

Types of Drought

- Precipitation Drought
 - average <60% normal precipitation over 3-month period
 - average <70% normal precipitation over 6-month period
 - average <80% normal precipitation over 12- month period
- Agricultural Drought: precipitation drought linked to agricultural impacts
 - Soil moisture key variable
- Hydrological Drought: precipitation drought linked to shortfalls in surface or subsurface water supplies
 - Usually lag behind Precipitation and Agricultural Droughts

U.S. Drought Monitor

July 3, 2012

Valid 7 a.m. EST

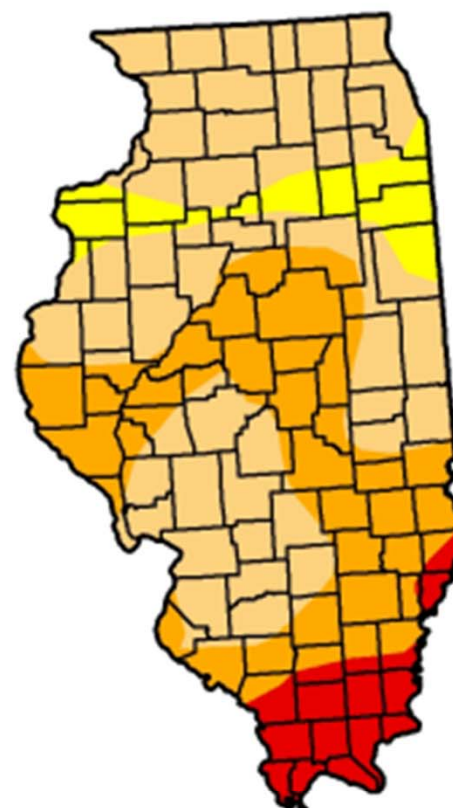
Illinois

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	92.05	40.00	8.13	0.00
Last Week (06/26/2012 map)	0.00	100.00	89.10	30.22	8.13	0.00
3 Months Ago (04/03/2012 map)	67.92	32.08	0.00	0.00	0.00	0.00
Start of Calendar Year (12/27/2011 map)	100.00	0.00	0.00	0.00	0.00	0.00
Start of Water Year (09/27/2011 map)	45.76	54.24	30.76	14.68	0.00	0.00
One Year Ago (06/28/2011 map)	100.00	0.00	0.00	0.00	0.00	0.00

Intensity:

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



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://droughtmonitor.unl.edu>



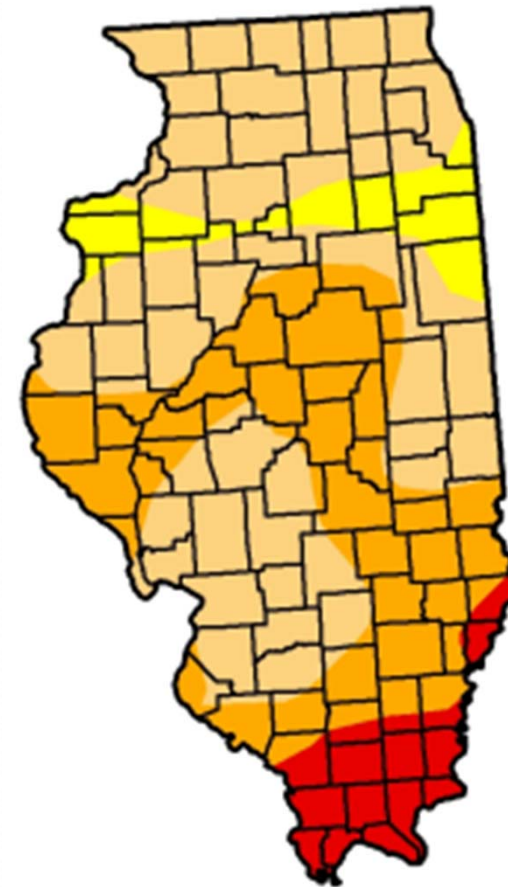
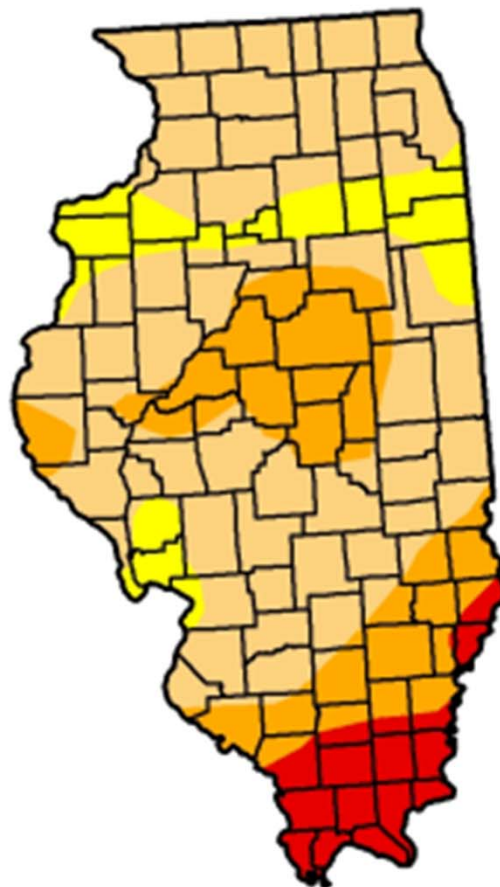
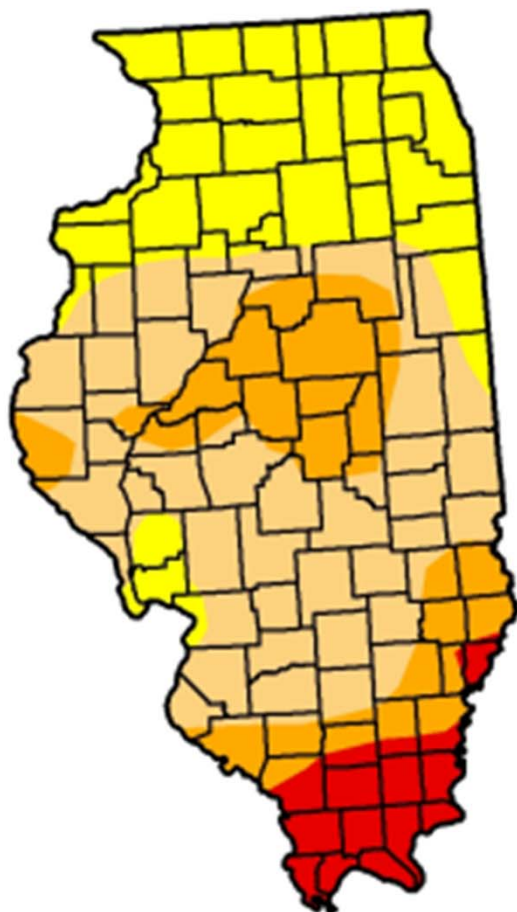
Released Thursday, July 5, 2012
Rich Tinker, Climate Prediction Center/NOAA

Progression of Drought

June 19, 2012

June 26, 2012

July 3, 2012

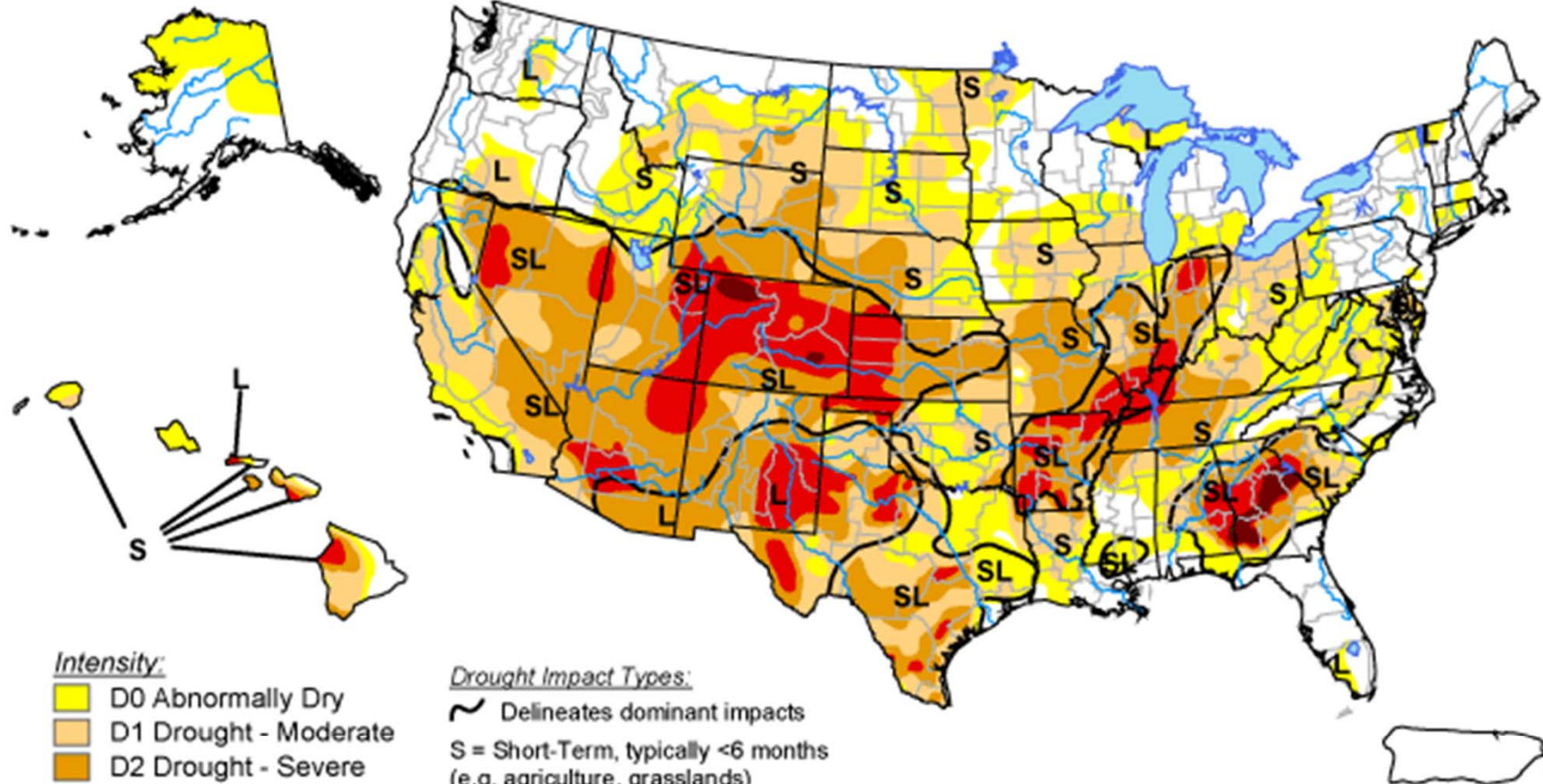


Intensity:








U.S. Drought Monitor


July 3, 2012
Valid 7 a.m. EDT



Intensity:

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-  D1 Drought - Moderate
-  D2 Drought - Severe
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Drought Impact Types:

-  Delineates dominant impacts
- S = Short-Term, typically <6 months
(e.g. agriculture, grasslands)
- L = Long-Term, typically >6 months
(e.g. hydrology, ecology)

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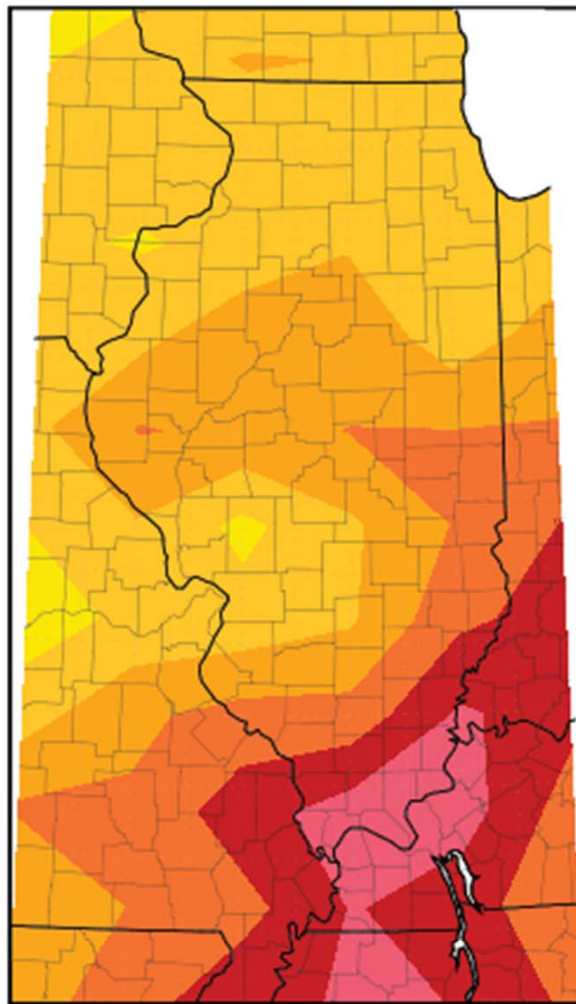
Released Thursday, July 5, 2012
Author: Rich Tinker, NOAA/NWS/NCEP/CPC



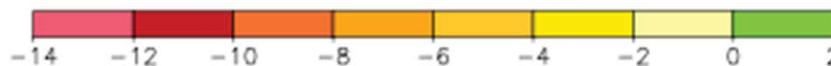
Precipitation

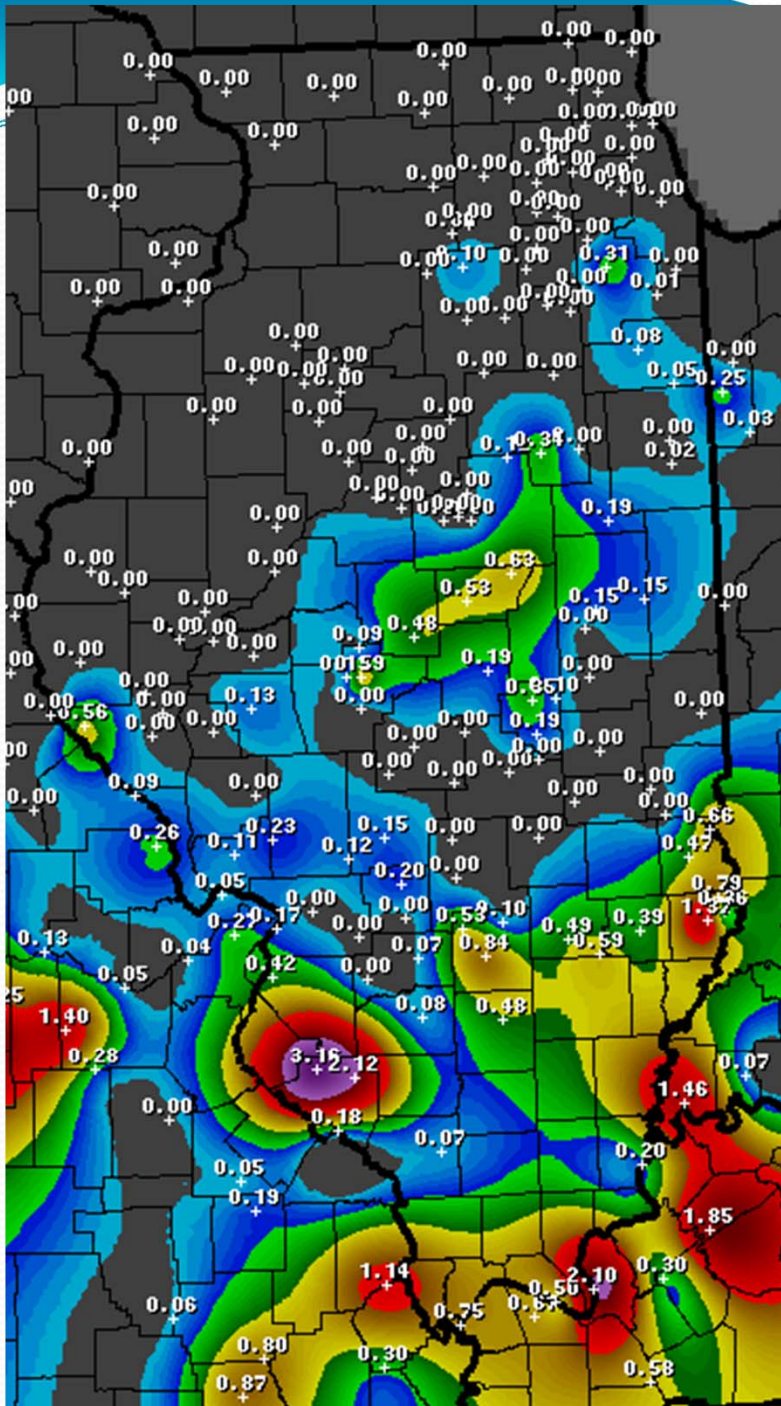
- June 2012
 - Statewide average was 1.8 inches
 - 2.3 inches (43%) below normal
- January-June 2012
 - Statewide average was 12.6 inches
 - 6th driest on record
 - 1988 = 12.0 inches
 - Precipitation deficits:
 - 4-6 inches in Northern Illinois
 - 6-10 inches in Central Illinois
 - 10- >12 inches in Southern Illinois

Accumulated Precipitation (in): Departure from Mean January 1, 2012 to July 3, 2012



Mean period is 1981-2010.





Rainfall (inches) in 24 hours
previous to July 9, 2012, 7 AM

National Weather Service Weather
Forecast Office: Central Illinois



Illinois Crop Report: July 9, 2012

District	Topsoil				Subsoil			
	Very Short	Short	Adequate	Surplus	Very Short	Short	Adequate	Surplus
Northwest	50	44	6	-	57	33	10	-
Northeast	57	39	4	-	41	34	25	-
West	70	27	3	-	74	21	5	-
Central	55	44	1	-	63	35	2	-
East	51	40	9	-	52	38	10	-
W Southwest	80	19	1	-	69	29	2	-
E Southeast	84	15	1	-	80	19	1	-
Southwest	86	8	6	-	92	8	-	-
Southeast	91	9	-	-	95	5	-	-
State	67	29	4	-	65	28	7	-

Illinois Crop Report: July 9, 2012

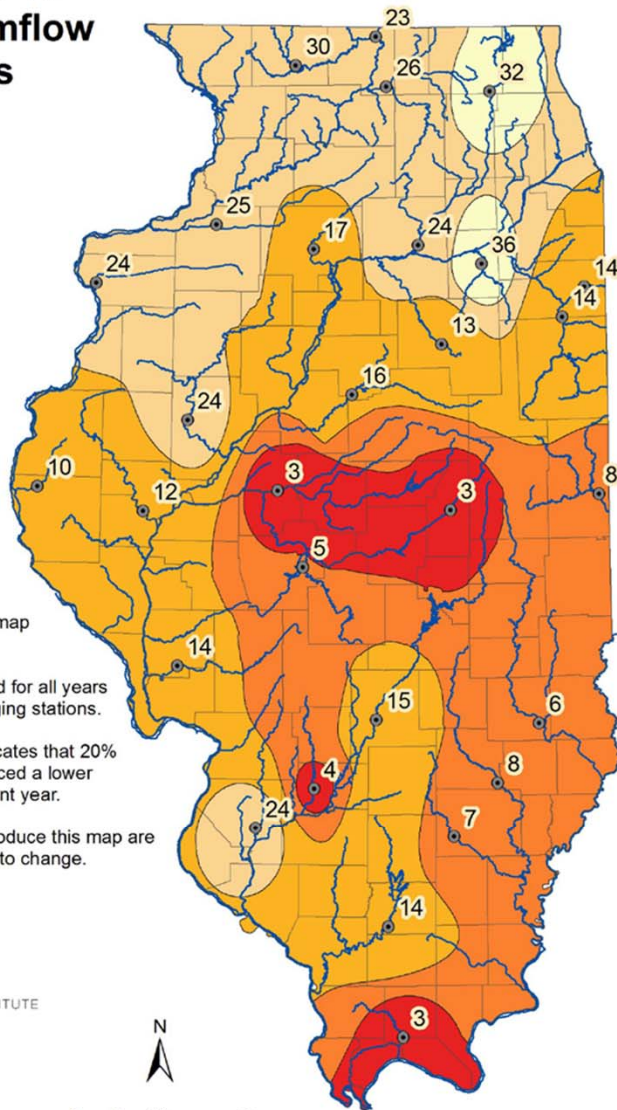
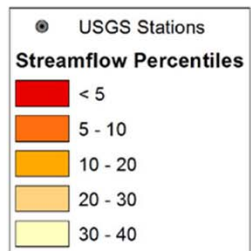
Crop	Very Poor	Poor	Fair	Good	Excellent
Corn	23	25	33	17	2
Soybeans	17	25	38	18	2
Alfalfa	17	28	32	22	1
Pasture	43	32	20	4	1
Oats	14	14	29	35	8
Sorghum	37	29	31	3	-



Decreasing Stream Flows

- Most streams south of I-80 much-below normal flow
 - Lowest 10th percentile for this time of year
- Northern Illinois
 - First half of June, most flow in normal range
 - As of now, however, most are now considered below normal
- Most current flow levels are close to their normal annual minimum levels
 - Limited environmental impacts so far
- Stream levels will almost certainly continue to fall in upcoming months

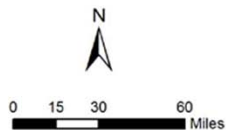
June 1 - June 17 Average Streamflow Percentiles



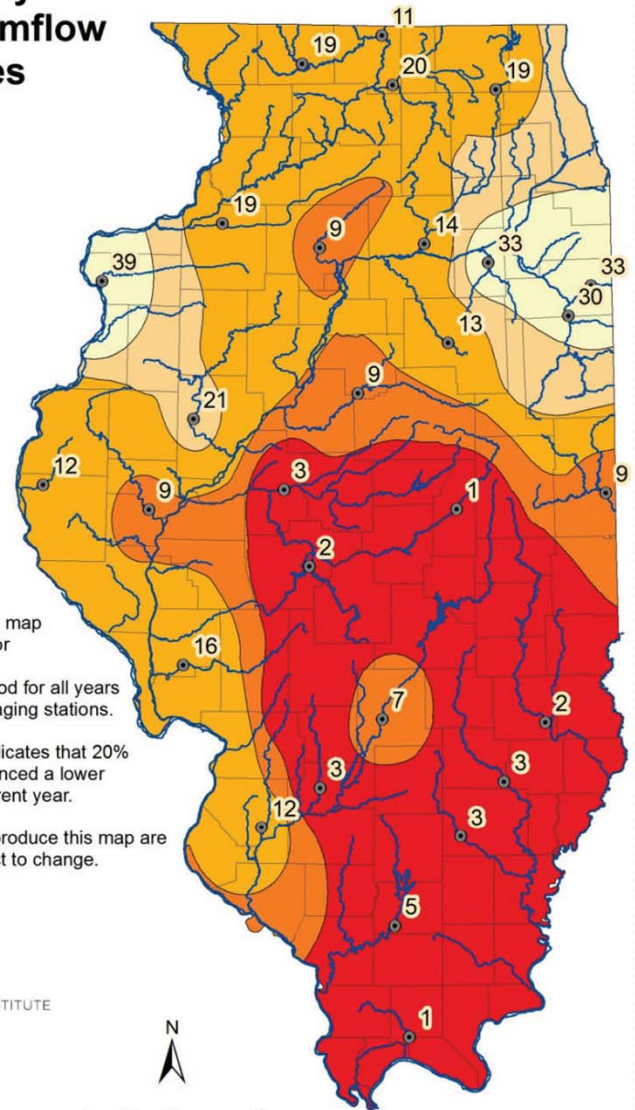
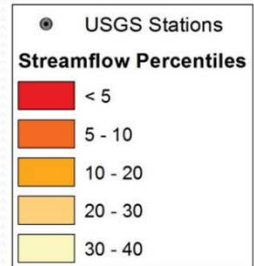
The percentage values on this map describe Illinois streamflows for June 1, 2012 - June 17, 2012, as compared to the same period for all years of record at selected USGS gaging stations.

For example, a value of 20 indicates that 20% of the years on record experienced a lower total flow amount than the current year.

The streamflow data used to produce this map are provisional and may be subject to change.



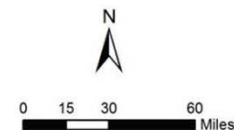
June 18 - July 1 Average Streamflow Percentiles



The percentage values on this map describe Illinois streamflows for June 18, 2012 - July 1, 2012, as compared to the same period for all years of record at selected USGS gaging stations.

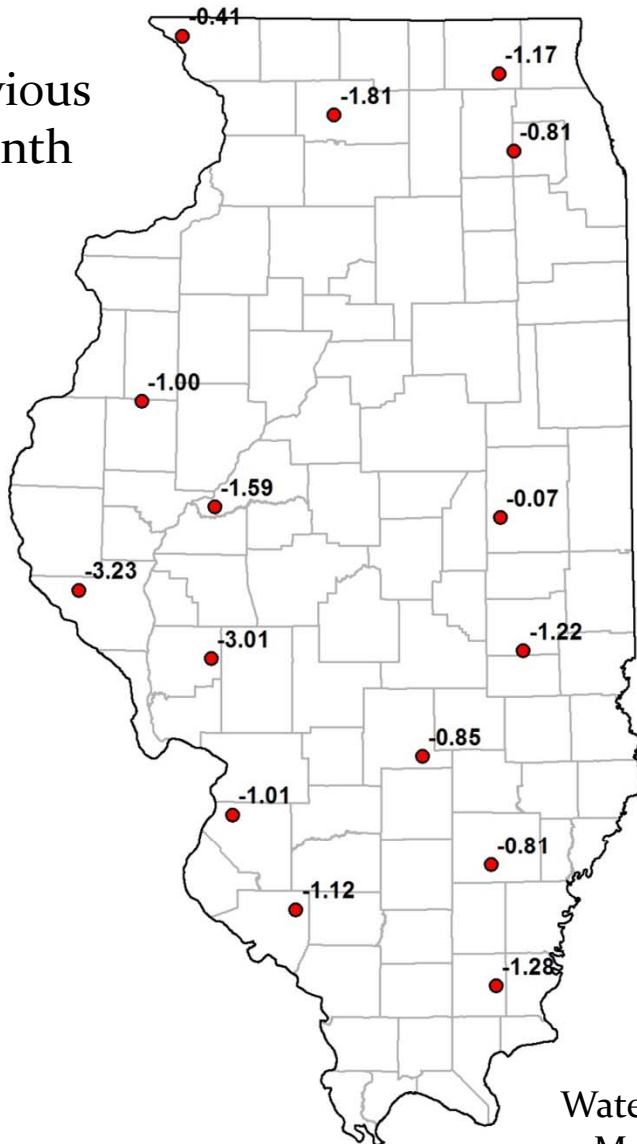
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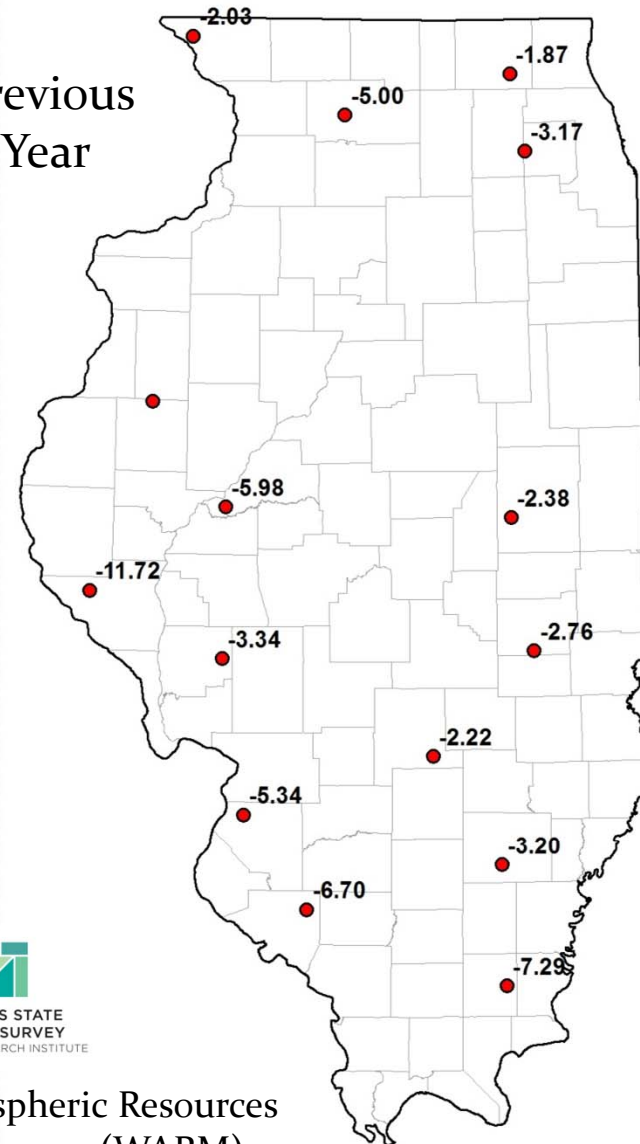


Decreases in Groundwater Levels, June 2012

Previous Month

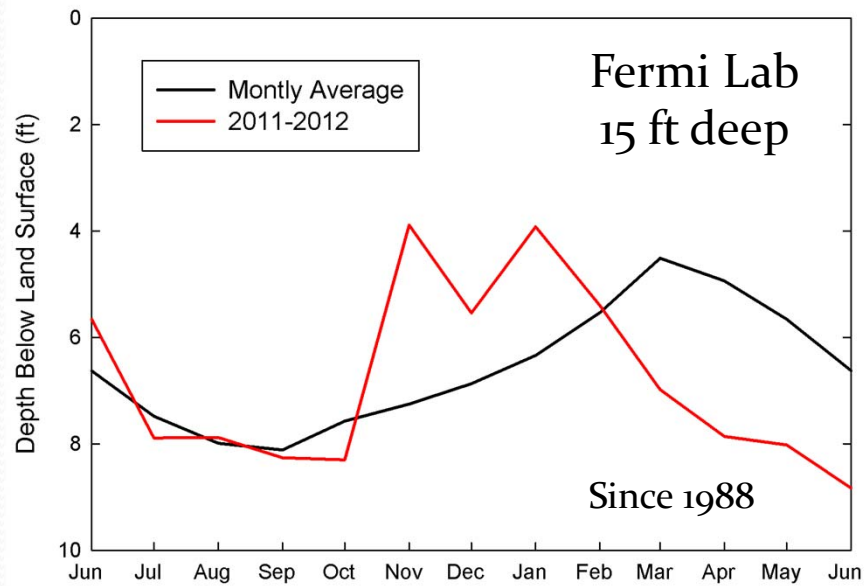
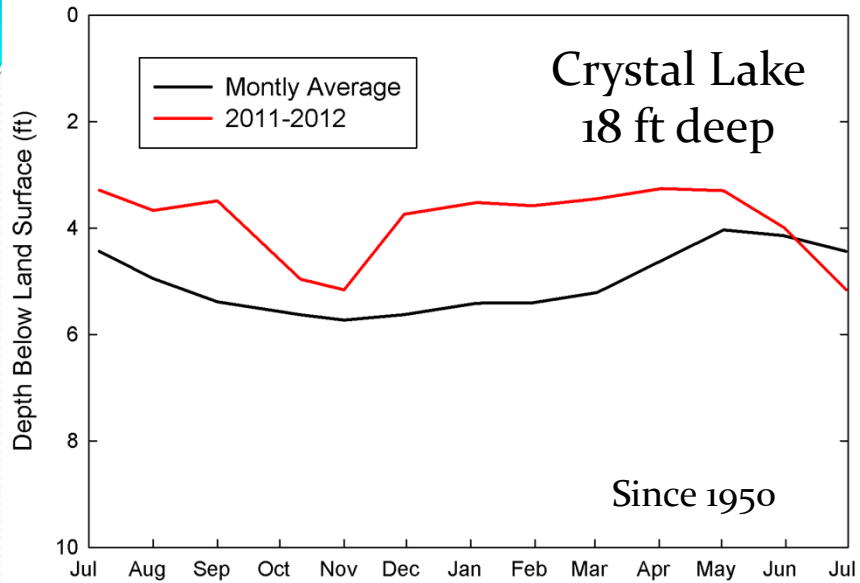


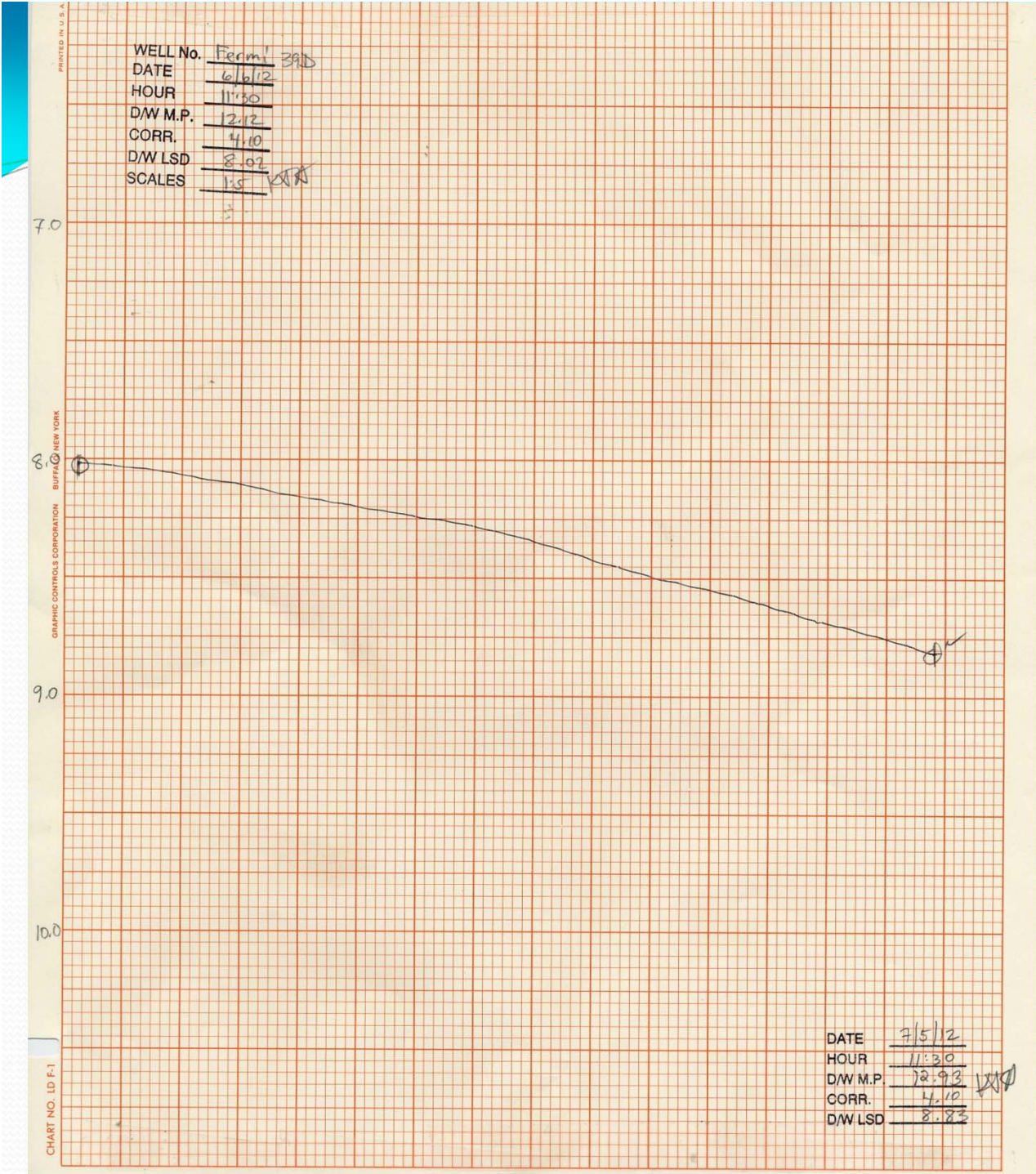
Previous Year



Water and Atmospheric Resources
Monitoring Program (WARM)

Shallow monitoring wells: Water levels



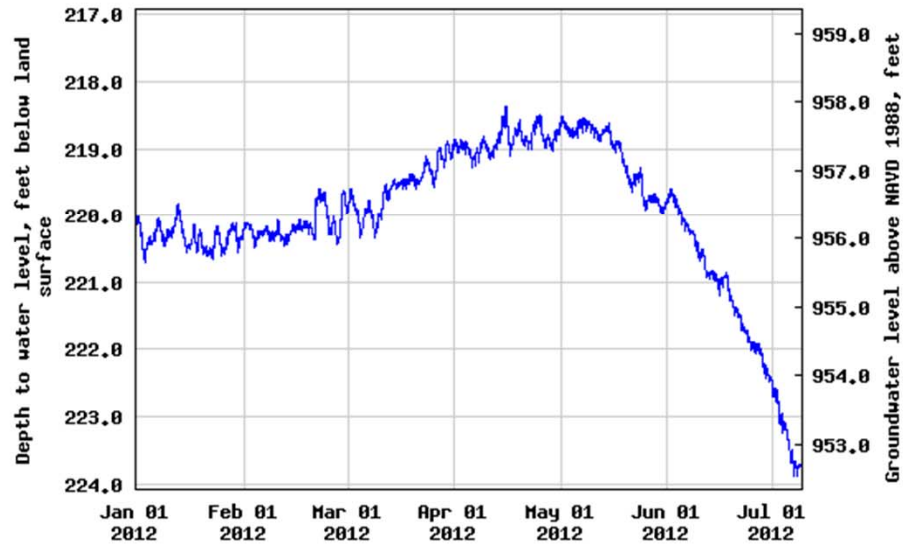


Fermi Lab well
 Hydrograph:
 6/6/12 - 7/5/12

McHenry Co. Monitoring Wells Water Level Data: 1/1/12 to present

NW

USGS 422828088333301 46N6E-08.461 (2-ALD-D)



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

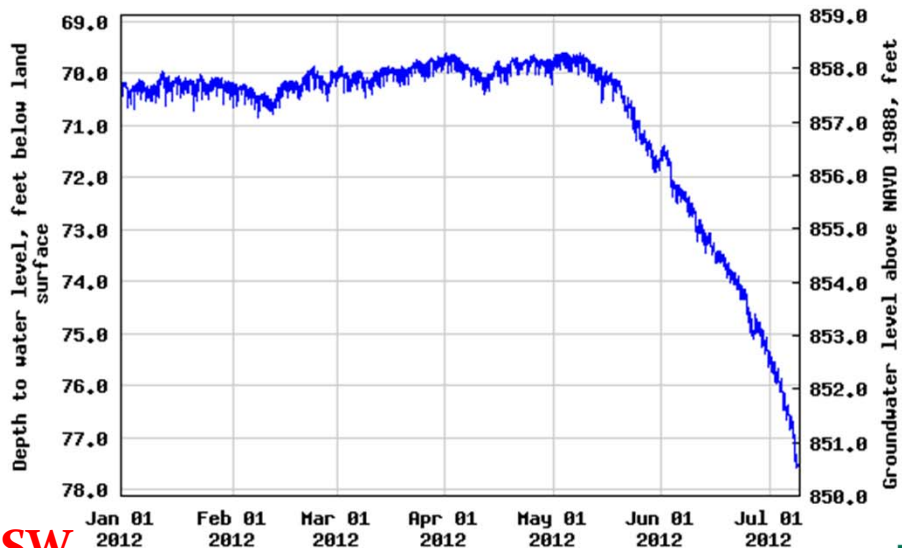
NE

USGS 422308088195602 45N8E-17.7h2 (9-HCH-D)



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

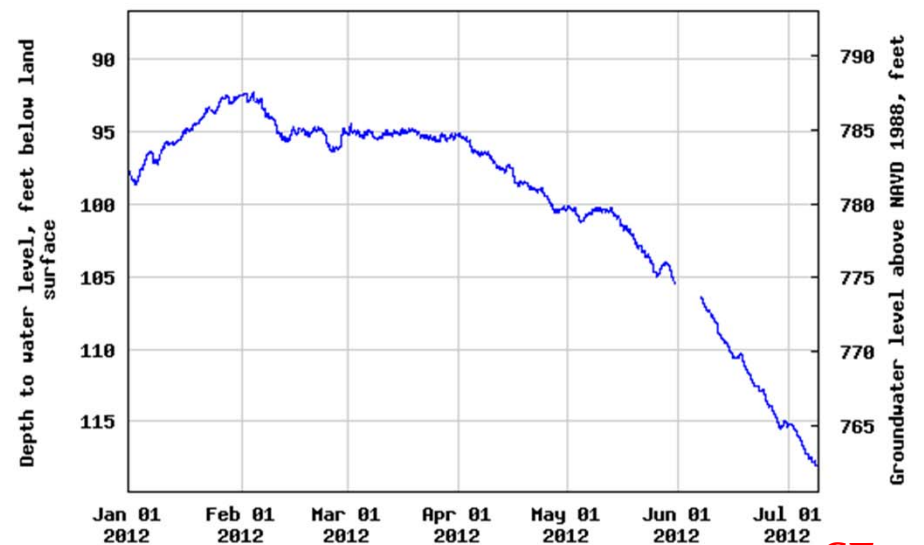
USGS 421321088341101 43N6E-07.1g (MARS-09-01)



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

SW

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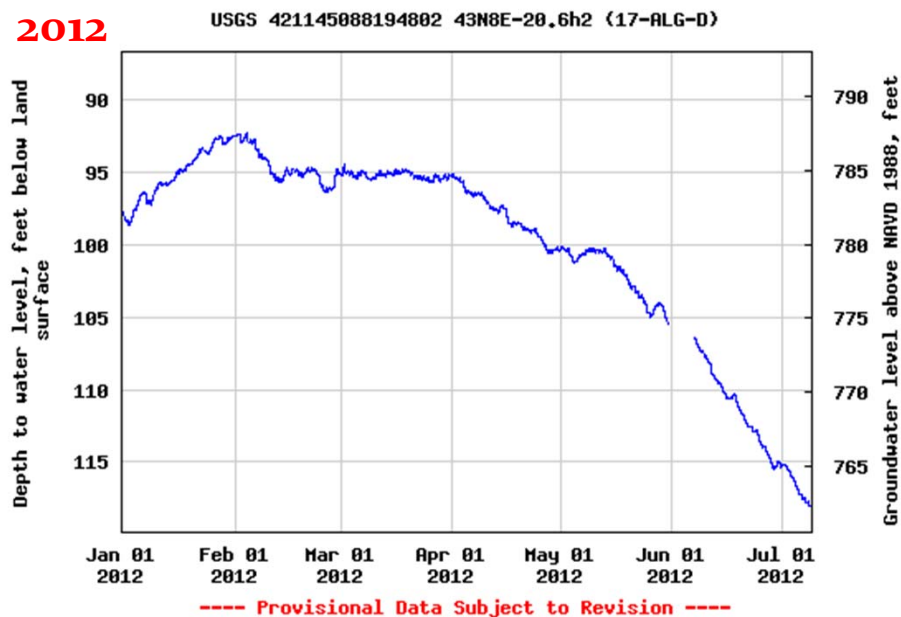
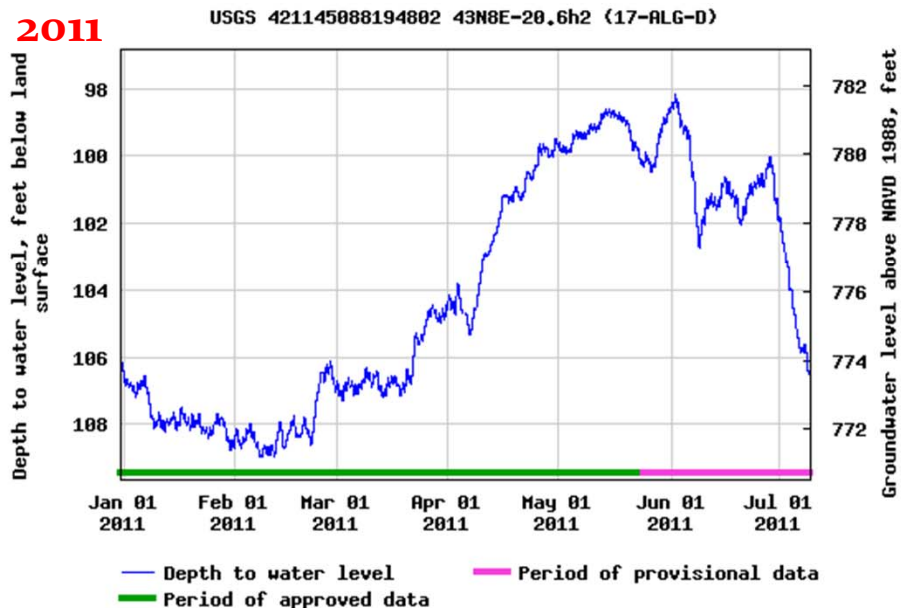
----- Provisional Data Subject to Revision -----

SE

2012 vs. 2011

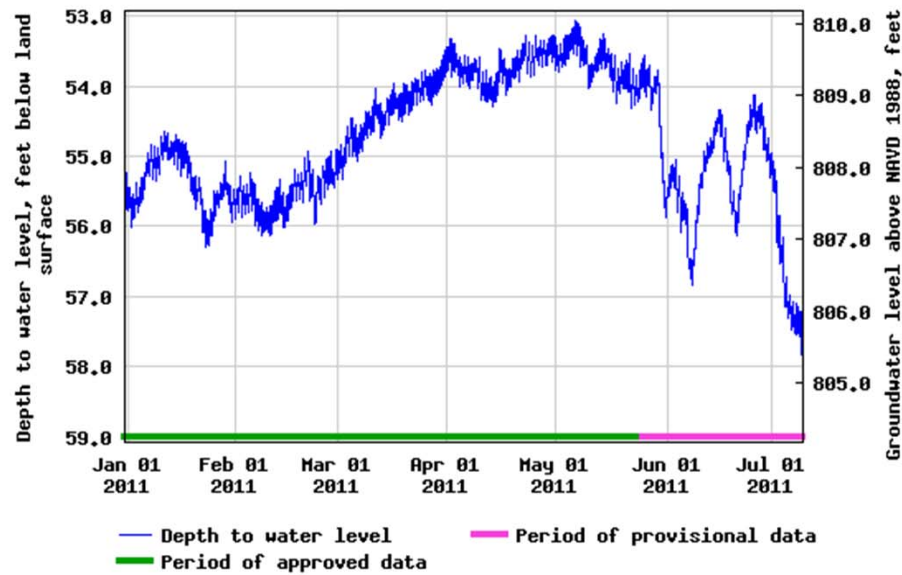
- Decreasing water table in summer is normal
- Very little recharge in winter/spring 2012
- Water table drop since June 1 is about 50% greater in 2012 vs. 2011

17-ALG-D near Algonquin



2011

USGS 42238888195602 45N8E-17.7h2 (9-MCH-D)

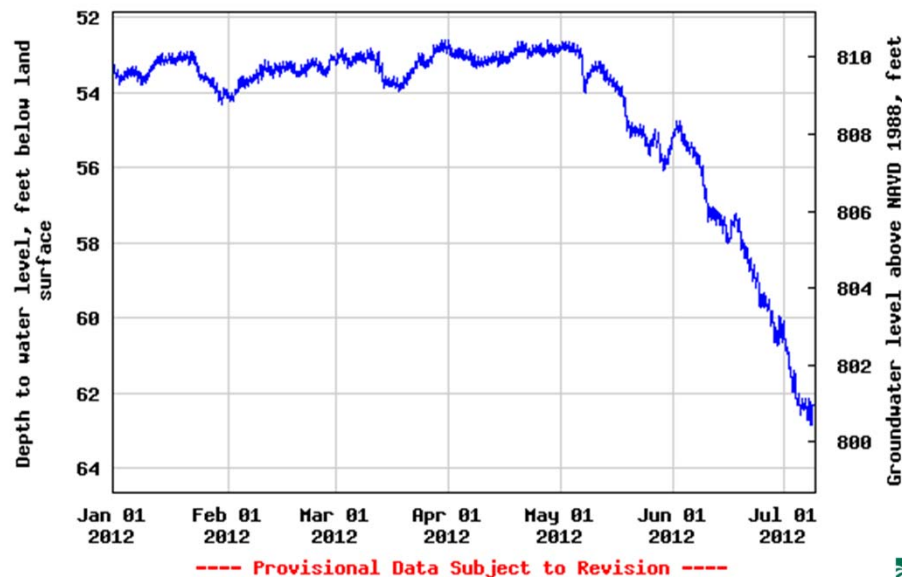


2012 vs. 2011

- Water table drop since June 1 is about twice as much in 2012 vs. 2011

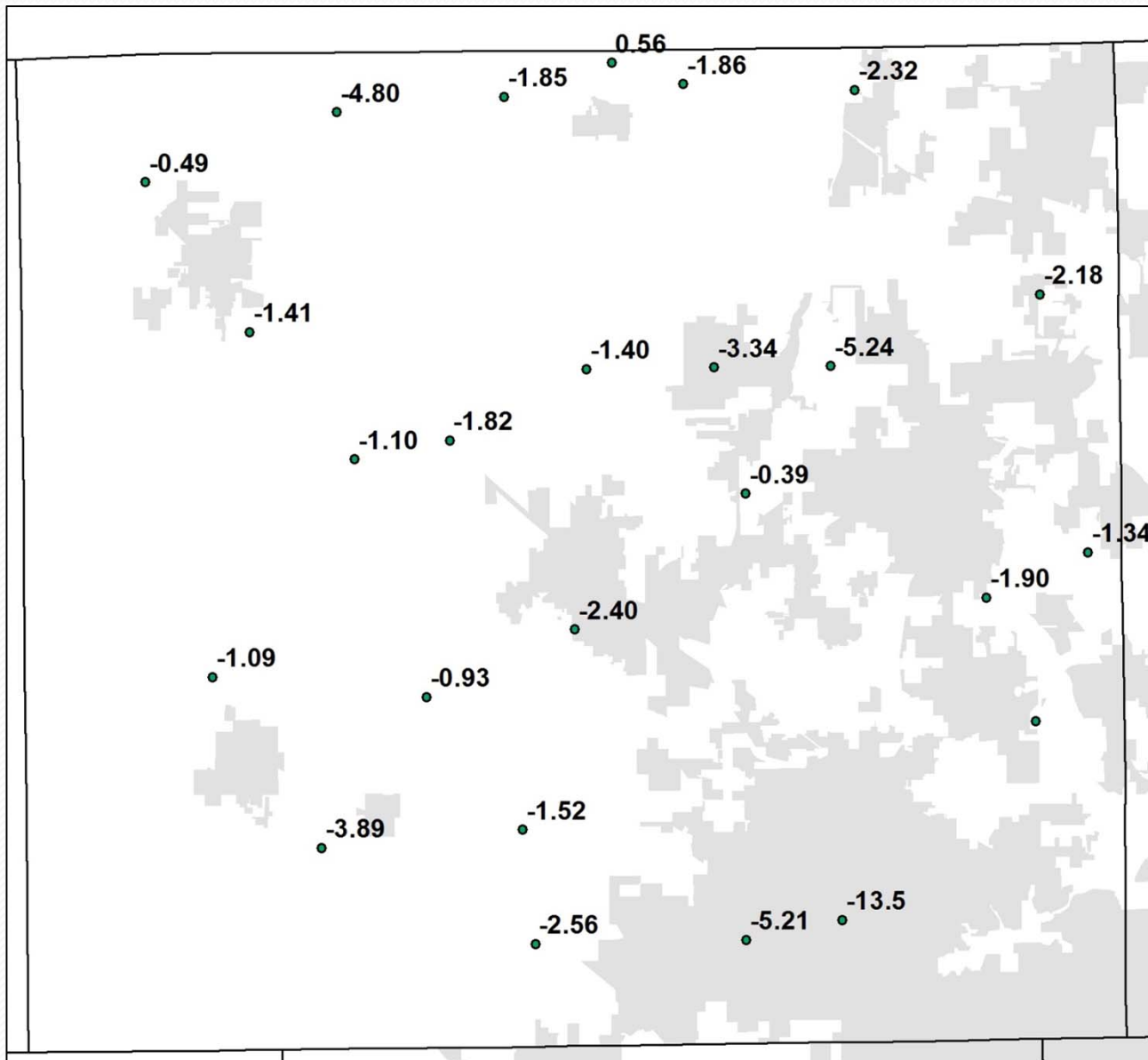
2012

USGS 42238888195602 45N8E-17.7h2 (9-MCH-D)



9-MCH-D near Wonder Lake

Monitoring Well Network



Changes in
Groundwater levels
between 2011 and 2012
(measured July 1)

Median change:
-1.86 feet



Prognosis

- Precipitation amounts similar to 1988
- Climate Prediction Center (NWS) forecasts the drought to persist or intensify for almost all of Illinois through Sept. 30
- Even with normal precipitation, groundwater levels and surface flows will decrease



Recent Activities

- At State Water Planning Task Force meeting on June 19, the State Drought Task Force was re-convened
 - To be jointly chaired by IDNR (Arlan Juhl) and IEPA (Rick Cobb)
 - Meeting Today (July 11, 2012)
- Documents will appear on ISWS web page
 - <http://www.isws.illinois.edu/>



State of Illinois Drought Preparedness and Response Plan

**Adopted by the State Water Plan Task Force
October 12, 2011**

Illinois Department of Agriculture (IDOA)
Illinois Department of Commerce and Economic
Opportunity (IDCEO)
Illinois Department of Natural Resources (IDNR)
Office of Mines and Minerals (OMM)
Office of Resource Conservation (ORC)
Office of Water Resources (OWR)
Illinois Department of Public Health (IDPH)
Illinois Environmental Protection Agency (IEPA)
Illinois Pollution Control Board (IPCB)
United States Geological Survey (USGS)
University of Illinois – Prairie Research Institute
Illinois State Geological Survey (ISGS)
Illinois State Water Survey (ISWS)
University of Illinois – Water Resource Center (WRC)

Available on ISWS
Drought Web Page



Drought Preparedness and Response Plan Table of Contents

- 1. Introduction**
- 2. Defining Drought and Drought Impacts**
- 3. Authorities and Regulations**
- 4. Water Supply Planning and Drought Preparedness**
- 5. Drought Response**
- 6. References, Internet Links, and State Contacts**



Drought Response Chapter

- a. State Agency Programs relating to Drought Response***
- b. Drought Response Task Force (DRTF)***
- c. Information on Current (and Historical) Drought Conditions***
- d. Governor's Disaster Declaration and Emergency Powers***
- e. Federal Disaster Assistance***
- f. Community Conservation Measures***