

State Interagency Missouri River Authority (SIMRA) Meeting
Wednesday, April 24, 2013 9:00 a.m.
Wallace State Office Building, 4 East Conference Room
502 E. 9th St., Des Moines

SIMRA member attendees: Bruce Trautman, Bill Ehm & Sharon Tahtinen (DNR); Amy Christensen (IUB); Craig O'Riley (DOT); Harold Hommes (IDALS); Doug Hoelscher (IGOV – via phone)

Guest attendees: Tim Hall (DNR); Cara Marker-Morgan (MO River County Officials/Fremont Co.); Leo Ettleman (Responsible River Management); Stu Maas (Fremont Co. landowner); Lori McDaniel (DNR); David Sieck (Iowa Corn Growers); Ben Gleason (Iowa Corn Growers); Michael Anderson (DNR); Jane Clark (Sierra Club); Tim Kautza (Homeland Security); Chris Larson (DNR); Tony Toigo (IDALS); Sen. Hubert Houser; Don Peterson (Iowa Farm Bureau); Sen. Joni Ernst; Sen. Bill Anderson; Sen. Nancy Boettger; Jim Friedrich (Senate Caucus staff).

Via phone: Lyle McIntosh (Vanman Levee); Mark Podany (Walter Scott Energy); Tom Parham (Federal Highway Administration); Greg Reeder (Public Works Director Council Bluffs); Alan Byers (Fire Chief Council Bluffs)

Welcome and Introductions – Bruce Trautman, Deputy Director – Department of Natural Resources (DNR)

SIMRA Business:

Approve Agenda – Approved Unanimously

Approval of Meeting Summary - November 14, 2012 Meeting – Approved Unanimously

State Hydrology Work Group Report – Tim Hall, DNR (Presentation attached)

Tim Hall provided a brief review of the role of the Hydrology Work Group. He also provided an overview of group's activities – which included working toward the establishment of a network of soil moisture data stations. The HWG will be meeting April 30 to discuss a number of issues, including the creation of a web page that accumulates hydrologic information sources into one location. Tim then provided a quick review of current hydrologic conditions in Iowa – noting that recent rains have provided some overall relief to the state. Over one-third of the state is not in drought conditions any longer, and stream flow has improved in all areas. There has been some flooding in eastern Iowa, while some parts of western Iowa are still experiencing drought conditions.

COE Reports – Kimberly Thomas, Chief, Readiness Branch - U.S. Army Corps of Engineers - Omaha District; also: Kelly Crane, MRRP Shallow Water Habitat Program Manager; Dave Jensen, Water Quality; Dan Pridal, MRRP Hydraulic Engineer and Luke Wallace, Environmental (**Via Phone**)

Kim Thomas reported that there has been a small increase in snow pack and feels that the snowpack has peaked at about 95% of normal levels. The COE doesn't anticipate this snow pack increasing due to steadily warming temperatures and recent rains. Reservoirs in the system are about eight (8) feet below typical levels for this time of the year, and drought impacts will be felt. Navigation is expected to experience a reduction in operating days – projections suggest a 23 day shorter navigation window. Gavins Point release is currently at 14,000 cfs, and is expected to increase to 17,000 cfs in mid May. There is still concern about thunderstorm events, especially in the unregulated section of the Missouri River below Gavins Point. Levees are in good shape. It is expected that by the end of summer all levee work will be completed.

COE representatives proceeded with an update of the Little Sioux Bend Chute Project. (Brief attached) Concerns were expressed by some attendees about the volume of sediment to be discharged to the river as a result of hydraulic dredging, and the possible nutrient impacts from that sediment. Concerns were also raised about the potential scour impacts from this project on bank stabilization materials across from the project site. COE staff explained the sample testing protocol for meeting attendees.

The Project Implementation Report (PIR) is expected to be released soon and open for public comment.

The COE also made available briefings on 3 other projects (briefs attached): Lower Little Sioux/Deer Island Top Width Widening Project; Middle Decatur Bend Shallow Water Habitat Restoration Project; and Wilson Island State Park and DeSoto Bend Backwater Projects. These were distributed to the SIMRA members and will be posted to the SIMRA website. The COE indicated they would put together a list of projects and provide it for dissemination to SIMRA members.

National Flood Insurance Program Update – Lori McDaniel, DNR

In 2012 the US Congress passed the Flood Insurance Reform Act of 2012. Provisions of this act will lead to changes to the National Flood Insurance Program and have impacts across the country. At this time questions can be directed to FEMA's NFIP Help Center at 1800-427-4661 or by visiting their website, <http://www.fema.gov/national-flood-insurance-program/flood-insurance-reform-act-2012>.

Missouri River County Officials Coalition Update - Cara Marker-Morgan, Fremont County Supervisor

Cara Marker-Morgan provided an update on the Coalition's interests. The primary concern of the Coalition is accreditation of the levee. She discussed this concern in terms of the financial impact that repair and accreditation of the levee has on the multi-state area.

Missouri River Recovery and Implementation Committee (MRRIC) Update – Shawn Shouse, MRRIC representative, was not available at the time of the meeting but his report will be distributed upon receipt. David Sieck mentioned that the next MRRIC meeting will be held May 21-23 in Rapid City, SD. Drought will still be a priority interest item.

Discussion for Next Meeting – will be scheduled for late summer.

Adjourn

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Corps of Engineers Snowmelt/Flow Projection
Discussion of Drought in Context of Missouri River
Update on Little Sioux Project
Overview of Missouri River Projects – 2013

National Flood Insurance Program Update – Lori McDaniel, Iowa DNR

Missouri River County Officials Coalition Update - Cara Marker-Morgan, Fremont County Supervisor

Missouri River Recovery and Implementation Committee (MRRIC) Update - written comments will be distributed.

Discussion for Next Meeting

Adjourn

Little Sioux Bend Chute Project

LEADING AGENCY:

U.S. Army Corps of Engineers

LOCATION:

Harrison County, Iowa

PROJECT DESCRIPTION:

The proposed Little Sioux Bend Chute Project (see attached plan view) would involve the excavation of approximately 400,000 cubic yards of river-borne sediment to create a 7,600-foot long flow through chute that would be connected to the main channel of the Missouri River. The chute would be excavated to an approximately width of 70-feet with an inlet structure that would be approximately 150-feet wide. This would allow the 70-foot wide pilot channel to widen through natural river processes to an ultimate width that is roughly the same as that of the inlet (150 feet). This would result in the creation of approximately 19 acres of shallow water habitat (SWH) immediately after construction, with the potential for 33 acres of SWH once the chute expands to its projected ultimate width of 150 feet. The chute would be excavated to a depth of 2.5 to 5 feet below the 50% August exceedance flow water surface elevation. In addition, two tie channels that would connect the chute to the main channel at mid-point locations would also be constructed. Both tie channels would be excavated to the same dimensions as the chute. All of the material would be excavated using a hydraulic dredge and would be discharged into the thalweg of the Missouri River.

The proposed project would also include the placement of approximately 25,000 tons of rock to construct an inlet structure for grade control purposes. In addition, the ends of five existing dikes would be extended 75 feet riverward to insure proper functioning of the Missouri River navigation channel. Each of these extensions would require the placement of approximately 10,000 tons of new stone. In addition, up to 9 anchored large wood debris structures, each consisting of four large trees would be constructed along the edge of the chute. The trees in each of the structures would be anchored by piling rock on the trunks of the trees along the bank.



Figure 1. Location of Little Sioux Bend along the Missouri River.



Figure 2. Project Vicinity and the Proposed Project Location.

Lower Little Sioux/Deer Island River Top Width Widening Project

LEADING AGENCY:

U.S. Army Corps of Engineers

LOCATION:

Harrison County, Iowa

PROJECT DESCRIPTION:

The Lower Little Sioux/ Deer Island River Top Width Widening Project (see attached plan view) consists of a wide excavated zone along the inside of the bend for a length of approximately 2 miles. The shallow bench excavation zone would include 3 separate 75-100 foot-wide integrated chutes designed to provide depth diversity and also to facilitate construction access. The chutes will be constructed at a depth of 4 to 6 feet below the 50% August exceedance flow water surface elevation. The remainder of the wide bench would be excavated to a depth of 2 to 5.5 feet below the 50% August exceedance flow water surface elevation.

Approximately 2.5 to 3.0 million cubic yards of material would be excavated using hydraulic dredges over a two to five year construction period. Discharge would occur during and throughout the navigation season. The material would be distributed in the main channel among the various stone riprap and large woody debris structures to create additional shallow water habitat (SWH) until the design grade is reached. The remaining material would be discharged into the thalweg of the Missouri River where it would become entrained into the bedload of the river. Monitoring during construction will be included to prohibit elevated amounts of material deposition within the navigation channel and within the Harbor 671 channel (a private access channel located across the river from Deer Island State Game Management Area). This project would initially result in the construction of approximately 150 acres of SWH.



Figure 1. Location of Lower Little Sioux/Deer Island along the Missouri River.



Figure 2. Project Vicinity Map.



Middle Decatur Bend Shallow Water Habitat Restoration Project

LEADING AGENCY:

U.S. Army Corps of Engineers

LOCATION:

Burt County, Nebraska near Decatur,
Nebraska

PROJECT DESCRIPTION:

The proposed Middle Decatur Shallow Water Habitat Restoration Project (see attached plan view) would involve the use of a hydraulic dredge to excavate 260,000 cubic yards of material from a 2,500 foot section of the original channel that was filled in by the flood. This material would be excavated to restore the connection between the Missouri River and the Middle Decatur Bend backwater lake. An additional 30,000 cubic yards of material would be excavated to create an improved 400-foot inlet channel that would provide a larger and more reliable connection between the river and the original channel. Both excavated channels would be constructed with a 50-foot bottom width and 6 horizontal to 1 vertical side slopes. All excavated material would be discharged into the thalweg of the Missouri River. In addition, 7,000 tons of rock will be used to construct an L-Head Dike structure at the entrance of the improved inlet channel. The L-Head Dike structure is intended to decrease the rate of sedimentation at the new inlet channel.



Figure 1. Location of Middle Decatur Bend along the Missouri River.



Figure 2. Project Vicinity and Proposed Project Area.

MRRIC (Missouri River Recovery Implementation Committee) Report, April 2013

Shawn Shouse – Iowa representative

MRRIC held its twentieth meeting at Overland Park, Kansas on January 29-31, 2013.

The Committee received reports from the following groups: the Communications/Information Technology (IT) Work Group; the Land Acquisition and Management (LAM) Ad Hoc Group; the Membership, Process, and Procedures (MP2) Ad Hoc Group; the Science Adaptive Management (SAM) Work Group; the Tribal Interests Work Group; and the Vision and Goals Ad Hoc Group. A new group, the Human Considerations Ad Hoc Group, was formed during the meeting.

I currently serve on the Land Acquisition and Management Ad Hoc Group and the Vision and Goals Ad Hoc Group. I agreed to be co-chair (point of contact) for the new Human Considerations Ad Hoc Group. The charge for this new group is to guide MRRIC provision of meaningful input regarding the impact possible management actions may have on human uses of the river. I view this to be a critical function of the committee, incorporating the stakeholder values and uses of the river into river management decisions made in the river recovery effort.

At the meeting, the committee reached tentative consensus (I voted in favor) on a recommendation to the U.S. Army Corps of Engineers (USACE) and the U.S. Fish and Wildlife Service regarding easements for lands acquired to mitigate the Bank Stabilization and Navigation Project. The recommendation asks the USACE to establish a new policy that would provide easements that can, under defined circumstances, include provisions to allow the landowner to continue to use and enjoy their property in ways that will not impair, interfere or be otherwise inconsistent with the purpose of the easement to restore and protect fish and wildlife habitat. For example:

- 1) Allow the land owner to restrict public access;
- 2) Allow for maintenance of existing structures (including fencing), in as much as this maintenance will not impair, interfere or be otherwise inconsistent with the purpose of the easement, which is to restore and protect fish and wildlife habitat; and
- 3) Allow landowners to control noxious weeds on the easement.

Further, the MRRIC recommended that when the new easement policy is established, the USACE actively describe and offer easements in all communications with potential sellers.

The committee also reached consensus on a number of process issues, including committee tasks and membership issues. Several Committee members shared their interests regarding the Missouri River during panel discussions. Those panels highlighted representatives from the state of South Dakota, Bureau of Reclamation, Natural Resources Conservation Service, hydropower and flood control.

The next MRRIC meeting will be May 21-23 in Rapid City, South Dakota. To see more about MRRIC or to view the 2012 annual report, visit www.mrric.org

As co-chair for the Human Considerations Ad Hoc Group, I am currently working to gather input from 14 small groups of MRRIC members representing different interest areas. As part of that

effort, I would like to solicit any input you would like to share reflecting your thoughts about important impacts that may occur as a result of management decisions made on the river as part of the recovery process. The format listed below is being used to gather input. An example is also given to help people understand what kind of input is being sought. If you have any thoughts relative to these questions, I would be grateful for your input and would share it with the Ad Hoc group and the committee. You can simply copy and paste the questions into an email or word document and send it to me at sshouse@iastate.edu

Thank you, and please contact me with any questions or comments.
Shawn Shouse 712-769-2600

HUMAN CONSIDERATIONS WORK: QUESTIONS FOR INDIVIDUALS AND SMALL GROUPS

When the USACE reviews management actions for the Missouri River, I would like them to evaluate the impact of each management action on: [list concern]

- a. The reason I would like this evaluated is: [explain why this is a concern]
- b. (Optional) To evaluate this, the USACE can examine and report on:
- c. (Optional) The USACE can use the following information sources to help them in their evaluation:

(repeat above as often as needed for separate concerns)

EXAMPLE OF HOW TO ANSWER THESE QUESTIONS

When the USACE reviews management actions for the Missouri River, I would like them to evaluate the impact of each management action on: *[Example: The operation of water intakes for water supply in winter and summer]*

- a. The reason I would like this evaluated is: *[Example: Interrupted or inadequate water supply impacts the drinking water, sanitation, fire protection, power plant operation. All of these impact public health and safety. Interrupted or inadequate water supply also impacts economic development.]*
- b. To evaluate this, the USACE can examine and report on: *[Example: The amount of time each potential management action results in water levels below intake levels, and in what seasons.]*
- c. The USACE can use the following information sources to help them in their evaluation: *[Example: GIS data base and inventory of water intake locations and elevations in the ACME Water District (citation, URL, etc.).]*

State Interagency Missouri River Authority (SIMRA)

On the display are some pictures taken during flooding of 2011. Most of them are of our largest recovery project. The reconstruction of I-680 - from the Mo. River east to the I-29 Interchange approximately 3 miles of total reconstruction.

This project was constructed in 34 calendar days at a cost of approximately \$18 Million dollars including incentives. This project was unique in several ways, it utilized plans that were basically a set of as-builts, the contract was bid as a lump sum, it use a consultant for inspection which was done by HGM and associates. There were three main contractors PCI and Reilly Construction did the grading and sub base and Mannatt's did the paving. The plan was simply to remove the existing pavement and rebuilt it back the way it was. The project is currently up for a national AASHTO award.

As the flood waters started coming down the river in Late May to early June. The IDOT setup up a daily coordination meeting with our Ops Center in Ames and the field operations in the districts. We discussed with our State Hydrologist Dave Claman, which roadways would be impacted and tried to estimate a time frame of possible over topping. Therefore we could plan detours or try to minimize the effects of the flooding. Dave was very impressive in accuracy of his estimates.

Our first area of concern was US 30 in Harrison Co. This is a major Missouri river crossing in our northern part of the district. Pictured is the display is a picture of our maintenance personnel filling the trap bag system. They were filled with shoulder rock material. We placed trap

bags on both shoulders in a low spot that was about 2miles long. We had to close the highway for 48 straight hours and worked around the clock to get the bags filled and the roadway reopened to traffic ASAP.

Also the local levee district placed a temp levee that connected to US 30 on the south side, the purpose was to save a large amount of farm ground and also helped in saving the town of Missouri Valley from flooding.

We also placed trap bags on a short section of I-29, where there was a chance of over topping.

As the flood waters moved south as display in the pictures I-680 was basically destroyed. We had to close I-680 and reroute the traffic. The next area affected was just north Council Bluffs where there were no levees to protect I-29 from the flood water again this section was closed and the traffic rerouted.

Just to give a perspective of the amount of water that was flowing down the river. As you know some of the highest flow was est. at 160,000 cu. Ft/sec. A rough example is this amount of water would fill up a football field 3' deep every second.

As the water continued south we were concerned with another major river crossing in SW Iowa. This was Iowa 2 in Fremont Co. it is the only river crossing for several miles in either direction. We tried to keep this roadway open as long as we possibly could keep the traveling public as safe as possible. We first closed the outside EB lane but when the vehicles had to drive through a small amount of water we had to close this roadway down. It was only a few days before the break in the

Percival levee that completely inundated the roadway and also the I-29 Interchange.

I-29 would be closed from the Mo. Line north to US 34. Multiple Detours local and global had to be put into effect. The global detour was to use I-35 in Kansas City north to Des Moines and west on I-80 to I-680 then north on I-29.

Our recovery efforts started by hiring a consultant HGM to assess the culvert and roadways condition as the flood waters were receding. We started letting emergency projects and used a few change orders to repair the areas of I-29 and Ia. 2 so that we could reopen the roadways to traffic ASAP.

We repaired bridge approaches that were washed out both on I-29 and Ia. 2 repave sections of Ia. 2 mainly in the EB lanes. We had to repair/replace shoulders that were washed out on I-29 in several locations.

We had to remove debris from the roadways along with washing the silt and slime which was left on the roadways.

Once the roadways were opened to traffic, we started working on the areas of the ROW that needed rebuilt such as culvert wash out areas.

Then we worked on re-vegetating the ROW and replacing washed out fences. We still are finding some areas that were missed and finding additional areas that were not originally found.

Any questions?

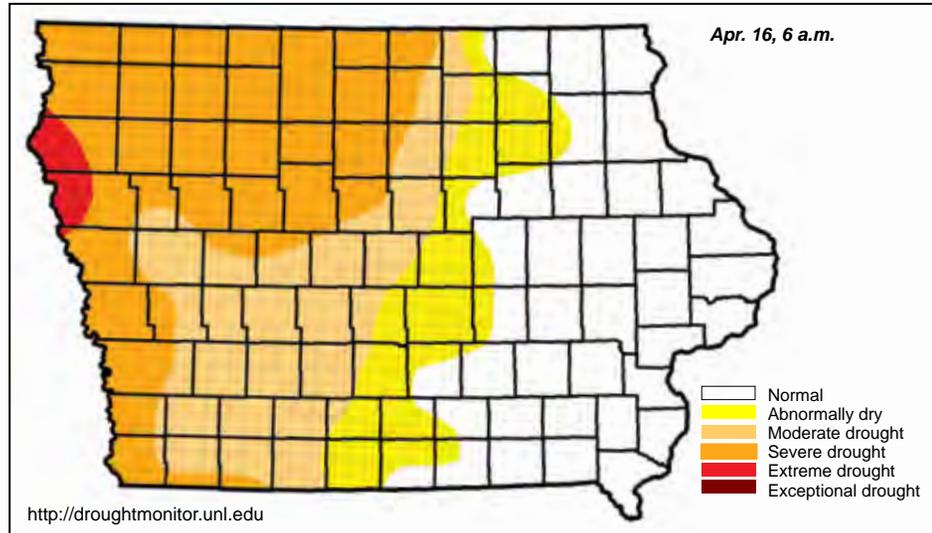
WATER SUMMARY UPDATE

No. 22

Published Date
April 18, 2013

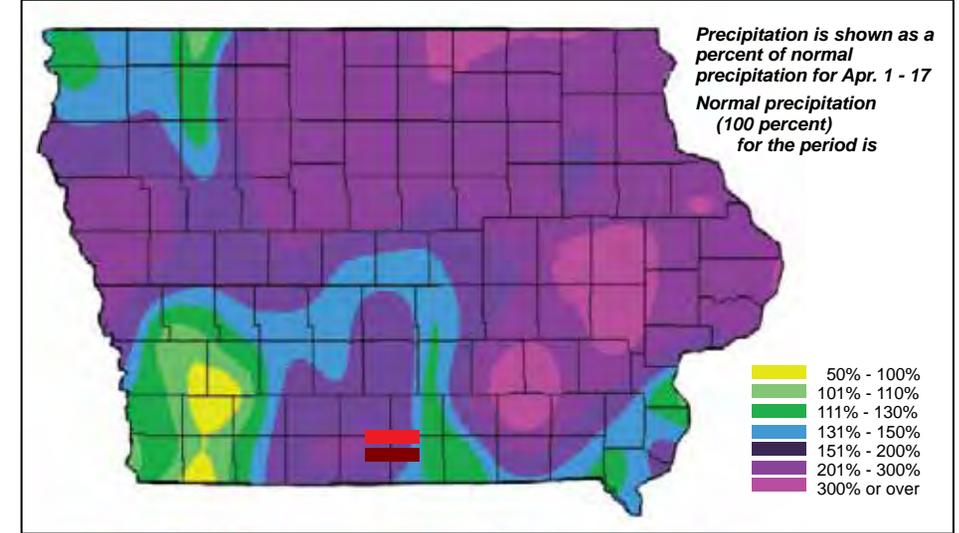
Drought Monitor

National Drought Mitigation Center and partners



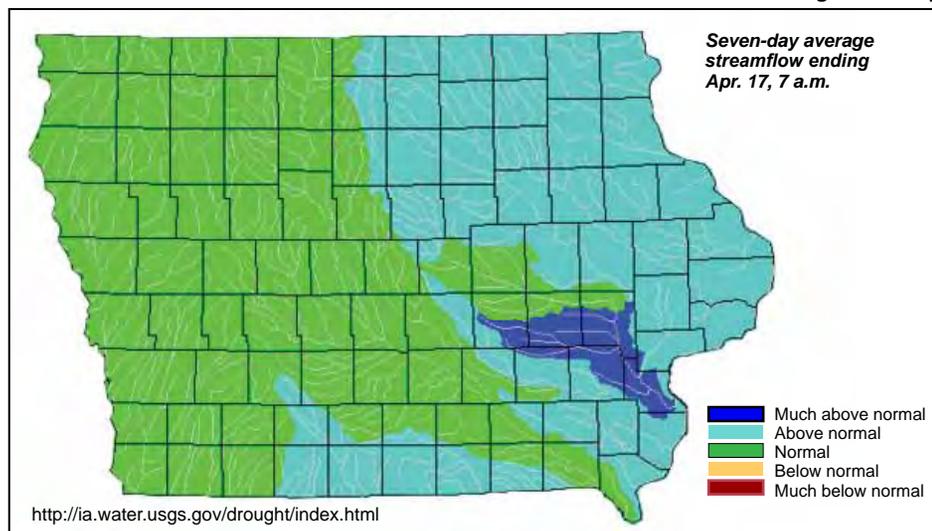
Precipitation

State Climatologist



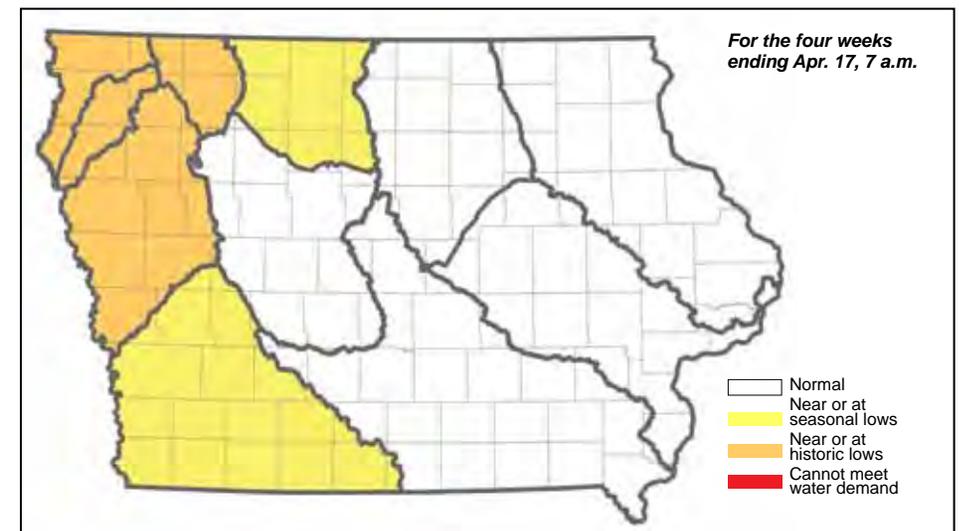
Streamflow

US Geological Survey



Shallow Groundwater

Iowa DNR



Recent Developments and Changes

Overall Conditions

As this Water Summary Update is finalized, Iowa is seeing one of the most significant rainfall events of the year. The drought monitor shows great improvement in conditions — even though the cutoff for this week’s map was before this storm. Eastern Iowa (over one third of the state) is no longer experiencing drought, while much of western Iowa continues to have drought conditions. Streamflows are above normal over a large part of eastern Iowa, and groundwater conditions are improving as well. Rainfall for the past two weeks (through Monday – before the current storm) was 3.25 inches, more than double the average for those two weeks. Streamflows across the state are normal to above normal – the first time flows have been above normal for a large area of the state since fall 2011.

Drought Monitor

This week’s drought monitor continues the timprovement trend that began in early March. The area of the state no longer in drought is 35 percent – more than double the area from just one week ago. The worst rated area, D3 – Extreme Drought, has dropped to 1.5 percent of the state, down from 20 percent just a week ago. It’s worth noting the cutoff for information for the drought monitor was early April 16, so these improvements do not include the impact of the April 16-18 storm system. The effects of that storm will be reflected in the May 2 Update.

Precipitation

Precipitation thus far for April has been much above normal across most of Iowa. Only the southwest corner has seen near or below normal precipitation. The highest totals thus far have occurred in east central and northeast Iowa, where totals have approached five inches for the month, or 300 percent of normal. Some locations have received even more precipitation, with monthly totals in the 7 to 8 inch range. The lowest totals for the month were found in southwest Iowa in the 1 to 1.75 inch range, about normal. Much of this month’s rainfall in southeast Iowa occurred in the April 16-18 storm system. Extremely heavy rainfall occurred from south central into east central Iowa. Widespread amounts of at least 3 inches were reported across the southeast third of Iowa, with many locations reporting 5 or more inches.

Streamflow

Streamflow conditions have increased for the majority of the state since April 4 due to precipitation over the past two weeks. Streamflows across the state that were below normal, mostly in the western part of the state, have increased to normal. The majority of the eastern part of the state has above normal flow, and a few areas in the Iowa River basin are much above normal. USGS field crews have been out the past five weeks collecting high water measurement at sites across the state.

Shallow Groundwater

Shallow groundwater levels across central, south central, southeast, north central and northeast Iowa have improved substantially in April. Widespread rainfall over the last two weeks has resulted in rising shallow groundwater levels in Fayette County, 6 feet; Johnson County, 10 feet; Marshall County, 4 feet; Lucas County, 2 feet; Boone County, 3 feet; and Hancock County, 3.5 feet. Some improvement has occurred in northwest and parts of southwest Iowa, but water levels are still 1 to 5 feet below April 2012. Shallow groundwater at Denison, in west central Iowa, is at a 12-month low and is 2.8 feet lower than April 2012.

Notable Events for the Period

U.S. Geological Survey is currently reporting that the eastern half of Iowa is experiencing moderate flooding in a line from Dubuque to Chariton. Currently 17 gages are above flood stage with a number of other gages very close to flood stage. Rainfall totals, for 24 hours, in this area range from almost 3 inches at the Mississippi River at Dubuque, almost 6 inches at Coralville (Clear Creek) to 7 inches at the Chariton River near Moulton.

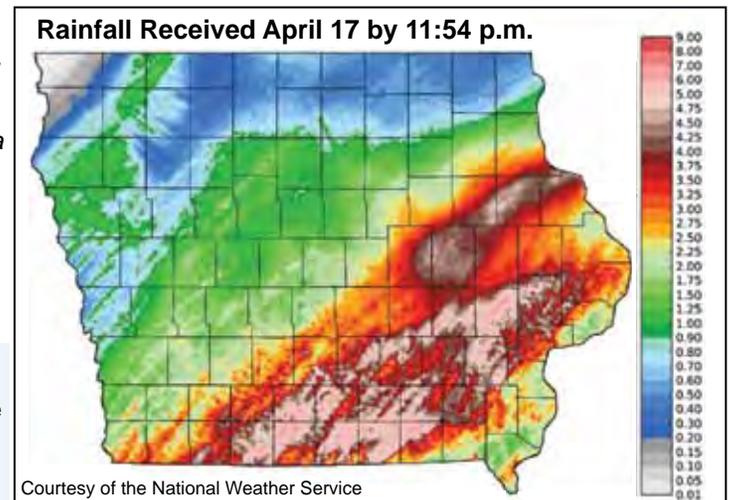
Streams and creeks in northwest Iowa are running again and some tile lines have flow. Lake levels are increasing, but are not near normal levels yet.

Recent precipitation has improved groundwater conditions, but in northwest Iowa shallow groundwater levels remain a substantial problem. One water system in that part of the state received three inches of rain last week, but did not see a significant rise in groundwater levels.

In parts of northwest Iowa the subsoil remains very dry.

Clean up work remains from last week’s ice storm in the northwest corner of the state.

Note in the illustration at right, the large band of heavy rain across southeastern Iowa in contrast to the small area in the northeast that received almost no rain.



Courtesy of the National Weather Service

The next Water Summary Update will be published May 2, 2013.

Prepared by the Iowa DNR in collaboration with the Iowa Department of Agriculture and Land Stewardship, the U.S. Geological Survey, and The Iowa Homeland Security and Emergency Management Division.

Contacts

General information Tim.Hall@dnr.iowa.gov 515-281-8169
Drought Monitor Harry.Hillaker@iowaagriculture.gov 515-281-8981
Precipitation Jeff.Zogg@noaa.gov 515-270-2614
Streamflow Daniel.Christiansen, dechrist@usgs.gov 319-358-3639
Streamflow Michael.Anderson@dnr.iowa.gov 515-725-0336
Shallow Groundwater Mike.Gannon@dnr.iowa.gov 319-335-1575

Wilson Island State Park and Desoto Bend Backwater Projects

LEADING AGENCY:

U.S. Army Corps of Engineers

LOCATION:

Wilson Island State Park Backwater Project is located in Harrison County, Iowa

Desoto Backwater Project is located in Harrison County, Iowa

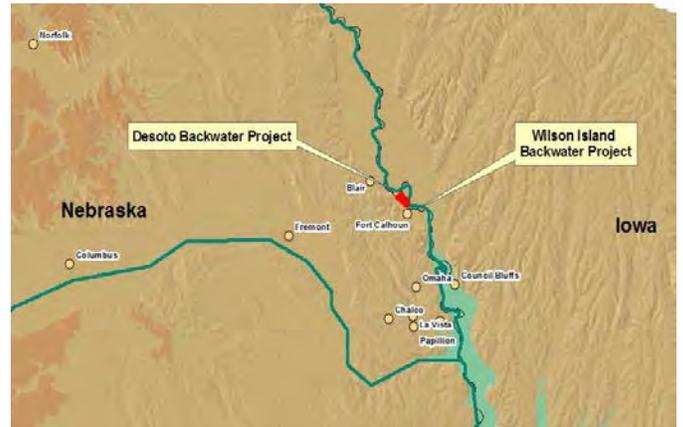


Figure 1. Location of both Backwater Projects along the Missouri River.

PROJECT DESCRIPTION:

The proposed Wilson Island State Park (SP) Backwater Project (see attached plan view) would involve reconnecting, deepening, and widening the existing backwater at Wilson Island SP to create a 1.4 mile long backwater. This would require the excavation of up to 910,000 cubic yards of material using a hydraulic dredge. All of the excavated material would be discharged into the thalweg of the Missouri River. As part of the same project, a second backwater (see attached plan view) would be constructed across the river from the inlet of Desoto Lake in the Desoto National Wildlife Refuge. This backwater would be approximately 2,400 feet long. To construct this backwater, approximately 240,000 cubic yards of material would be excavated with a hydraulic dredge and discharged into the thalweg of the Missouri River as well.

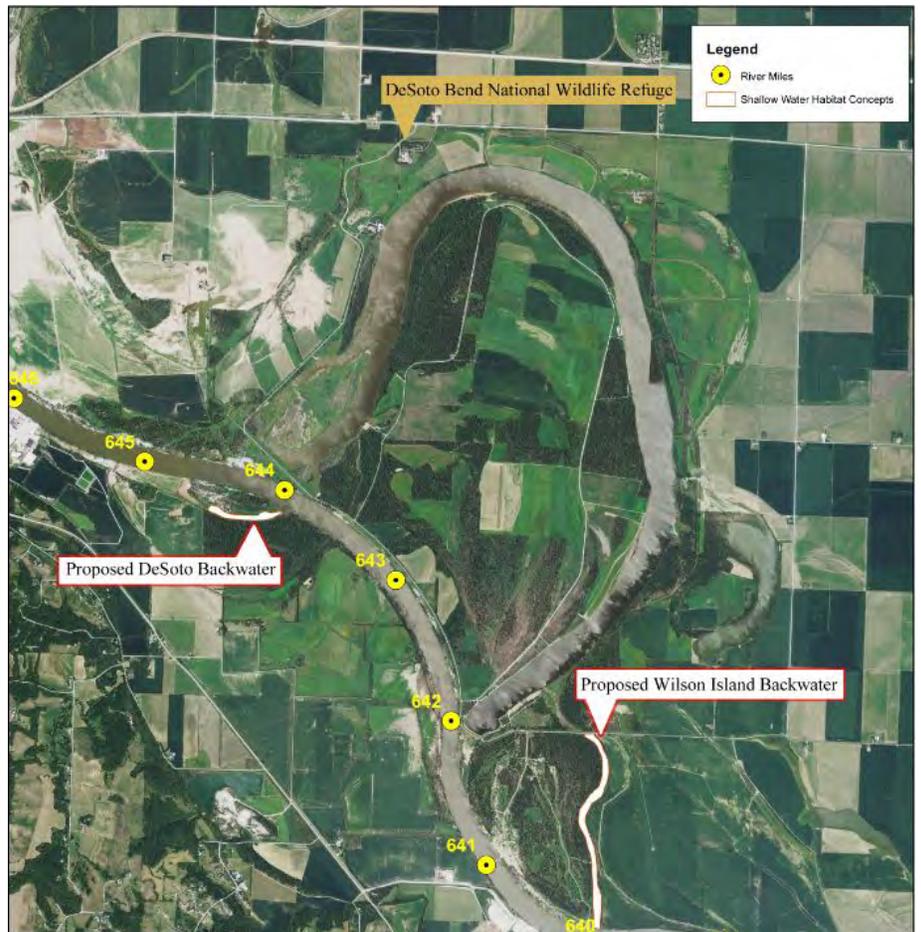
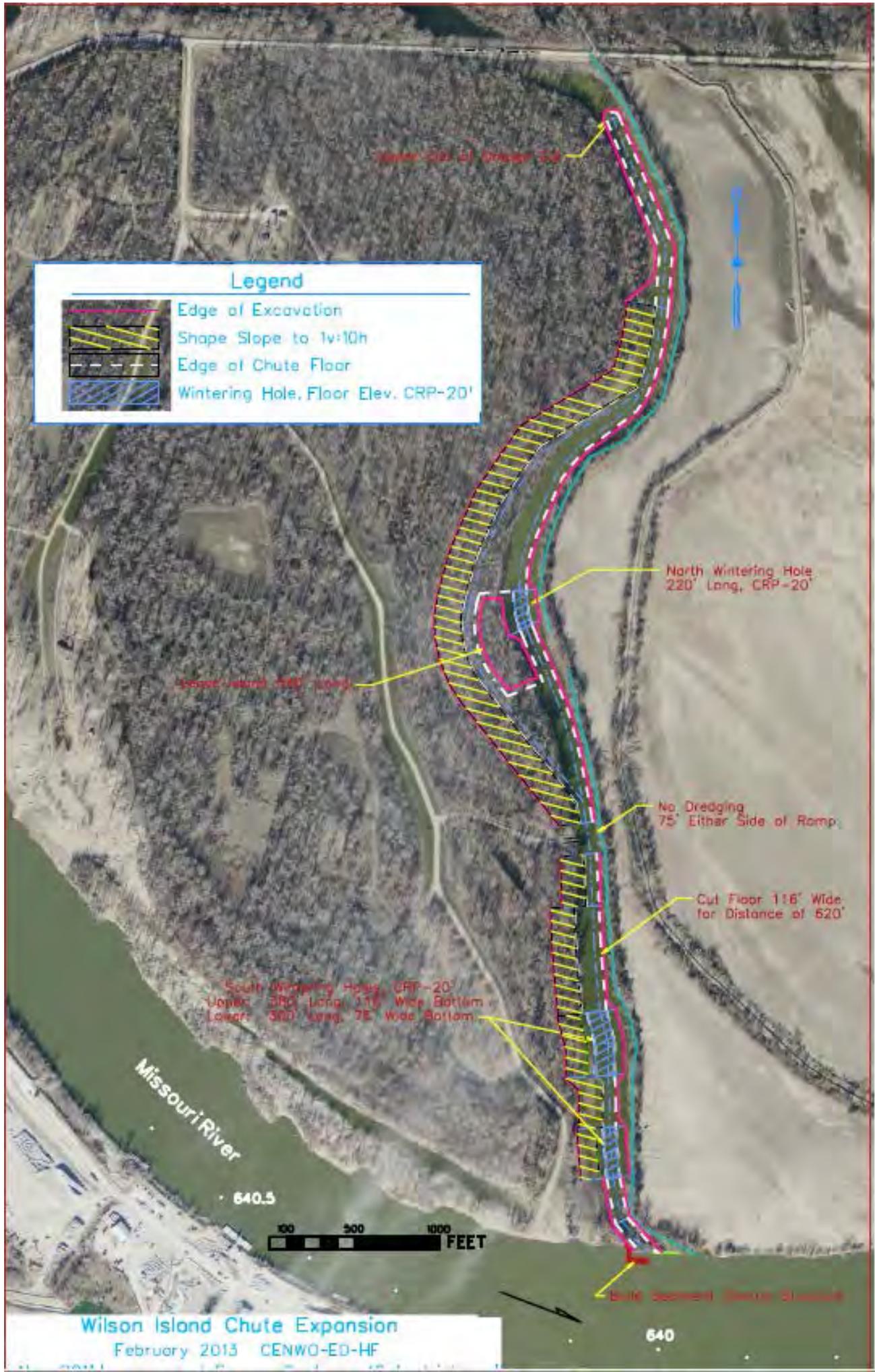


Figure 2. Project Vicinity and Proposed Project Area.

Legend

- Edge of Excavation
- Shape Slope to 1v:10h
- Edge of Chute Floor
- Wintering Hole, Floor Elev. CRP-20'



Wilson Island Chute Expansion
 February 2013 CENWO-ED-HF



JUNE 2012 IMAGERY



CENWVO-ED-HP
SHEET NO. B1



U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

MISSOURI RIVER RECOVERY PROGRAM
BOYER-DESOTO REACH
CONCEPT PLANS
MARCH 2013

SITE B
RM 644 BACKWATER

Designed By:
C.K.C.
Reviewed By:
D.B.P.

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Missouri River County Officials Coalition Update - Cara Marker-Morgan, Fremont County Supervisor

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Discussion for Next Meeting

Adjourn

SIMRA Meeting

April 24, 2013

Hydrology Coordinator Update

MISSION

The Hydrology Work Group's mission is to assist agencies of the State of Iowa in protecting the health of our citizens, and to protect and enhance the economic value of our resources by providing expertise to decision-makers in the state of Iowa so that they can better understand existing hydrologic data and information, and to provide recommendations on ways to improve and enhance Iowa's hydrologic data and information.

VISION

The HWG recognizes the need to address the State's water challenges ranging from flood to drought by making sure that policy makers have access to correct, consistent, and current data and information.

1. Provide expertise in the review and interpretation of reports and documents related to hydrologic issues.
2. Understand current data collection networks, and identify future needs for enhanced and improved data collection.
3. Analyze hydrologic data and information and provide interpretation, predictions, and modeling to make the information useable.
4. Provide one single information center that makes data, interpretations and model predictions available to all lowan's. This could be accomplished via web portals and other outlets.

Update of Activities

Led a Discussion of Water Security

Assuring adequate water supplies, during drought and for the future, is fundamental for Iowa's communities, farms, economic growth, and quality of life. Access to large-scale and dependable water sources is a growing factor in attracting many types of industries; a trend Iowa can position itself to take full advantage of.

Soil Moisture Data Stations

Reestablishment of Aquifer Monitoring

Enhanced localized groundwater modeling

Review of Drought Conditions

Regular dissemination of and discussion of drought related data, information, and implications.

Next Hydrology Work Group Meeting

Tuesday, April 30, 2013

- Review of current hydrologic conditions
- Discussion of centralized web site for information
- Status of soil moisture network in Iowa
- Review of current agency projects or programs

U.S. Drought Monitor

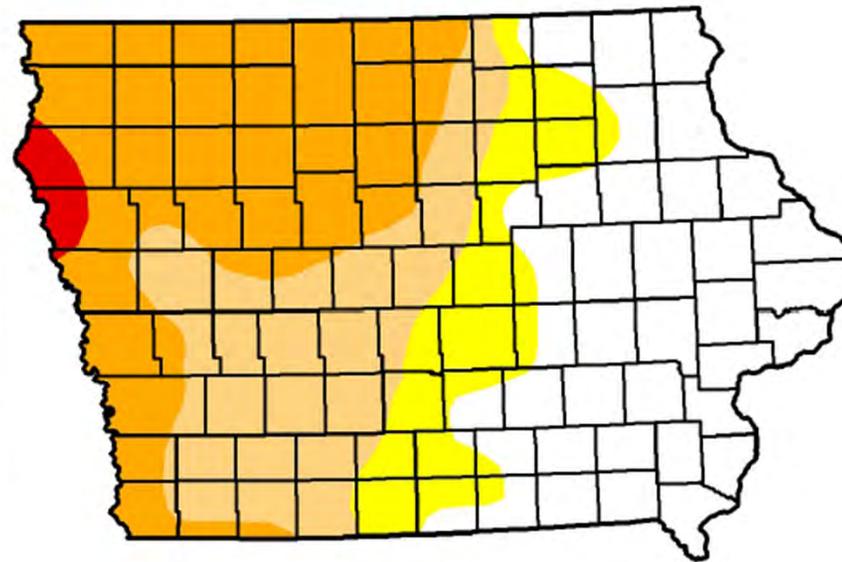
April 16, 2013

Valid 7 a.m. EST

Iowa

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	34.68	65.32	52.84	31.75	1.54	0.00
Last Week (04/09/2013 map)	16.83	83.17	69.84	44.49	20.65	0.00
3 Months Ago (01/15/2013 map)	0.00	100.00	100.00	58.33	32.26	1.23
Start of Calendar Year (01/01/2013 map)	0.00	100.00	100.00	58.42	32.07	1.23
Start of Water Year (09/25/2012 map)	0.00	100.00	100.00	100.00	65.77	2.52
One Year Ago (04/10/2012 map)	48.30	51.70	30.75	21.73	0.00	0.00

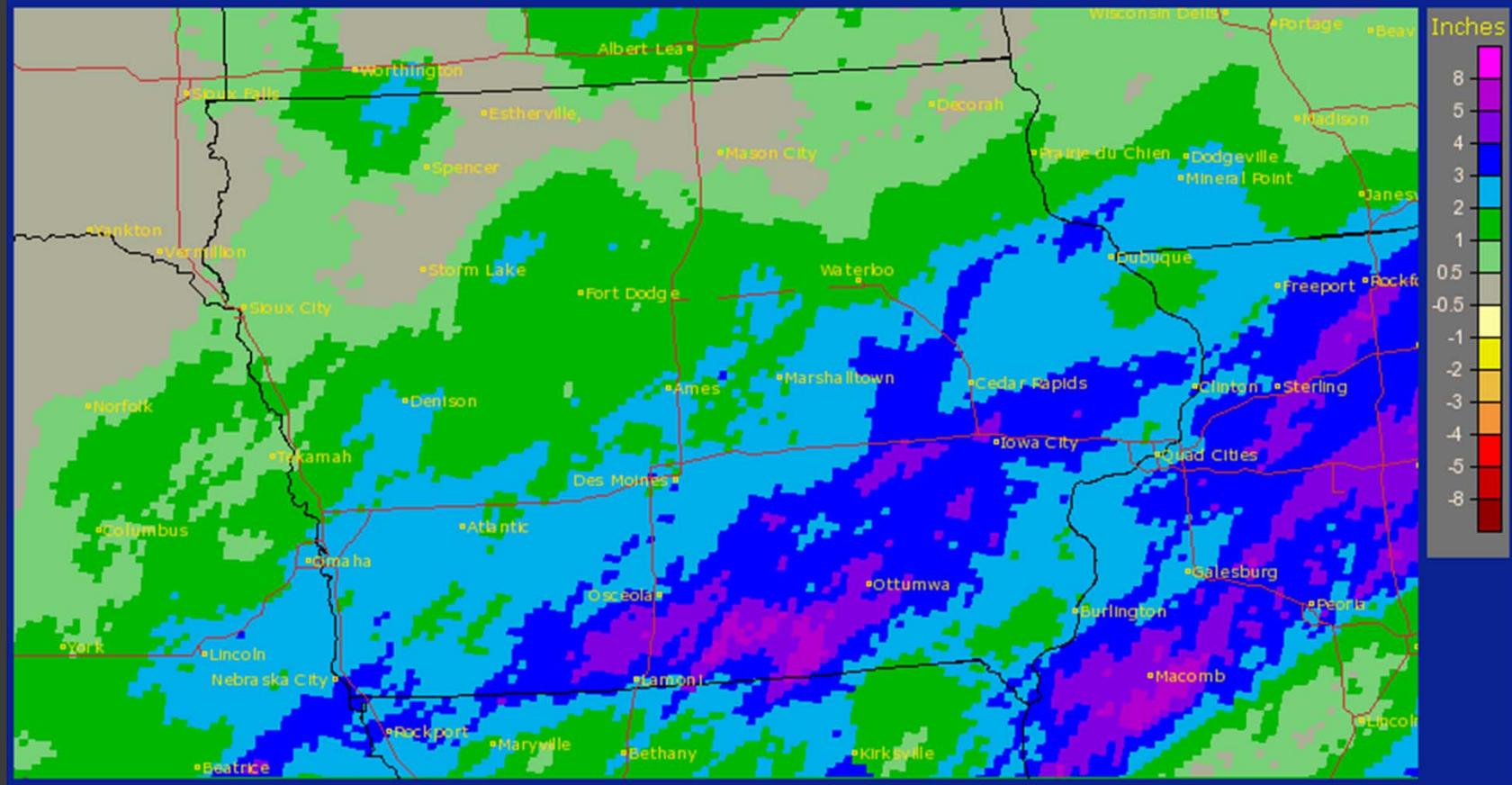


Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

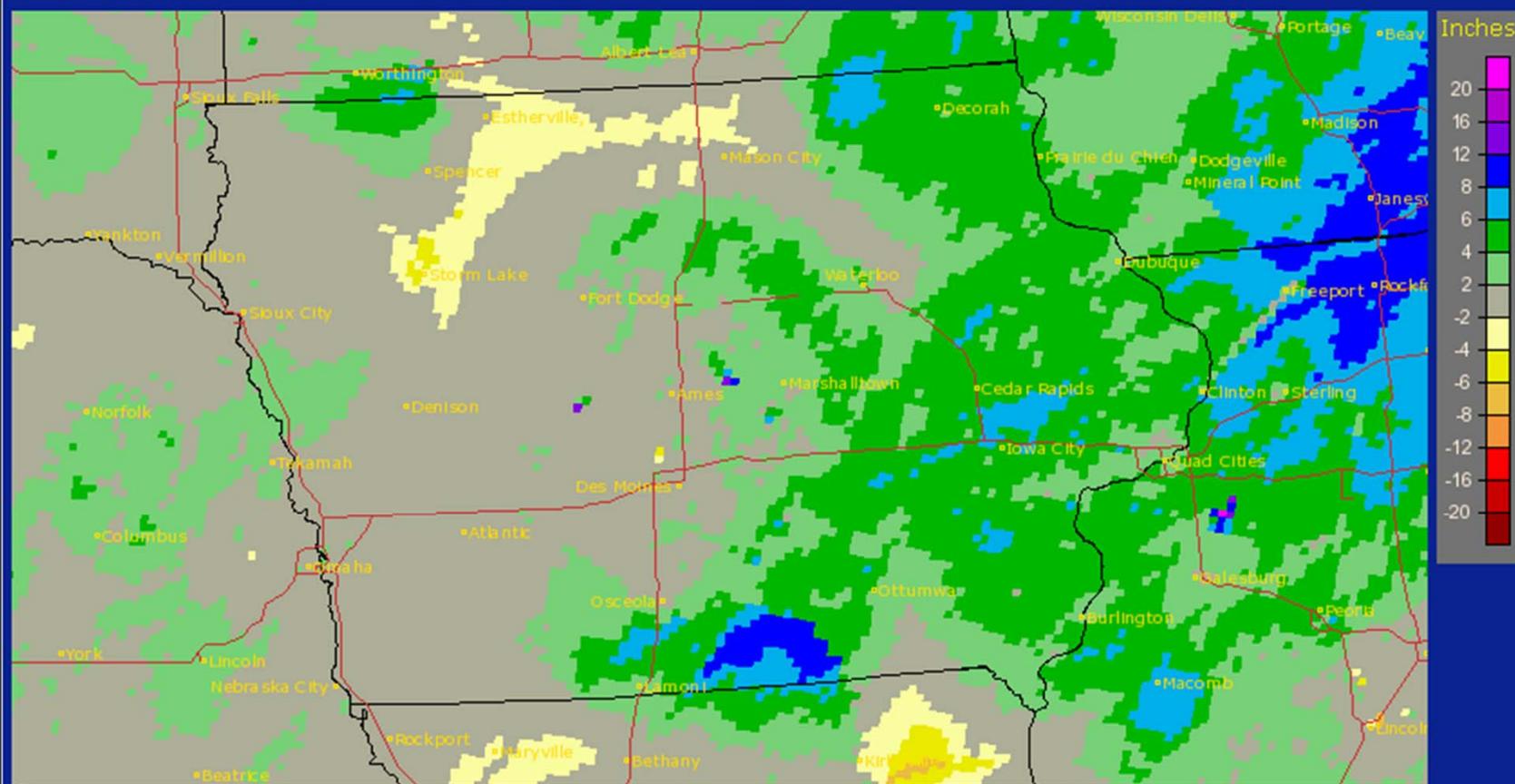
7 Day Precipitation (departure from normal)

Iowa: Current 7-Day Departure from Normal Precipitation
Valid at 4/23/2013 1200 UTC - Created 4/23/13 18:42 UTC

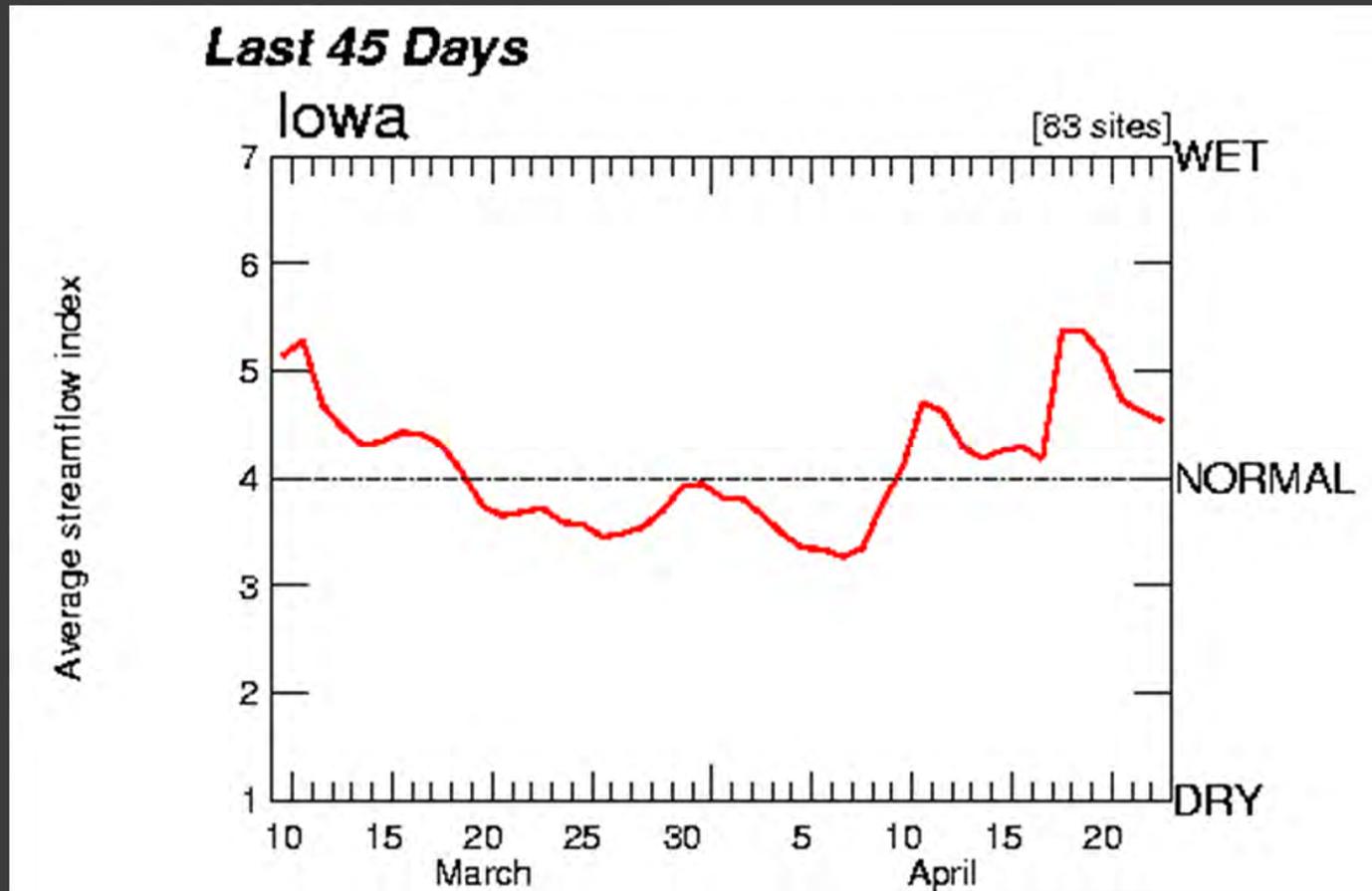


180 Day Precipitation (departure from normal)

Iowa: Current 180-Day Departure from Normal Precipitation
Valid at 4/23/2013 1200 UTC - Created 4/23/13 19:46 UTC



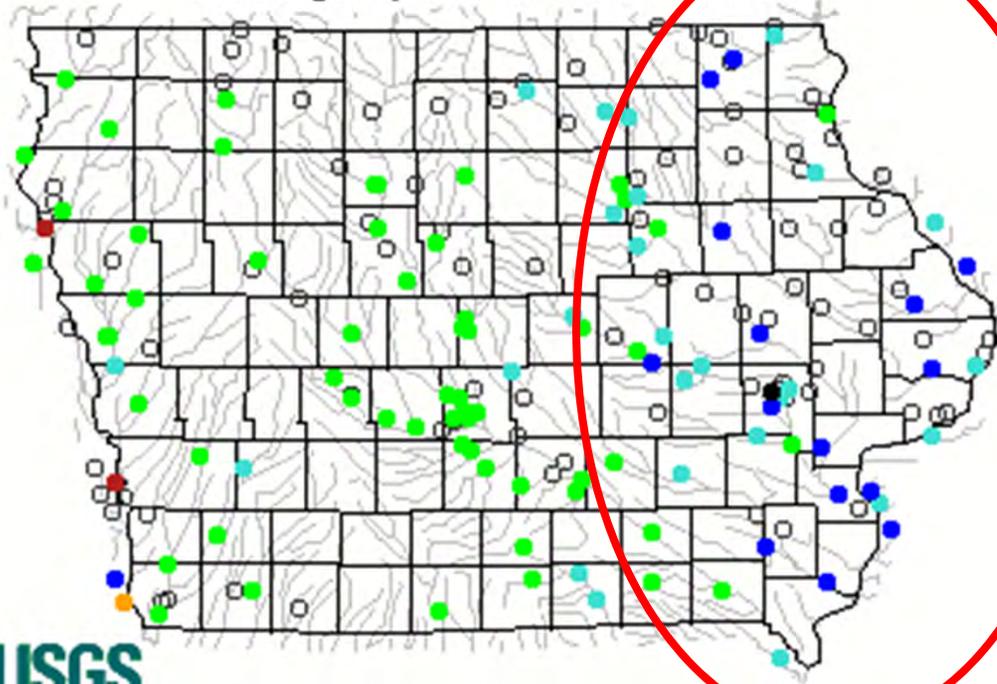
Current Iowa Streamflow



Real-Time Iowa Streamflow Data

Select a site to retrieve streamflow & station information

Tuesday, April 23, 2013 19:30ET

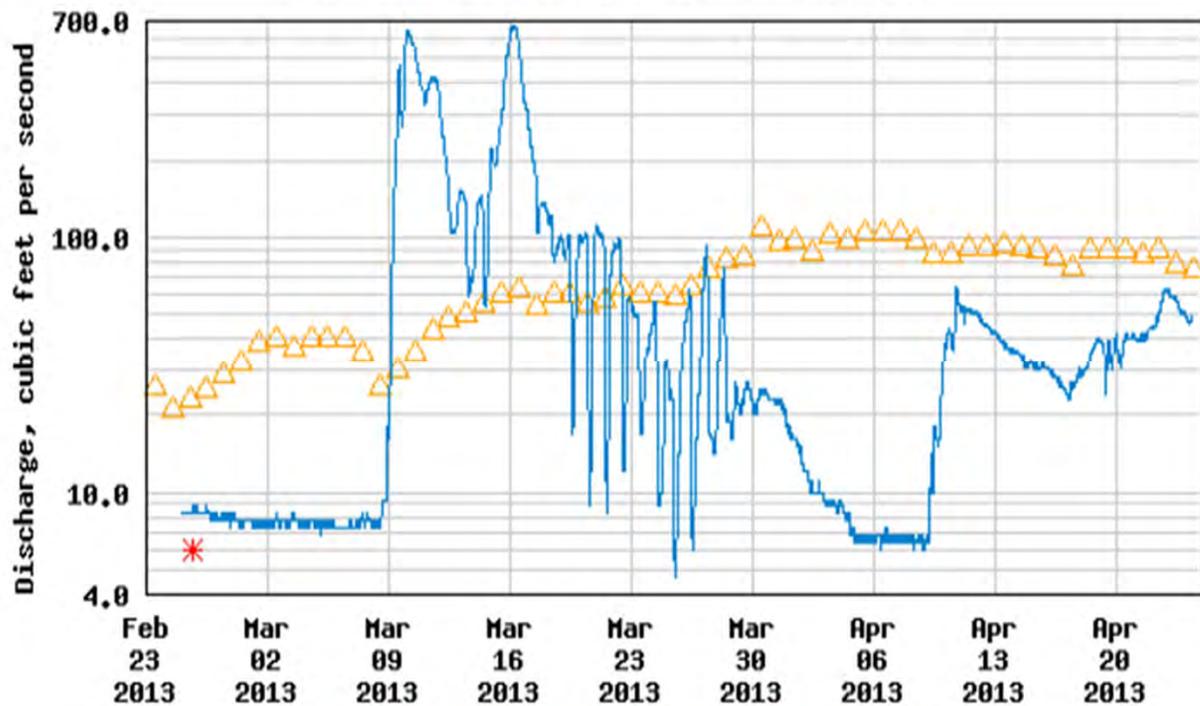


Current streamflow conditions





USGS 06600100 Floyd River at Alton, IA

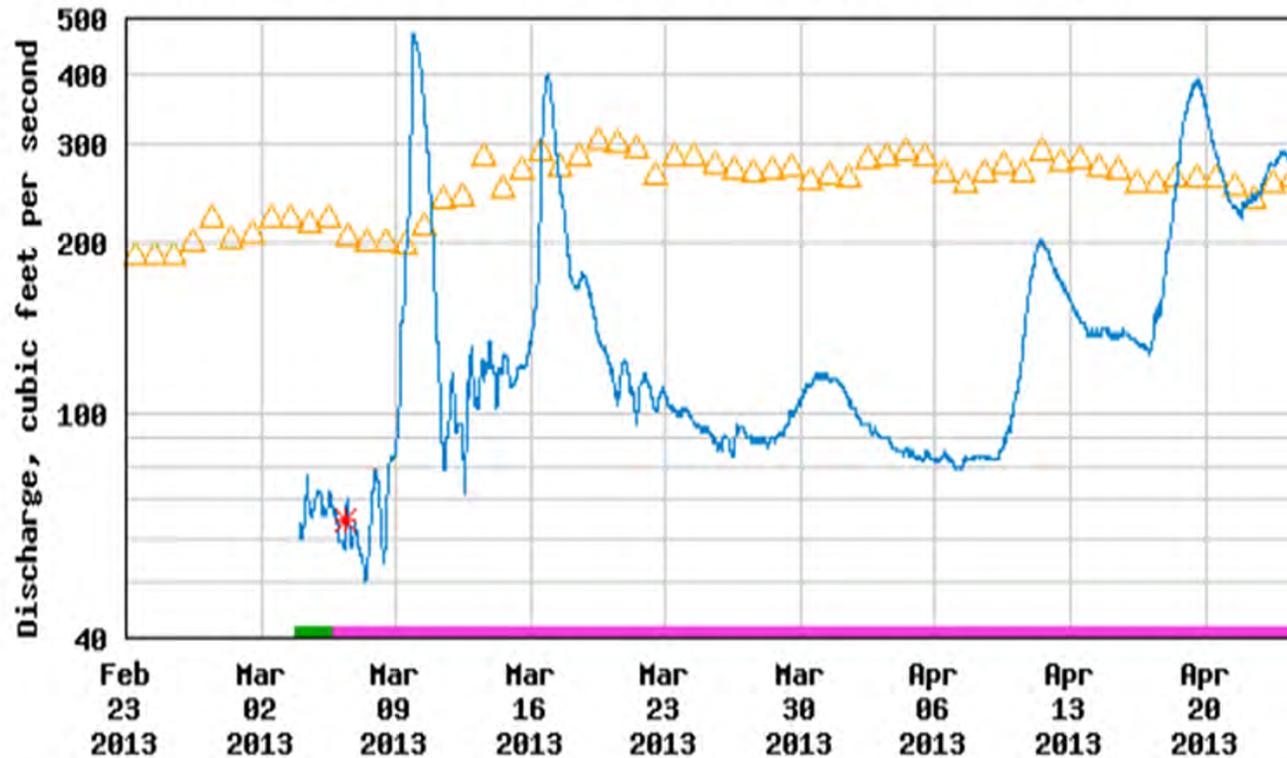


---- Provisional Data Subject to Revision ----

- △ Median daily statistic (57 years)
- * Measured discharge
- Discharge



USGS 06807410 West Nishnabotna River at Hancock, IA

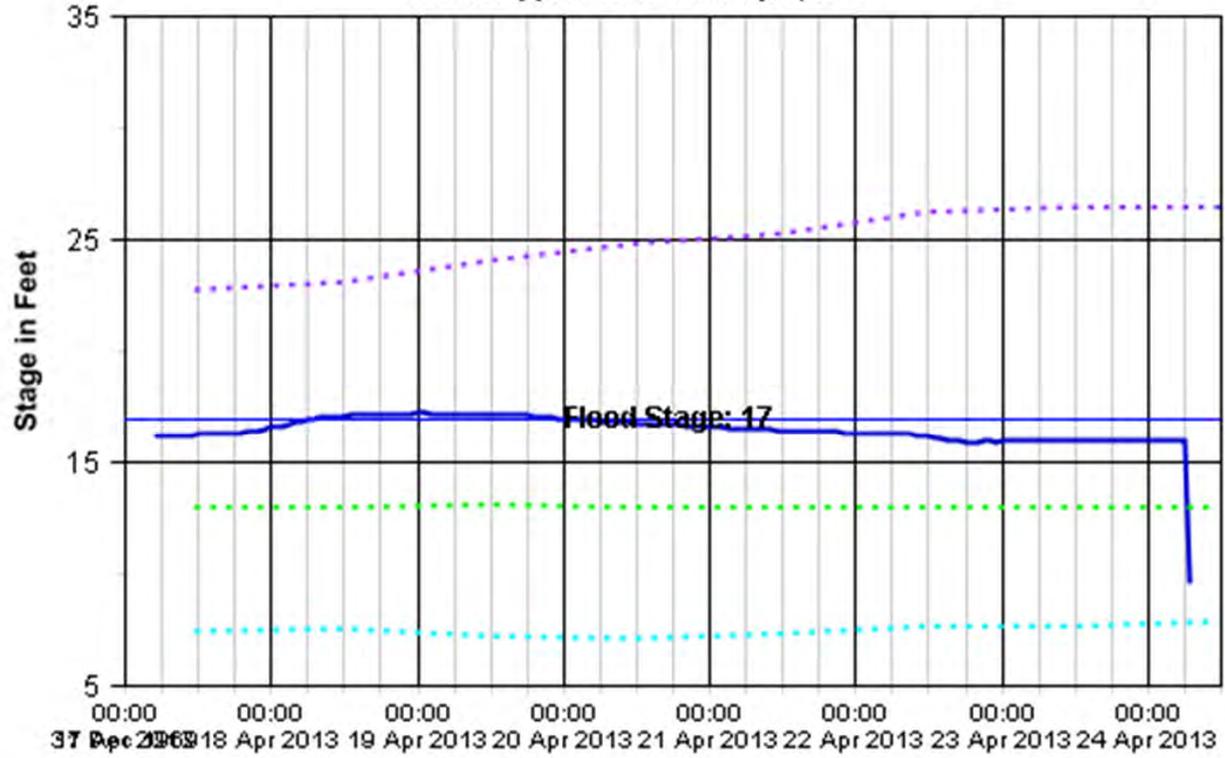


- △ Median daily statistic (53 years)
- Discharge
- * Measured discharge
- Period of approved data
- Period of provisional data

Saylorville Lake Reservoir
From 01/01/2013 To 04/23/2013

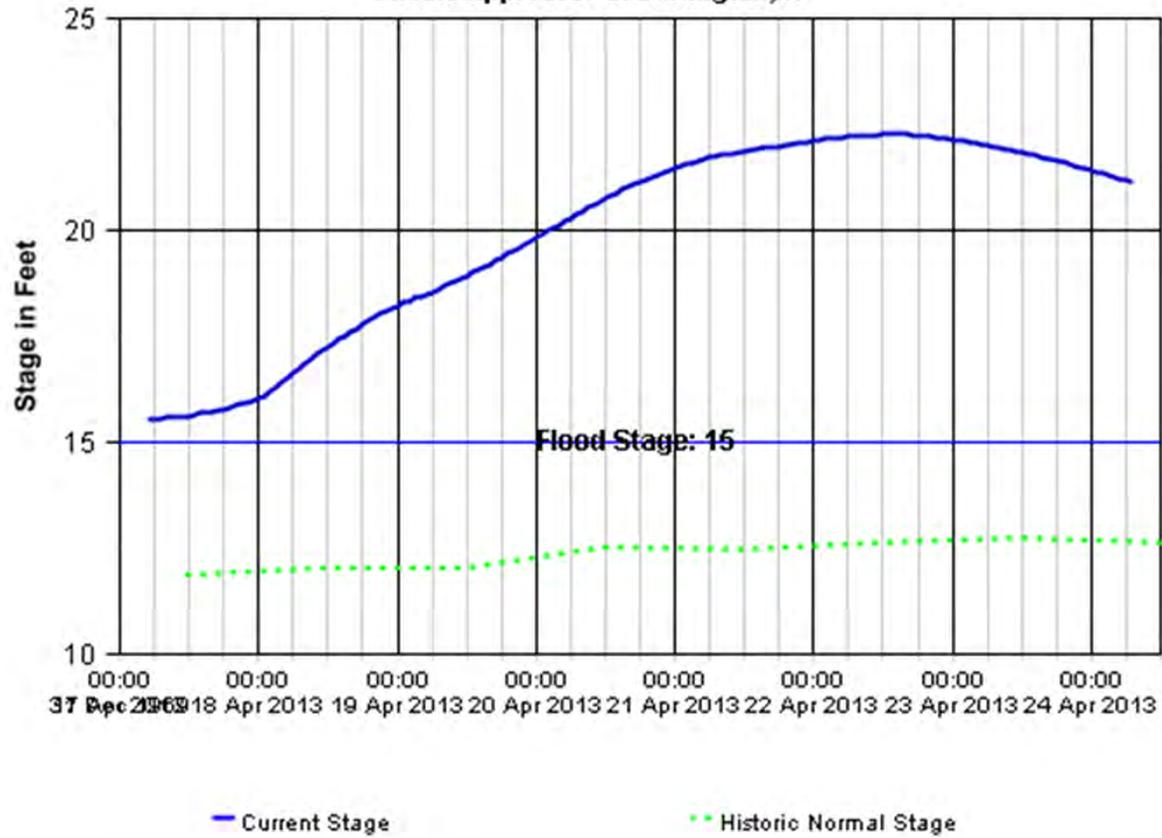


Mississippi River at Dubuque, IA



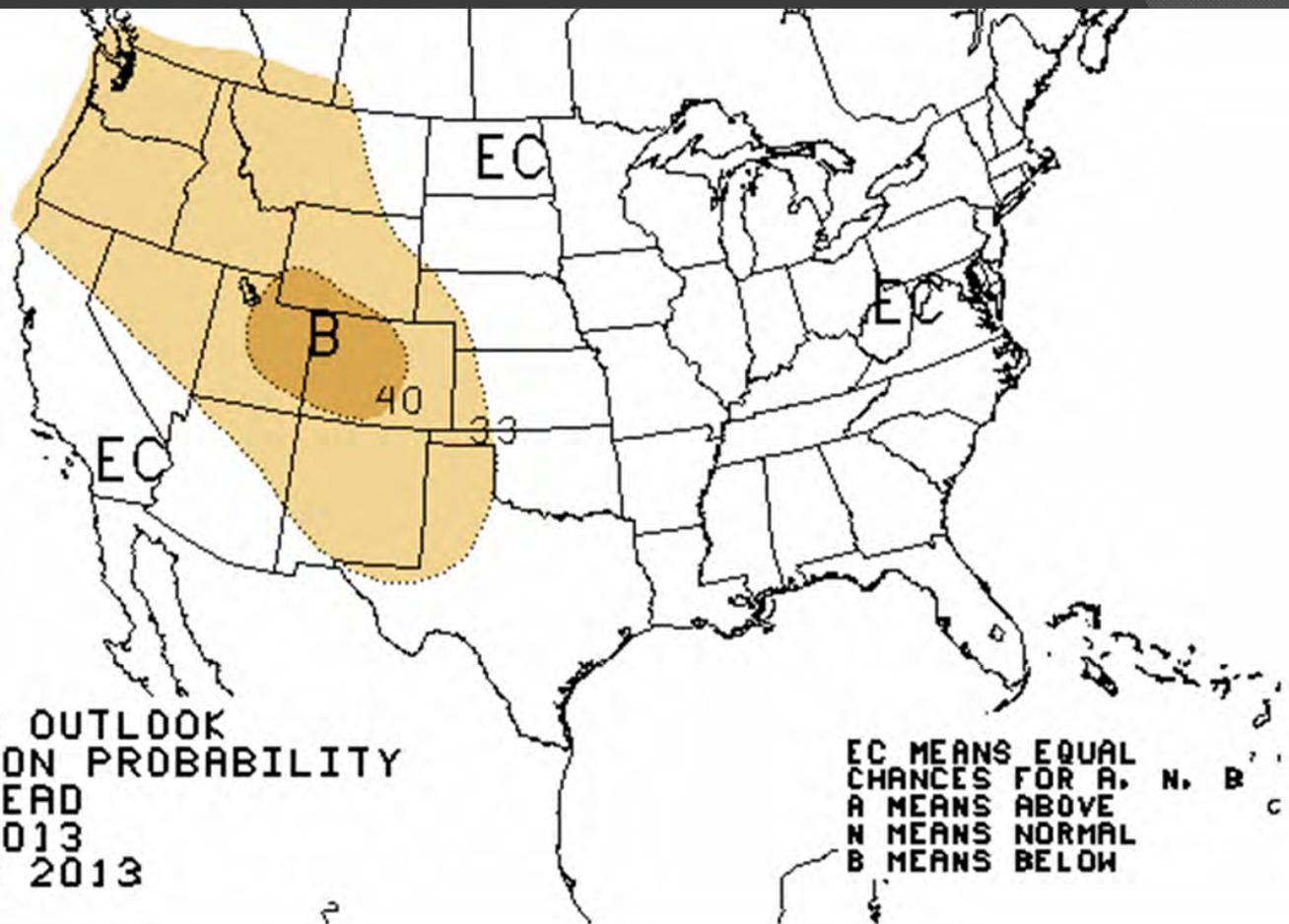
— Current Stage * * Historic Normal Stage * * Historic Max Stage * * Historic Min Stage

Mississippi River at Burlington, IA

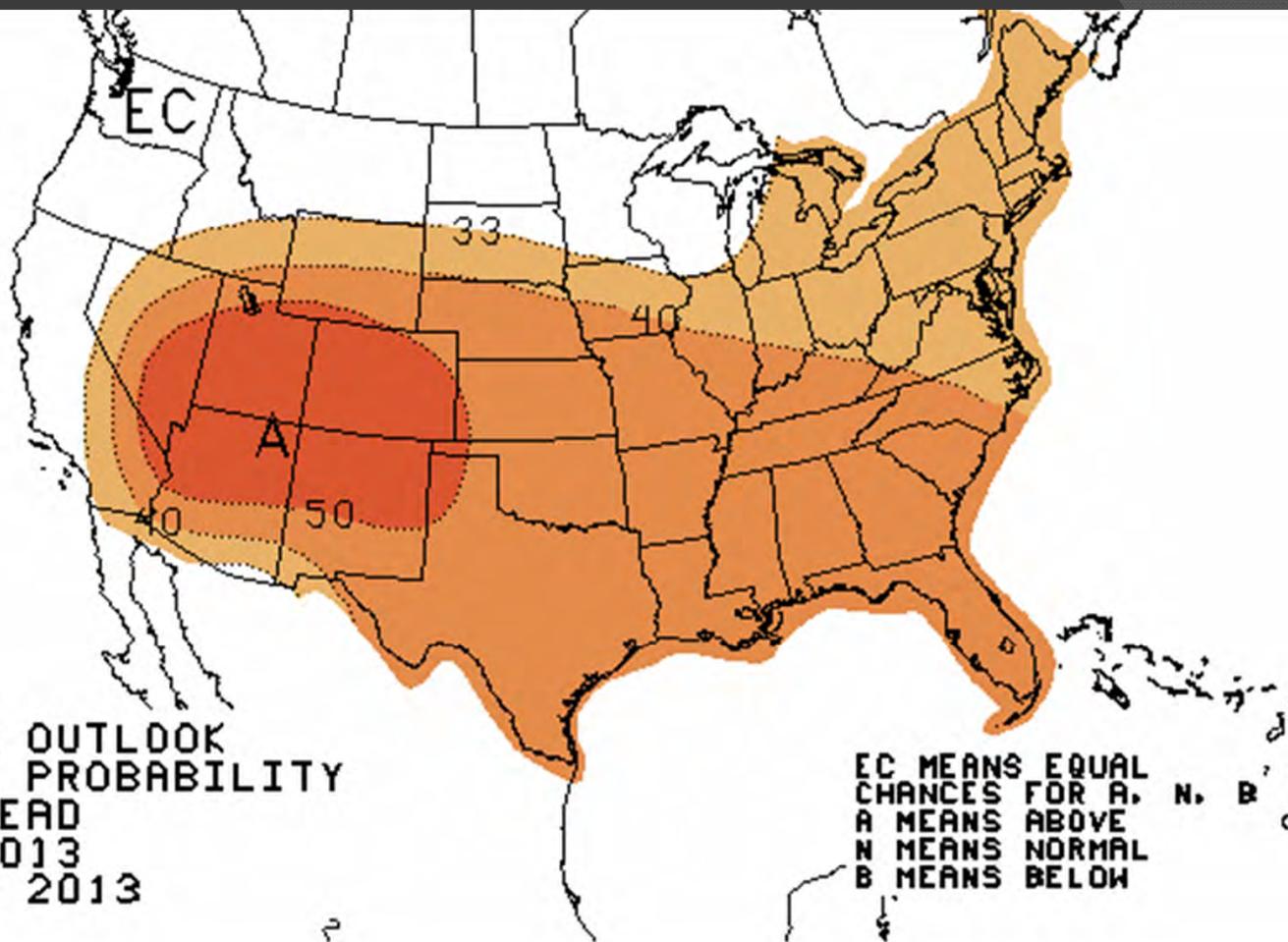




THREE-MONTH OUTLOOK
PRECIPITATION PROBABILITY
0.5 MONTH LEAD
VALID MJJ 2013
MADE 18 APR 2013



EC MEANS EQUAL
CHANCES FOR A, N, B
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW

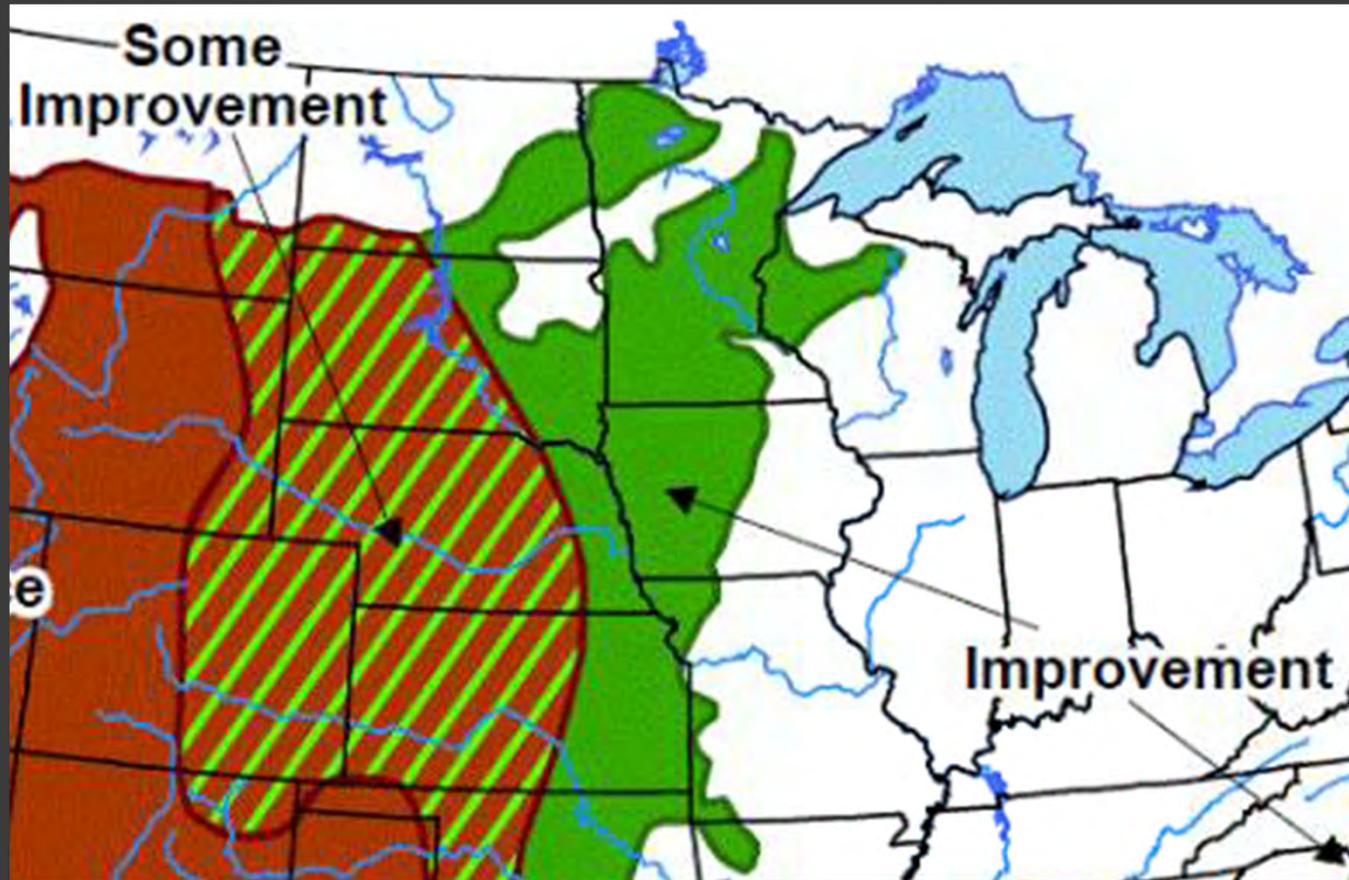


**THREE-MONTH OUTLOOK
TEMPERATURE PROBABILITY
0.5 MONTH LEAD
VALID MJJ 2013
MADE 18 APR 2013**

**EC MEANS EQUAL
CHANCES FOR A, N, B
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW**

U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period
Valid for April 18 - July 31, 2013
Released April 18, 2013



-  Drought to persist or intensify
-  Drought ongoing, some improvement
-  Drought likely to improve, impacts ease

Comments – Questions