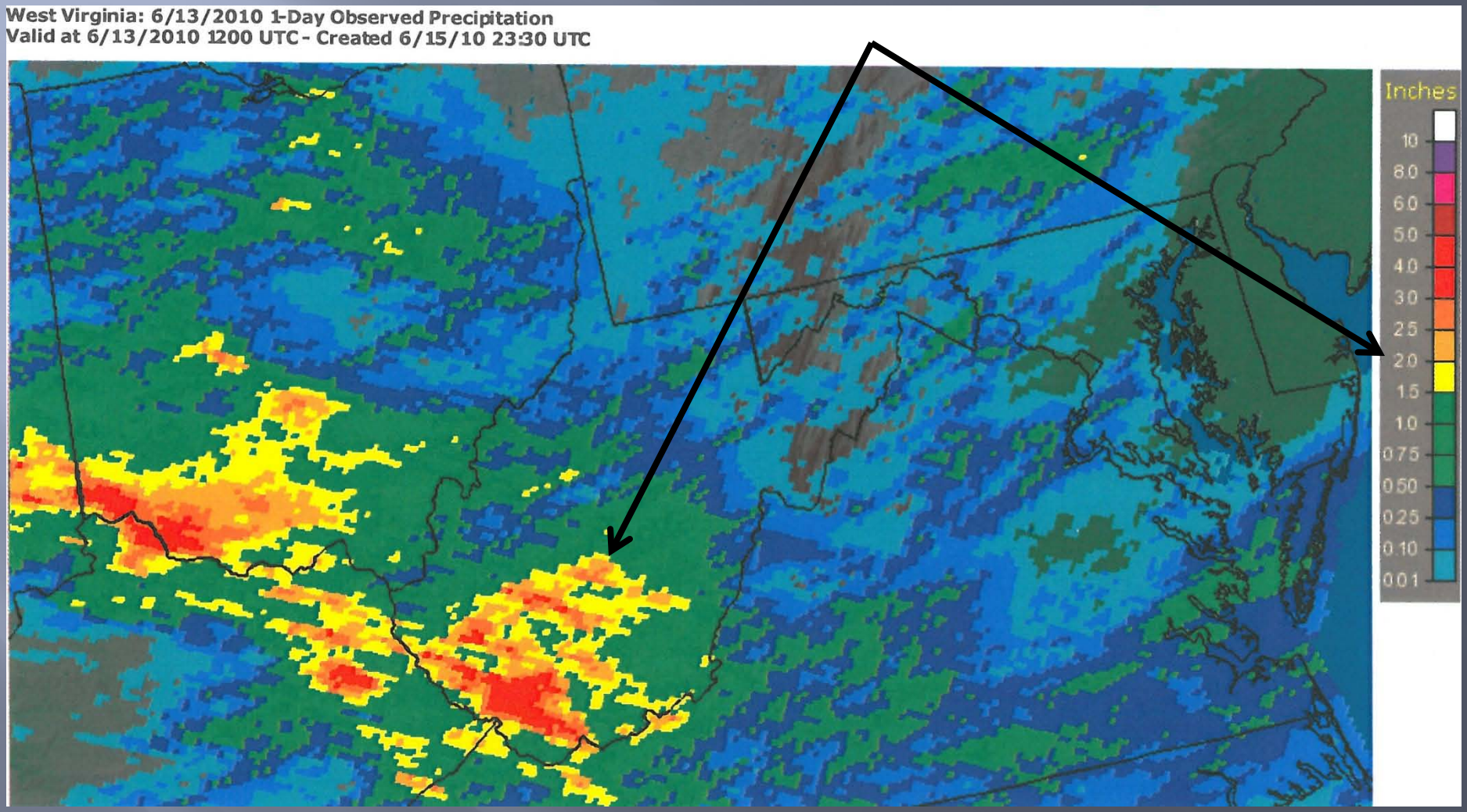
POST STORM PROTOCOL

US Department of Interior
Office of Surface Mining


West Virginia: 6/13/2010 1-Day Observed Precipitation
Valid at 6/13/2010 1200 UTC - Created 6/15/10 23:30 UTC
Inches
10
8.0
6.0
5.0
4.0
3.0
2.5
2.0
1.5
1.0
0.75
0.50
0.25
0.10
0.01

	Frequency (years)						
County	1	2	5	10	25	50	100
Barbour	2.36	2.75	3.5	4.22	4.79	5.3	5.77
Berkeley	2.46	2.97	3.95	4.8	5.5	6.3	6.75
Boone	2.38	2.72	3.48	3.96	4.65	5	5.45
Braxton	2.36	2.7	3.44	4.1	4.7	5.1	5.65
Brooke	2.22	2.51	3.21	3.77	4.35	4.77	4.95
Cabell	2.38	2.68	3.42	3.9	4.52	4.92	5.25
Calhoun	2.32	2.63	3.37	3.88	4.56	4.91	5.4
Clay	2.35	2.69	3.45	4	4.65	5.04	5.55
Doddridge	2.3	2.61	3.33	3.9	4.57	4.92	5.4
Fayette	2.38	2.75	3.54	4.1	4.75	5.25	5.7
Gilmer	2.33	2.65	3.37	3.95	4.6	4.96	5.47
Grant	2.42	2.88	3.75	4.6	4.98	5.75	6.3
Greenbrier	2.45	2.85	3.75	4.4	4.92	5.6	6
Hampshire	2.45	2.93	3.85	4.7	5.2	5.9	6.55
Hancock	2.2	2.5	3.19	3.74	4.3	4.72	4.85
Hardy	2.48	2.94	3.9	4.75	5.4	5.95	6.7

weather.gov

National Oceanic and Atmospheric Administration's

National Weather Service

Site Map | News | Organization | Search | NWS | All NOAA | Go

Local forecast by "City, St"

City, St Go

Sign-up for Email Alerts

XML RSS Feeds

Warnings
- Current
- By State/County...
- UV Alerts

Observations
- Radar
- Satellite
- Snow Cover
- Surface Weather...
- Observed Precip

Forecasts
- Local
- Graphical
- Aviation
- Marine
- Hurricanes
- Severe Weather
- Fire Weather

Text Bulletins
- By State
- By Message Type
- National

Forecast Models
- Numerical Models
- Statistical Models...
  - MOS Prod
  - GFS-LAMP Prod

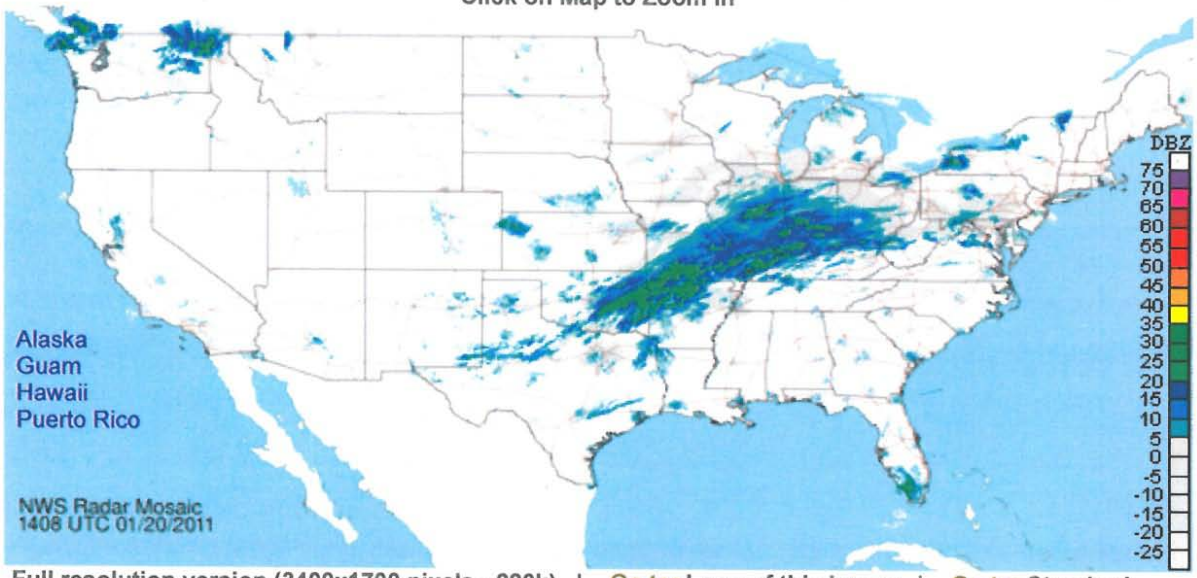
Climate
- Past Weather
- Predictions

Weather Safety
- Weather Radio

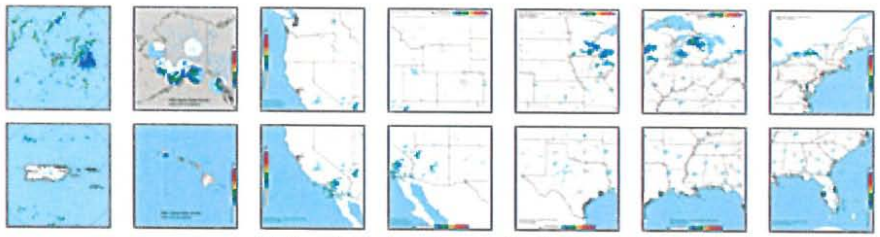
Comments on combined warning and radar displays will be accepted through the implementation of the new radar.

Warnings & Forecasts | Graphical Forecasts | National Maps | Radar | Water | Air Quality | Satellite | Climate

Click on Map to Zoom In



Full resolution version (3400x1700 pixels - 220k) | Go to: Loop of this Image | Go to: Standard Version



National Radar Mosaic Sectors (click image)

weather.g

National Oceanic and Atmospheric Administration's

National Weather Service

Site Map News Organization Search NWS All NOAA Go

Local forecast by "City, St"

City, St Go

XML RSS Feeds

Warnings
- Current
- By State/County...
- UV Alerts

Observations
- Radar
- Satellite
- Snow Cover
- Surface Weather...
- Observed Precip

Forecasts
- Local
- Graphical
- Aviation
- Marine
- Hurricanes
- Severe Weather
- Fire Weather

Text Messages
- By State
- By Message Type
- National

Forecast Models
- Numerical Models
- Statistical Models...
- MOS Prod

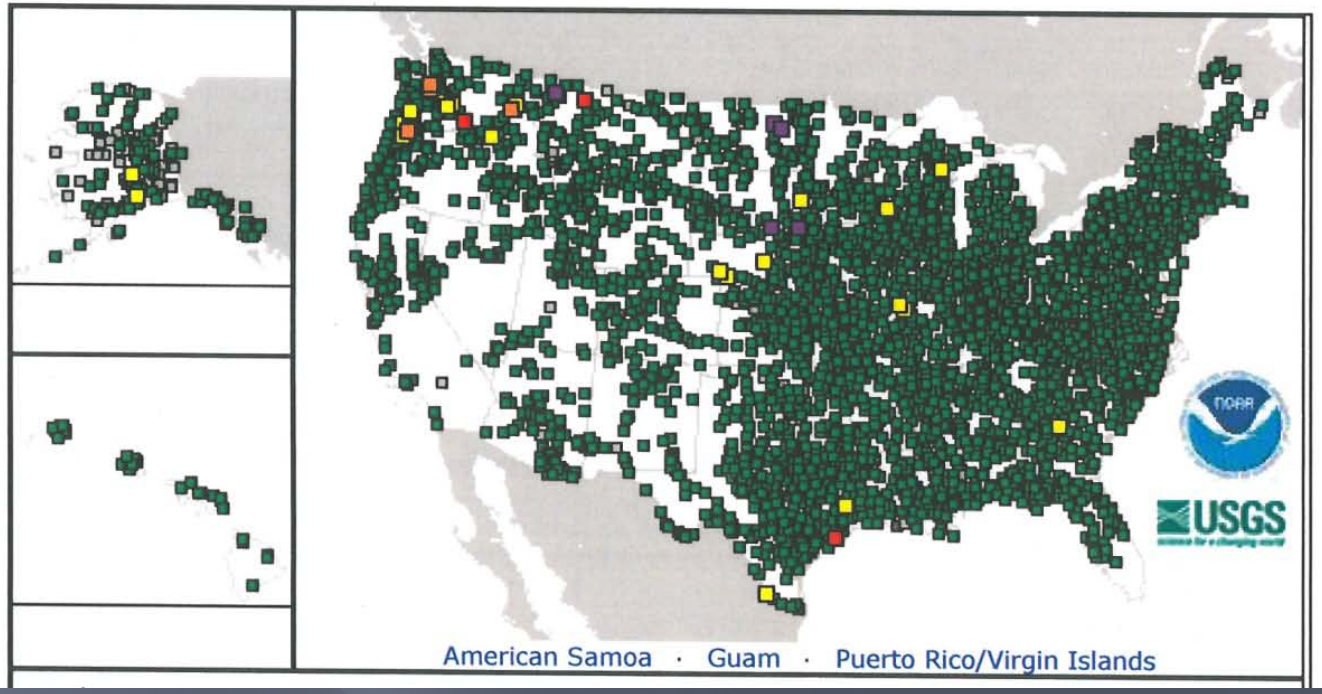
Home > Water

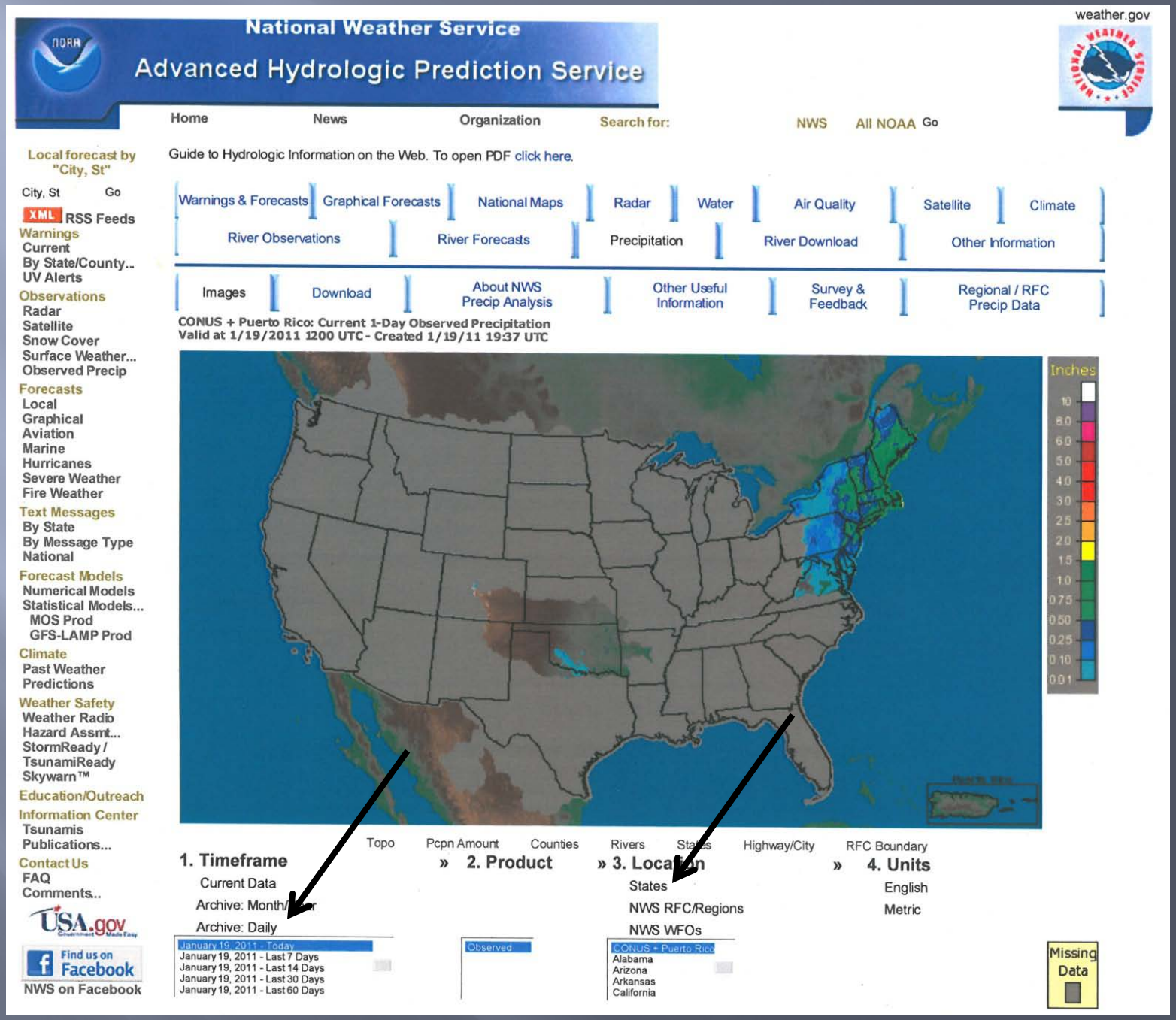
Guide to Hydrologic Information on the Web. To open PDF click here.

Warnings & Forecasts | Graphical Forecasts | National Maps | Radar | Water | Air Quality | Satellite | Climate

River Observations | River Forecasts | Precipitation | River Download | Other Information

All Locations Go Click The Map To Zoom In.





weather.gov
National Weather Service
Advanced Hydrologic Prediction Service
Home
News
Organization
Search for:
NWS
All NOAA
Go
Local forecast by "City, St"
City, St
Go
XML RSS Feeds
Warnings
Current
By State/County...
UV Alerts
Observations
Radar
Satellite
Snow Cover
Surface Weather...
Observed Precip
Forecasts
Local
Graphical
Aviation
Marine
Hurricanes
Severe Weather
Fire Weather
Text Messages
By State
By Message Type
National
Forecast Models
Numerical Models
Statistical Models...
MOS Prod
GFS-LAMP Prod
Climate
Past Weather
Predictions
Weather Safety
Weather Radio
Hazard Assmt...
StormReady / TsunamiReady
Skywarn™
Education/Outreach
Information Center
Tsunamis
Publications...
Contact Us
FAQ
Comments...
USA.gov
Find us on Facebook
NWS on Facebook
Guide to Hydrologic Information on the Web. To open PDF click here.
Warnings & Forecasts
Graphical Forecasts
National Maps
Radar
Water
Air Quality
Satellite
Climate
River Observations
River Forecasts
Precipitation
River Download
Other Information
Images
Download
About NWS Precip Analysis
Other Useful Information
Survey & Feedback
Regional / RFC Precip Data
CONUS + Puerto Rico: Current 1-Day Observed Precipitation
Valid at 1/19/2011 1200 UTC - Created 1/19/11 19:37 UTC
Inches
10
8.0
6.0
5.0
4.0
3.0
2.5
2.0
1.5
1.0
0.75
0.50
0.25
0.10
0.01
Topo
Pcpn Amount
Counties
Rivers
States
Highway/City
RFC Boundary
1. Timeframe
Current Data
Archive: Month/Year
Archive: Daily
» 2. Product
» 3. Location
States
NWS RFC/Regions
NWS WFOs
» 4. Units
English
Metric
January 19, 2011 - Today
January 19, 2011 - Last 7 Days
January 19, 2011 - Last 14 Days
January 19, 2011 - Last 30 Days
January 19, 2011 - Last 60 Days
Observed
CONUS + Puerto Rico
Alabama
Arizona
Arkansas
California
Missing Data

National Weather Service

Advanced Hydrologic Prediction Service

weather.gov

Home | News | Organization | Search for: | NWS | All NOAA | Go

Local forecast by "City, St"

City, St Go

XML RSS Feeds

Warnings
- Current
- By State/County...
- UV Alerts

Observations
- Radar
- Satellite
- Snow Cover
- Surface Weather...
- Observed Precip

Forecasts
- Local
- Graphical
- Aviation
- Marine
- Hurricanes
- Severe Weather
- Fire Weather

Text Messages
- By State
- By Message Type
- National

Forecast Models
- Numerical Models
- Statistical Models...
  - MOS Prod
  - GFS-LAMP Prod

Climate
- Past Weather
- Predictions

Weather Safety
- Weather Radio
- Hazard Assmt...
- StormReady / TsunamiReady
- Skywarn™

Education/Outreach

Information Center
- Tsunamis
- Publications...

Contact Us
- FAQ
- Comments...

USA.gov

Find us on Facebook

NWS on Facebook

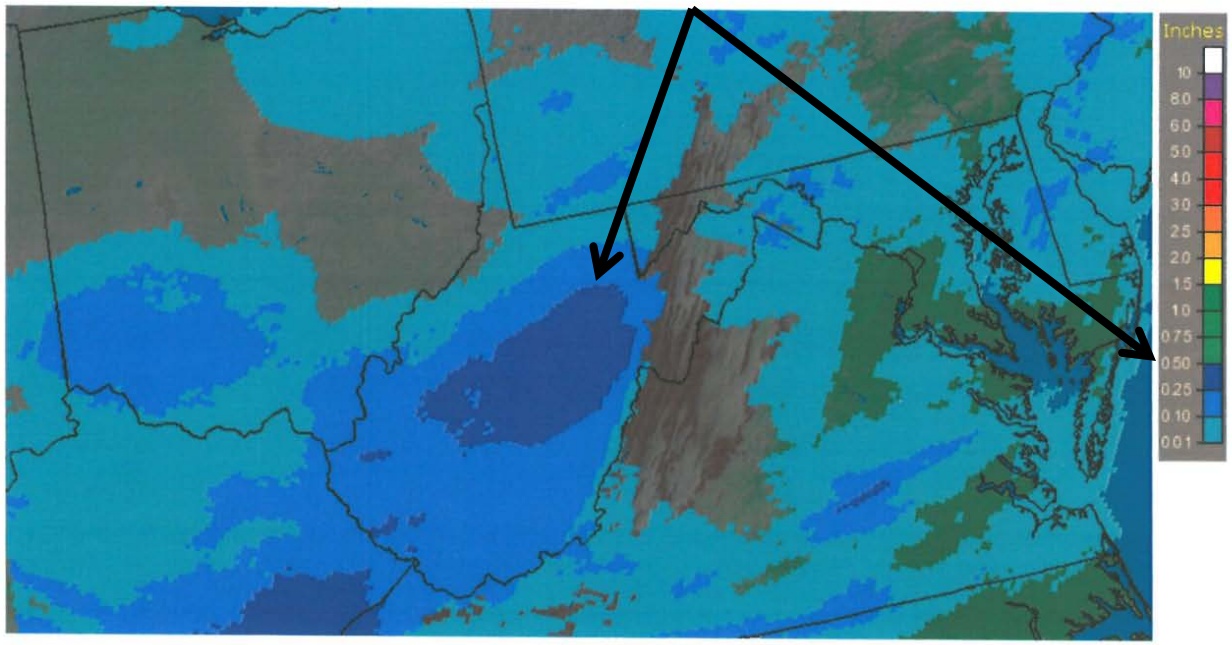
Guide to Hydrologic Information on the Web. To open PDF click here.

Warnings & Forecasts | Graphical Forecasts | National Maps | Radar | Water | Air Quality | Satellite | Climate

River Observations | River Forecasts | Precipitation | River Download | Other Information

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

West Virginia: 1/8/2011 1-Day Observed Precipitation
Valid at 1/8/2011 1200 UTC - Created 1/10/11 23:30 UTC



Topo | Pcpn Amount | Counties | Rivers | States | Highway/City | RFC Boundary

1. Timeframe
- Current Data
- Archive: Month/Year
- Archive: Daily

Year: 2011
Month: January
Day: 8

» **2. Product**

Observed

» **3. Location**
- States
- NWS RFC/Regions
- NWS WFOs

CONUS + Puerto Rico
Alabama
Arizona
Arkansas
California

» **4. Units**
- English
- Metric

Missing Data

weather.gov

National Weather Service
Advanced Hydrologic Prediction Service

Home | News | Organization | Search for: NWS All NOAA Go

Local forecast by "City, St"

City, St Go

XML RSS Feeds

Warnings
- Current
- By State/County..
- UV Alerts

Observations
- Radar
- Satellite
- Snow Cover
- Surface Weather...
- Observed Precip

Forecasts
- Local
- Graphical
- Aviation
- Marine
- Hurricanes
- Severe Weather
- Fire Weather

Text Messages
- By State
- By Message Type
- National

Forecast Models
- Numerical Models
- Statistical Models...
  - MOS Prod
  - GFS-LAMP Prod

Climate
- Past Weather
- Predictions

Weather Safety
- Weather Radio
- Hazard Assmt...
- StormReady / TsunamiReady
- Skywarn™

Education/Outreach

Information Center
- Tsunamis
- Publications...

Contact Us
- FAQ
- Comments..

USA.gov

Find us on Facebook

NWS on Facebook

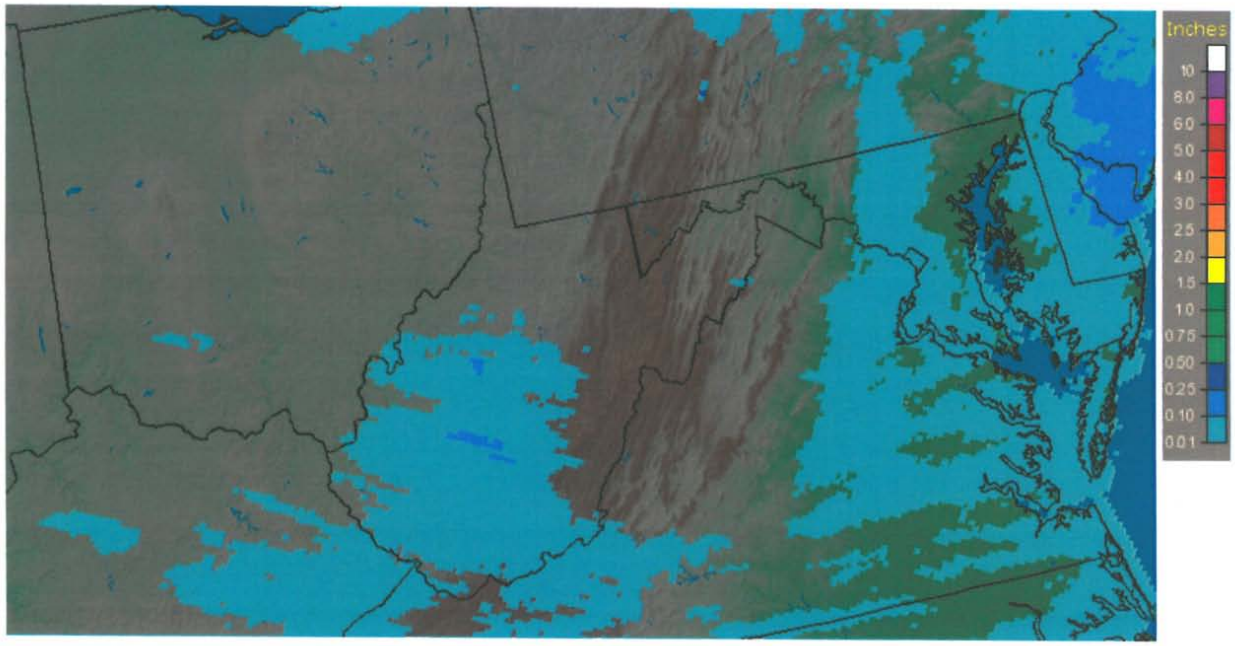
Guide to Hydrologic Information on the Web. To open PDF click here.

Warnings & Forecasts | Graphical Forecasts | National Maps | Radar | Water | Air Quality | Satellite | Climate

River Observations | River Forecasts | Precipitation | River Download | Other Information

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

West Virginia: 1/9/2011 1-Day Observed Precipitation
Valid at 1/9/2011 1200 UTC - Created 1/11/11 23:30 UTC



Topo | Pcpn Amount | Counties | Rivers | States | Highway/City | RFC Boundary

1. Timeframe
- Current Data
- Archive: Month/Year
- Archive: Daily

Year: 2011
Month: January
Day: 9

» **2. Product**

Observed

» **3. Location**
- States
- NWS RFC/Regions
- NWS WFOs

CONUS + Puerto Rico
Alabama
Arizona
Arkansas
California

» **4. Units**
- English
- Metric

Missing Data

National Weather Service

Advanced Hydrologic Prediction Service

weather.gov

Home | News | Organization | Search for: | NWS | All NOAA | Go

Local forecast by "City, St"

City, St Go

XML RSS Feeds

Warnings
- Current
- By State/County...
- UV Alerts

Observations
- Radar
- Satellite
- Snow Cover
- Surface Weather...
- Observed Precip

Forecasts
- Local
- Graphical
- Aviation
- Marine
- Hurricanes
- Severe Weather
- Fire Weather

Text Messages
- By State
- By Message Type
- National

Forecast Models
- Numerical Models
- Statistical Models...
  - MOS Prod
  - GFS-LAMP Prod

Climate
- Past Weather
- Predictions

Weather Safety
- Weather Radio
- Hazard Assmt...
- StormReady / TsunamiReady
- Skywarn™

Education/Outreach

Information Center
- Tsunamis
- Publications...

Contact Us
- FAQ
- Comments...

USA.gov

Find us on Facebook

NWS on Facebook

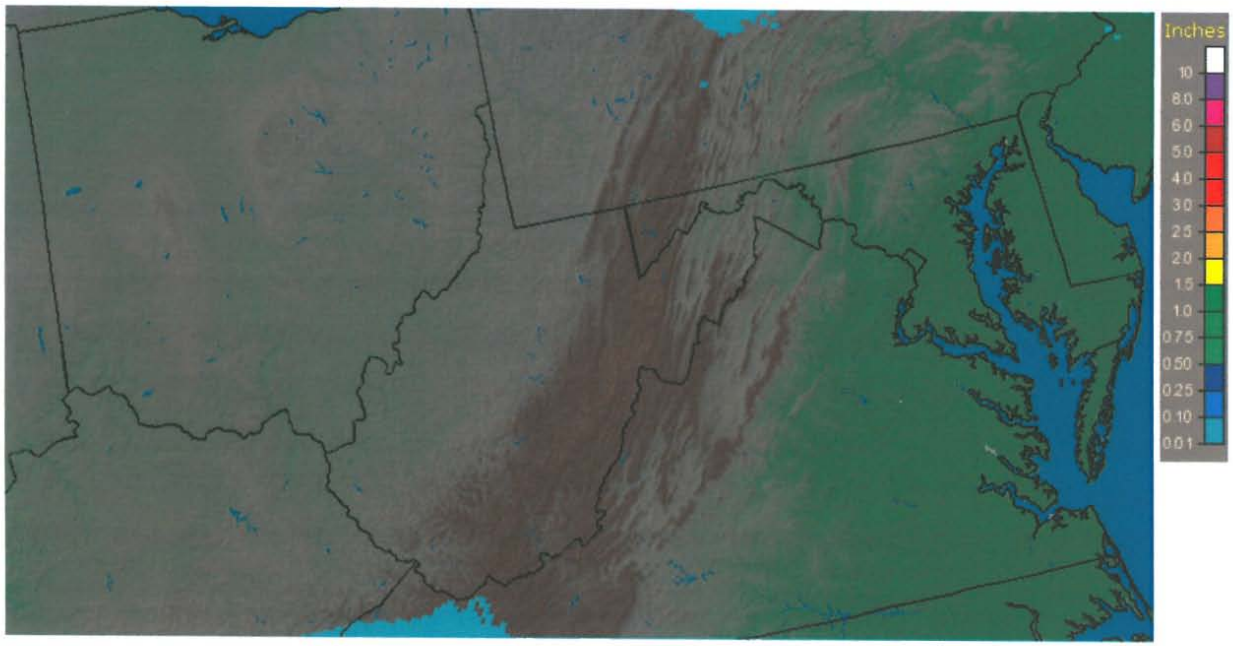
Guide to Hydrologic Information on the Web. To open PDF click here.

Warnings & Forecasts | Graphical Forecasts | National Maps | Radar | Water | Air Quality | Satellite | Climate

River Observations | River Forecasts | Precipitation | River Download | Other Information

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

West Virginia: 1/10/2011 1-Day Observed Precipitation
Valid at 1/10/2011 1200 UTC - Created 1/12/11 23:30 UTC



Topo | Pcpn Amount | Counties | Rivers | States | Highway/City | RFC Boundary

1. Timeframe
- Current Data
- Archive: Month/Year
- Archive: Daily

Year: 2011
Month: January
Day: 10

» **2. Product**

Observed

» **3. Location**
- States
- NWS RFC/Regions
- NWS WFOs

CONUS + Puerto Rico
Alabama
Arizona
Arkansas
California

» **4. Units**
- English
- Metric

Missing Data

National Weather Service
Advanced Hydrologic Prediction Service

weather.gov

Home | News | Organization | Search for: NWS All NOAA Go

Local forecast by "City, St"
City, St Go

XML RSS Feeds

Warnings
Current
By State/County..
UV Alerts

Observations
Radar
Satellite
Snow Cover
Surface Weather...
Observed Precip

Forecasts
Local
Graphical
Aviation
Marine
Hurricanes
Severe Weather
Fire Weather

Text Messages
By State
By Message Type
National

Forecast Models
Numerical Models
Statistical Models...
MOS Prod
GFS-LAMP Prod

Climate
Past Weather
Predictions

Weather Safety
Weather Radio
Hazard Assmt...
StormReady / TsunamiReady
Skywarn™

Education/Outreach

Information Center
Tsunamis
Publications...

Contact Us
FAQ
Comments..

USA.gov

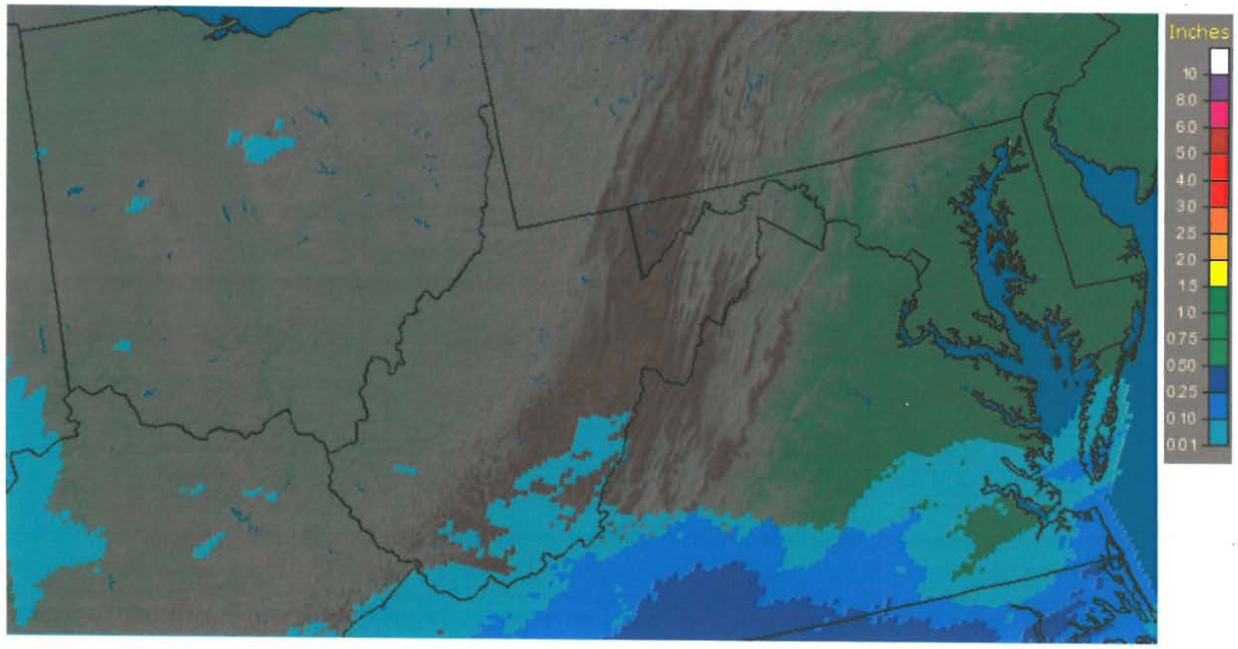
Find us on Facebook
NWS on Facebook

Guide to Hydrologic Information on the Web. To open PDF click here.

Warnings & Forecasts | Graphical Forecasts | National Maps | Radar | Water | Air Quality | Satellite | Climate
River Observations | River Forecasts | Precipitation | River Download | Other Information

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

West Virginia: 1/11/2011 1-Day Observed Precipitation
Valid at 1/11/2011 1200 UTC - Created 1/13/11 23:30 UTC



Topo | Pcpn Amount | Counties | Rivers | States | Highway/City | RFC Boundary

1. Timeframe
Current Data
Archive: Month/Year
Archive: Daily
Year: 2011
Month: January
Day: 11

» **2. Product**
Observed

» **3. Location**
States
NWS RFC/Regions
NWS WFOs
CONUS + Puerto Rico
Alabama
Arizona
Arkansas
California

» **4. Units**
English
Metric

Missing Data

National Weather Service

Advanced Hydrologic Prediction Service

weather.gov

Home | News | Organization | Search for: | NWS | All NOAA | Go

Local forecast by "City, St"

City, St Go

XML RSS Feeds

Warnings
- Current
- By State/County..
- UV Alerts

Observations
- Radar
- Satellite
- Snow Cover
- Surface Weather...
- Observed Precip

Forecasts
- Local
- Graphical
- Aviation
- Marine
- Hurricanes
- Severe Weather
- Fire Weather

Text Messages
- By State
- By Message Type
- National

Forecast Models
- Numerical Models
- Statistical Models...
  - MOS Prod
  - GFS-LAMP Prod

Climate
- Past Weather
- Predictions

Weather Safety
- Weather Radio
- Hazard Assmt...
- StormReady / TsunamiReady
- Skywarn™

Education/Outreach

Information Center
- Tsunamis
- Publications...

Contact Us
- FAQ
- Comments..

USA.gov

Find us on Facebook

NWS on Facebook

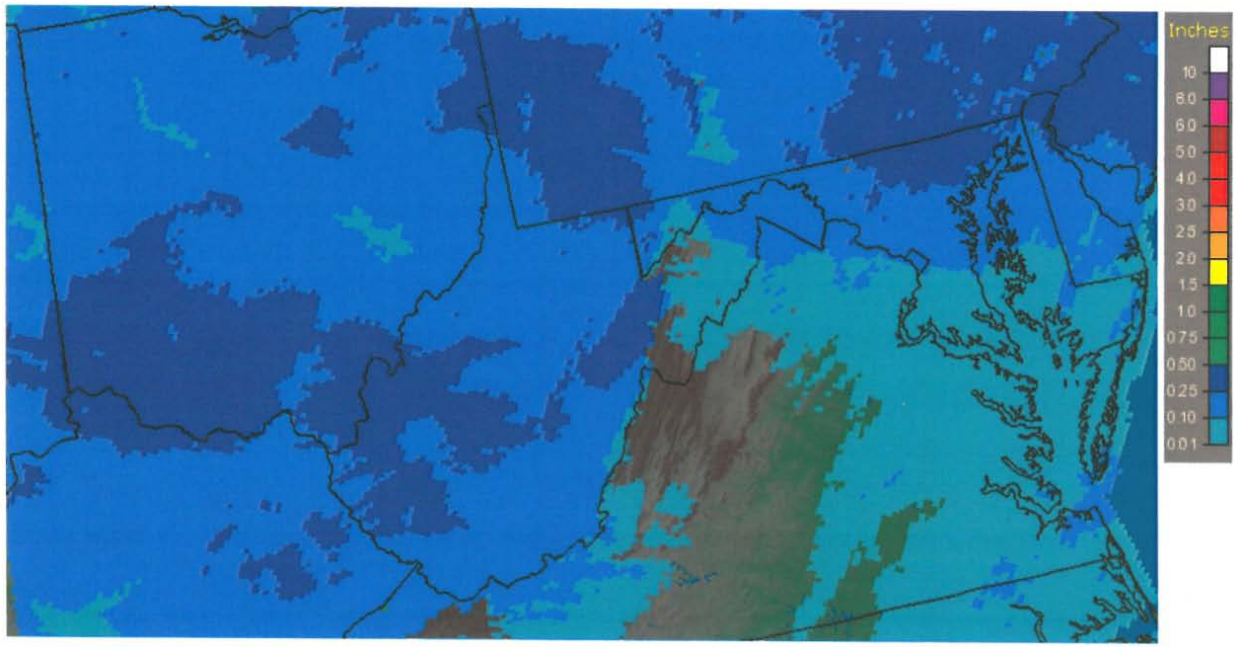
Guide to Hydrologic Information on the Web. To open PDF click here.

Warnings & Forecasts | Graphical Forecasts | National Maps | Radar | Water | Air Quality | Satellite | Climate

River Observations | River Forecasts | Precipitation | River Download | Other Information

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

West Virginia: 1/12/2011 1-Day Observed Precipitation
Valid at 1/12/2011 1200 UTC - Created 1/14/11 23:30 UTC



Topo | Pcpn Amount | Counties | Rivers | States | Highway/City | RFC Boundary

1. Timeframe
- Current Data
- Archive: Month/Year
- Archive: Daily

Year: 2011
Month: January
Day: 12

» **2. Product**

Observed

» **3. Location**
- States
- NWS RFC/Regions
- NWS WFOs

CONUS + Puerto Rico
Alabama
Arizona
Arkansas
California

» **4. Units**
- English
- Metric

Missing Data

National Weather Service

Advanced Hydrologic Prediction Service

weather.gov

Home | News | Organization | Search for: | NWS | All NOAA | Go

Local forecast by "City, St"

City, St Go

XML RSS Feeds

Warnings
- Current
- By State/County..
- UV Alerts

Observations
- Radar
- Satellite
- Snow Cover
- Surface Weather...
- Observed Precip

Forecasts
- Local
- Graphical
- Aviation
- Marine
- Hurricanes
- Severe Weather
- Fire Weather

Text Messages
- By State
- By Message Type
- National

Forecast Models
- Numerical Models
- Statistical Models...
  - MOS Prod
  - GFS-LAMP Prod

Climate
- Past Weather
- Predictions

Weather Safety
- Weather Radio
- Hazard Assmt...
- StormReady / TsunamiReady
- Skywarn™

Education/Outreach

Information Center
- Tsunamis
- Publications...

Contact Us
- FAQ
- Comments..

USA.gov

Find us on Facebook

NWS on Facebook

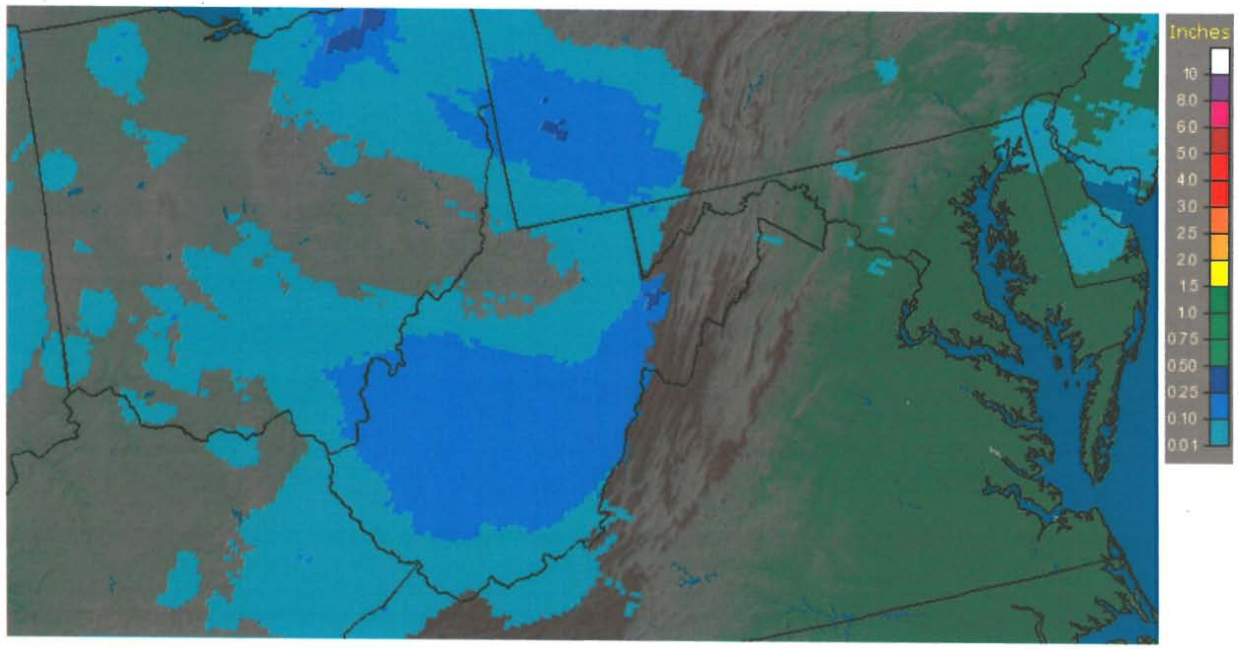
Guide to Hydrologic Information on the Web. To open PDF click here.

Warnings & Forecasts | Graphical Forecasts | National Maps | Radar | Water | Air Quality | Satellite | Climate

River Observations | River Forecasts | Precipitation | River Download | Other Information

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

West Virginia: 1/13/2011 1-Day Observed Precipitation
Valid at 1/13/2011 1200 UTC - Created 1/15/11 23:30 UTC



Topo | Pcpn Amount | Counties | Rivers | States | Highway/City | RFC Boundary

1. Timeframe
- Current Data
- Archive: Month/Year
- Archive: Daily

Year: 2011
Month: January
Day: 13

» **2. Product**

Observed

» **3. Location**
- States
- NWS RFC/Regions
- NWS WFOs

CONUS + Puerto Rico
Alabama
Arizona
Arkansas
California

» **4. Units**
- English
- Metric

Missing Data

National Weather Service

Advanced Hydrologic Prediction Service

weather.gov

Home | News | Organization | Search for: | NWS | All NOAA | Go

Local forecast by "City, St"

City, St Go

XML RSS Feeds

Warnings
- Current
- By State/County..
- UV Alerts

Observations
- Radar
- Satellite
- Snow Cover
- Surface Weather...
- Observed Precip

Forecasts
- Local
- Graphical
- Aviation
- Marine
- Hurricanes
- Severe Weather
- Fire Weather

Text Messages
- By State
- By Message Type
- National

Forecast Models
- Numerical Models
- Statistical Models...
  - MOS Prod
  - GFS-LAMP Prod

Climate
- Past Weather
- Predictions

Weather Safety
- Weather Radio
- Hazard Assmt...
- StormReady / TsunamiReady
- Skywarn™

Education/Outreach

Information Center
- Tsunamis
- Publications...

Contact Us
- FAQ
- Comments..

USA.gov

Find us on Facebook

NWS on Facebook

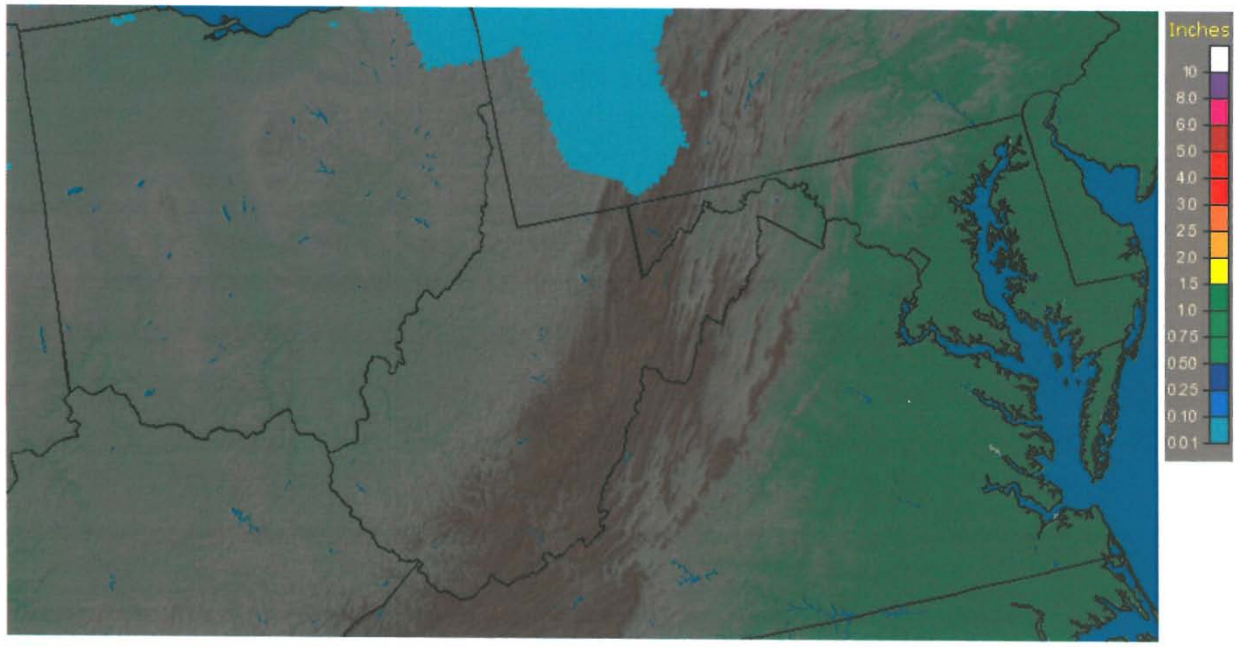
Guide to Hydrologic Information on the Web. To open PDF click here.

Warnings & Forecasts | Graphical Forecasts | National Maps | Radar | Water | Air Quality | Satellite | Climate

River Observations | River Forecasts | Precipitation | River Download | Other Information

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

West Virginia: 1/14/2011 1-Day Observed Precipitation
Valid at 1/14/2011 1200 UTC - Created 1/16/11 23:30 UTC



Topo | Pcpn Amount | Counties | Rivers | States | Highway/City | RFC Boundary

1. Timeframe
- Current Data
- Archive: Month/Year
- Archive: Daily

Year: 2011
Month: January
Day: 14

» **2. Product**

Observed

» **3. Location**
- States
- NWS RFC/Regions
- NWS WFOs

CONUS + Puerto Rico
Alabama
Arizona
Arkansas
California

» **4. Units**
- English
- Metric

Missing Data

weather.gov

National Weather Service
Advanced Hydrologic Prediction Service

Home | News | Organization | Search for: | NWS | All NOAA | Go

Local forecast by "City, St"

City, St Go

XML RSS Feeds

Warnings
- Current
- By State/County...
- UV Alerts

Observations
- Radar
- Satellite
- Snow Cover
- Surface Weather...
- Observed Precip

Forecasts
- Local
- Graphical
- Aviation
- Marine
- Hurricanes
- Severe Weather
- Fire Weather

Text Messages
- By State
- By Message Type
- National

Forecast Models
- Numerical Models
- Statistical Models...
  - MOS Prod
  - GFS-LAMP Prod

Climate
- Past Weather
- Predictions

Weather Safety
- Weather Radio
- Hazard Assmt...
- StormReady / TsunamiReady
- Skywarn™

Education/Outreach

Information Center
- Tsunamis
- Publications...

Contact Us
- FAQ
- Comments...

USA.gov

Find us on Facebook

NWS on Facebook

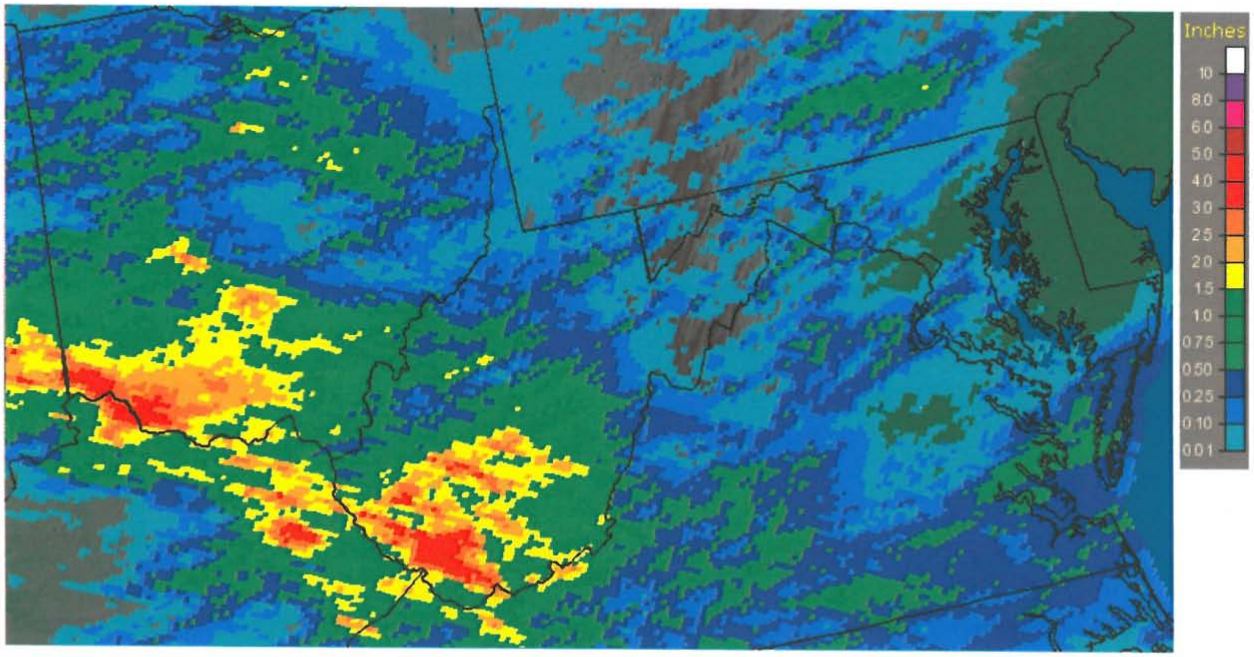
Guide to Hydrologic Information on the Web. To open PDF click here.

Warnings & Forecasts | Graphical Forecasts | National Maps | Radar | Water | Air Quality | Satellite | Climate

River Observations | River Forecasts | Precipitation | River Download | Other Information

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

West Virginia: 6/13/2010 1-Day Observed Precipitation
Valid at 6/13/2010 1200 UTC - Created 6/15/10 23:30 UTC



Topo | Pcpn Amount | Counties | Rivers | States | Highway/City | RFC Boundary

1. Timeframe
- Current Data
- Archive: Month/Year
- Archive: Daily

Year: 2010
Month: June
Day: 13

» **2. Product**

Observed

» **3. Location**
- States
- NWS RFC/Regions
- NWS WFOs

CONUS + Puerto Rico
Alabama
Arizona
Arkansas
California

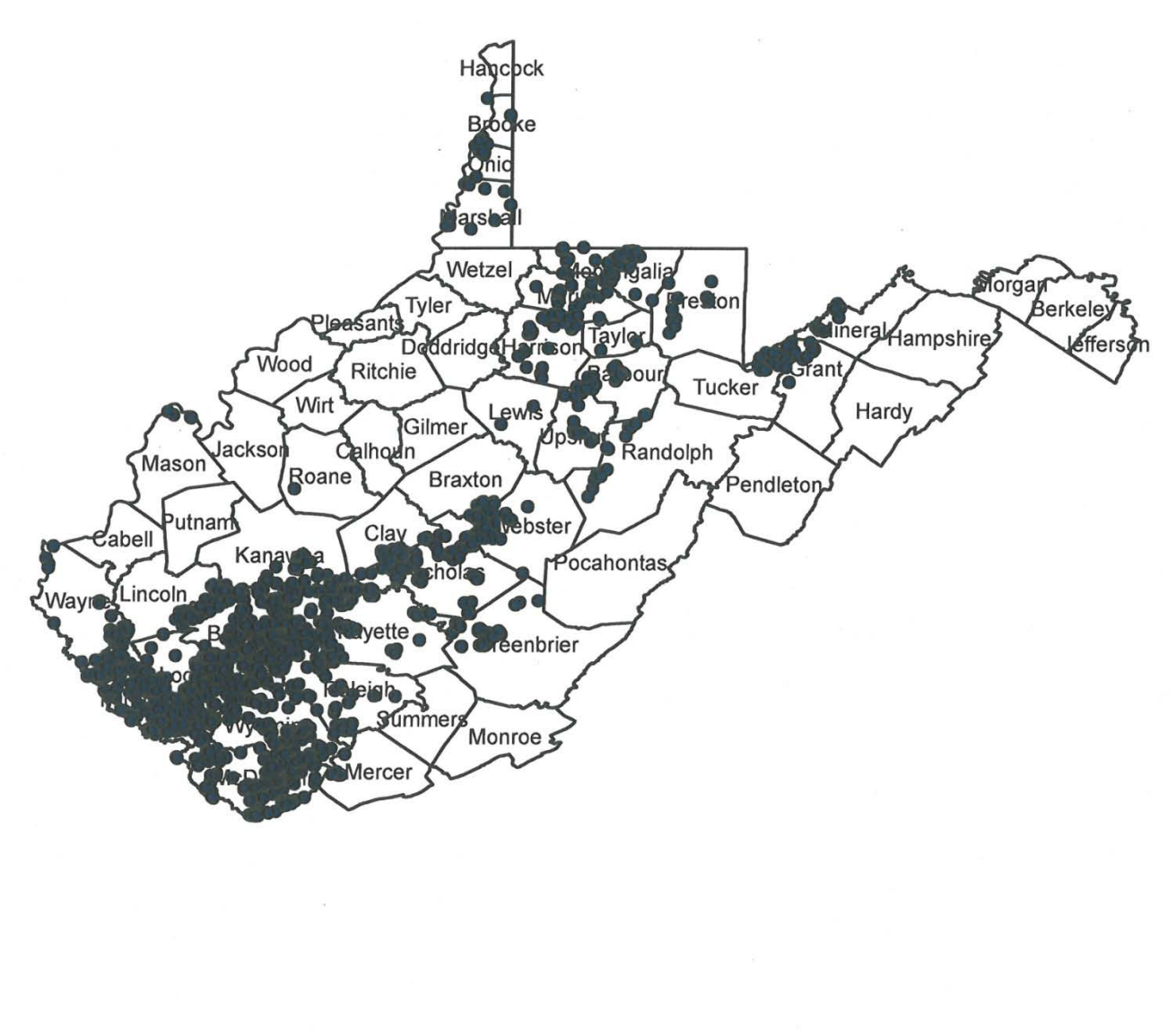
» **4. Units**
- English
- Metric

Missing Data

- We Downloaded a Georeferenced West Virginia Map with County and State Lines from the WVDEP
- We Added the Map to our ArcMap Template as a Layer
- We Added Seven Fields to the Attribute Table, 1, 2, 5, 10, 25, 50, and 100 Year Rainfall Events

- We Downloaded a Shapefile of Georeferenced Locations of All Permits in West Virginia from the WVDEP
  - In addition to locations, the file included permit information for each of the permits
- We Added the Map to our ArcMap Template as a Layer
- The File was Trimmed from Approximately 10,100 Permits to Approximately 1,530

West Virginia Map With Mine Permits

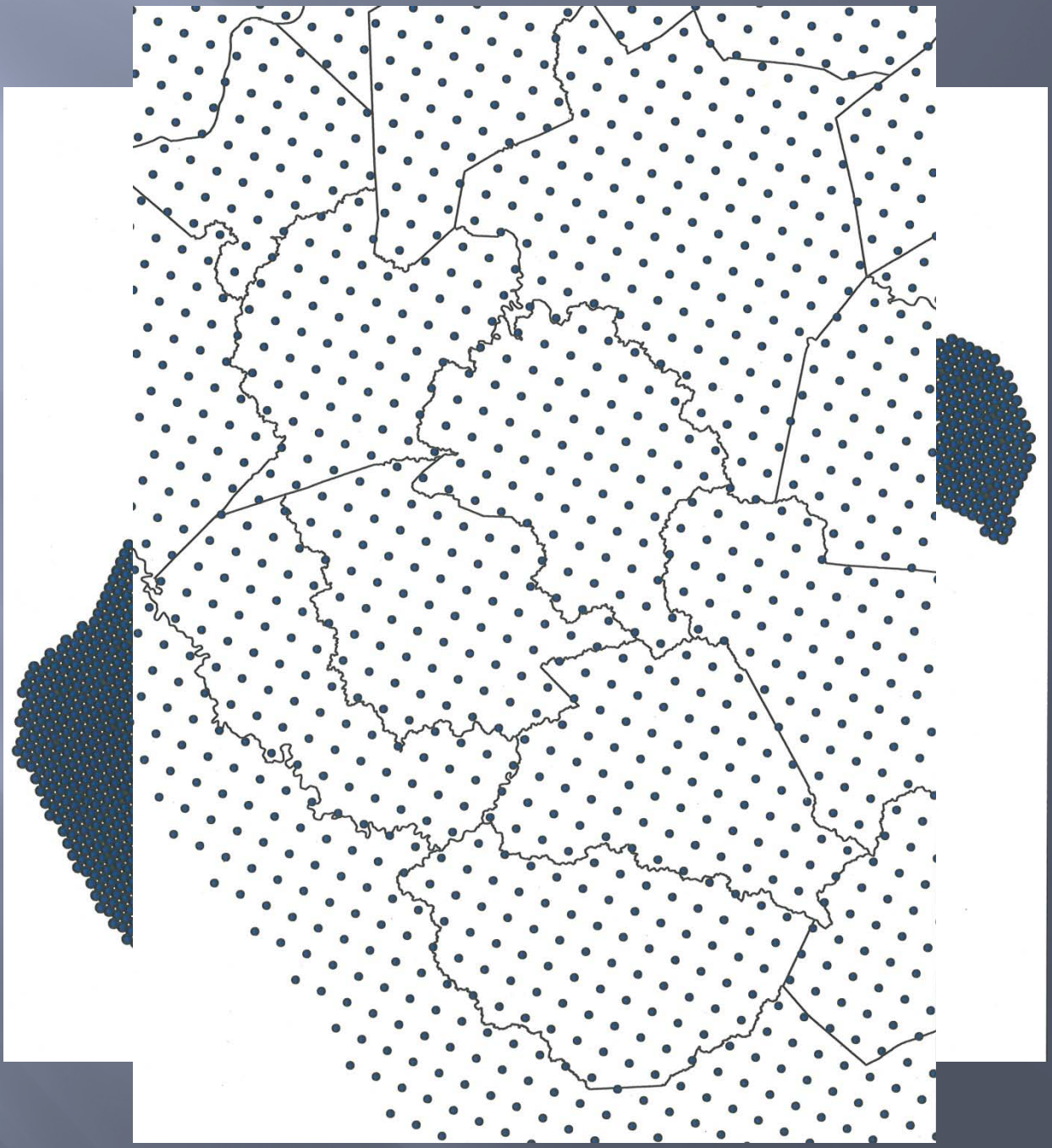


- Download the Zipped Shapefile for the Date of Interest.
- Extract the Files Making up the Shapefile
- Add the Shapefile to the ArcMap File as a Layer
- Define a Geographical Coordinate System (GCS) in ArcMap, Matching the Parameters of the GCS of the Downloaded File (HRAP_GCS)
- Define a Projection in ArcMap, Matching the Parameters of the Projection of the Downloaded File (HRAP_Projection)

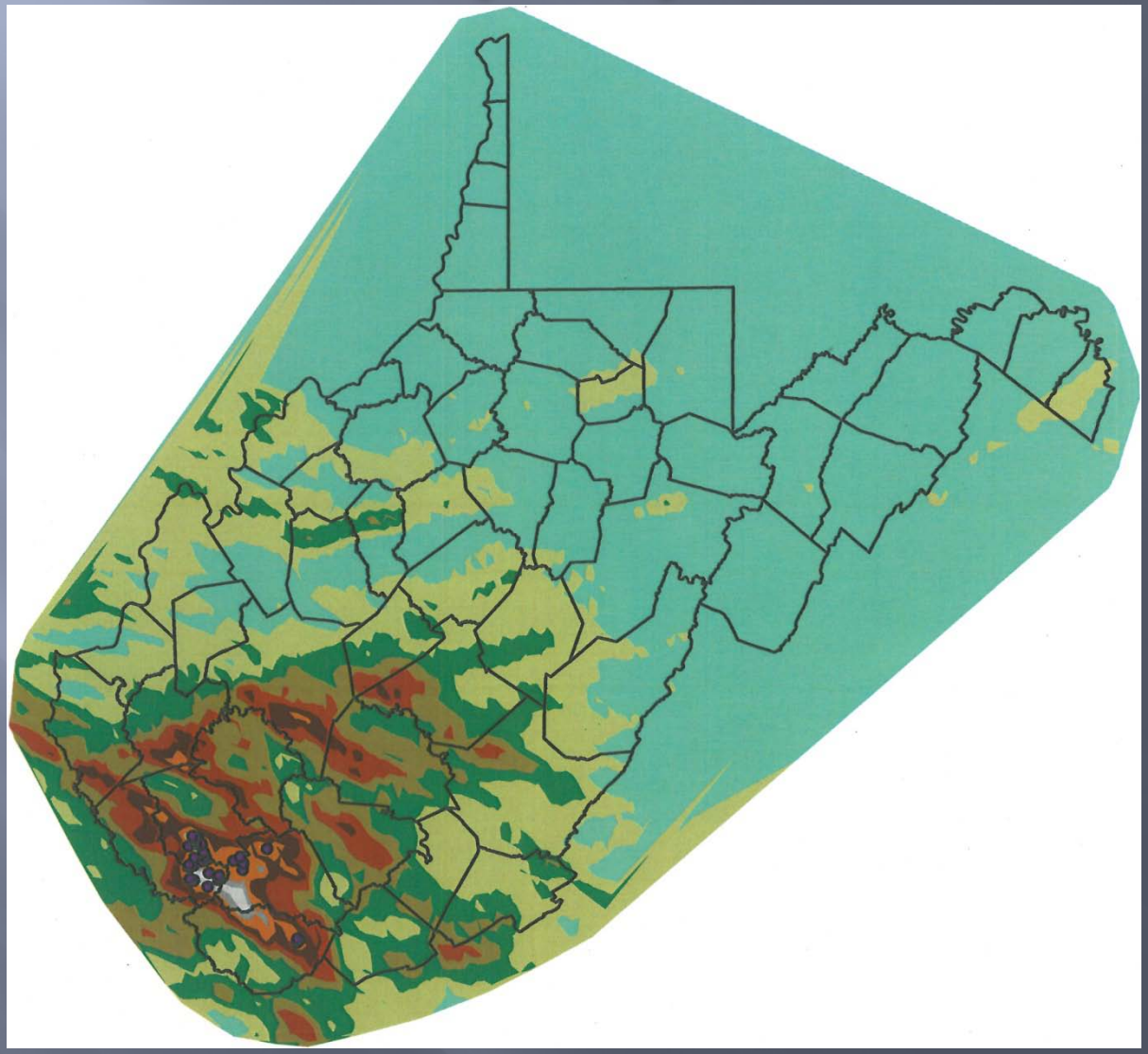
- Transform the file from HRAP_GCS to NAD 83 Zone 17N
  - We now have a point file that includes precipitation values for every point in a 4 kilometer grid, over the United States and parts of Mexico and Canada
- Clip the File to a Boundary a Short Distance Outside the West Virginia State Line
- Generate a Triangular Irregular Network from the Point Shape File, Using Precipitation Values as “Z” Values

- The TIN is a 3 Dimensional Surface With Known Values at All Nodes, and Interpolated Precipitation (in our case) Values for Any Points Between Nodes

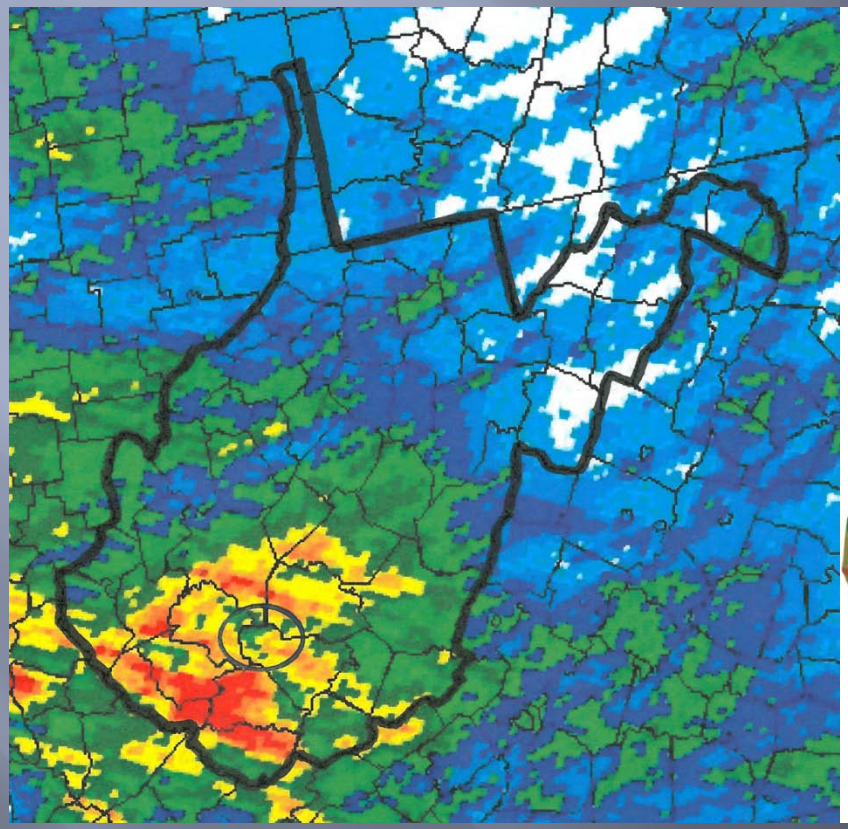
- The Value for any Point is Interpolated between the Three Grid Nodes Closest to the Point in Question

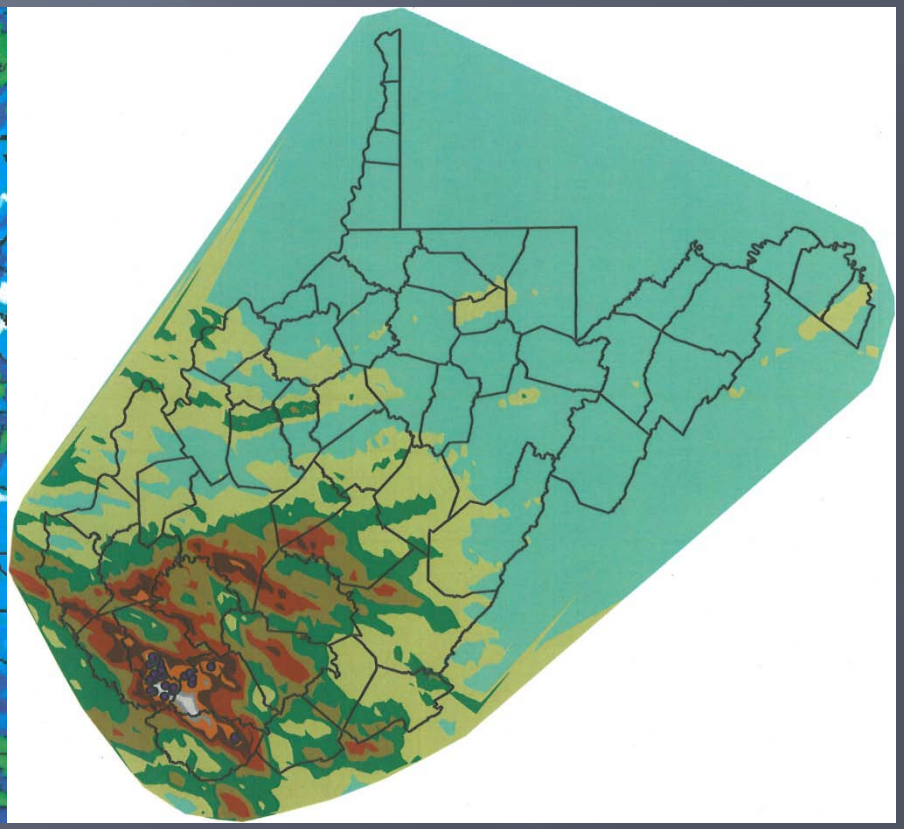


Triangular Irregular Network (TIN)



NWS Precipitation Map

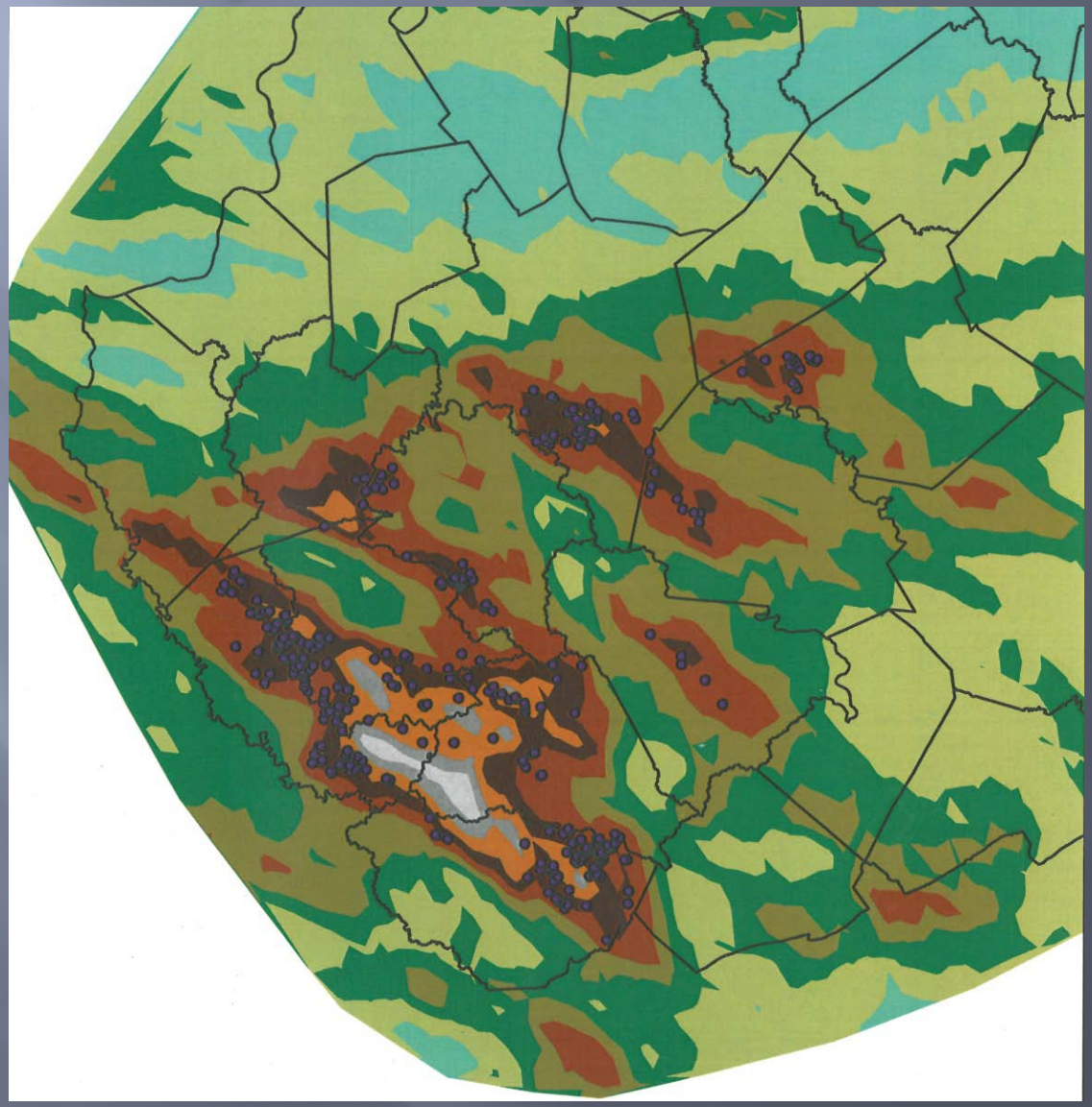




- Add a “Z” Value to the Attribute Table of the Permit Layer, with the “Z” Values Being the Interpolated Precipitation Values (from the TIN) at the Permit Locations
  - We now have a precipitation value for every permit location

- Merge or “Intersect” the Permit and County Layers
  - We now have a single layer with all permit, current precipitation, and 1 through 100 year rainfall event information
- We Can Query for All Permits for which the Observed Precipitation Equaled or Exceeded the 1-Year Event, But Not the 5-Year Event
- We Can Do the Same for the 2, 5, 10, 25, 50, and 100-Year Events

June 13, 2010, 1 Year Event



Output Report

1 Year Event Exceeded 7/14/10

permittee	facility	type	per_status	permit_id	NAME	Precipitation	1_Year
TERRY EAGLE COAL COMPANY LLC	CARI EAGLE MINE #2	Coal Underground	RN, Renewed	D010682	Nicholas	2.56	2.39
PEERLESS EAGLE COAL CO	NA	Other	ACT, Active	O002184	Nicholas	2.84	2.39
PEERLESS EAGLE COAL CO	NA	Other	IN, Inactive	O004183	Nicholas	2.84	2.39
PEERLESS EAGLE COAL CO	NA	Other	IN, Inactive	O301286	Nicholas	2.91	2.39
APPALACHIAN FUELS, LLC.	WV 1 North Haul Road System	Other - Haulroad	RN, Renewed	O500603	Mingo	2.42	2.42
LAUREL CREEK COMPANY INC	NA	Other	RN, Renewed	O503290	Logan	2.43	2.4
MEADOW CREEK MINERALS LLC	MEADOW CREEK #3	Coal Surface Mine	RN, Renewed	S302288	Nicholas	2.63	2.39
TERRY EAGLE COAL COMPANY LLC	MEADOW CREEK SURFACE #1	Coal Surface Mine	P2, Phase 2 Released	S302987	Nicholas	2.69	2.39
TERRY EAGLE COAL COMPANY LLC	MEADOW CREEK SURFACE NO. 2	Coal Surface Mine	P1, Phase 1 Released	S306987	Nicholas	2.73	2.39
HOBET MINING LLC	WESTRIDGE SOUTH NO. 1 SURFACE	Coal Surface Mine	RN, Renewed	S500404	Boone	2.4	2.38
ARGUS ENERGY WV LLC	Jims Branch Surface Mine	Coal Surface Mine	NW, New	S501107	Mingo	2.92	2.42
ARGUS ENERGY WV LLC	WITCHER FORK SURFACE MINE	Coal Surface Mine	RN, Renewed	S501899	Lincoln	2.45	2.38
APPALACHIAN FUELS, LLC.	TRI-COUNTY NO. 2 SURFACE	Coal Surface Mine	RN, Renewed	S501900	Mingo	2.57	2.42
ARGUS ENERGY WV LLC	COPLEY TRACE NO. 2 SURFACE MIN	Coal Surface Mine	RN, Renewed	S502698	Mingo	2.92	2.42
TERRY EAGLE COAL COMPANY LLC	CARI EAGLE MINE NO. 3	Coal Underground	RN, Renewed	U305789	Nicholas	2.73	2.39
CONSOL OF	N. MARROWBONE	Coal Underground	RN, Renewed	U500597	Lincoln	2.66	2.38

Questions?

US Department of Interior
Office of Surface Mining