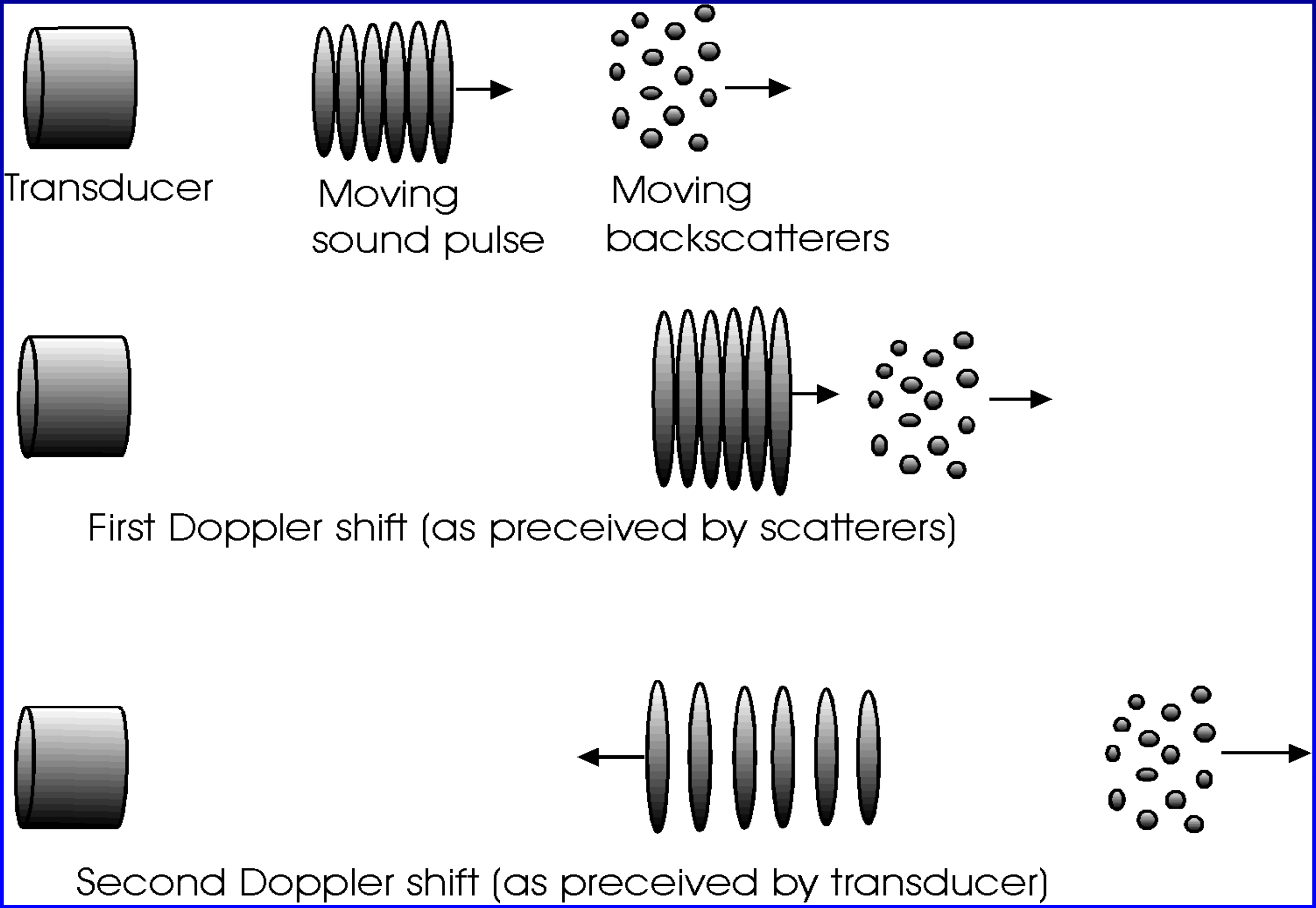
Ice Measurement

Measurement Method Improvements

Traditional method: mechanical meters are still in use

Paradigm shift to Hydroacoustic Methods

Velocity Measurements using the Doppler Shift

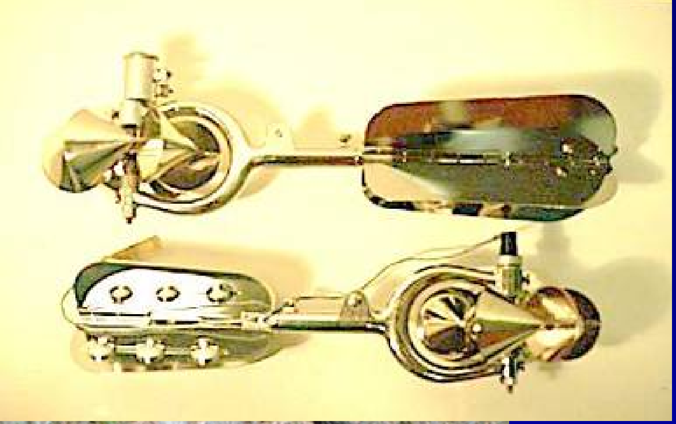


HYDROACOUSTICS

Current Profilers

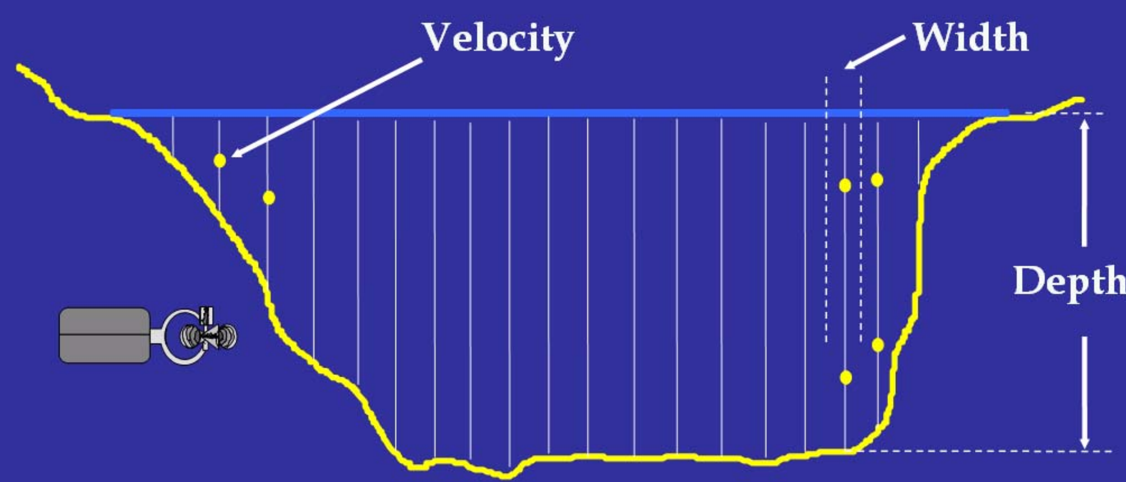
Wading

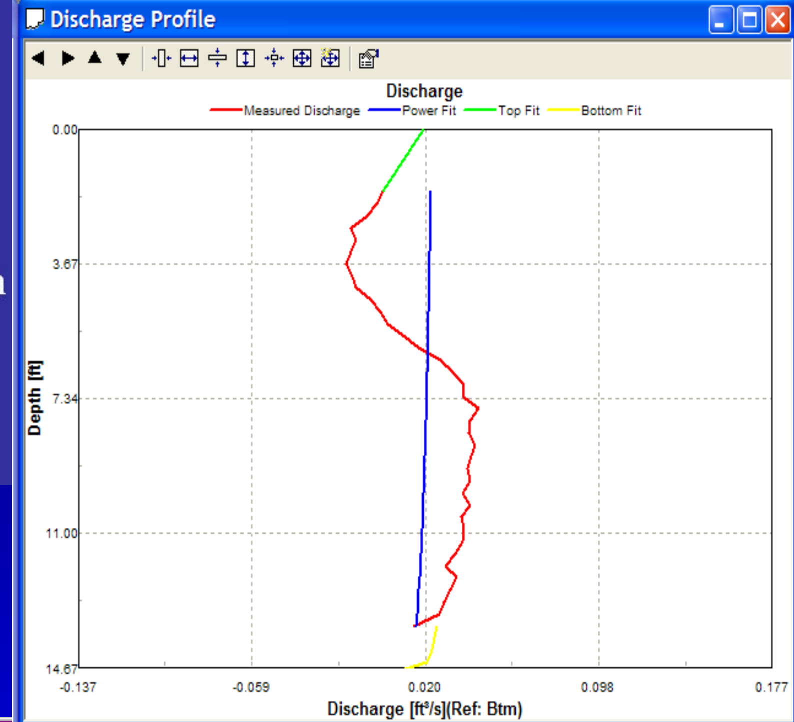
Side Looking



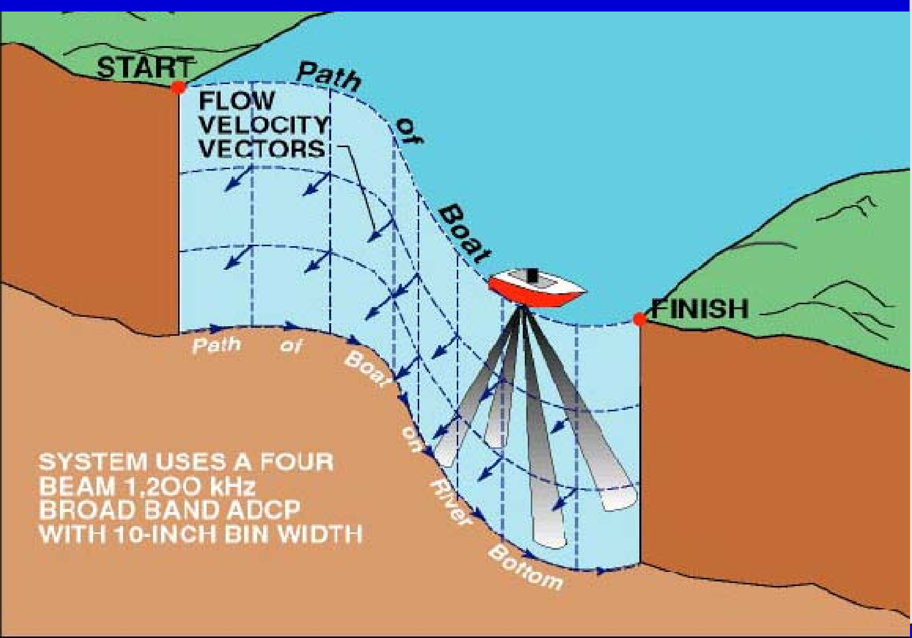
- **Better wading measurements at low flow**

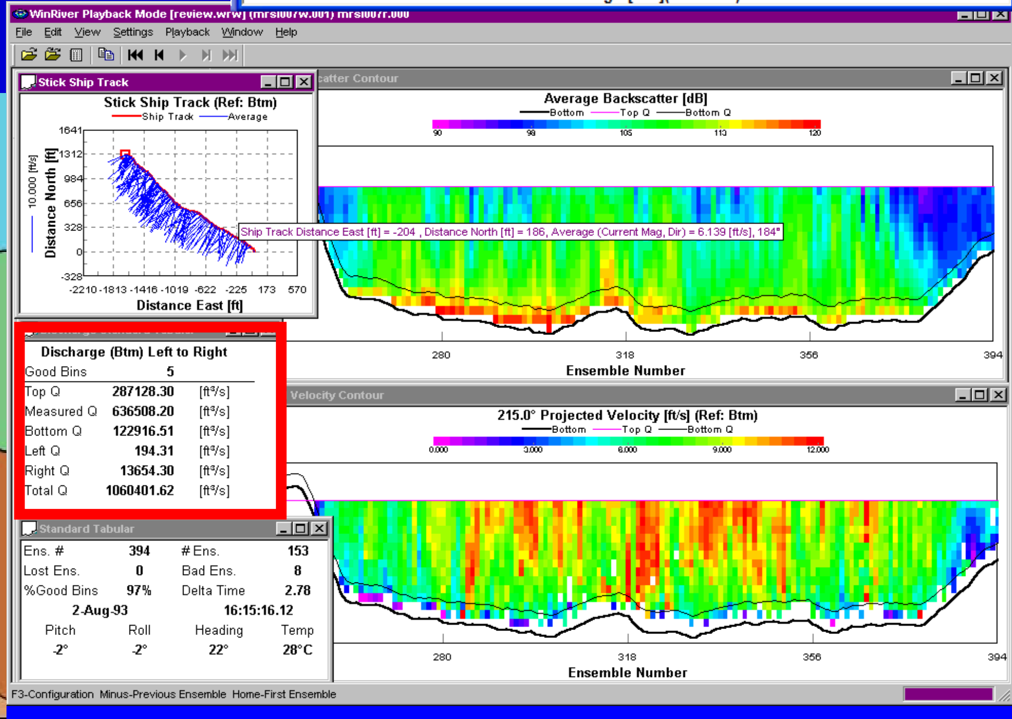
- **More information about the velocity measurement and its uncertainty.**





Profiler Measurements



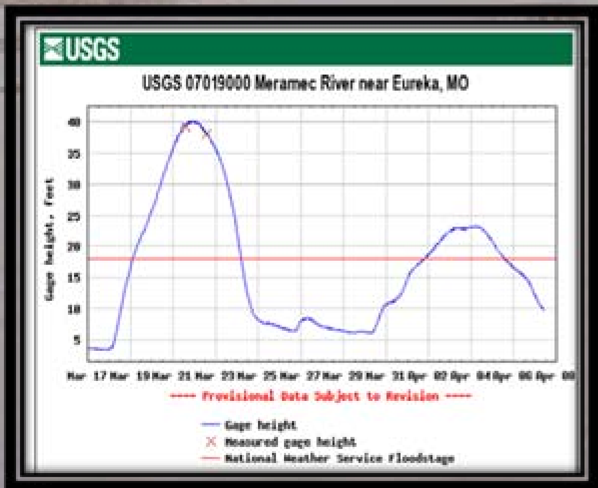


Measure Previously Unmeasurable Flows

Flood Measurements Using ADCPs

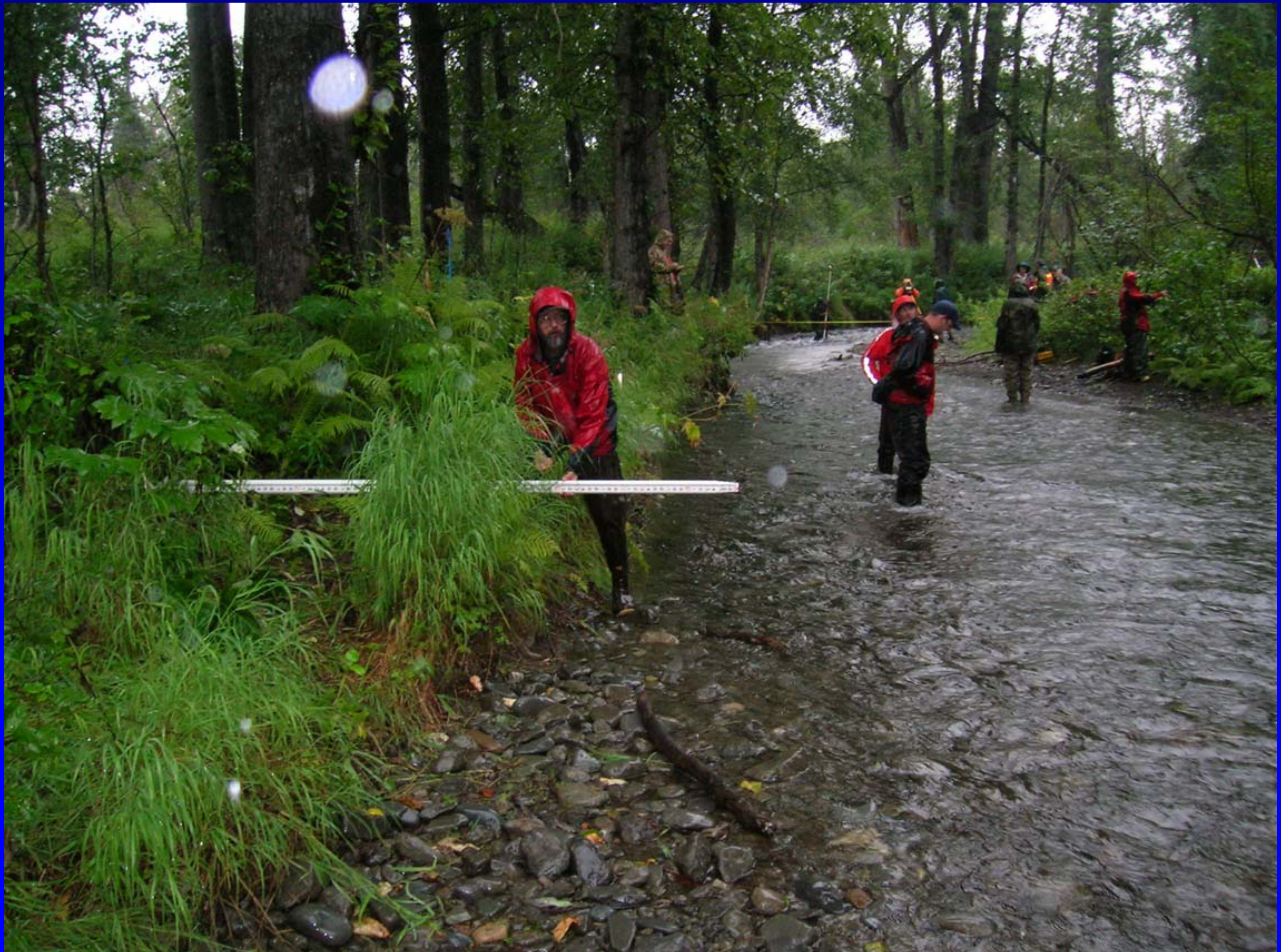
- **<u>January 1991 flood</u>** (Current Meters)
  - 52 Discharge Measurements in 10 days
  - Average Qm time -- 96 minutes
  - 11 hydrographers
- **<u>July 2003 flood</u>** (ADCPs)
  - 62 Discharge Measurements in 10 days
  - Average Qm time -- 18 minutes
  - 6 hydrographers

2008 Flood Qm's



- Indiana
  - >60 Qm's
  - <u>2-3 times more Qm's than with conventional equipment</u>
- Missouri
  - >100 Qm's – nearly all hydroacoustic
  - <u>Increased efficiency</u>
  - <u>More accurate Qm's</u>
- Iowa
  - 63 Qm's from June 8 – July 1
  - No indirects despite 20 PoRs!
  - <u>Acoustics "saved the day"</u>

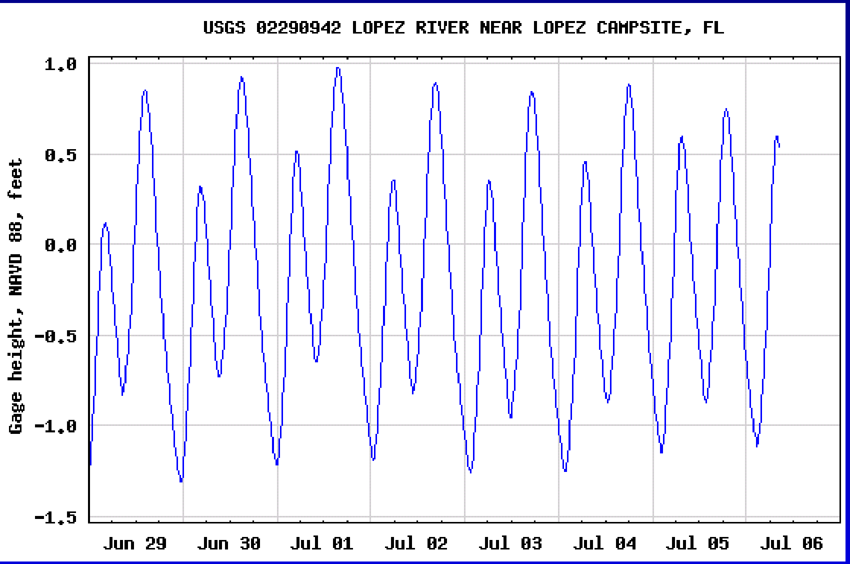
Fewer Indirect Discharge Estimates

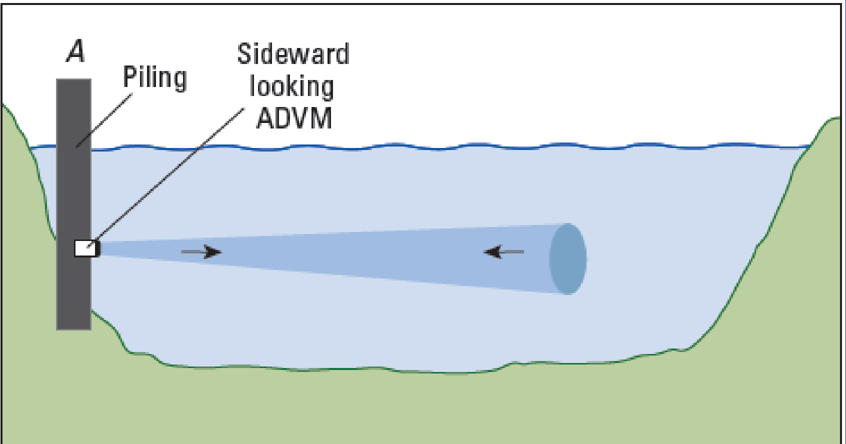


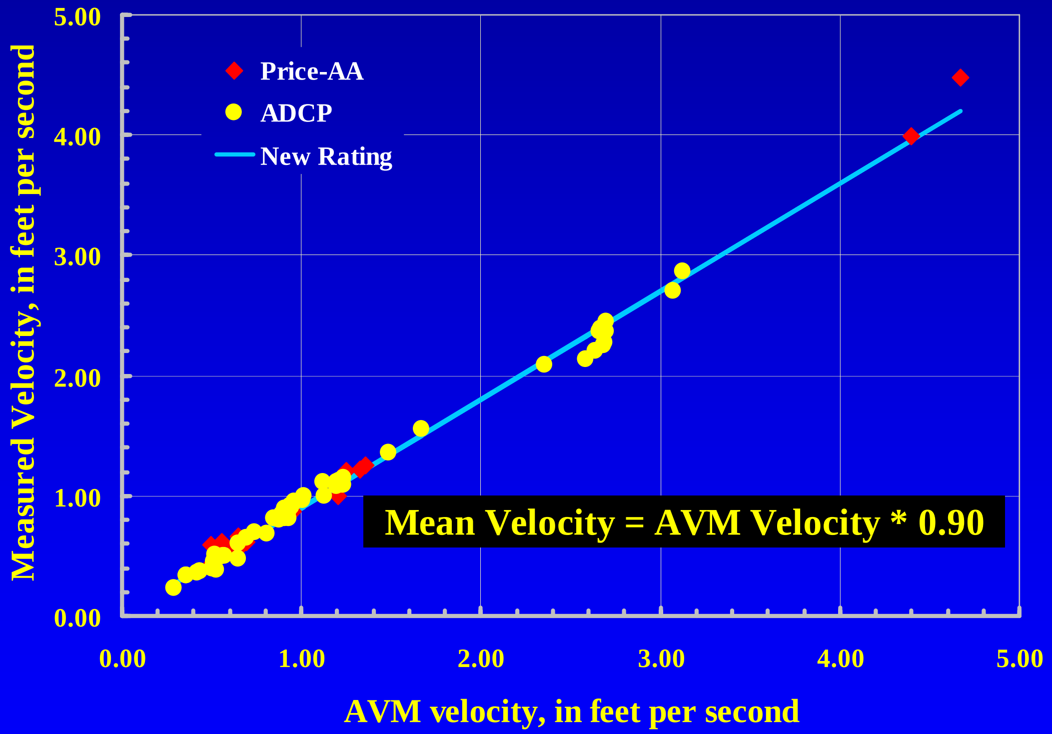
Section by Section Ice Measurement

Downsize Vehicles and Other Associated Equipment

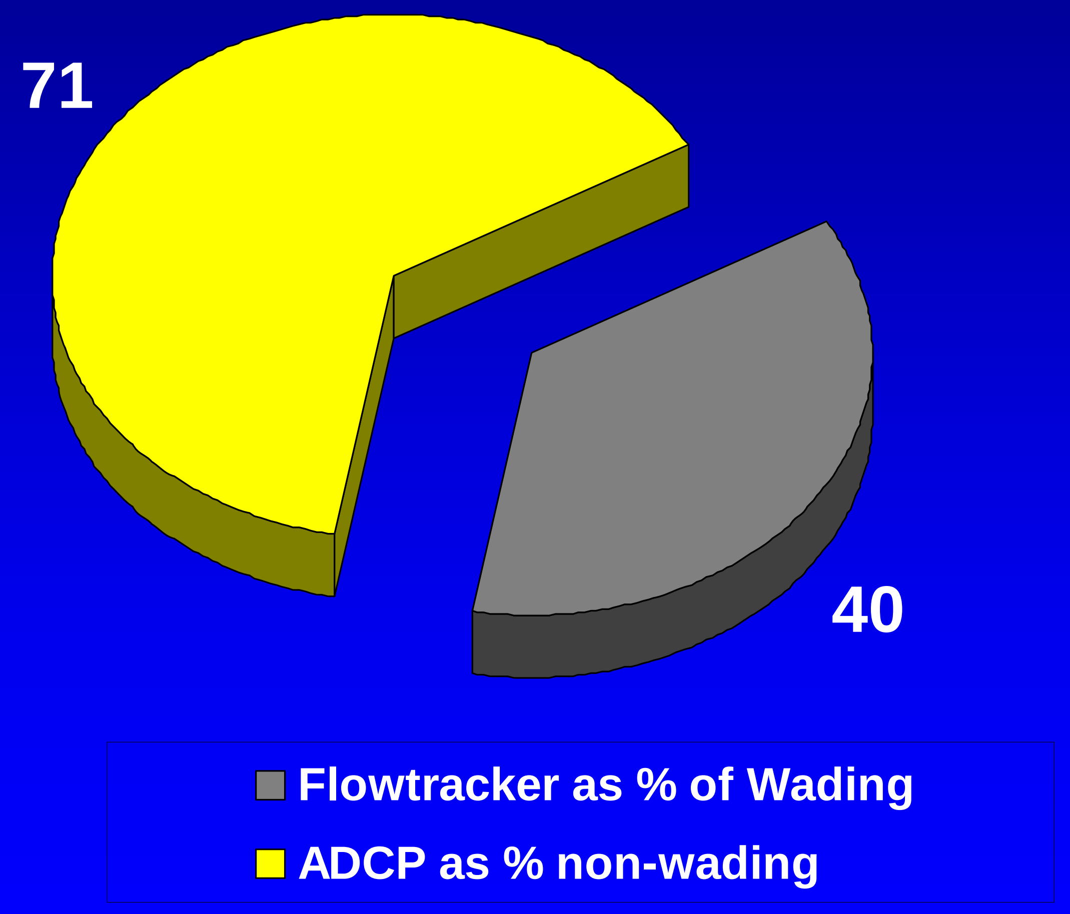
Index-Velocity Ratings







47% of Qm's made with Hydroacoustics in 2007!



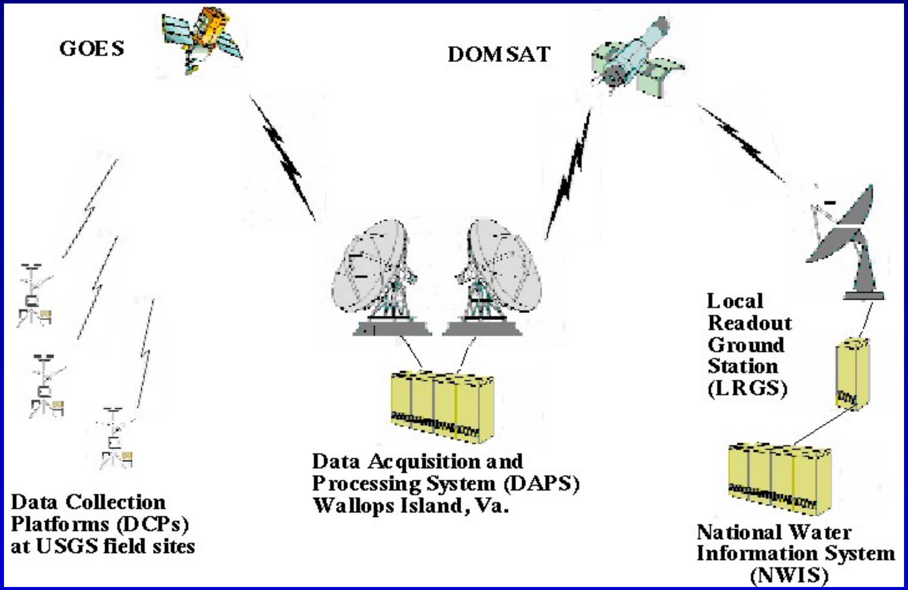
97% of Gages are (Near) Real Time

- GOES SATELLITE
- TELEPHONE LINES
- CELL PHONES
- LINE OF SITE RADIOS

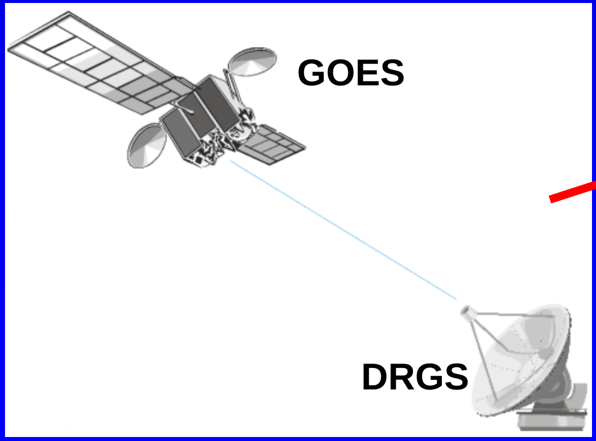
4000 Transmit 1x per 1-hour

2500 Transmit 1x per 4-hours

Back-Up to Wallops Island



Installation completed and system running Spring 2008

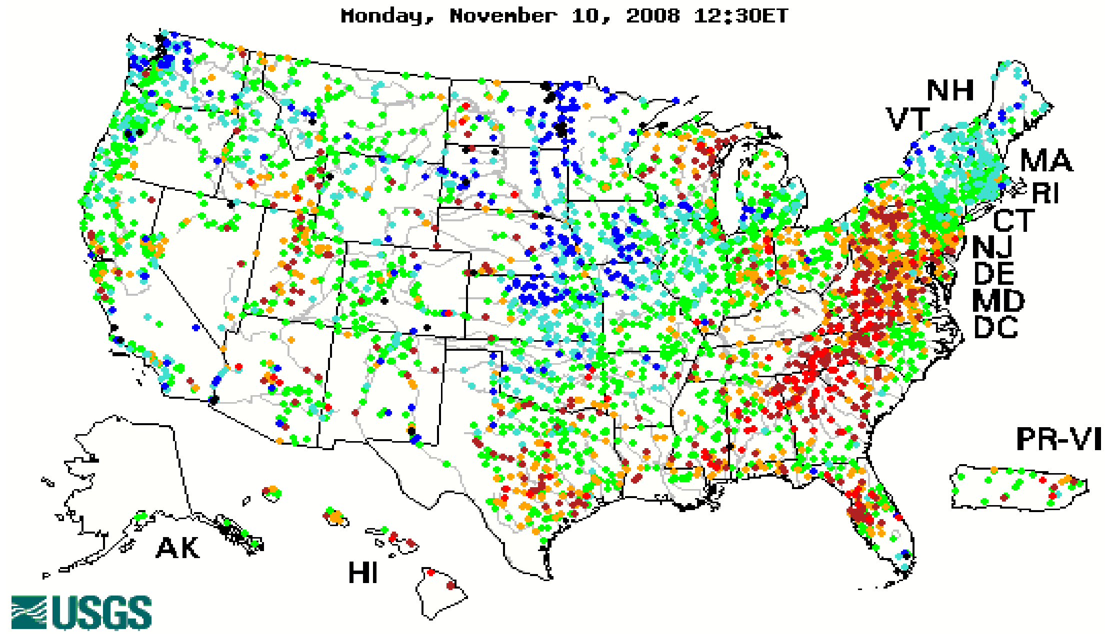


Direct Readout Ground Station (DRGS) at USGS EROS in South Dakota

Our most popular product!

WaterWatch -- *Current water resources conditions*

Map of real-time streamflow compared to historical streamflow for the day of the year (United States)

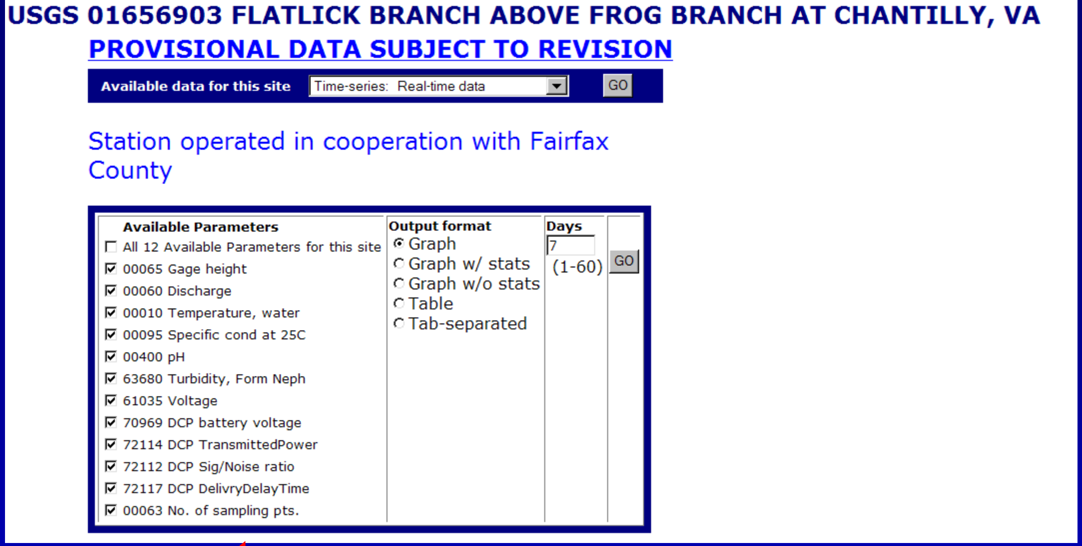


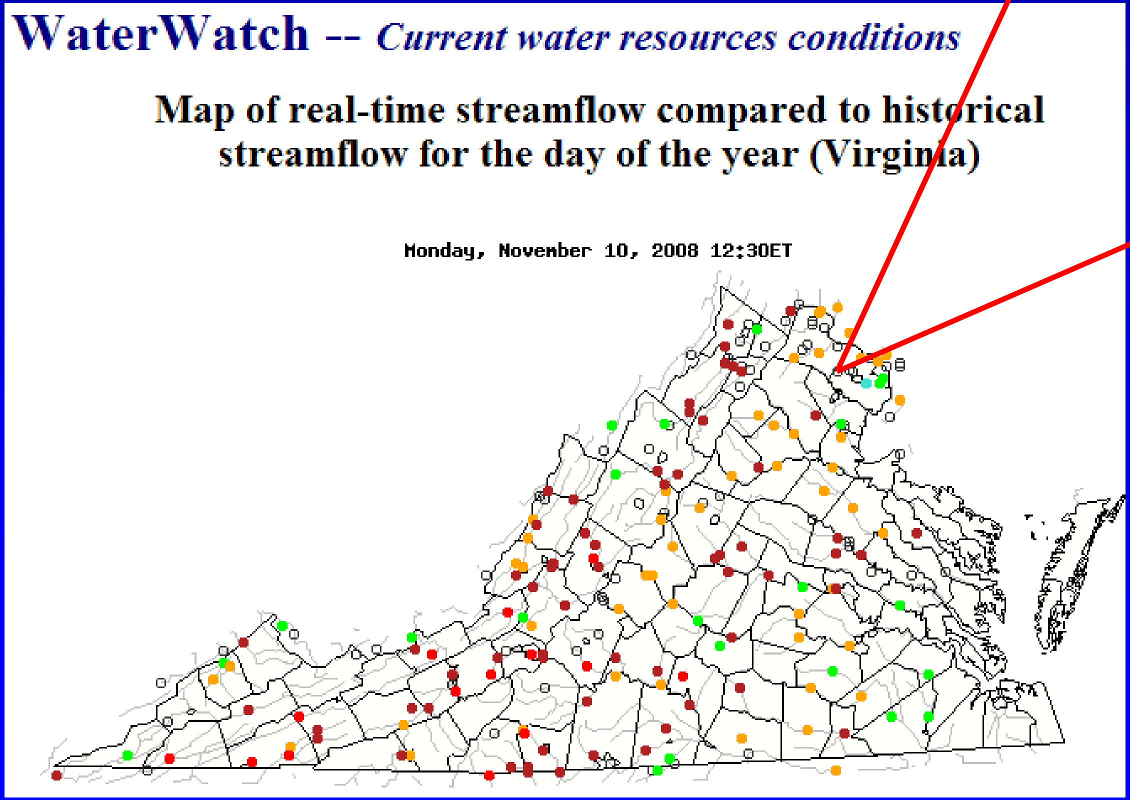
Choose a data retrieval option and select a location on the map

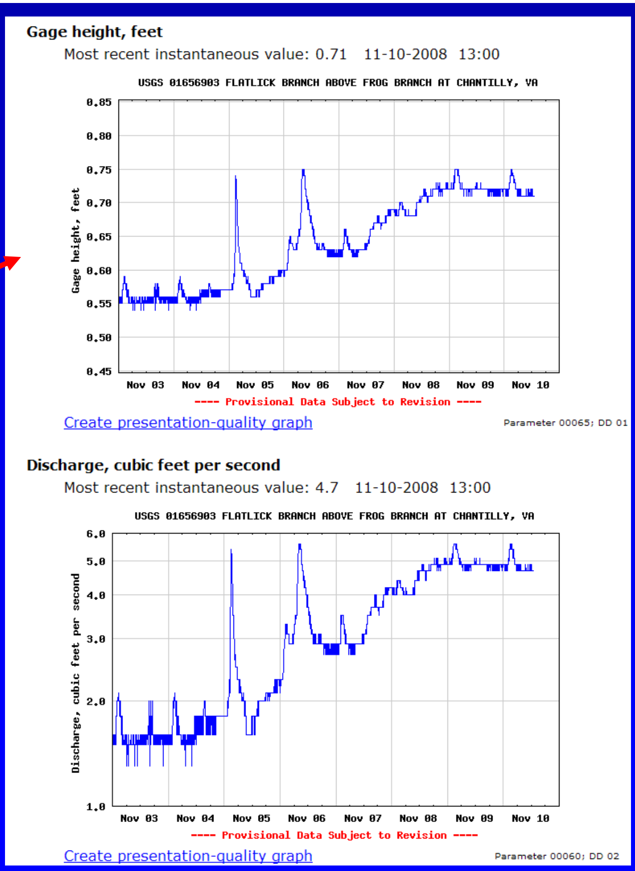
○ List of all stations in state, ◉ State map, or ○ Nearest stations

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

Click on any station dot to bring up real-time data





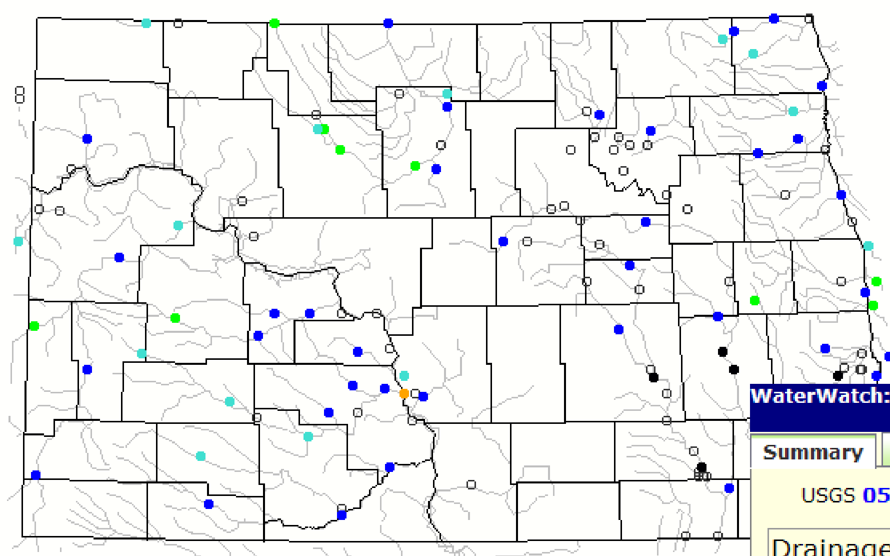


WaterWatch -- *Current water resources conditions*

Map of real-time streamflow compared to historical streamflow for the day of the year (North Dakota)

Google Maps version of this map

Wednesday, April 29, 2009 10:30ET



USGS

Choose a data retrieval option and select a location on the ma

○ List of all stations ◉ Single station ○ Nearest stations ○ Pea

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

The "Real-time streamflow" map tracks short-term changes (over several hours) in rivers and general appearance of the map changes very little from one hour to the next, individual sites ma to major rain events or to reservoir releases.

The map depicts streamflow conditions as computed at USGS streamgages. The colors repres compared to percentiles of historical daily streamflow for the day of the year.

This map represents conditions relative to those that have historically occurred at this time of y

WaterWatch: Water Resources Conditions X

Summary | **Hydrograph** | **Peak** | **Forecast**

USGS 05058500 SHEYENNE RIVER AT VALLEY CITY, ND

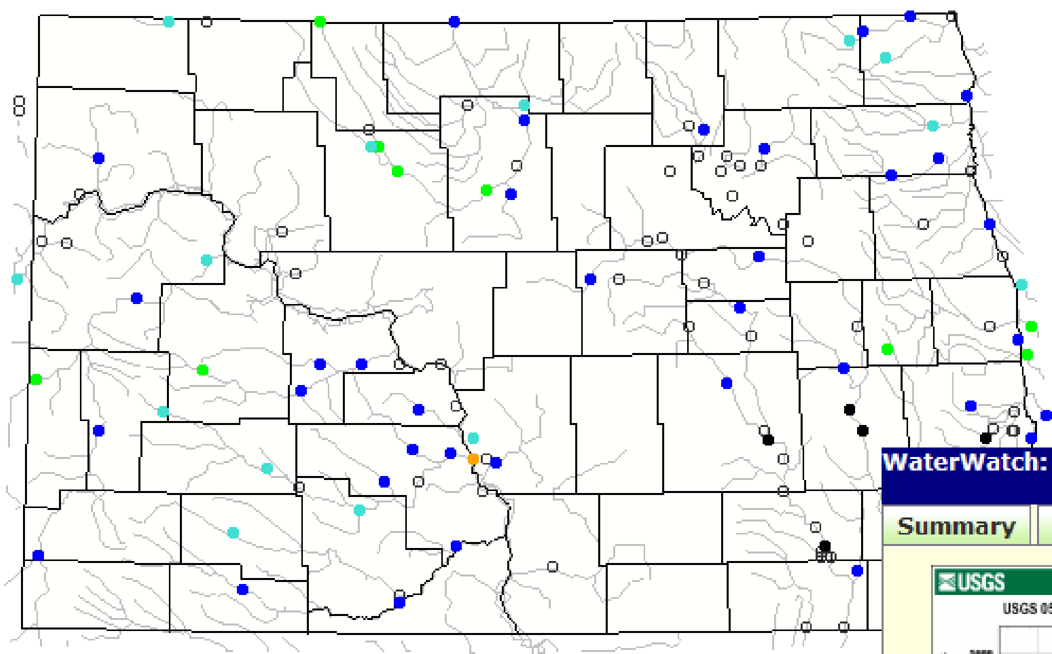
Drainage area:	7810 mi^2
Discharge:	4800 cfs
Stage:	16.97 ft
Flood stage:	15.0 ft
Date:	2009-04-29 08:00:00
Percentile:	97%
Class symbol:	●
% of normal (median):	2775%
% of normal (mean):	789%

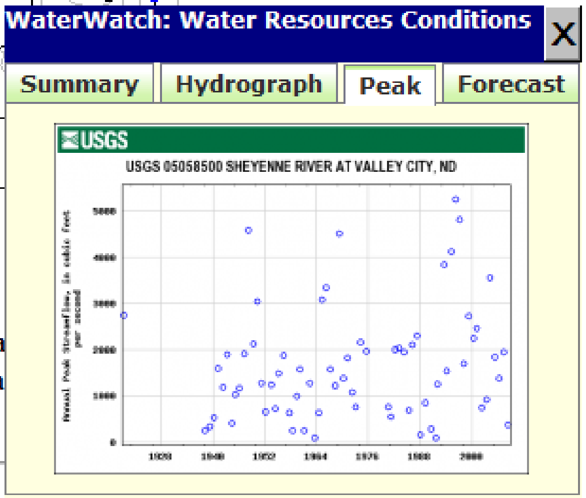
WaterWatch -- *Current water resources conditions*

Map of real-time streamflow compared to historical streamflow for the day of the year (North Dakota)

Google Maps version of this map

Wednesday, April 29, 2009 10:30ET





Choose a data retrieval option and select a location on the ma

○ List of all stations ◉ Single station ○ Nearest stations ○ Pea

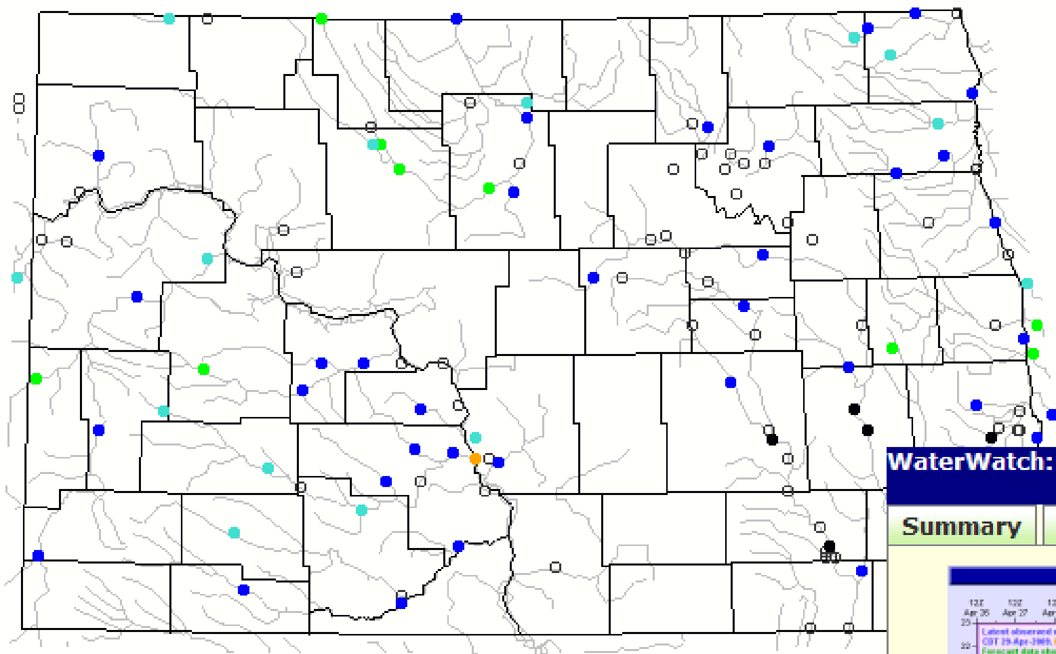
Explanation - Percentile classes							
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked

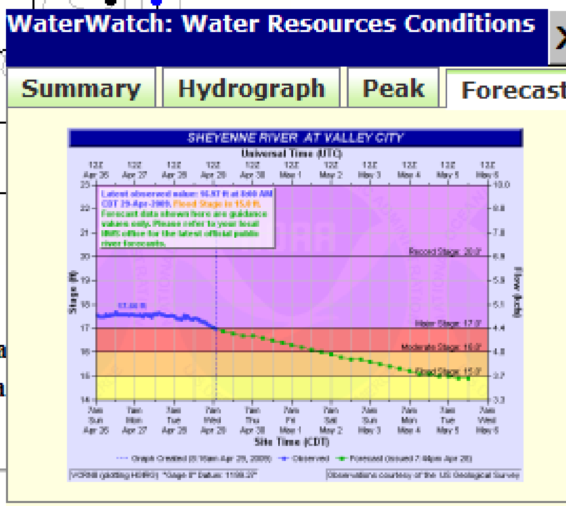
WaterWatch -- *Current water resources conditions*

Map of real-time streamflow compared to historical streamflow for the day of the year (North Dakota)

Google Maps version of this map

Wednesday, April 29, 2009 10:30ET





USGS

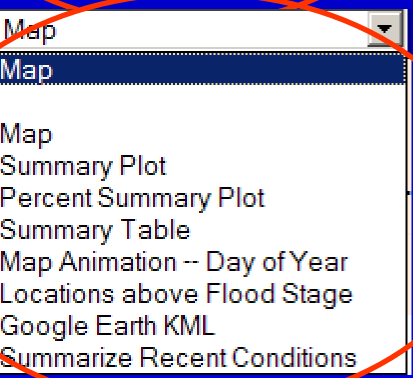
Choose a data retrieval option and select a location on the ma

○ List of all stations ◉ Single station ○ Nearest stations ○ Pea

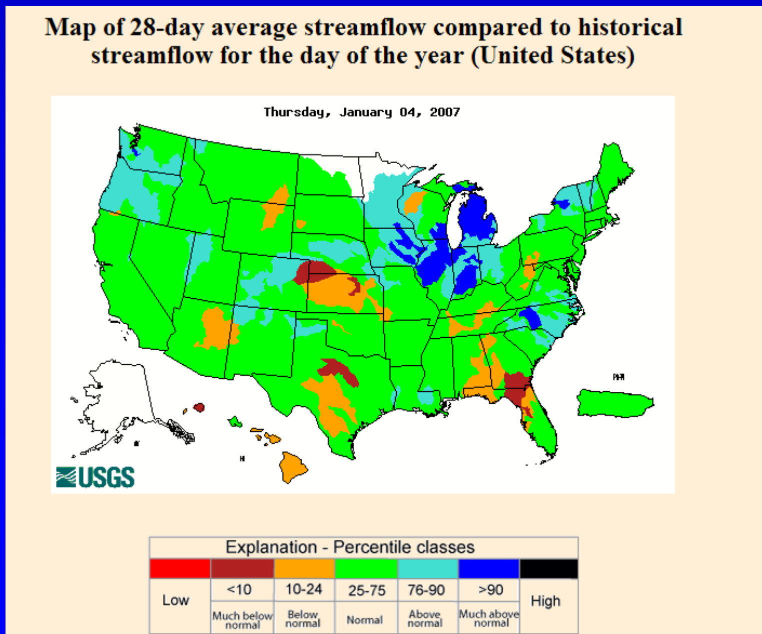
Explanation - Percentile classes

Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked

WaterWatch – lots of new products added



- Real-time, 7-day, 14-day, 28 day averages
- Floods and high flows
- Drought conditions
- Google coverage
- Animations
- etc



Surface-Water Data for the Nation

Real-time

Data for selected sites recorded at 5-60 min interval-- may include surface-water, ground-water, water-quality, and meteorological parameters.

Recent

Provisional daily data for the previous 18 months--includes published streamflow.

Streamflow

Daily streamflow data for the period of record at each site.

Statistics

Daily **Monthly** **Annual**

Computed from published daily data.

Peaks

Annual maximum instantaneous peak streamflow and gage height

Measurements

Field measurements of streamflow and gage height

Tutorial

Tutorial explaining how to perform a surface water retrieval and understand the results

Introduction

Nationally, USGS surface-water data includes more than 850,000 station years of time-series data that describe stream levels, streamflow (discharge), reservoir and lake levels, surface-water quality, and rainfall. The data are collected by automatic recorders and manual measurements at field installations across the Nation.

Data are collected by field personnel or relayed through telephones or satellites to offices where it is stored and processed. The data relayed through the Geostationary Operational Environmental Satellite (GOES) system are processed automatically in near real time, and in many cases, real-time data are available online within minutes.

Once a complete day of readings are received from a site, daily summary data are generated and stored in the data base. Recent provisional daily data are updated on the web once a day when the computation is completed.

Annually, the USGS finalizes and publishes the daily data in a series of water-data reports. Daily streamflow data and peak data are updated annually following publication of the reports.

USGS StreaMail

- System for accessing real-time river stage and streamflow from hand-held wireless devices, such as cell phones and Blackberries.
- Send an email or text message to "streamail@usgs.gov" and use a USGS station number in the "Subject" line. In a few minutes you'll get back an email with the most recent stage and streamflow.
- Try it - 01631000 S. F. Shenandoah River at Front Royal, VA

New Memo | Reply | Reply To All | Forward | Delete | Follow Up | Folder | Copy Into New | Chat | Tools

streammail@usgs.gov
11/10/2008 04:11 PM

To sfblanch@usgs.gov
cc
bcc
Subject USGS site 01631000

U.S. Geological Survey (USGS) StreamMail:
The latest river stage and streamflow values you requested from StreamMail.

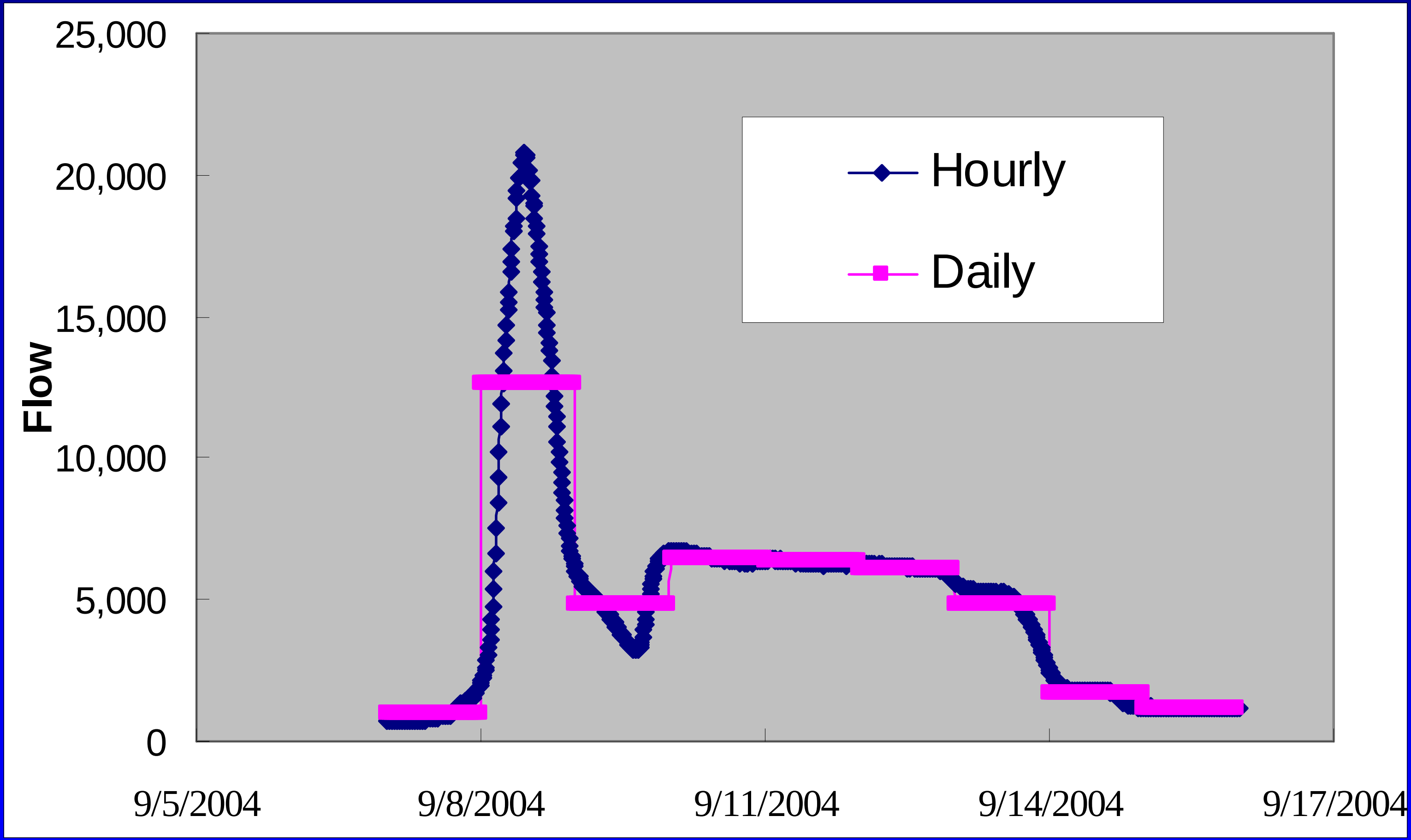
Site: 01631000
Station name: S F SHENANDOAH RIVER AT FRONT ROYAL, VA
Date: 11/10/2008
Time: 15:15:00
Stage: 1.26 feet
Streamflow: 303 cubic feet per second (cfs)

Link to charts for 01631000:
Stage: http://waterdata.usgs.gov/nwis/uv/?dd_cd=09_00065&format=img&site_no=01631000&set_logscale_y=1&begin_date=20081109
Streamflow: http://waterdata.usgs.gov/nwis/uv/?dd_cd=02_00060&format=img&site_no=01631000&set_logscale_y=1&begin_date=20081109

The U.S. Geological Survey's (USGS) StreamMail system allows you to request, by email, the most recent USGS river stage and streamflow data for streams in the Unite States. To use the system, send an email to "streammail@usgs.gov" and in the "Subject" line, put in a USGS station (site) number. An email will be sent back to you wit the most recent stream stage and flow.

If you need help, contact Howard Perlman (hperlman@usgs.gov)

IDA is here!! -the Instantaneous Data Archive



http://ida.water.usgs.gov/

USGS science for a changing world

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Instantaneous Data Archive - IDA

Home / About IDA / Frequently Asked Questions / Questions and Feedback / Help / Other Water Data-NWISWeb /

Home

Since 1889 the United States Geological Survey has collected continuous stage, discharge, and other instantaneous time-series data on the nations rivers and streams. These time-series data have been and are typically reco intervals ranging from 5 to 60 minutes. These instantaneous data have been processed into and published as various daily values, such as the daily maximum, minimum, and/or mean. Because the published record are daily valu original instantaneous data have not historically been officially approved, published, or made widely available. This web site has been established to make available as much historical instantaneous data from USGS data collecti stations as possible. Although this site currently serves instantaneous discharge (streamflow) data only, work is planned to extend it to other time-series parameters in the future.

As described above, the USGS procedure for processing and publishing time-series data has focused on daily values as our final product and not the instantaneous values. As a result, the instantaneous values may not have be corrected and processed to the same extent as the daily values. Because of these USGS procedures, the instantaneous discharge data provided through this web site should be viewed as raw, unreviewed data. In order to pro basic level of review and quality assurance of these data, the data have been recovered and compared against the published daily values through the use of automated filtering and computational software. Although significant has been made to insure the instantaneous data available is reasonable and to remove obviously bad data, there may still be significant error in any individual value. Users are strongly encouraged to review all data carefully pri use. These data are released on the condition that neither the USGS nor the United States Government may be held liable for any damages resulting from its use.

For further information, see About IDA.

IDA Status Map / IDA Station and UV Data Count

Select a Geographic Area from the pull down menu to retrieve Site Numbers/Names or input a Site Number.

Geographic Area:

Alaska
Arizona
Arkansas
Colorado
Connecticut
Delaware
Florida
Georgia
Hawaii and Pacific Islands
Idaho
Illinois
Indiana
Kansas
Kentucky
Louisiana
Maine
Maryland
Massachusetts
Michigan
Minnesota
Missouri
Montana
Nebraska
Nevada
New Jersey
New Mexico
New York
North Carolina
Ohio

Site Number:

Internal USGS A
UV Archive NW grams

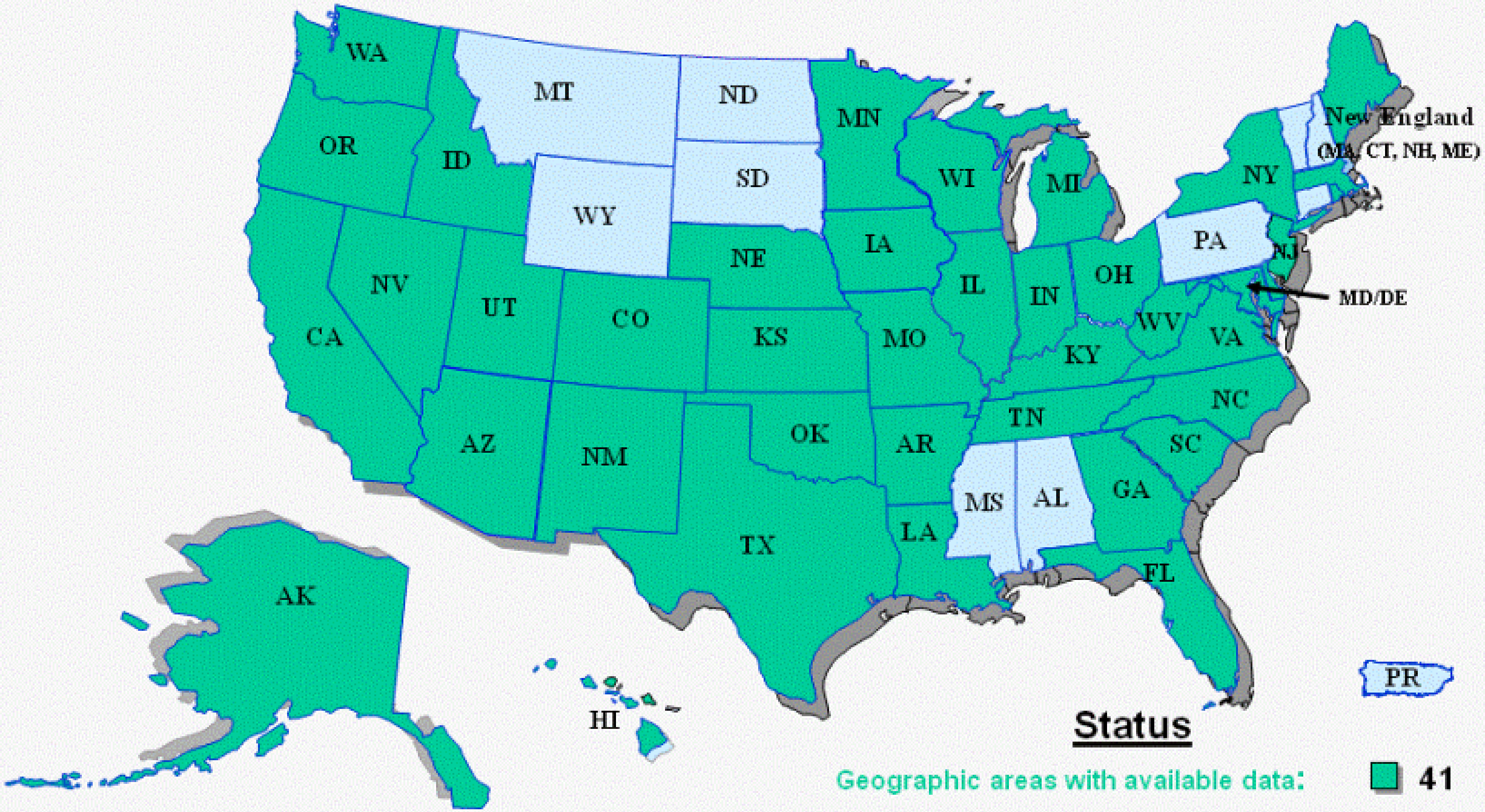
Accessibility Policies and Notices

U.S. Department ical Survey
URL: http://ida.w gs.cfm
Page Contact Inf or GS-W Help IDA@usgs.gov
Last Modified: 10

USA.gov

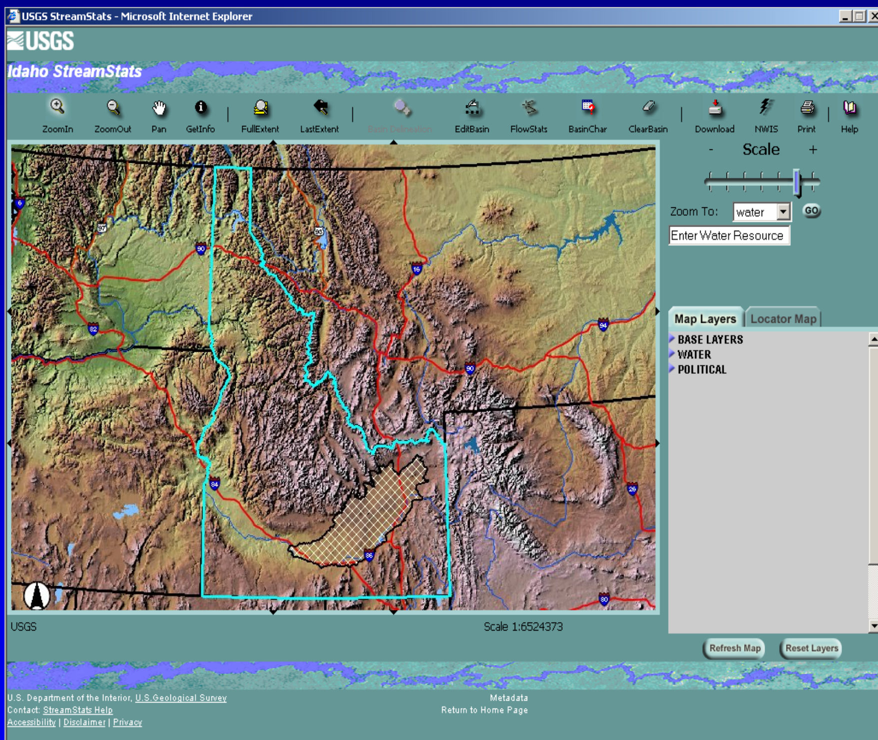
IDA Status

http://ida.water.usgs.gov/ida/view_status.cfm



Friday, March 20, 2009

StreamStats Primary Capabilities



Regression equations take the form:

$$Q100 = 0.471\,A^{0.715} * E^{0.827}$$

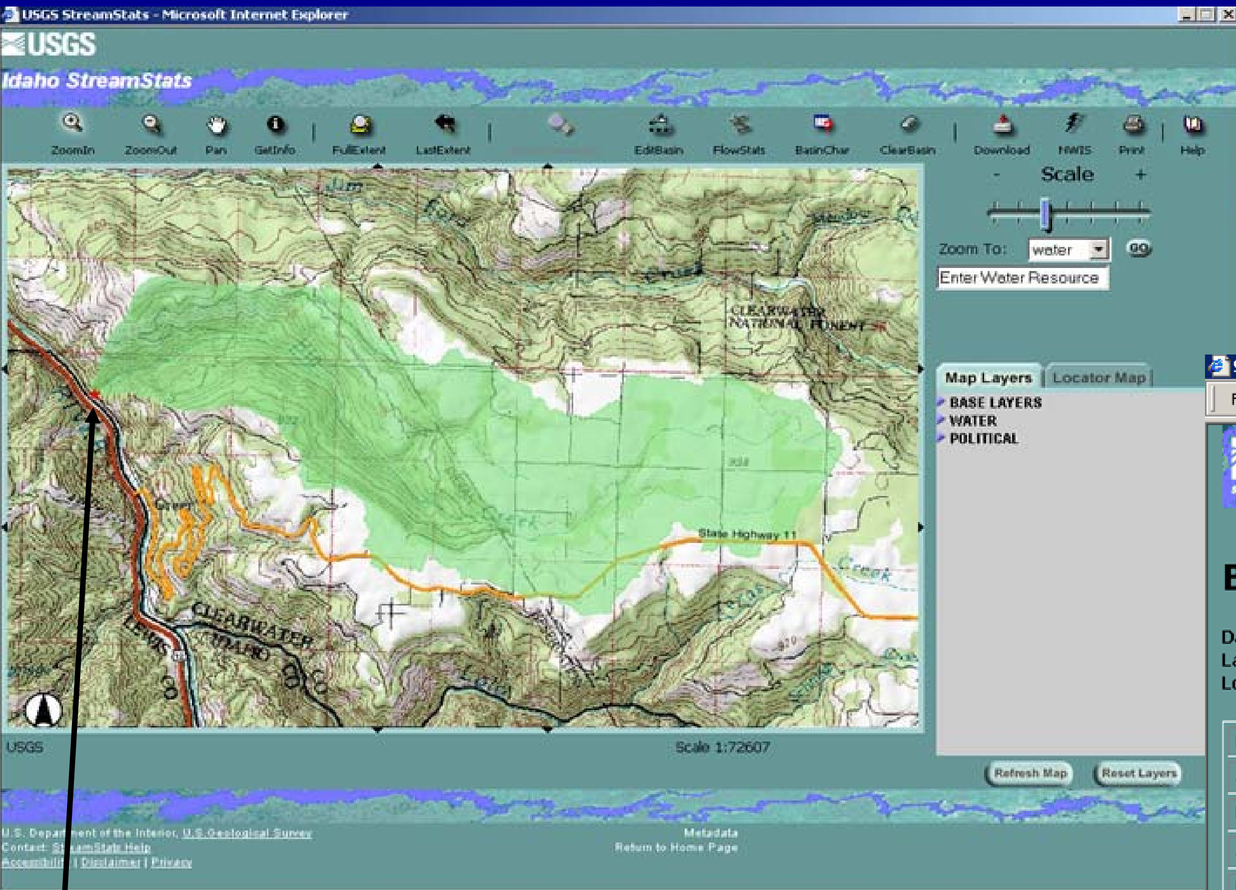
where:

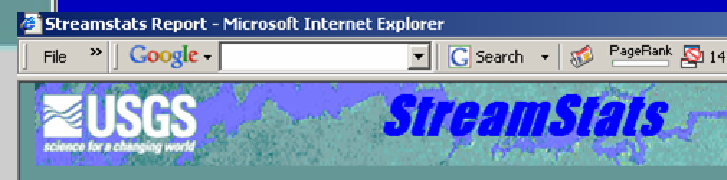
A is drainage area, in square miles

E is mean basin elevation, in feet

- http://streamstats.usgs.gov
- Provides estimates of streamflow statistics, basin and climatic characteristics, and other information for user-selected points on ungaged streams
- Automatically measures basin and climatic characteristics for ungaged sites using GIS
- Provides published streamflow statistics, basin and climatic characteristics, and other information for data-collection stations

Example Basin Delineation





Basin Characteristics Report

Date: Tue Nov 22 2005 06:40:06
Latitude: 46.4069
Longitude: -116.1875

Parameter	Value
Area in square miles (AREA2MI)	12.3
Relief in feet (RELIEFFT)	2100
Average elevation in feet (ELEVFT)	2770
Maximum elevation in feet (ELEVMAXFT)	3180
Minimum elevation in feet (ELEVMINFT)	1080
Average area slope in percent (SLPPCT)	19.5
Percent of area with slope greater than 30% (SLPPCT30)	28.2
Percent of area with slope greater than 30% and facing North (SLPPCT30N)	11.7
Percent of area covered by forest (FORESTPCT)	25.1
Mean annual precipitation in inches (PRECIPIN)	25

Click on any point on the stream network

Example Output for Ungaged Site

Streamstats Report - Microsoft Internet Explorer

File » Google Search PageRank 147 blocked Check AutoLink

USGS science for a changing world StreamStats

Streamflow Statistics Report

Date: Tue Nov 22 2005 06:41:31
Site Location: Idaho
Latitude: 46.4069
Longitude: -116.1875
Drainage Area: 12.3 mi2

Peak Flow Basin Characteristics

100% Peak Flow Region 4 (12.3 mi2)

Parameter	Value	Min	Max
Drainage Area (square miles)	12.3	2.3	13418.3
Mean Basin Elevation (feet)	2770 (below min value 2955.8)	2955.8	7461.3

Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown erro

Low Flow Basin Characteristics

100% Low Flow Region 4 (12.3 mi2)

Parameter	Value	Min	Max
Drainage Area (square miles)	12.3	4	13418.3
Mean Basin Slope from 30m DEM (percent)	19.5	18.7	57.2
Mean Annual Precipitation (inches)	25	15.9	64.6
Mean Basin Elevation (feet)	2770 (below min value 3528.6)	3528.6	7461.3
Percent Forest (percent)	25.1	4.8	93

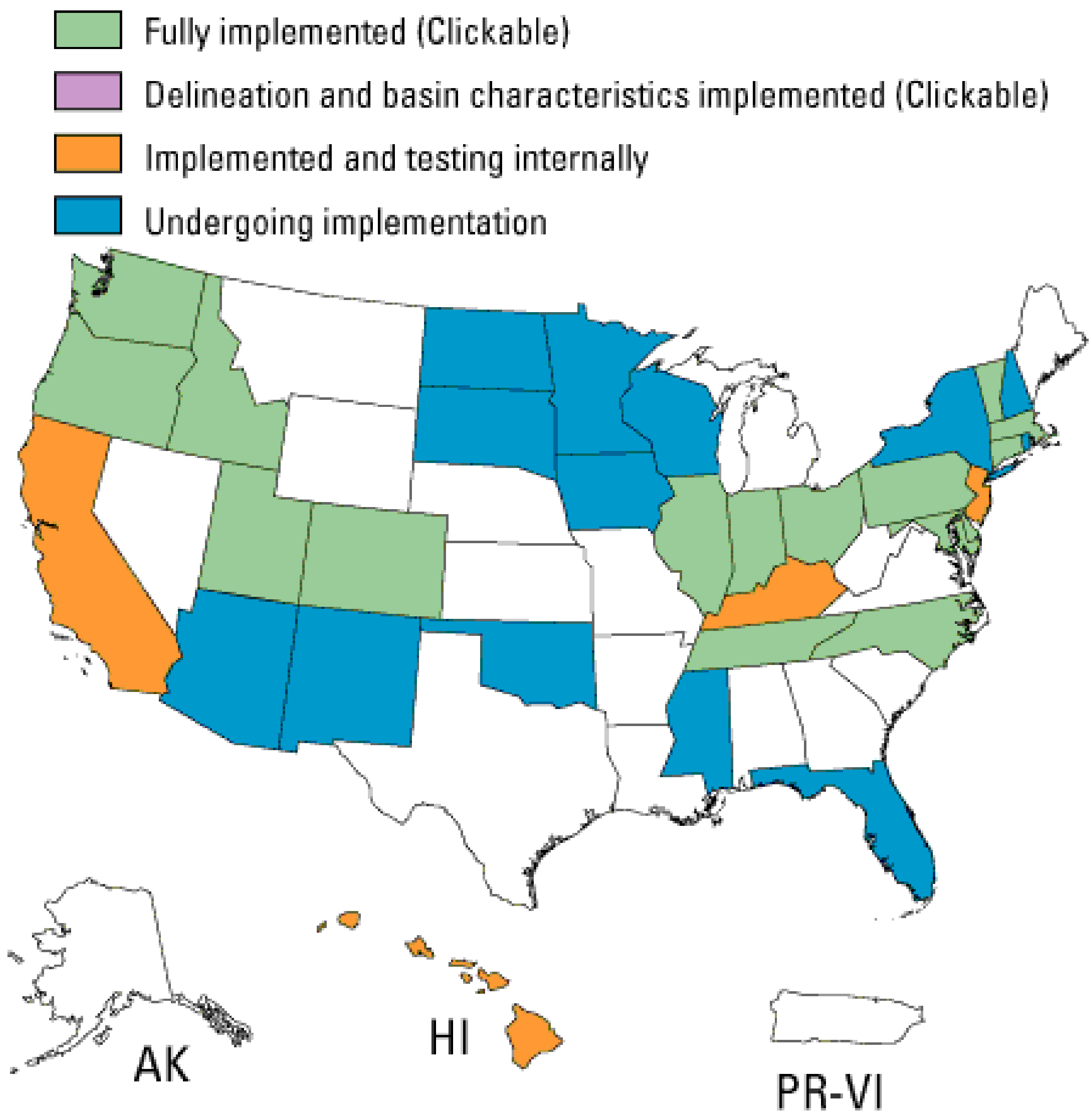
Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown erro

Streamflow Statistics

Statistic	Flow (ft^3/s)	Prediction Error (percent)	Equivalent years of record	90-Percent Prediction Interval	
				Minimum	Maximum
Peak-Flow Statistics					
Q1.5	96.8				
Q2	135				
Q2.33	156				
Q5	260				
Q10	364				
Q25	521				
Q50	651				
Q100	797				
Q200	958				
Q500	1210				

Streamflow Statistics

Statistic	Flow (ft^3/s)	Standard Error (percent)	Equivalent years of record	90-Percent Prediction Interval	
				Minimum	Maximum
Mean Annual Flow Statistics					
Qa	6.3				
January Flow-Duration Statistics					
Jan_Q20	13.8				
Jan_Q50	3.28				
Jan_Q80	1.63				
February Flow-Duration Statistics					
Feb_Q20	28.6				
Feb_Q50	8.22				



Fully implemented (Clickable)
Delineation and basin characteristics implemented (Clickable)
Implemented and testing internally
Undergoing implementation
AK
HI
PR-VI

StreamStats Version 2

- Stream Navigation – pick a point on a stream and obtain information about what is going on up and down stream – dams, gaging stations, point discharges, withdrawals, etc

- Obtain estimates of streamflow statistics for ungaged sites located near gaging station based on the flow per unit area for the gaging station (the drainage-area ratio method)

QUESTIONS?

http://water.usgs.gov/osw/