

VIRGINIA DROUGHT MONITORING TASK FORCE

Drought Status Report

May 5, 2011

Statewide precipitation for the current water year, October 1, 2010 to April 30, 2011 is just within the normal range (85% of normal). However, the Roanoke, Middle James, Chowan, Northern Coastal Plain, York-James, Southeast Virginia and Eastern Shore drought evaluation regions are all reporting below normal precipitation. Normal precipitation is defined as the mean precipitation for a thirty year period of record. Precipitation greater than 85% and less than 115% of normal is considered to be in the normal range. Statewide precipitation is in the normal range (90%) for the calendar year. Appendix A contains precipitation tables for periods dating from February 1, 2010 through April 30, 2011 provided by the Climatology Office of the University of Virginia.

As of May 17, 2011 the National Weather Service Climate Prediction Center 6-10 day climatologic outlooks call for above normal precipitation and below normal temperatures for the entire Commonwealth. The 8-14 day outlooks call for below normal precipitation for the entire eastern half of the state, equal chances of below normal, normal and above normal precipitation for the western half of the state, and above normal temperatures for the entire Commonwealth. The one month outlook calls for above normal precipitation for all but the southeastern portion of the state and below normal temperature for the entire Commonwealth. The three month outlook calls for above normal precipitation and below normal temperatures for all but the southwest portion of the state which has equal chances of below normal, normal and above normal precipitation and temperatures.

The May 3, 2011 NOAA U.S. National Drought Monitor indicates “moderate drought” conditions exist in approximately 7% of the state, comprised of the central eastern portion of the Commonwealth and the Eastern Shore and “abnormally dry” conditions exist in approximately 31% of the Commonwealth comprised of the south central region. The remainder of Virginia is reported as having no drought conditions (Appendix B). The Seasonal Drought Outlook for the United States from now through April 2011 forecasts “improvement” for the central eastern portion of the Commonwealth and the Eastern Shore and “no drought posted or predicted” for the remainder of the state. (Appendix D).

The Virginia Department of Health (VDH) reports that 4 systems are under voluntary water conservation requirements and 1 system is under mandatory water conservation requirements. Of the 34 systems listed in the VDH report, 1 is rated as having a “Better” overall water supply situation, one is rated as having a “Worse” overall water supply situation and all other systems are rated as being in a “Stable” situation (Appendix F).

Reports from the Climatology Office of the University of Virginia, the United States Geological Survey, The Virginia Department of Agriculture and Consumer Services, and the Virginia Department of Environmental Quality follow.

Report of the Climatology Office of the University of Virginia

May 5, 2011

Consistent winter storms and widespread thunderstorm outbreaks have brought well above normal rainfall across the Commonwealth over the last two months, except for much of the Tidewater. Total precipitation for the critical colder period of the year (October through April), has been normal or slightly above normal for only four of the Drought Monitoring Regions—all west of the Blue Ridge.

For this period, the Piedmont has averaged somewhat below normal, but most of the entire Virginia Tidewater received no more than 70% of normal precipitation. This highlights the relatively limited amount of moisture available for replenishment of longer-term deficits accrued through the end of last year's growing season.

The growing season is now underway, and opportunities to make up existing groundwater deficits are greatly diminished. Rising temperatures and water uptake by plants will quickly overtake even normal precipitation amounts. In addition, we are transitioning from the months dominated by more widespread precipitation events (related to winter storms and frontal passages) to those characterized by highly variable thunderstorm activity. Therefore, the probability is very high that current deficits will be carried forward and augmented through the growing season.

United States Geological Survey Streamflow and Ground Water Levels

May 5, 2011

Statewide precipitation events over the past several weeks have temporarily increased surface-water flows (Appendix G) and groundwater levels (Appendix H) at most gages across the State, including gages located in the southeast portions of Virginia. Continued statewide precipitation will maintain streamflows and groundwater levels near normal; however, typically about mid-May precipitation events transition to summer type events. Summer precipitation in Virginia is characterized by scattered thunderstorms that may produce heavy precipitation locally, but large areas will have little or no precipitation. Below normal drought conditions persist in southeast Virginia and on the Eastern Shore of Virginia as evidenced by 1-day average streamflow statistics (Appendix I) and groundwater levels (Appendix H).

Virginia Department of Agriculture and Consumer Services Status of Agricultural Drought

May 2011

According to the USDA Crop Weather Report released on May 1, 2011, 90% of topsoil moisture ranged from adequate to surplus. Several severe storms in late April caused flooding and damage to crops, fields and structures in some areas of the state. Overall producers are reporting that spring planting is on schedule and crops look good. Pittsylvania County, which experienced significant crop loss during the recent storms, has requested the Governor's assistance in obtaining federal disaster designation due to damages caused by the recent storms. The Governor is in the process of submitting the official request to the U.S. Secretary of Agriculture on behalf of Pittsylvania County.

Overall reports from around the state have been very positive. Most areas are reporting that the spring rains and the cool temperatures have been beneficial to spring planting and harvesting. If the rain continues at regular intervals, the 2011 crop year is expected to be good. The Eastern Shore reports that it is still continuing to experience drought-like conditions, with Northampton County being more affected than any other area. The lack of winter rain has resulted in low subsurface moisture, which has caused spring fed irrigation ponds to be lower than normal levels. There is also some concern about the ponds' ability to recharge. Green bean growers on the Eastern Shore are irrigating in order to plant and get the crop established. Eastern Shore growers are also concerned about the wheat and barley crops. Without rain in the next few weeks, the situation could become critical.

Virginia Department of Environmental Quality Conditions of Major Reservoirs

Levels of large reservoirs statewide are at or above normal levels. Four large multi-purpose reservoirs are identified as drought indicators in the *Virginia Drought Assessment and Response Plan (Plan)*; Smith Mountain Lake, Lake Moomaw, Lake Anna and Kerr Reservoir. All four of these reservoirs are currently at levels above their Drought Watch stages. Below is a summary of large reservoir conditions:

- On May 11, Lake Moomaw on the Jackson River was at 1582.03 feet, and was rising at a rate of approximately 0.14 ft per day. Approximately 100% of conservation storage remains. Lake Moomaw is 17.03 ft above its Drought Watch level (1565 feet MSL).
- On May 11, Kerr Reservoir was approximately 0.51 ft above the Guide Curve and was anticipated to drop 0.00 ft by April 21, 2011. Drought Watch status is reached at greater than 3 ft below the Guide Curve.
- On May 11, Smith Mountain Lake was at elevation 794.97 ft. The Drought Watch stage for Smith Mountain Lake is elevation 793 feet and below.
- On May 11, Lake Anna was at elevation 250 ft (2 ft above drought watch). The Drought Watch stage for Lake Anna Lake is elevation 248 feet and below.

APPENDIX A

Precipitation Departures by Drought Evaluation Region

PRELIMINARY PRECIPITATION SUMMARY

Prepared:
5/5/11

DROUGHT REGION	OBSERVED	Apr 1, 2011 NORMAL	- Apr 30, 2011 DEPARTURE	% OF NORM.
1 Big Sandy	6.04	3.76	2.28	161%
2 New River	5.69	3.55	2.14	160%
3 Roanoke	4.50	3.80	0.70	118%
4 Upper James	7.43	3.40	4.03	218%
5 Middle James	3.99	3.34	0.65	119%
6 Shenandoah	7.26	2.92	4.34	249%
7 Northern Virginia	4.85	3.30	1.55	147%
8 Northern Piedmont	5.50	3.29	2.21	167%
9 Chowan	1.94	3.43	-1.49	57%
10 Northern Coastal Plain	2.62	3.09	-0.47	85%
11 York-James	1.24	3.30	-2.06	38%
12 Southeast Virginia	1.63	3.25	-1.62	50%
13 Eastern Shore	1.52	2.92	-1.40	52%
Statewide	4.65	3.42	1.23	136%

DROUGHT REGION	OBSERVED	Mar 1, 2011 NORMAL	- Apr 30, 2011 DEPARTURE	% OF NORM.
1 Big Sandy	12.71	8.01	4.70	159%
2 New River	12.11	7.22	4.89	168%
3 Roanoke	9.81	8.07	1.74	122%
4 Upper James	13.14	7.19	5.95	183%
5 Middle James	9.39	7.40	1.99	127%
6 Shenandoah	11.59	6.12	5.47	189%
7 Northern Virginia	9.74	6.96	2.78	140%
8 Northern Piedmont	11.01	7.10	3.91	155%
9 Chowan	6.06	7.80	-1.74	78%
10 Northern Coastal Plain	6.62	7.37	-0.75	90%
11 York-James	4.24	7.99	-3.75	53%
12 Southeast Virginia	5.03	7.45	-2.42	68%
13 Eastern Shore	4.76	7.23	-2.47	66%
Statewide	9.80	7.46	2.34	131%

DROUGHT REGION	OBSERVED	Feb 1, 2011 NORMAL	- Apr 30, 2011 DEPARTURE	% OF NORM.
1 Big Sandy	15.01	11.59	3.42	129%
2 New River	13.91	10.15	3.76	137%
3 Roanoke	11.27	11.38	-0.11	99%
4 Upper James	14.63	10.04	4.59	146%
5 Middle James	10.78	10.52	0.26	103%

6	Shenandoah	13.24	8.53	4.71	155%
7	Northern Virginia	11.62	9.63	1.99	121%
8	Northern Piedmont	12.34	10.07	2.27	123%
9	Chowan	7.24	10.97	-3.73	66%
10	Northern Coastal Plain	7.79	10.51	-2.72	74%
11	York-James	5.51	11.52	-6.01	48%
12	Southeast Virginia	6.64	10.95	-4.31	61%
13	Eastern Shore	6.21	10.42	-4.21	60%
	Statewide	11.35	10.59	0.76	107%

DROUGHT			Jan 1, 2011	- Apr 30, 2011	
REGION	OBSERVED	NORMAL	DEPARTURE	% OF NORM.	
1	Big Sandy	16.79	15.32	1.47	110%
2	New River	14.83	13.36	1.47	111%
3	Roanoke	12.44	15.30	-2.86	81%
4	Upper James	15.54	13.32	2.22	117%
5	Middle James	12.32	14.18	-1.86	87%
6	Shenandoah	14.26	11.38	2.88	125%
7	Northern Virginia	13.39	12.91	0.48	104%
8	Northern Piedmont	13.82	13.59	0.23	102%
9	Chowan	8.84	15.08	-6.24	59%
10	Northern Coastal Plain	9.35	14.26	-4.91	66%
11	York-James	7.97	15.66	-7.69	51%
12	Southeast Virginia	9.72	15.11	-5.39	64%
13	Eastern Shore	9.08	13.98	-4.90	65%
	Statewide	12.83	14.23	-1.40	90%

DROUGHT			Dec 1, 2010	- Apr 30, 2011	
REGION	OBSERVED	NORMAL	DEPARTURE	% OF NORM.	
1	Big Sandy	21.34	18.96	2.38	113%
2	New River	18.60	16.07	2.53	116%
3	Roanoke	15.64	18.55	-2.91	84%
4	Upper James	18.50	16.27	2.23	114%
5	Middle James	15.02	17.35	-2.33	87%
6	Shenandoah	16.74	13.97	2.77	120%
7	Northern Virginia	15.18	16.01	-0.83	95%
8	Northern Piedmont	16.34	16.87	-0.53	97%
9	Chowan	12.09	18.10	-6.01	67%
10	Northern Coastal Plain	11.07	17.54	-6.47	63%
11	York-James	9.96	19.05	-9.09	52%
12	Southeast Virginia	12.57	18.29	-5.72	69%
13	Eastern Shore	12.21	17.22	-5.01	71%
	Statewide	15.80	17.35	-1.55	91%

DROUGHT			Nov 1, 2010	- Apr 30, 2011	
REGION	OBSERVED	NORMAL	DEPARTURE	% OF NORM.	
1	Big Sandy	24.67	22.24	2.43	111%
2	New River	21.65	19.10	2.55	113%
3	Roanoke	17.99	21.91	-3.92	82%

4	Upper James	21.01	19.63	1.38	107%
5	Middle James	17.35	20.86	-3.51	83%
6	Shenandoah	18.77	17.02	1.75	110%
7	Northern Virginia	16.89	19.42	-2.53	87%
8	Northern Piedmont	18.62	20.67	-2.05	90%
9	Chowan	13.94	21.21	-7.27	66%
10	Northern Coastal Plain	13.09	20.68	-7.59	63%
11	York-James	11.53	22.42	-10.89	51%
12	Southeast Virginia	14.29	21.36	-7.07	67%
13	Eastern Shore	13.41	20.16	-6.75	67%
	Statewide	18.13	20.58	-2.45	88%

DROUGHT REGION		OBSERVED	Oct 1, 2010 NORMAL	- Apr 30, 2011 DEPARTURE	% OF NORM.
1	Big Sandy	27.08	25.12	1.96	108%
2	New River	23.57	22.27	1.30	106%
3	Roanoke	20.81	25.62	-4.81	81%
4	Upper James	23.23	22.88	0.35	102%
5	Middle James	20.09	24.70	-4.61	81%
6	Shenandoah	20.02	20.21	-0.19	99%
7	Northern Virginia	19.54	22.90	-3.36	85%
8	Northern Piedmont	20.91	24.66	-3.75	85%
9	Chowan	16.49	24.79	-8.30	67%
10	Northern Coastal Plain	15.79	24.19	-8.40	65%
11	York-James	15.08	25.95	-10.87	58%
12	Southeast Virginia	17.33	25.02	-7.69	69%
13	Eastern Shore	16.06	23.37	-7.31	69%
	Statewide	20.58	24.08	-3.50	85%

DROUGHT REGION		OBSERVED	Sep 1, 2010 NORMAL	- Apr 30, 2011 DEPARTURE	% OF NORM.
1	Big Sandy	29.40	28.58	0.82	103%
2	New River	27.52	25.68	1.84	107%
3	Roanoke	27.06	29.85	-2.79	91%
4	Upper James	28.75	26.38	2.37	109%
5	Middle James	26.19	28.83	-2.64	91%
6	Shenandoah	25.01	23.88	1.13	105%
7	Northern Virginia	25.95	26.97	-1.02	96%
8	Northern Piedmont	27.21	28.94	-1.73	94%
9	Chowan	24.79	29.22	-4.43	85%
10	Northern Coastal Plain	23.47	28.28	-4.81	83%
11	York-James	24.35	30.85	-6.50	79%
12	Southeast Virginia	30.61	29.45	1.16	104%
13	Eastern Shore	20.63	26.98	-6.36	76%
	Statewide	26.62	28.08	-1.46	95%

DROUGHT REGION		OBSERVED	Aug 1, 2010 NORMAL	- Apr 30, 2011 DEPARTURE	% OF NORM.
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1	Big Sandy	34.53	32.41	2.12	107%
2	New River	32.76	28.99	3.77	113%
3	Roanoke	33.50	33.57	-0.07	100%
4	Upper James	31.72	29.71	2.01	107%
5	Middle James	30.38	32.65	-2.27	93%
6	Shenandoah	27.71	27.21	0.50	102%
7	Northern Virginia	30.22	30.82	-0.60	98%
8	Northern Piedmont	30.61	32.76	-2.15	93%
9	Chowan	29.06	33.53	-4.47	87%
10	Northern Coastal Plain	27.81	32.14	-4.33	87%
11	York-James	26.05	35.72	-9.67	73%
12	Southeast Virginia	33.81	34.57	-0.76	98%
13	Eastern Shore	25.40	30.85	-5.45	82%
	Statewide	30.98	31.91	-0.93	97%

DROUGHT REGION	OBSERVED	Jul 1, 2010 NORMAL	- Apr 30, 2011 DEPARTURE	% OF NORM.	
1	Big Sandy	38.26	36.89	1.37	104%
2	New River	35.61	32.78	2.83	109%
3	Roanoke	36.75	37.96	-1.21	97%
4	Upper James	35.38	33.75	1.63	105%
5	Middle James	32.24	37.06	-4.82	87%
6	Shenandoah	31.09	30.97	0.12	100%
7	Northern Virginia	33.68	34.59	-0.91	97%
8	Northern Piedmont	32.94	37.16	-4.22	89%
9	Chowan	30.74	38.04	-7.30	81%
10	Northern Coastal Plain	29.27	36.59	-7.32	80%
11	York-James	29.42	40.82	-11.40	72%
12	Southeast Virginia	37.54	39.64	-2.11	95%
13	Eastern Shore	27.49	34.85	-7.36	79%
	Statewide	33.76	36.25	-2.49	93%

DROUGHT REGION	OBSERVED	Jun 1, 2010 NORMAL	- Apr 30, 2011 DEPARTURE	% OF NORM.	
1	Big Sandy	43.04	41.03	2.01	105%
2	New River	38.17	36.63	1.54	104%
3	Roanoke	38.84	41.85	-3.01	93%
4	Upper James	37.23	37.46	-0.23	99%
5	Middle James	34.11	40.57	-6.46	84%
6	Shenandoah	32.92	34.68	-1.76	95%
7	Northern Virginia	35.02	38.45	-3.43	91%
8	Northern Piedmont	35.35	41.17	-5.82	86%
9	Chowan	33.26	41.69	-8.43	80%
10	Northern Coastal Plain	31.28	40.15	-8.87	78%
11	York-James	30.35	44.23	-13.88	69%
12	Southeast Virginia	40.77	43.25	-2.48	94%
13	Eastern Shore	29.02	37.83	-8.82	77%
	Statewide	36.12	40.04	-3.92	90%

DROUGHT REGION		OBSERVED	May 1, 2010 NORMAL	- Apr 30, 2011 DEPARTURE	% OF NORM.
1	Big Sandy	48.49	45.85	2.64	106%
2	New River	41.99	40.84	1.15	103%
3	Roanoke	43.48	46.18	-2.70	94%
4	Upper James	41.03	41.74	-0.71	98%
5	Middle James	38.16	44.81	-6.65	85%
6	Shenandoah	35.98	38.52	-2.54	93%
7	Northern Virginia	39.66	42.79	-3.13	93%
8	Northern Piedmont	39.02	45.39	-6.37	86%
9	Chowan	38.68	45.78	-7.10	84%
10	Northern Coastal Plain	33.68	44.31	-10.64	76%
11	York-James	35.24	48.50	-13.26	73%
12	Southeast Virginia	44.97	47.11	-2.14	95%
13	Eastern Shore	31.13	41.35	-10.22	75%
	Statewide	40.29	44.30	-4.01	91%

DROUGHT REGION		OBSERVED	Apr 1, 2010 NORMAL	- Apr 30, 2011 DEPARTURE	% OF NORM.
1	Big Sandy	51.17	49.61	1.56	103%
2	New River	43.83	44.39	-0.56	99%
3	Roanoke	45.24	49.98	-4.74	91%
4	Upper James	42.74	45.14	-2.40	95%
5	Middle James	39.92	48.15	-8.23	83%
6	Shenandoah	37.33	41.44	-4.11	90%
7	Northern Virginia	41.26	46.09	-4.83	90%
8	Northern Piedmont	40.55	48.68	-8.13	83%
9	Chowan	40.12	49.21	-9.09	82%
10	Northern Coastal Plain	35.27	47.40	-12.13	74%
11	York-James	36.19	51.80	-15.61	70%
12	Southeast Virginia	46.16	50.36	-4.20	92%
13	Eastern Shore	32.31	44.27	-11.96	73%
	Statewide	42.00	47.72	-5.72	88%

DROUGHT REGION		OBSERVED	Mar 1, 2010 NORMAL	- Apr 30, 2011 DEPARTURE	% OF NORM.
1	Big Sandy	54.05	53.86	0.19	100%
2	New River	47.90	48.06	-0.16	100%
3	Roanoke	50.37	54.25	-3.88	93%
4	Upper James	46.83	48.93	-2.10	96%
5	Middle James	45.05	52.21	-7.16	86%
6	Shenandoah	42.05	44.64	-2.59	94%
7	Northern Virginia	45.00	49.75	-4.75	90%
8	Northern Piedmont	45.48	52.49	-7.01	87%
9	Chowan	44.71	53.58	-8.87	83%
10	Northern Coastal Plain	41.42	51.68	-10.26	80%
11	York-James	41.81	56.49	-14.68	74%
12	Southeast Virginia	52.47	54.56	-2.09	96%
13	Eastern Shore	38.54	48.58	-10.04	79%

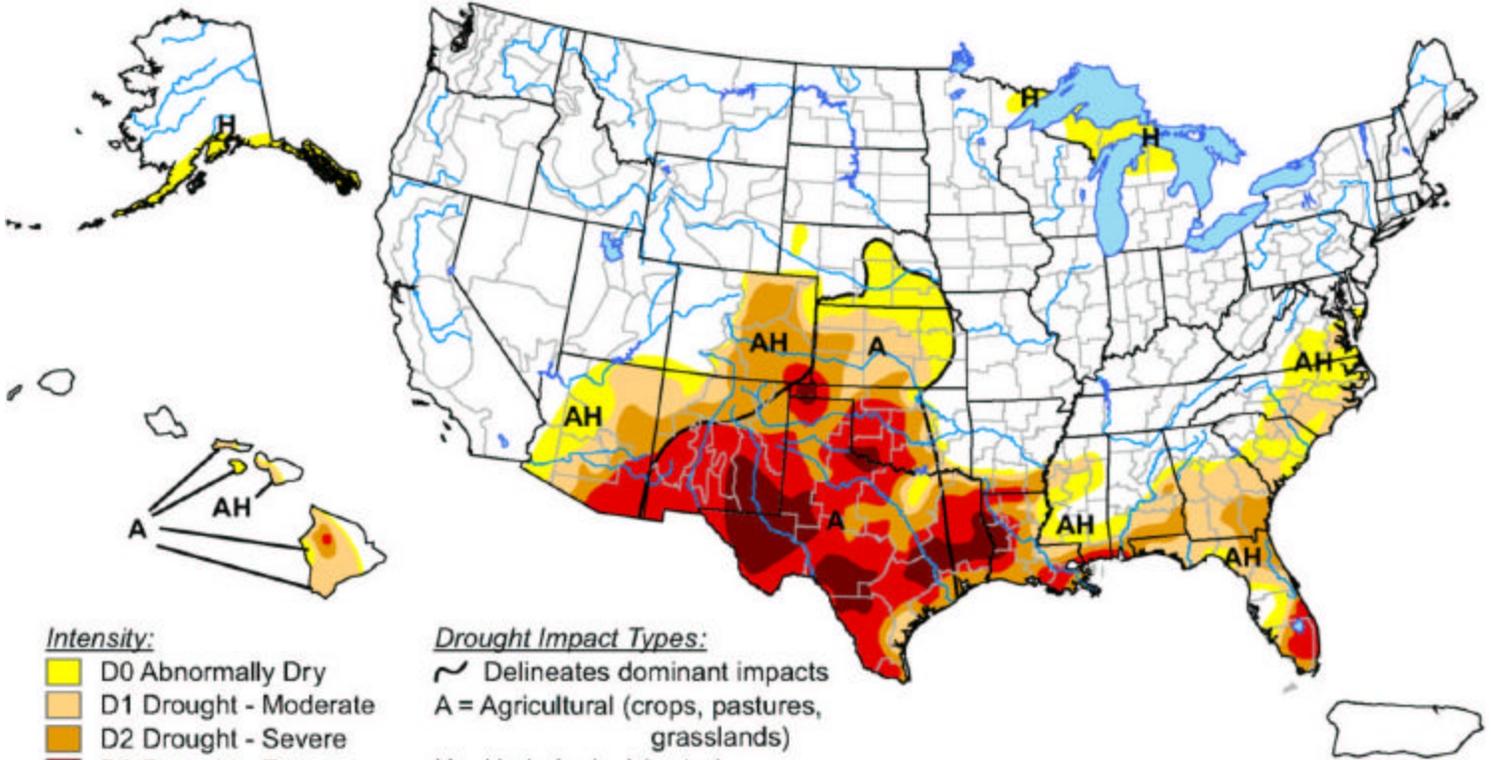
Statewide	46.70	51.76	-5.06	90%
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DROUGHT REGION	OBSERVED	Feb 1, 2010 NORMAL	- Apr 30, 2011 DEPARTURE	% OF NORM.
1 Big Sandy	56.82	57.44	-0.62	99%
2 New River	50.32	50.99	-0.67	99%
3 Roanoke	53.03	57.56	-4.53	92%
4 Upper James	49.16	51.78	-2.62	95%
5 Middle James	48.28	55.33	-7.05	87%
6 Shenandoah	44.92	47.05	-2.13	95%
7 Northern Virginia	49.04	52.42	-3.38	94%
8 Northern Piedmont	48.00	55.46	-7.46	87%
9 Chowan	47.96	56.75	-8.79	85%
10 Northern Coastal Plain	44.72	54.82	-10.11	82%
11 York-James	45.50	60.02	-14.52	76%
12 Southeast Virginia	56.22	58.06	-1.84	97%
13 Eastern Shore	42.42	51.77	-9.35	82%
Statewide	49.67	54.89	-5.22	90%

APPENDIX B

U.S. Drought Monitor

May 3, 2011
Valid 8 a.m. EDT



Intensity:

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

Drought Impact Types:

-  Delineates dominant impacts
- A = Agricultural (crops, pastures, grasslands)
- H = Hydrological (water)

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

<http://drought.unl.edu/dm>



Released Thursday, May 5, 2011
Author: Rich Tinker, NOAA/NWS/NCEP/CPC

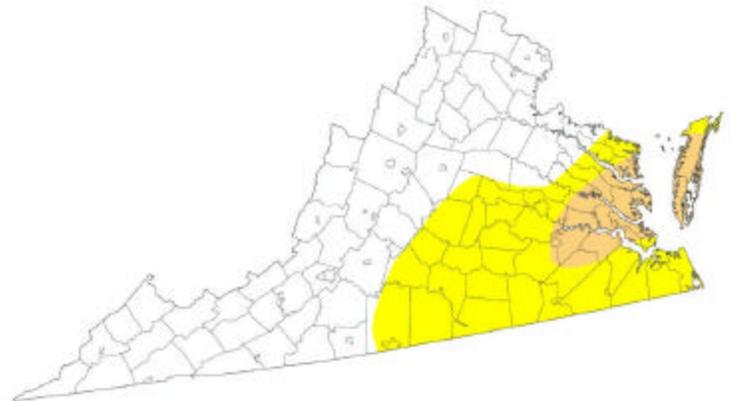
APPENDIX C

U.S. Drought Monitor Virginia

May 3, 2011
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	62.24	37.76	7.24	0.00	0.00	0.00
Last Week (04/26/2011 map)	64.25	35.75	0.00	0.00	0.00	0.00
3 Months Ago (02/01/2011 map)	18.30	81.70	55.04	0.00	0.00	0.00
Start of Calendar Year (12/28/2010 map)	81.67	18.33	0.00	0.00	0.00	0.00
Start of Water Year (09/28/2010 map)	13.71	86.29	49.67	28.15	0.79	0.00
One Year Ago (04/27/2010 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://drought.unl.edu/dm>

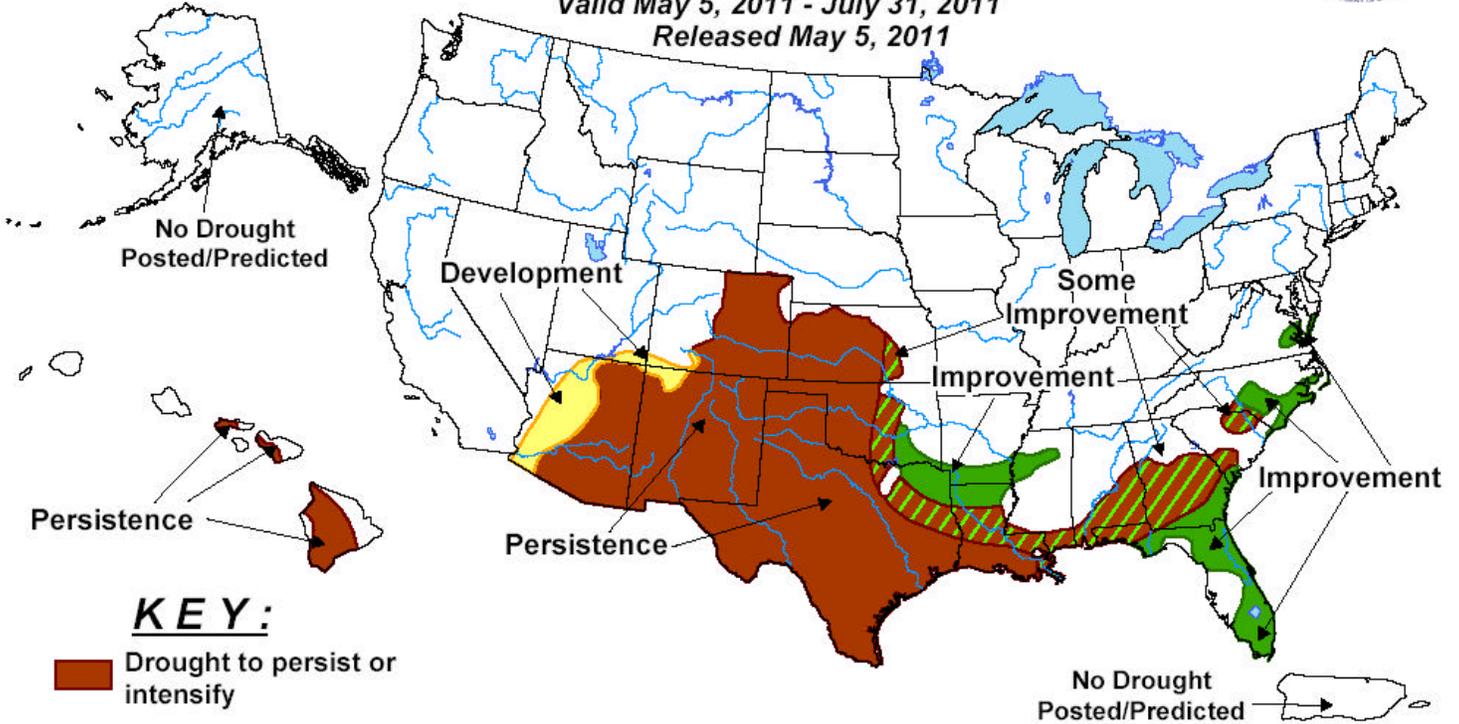


Released Thursday, May 5, 2011
Rich Tinker, NOAA/NWS/INCEPIC/PC

APPENDIX D



U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period Valid May 5, 2011 - July 31, 2011 Released May 5, 2011



KEY:

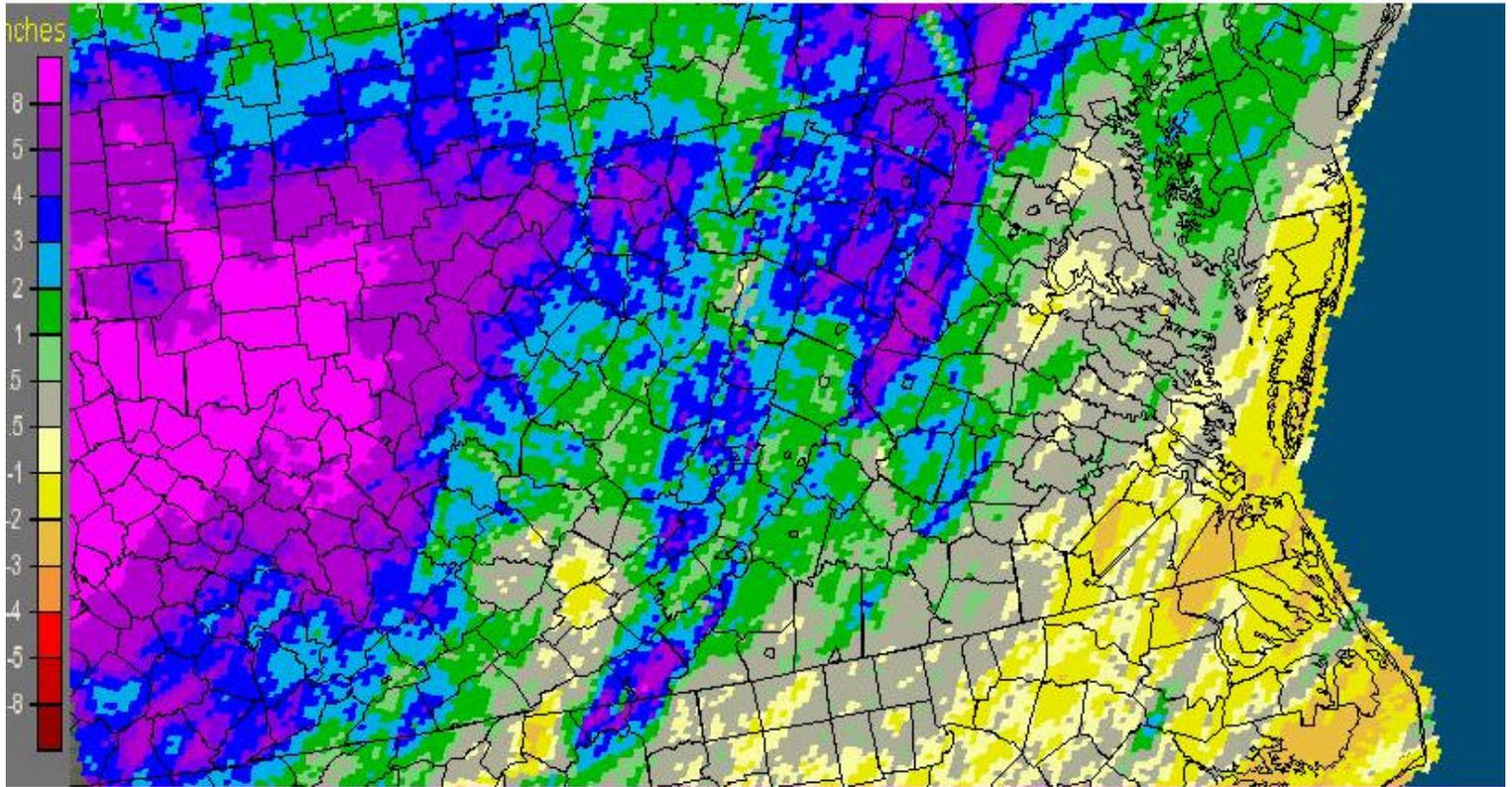
- Drought to persist or intensify
- Drought ongoing, some improvement
- Drought likely to improve, impacts ease
- Drought development likely

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor. NOTE: the green improvement areas imply at least a 1-category improvement in the Drought Monitor intensity levels, but do not necessarily imply drought elimination.

APPENDIX E

30-Day Departure from Normal Precipitation Valid May 11, 2011

Virginia: Current 30-Day Departure from Normal Precipitation
Valid at 5/11/2011 1200 UTC- Created 5/11/11 18:07 UTC



APPENDIX F

Condition of Public Water Supplies

May 4, 2011

ODW Drought Situation Report

Date: **5/4/11**

	Restriction totals	Population Totals
Mandatory	1	2,134
Voluntary	4	11,456
Total	5	13,590

N-None
 M-Mandatory
 V-Voluntary
 B-Better
 S-Stable/Same
 W-Worse

PWSID	Waterworks	Source Name	Restrictions	Situation	Population Served
3081550	GCWSA - Jarratt	Nottoway River	N	S - 05/02/2011 - River level sufficient to allow plant operation at 1.9 mgd. Gage at Stony Creek indicates 3.38 feet.	7,190
3550051	Chesapeake	Northwest River, City of Norfolk Raw Water (Lake Gaston)	N	S -05/03/2011 Total rainfall for April is 3.4 inches. There are no water restrictions in Chesapeake. Chlorides are used as an indicator of drought, the higher the levels the more concentrated the contaminant in a lesser amount of surface water. They are at 360 mg/l due to this storm moving up the coast on 4/28/2011 and 4/29/2011. The river level increased 3.5 feet. As of 4/30/2011 the chlorides returned to normal at 40 mg/l.	109,411

				Continuing to purchase raw water from Norfolk (7.0 MGD average). The NWR WTP has been off-line during the month due to repairs.	
3595250	Emporia	Meherrin River	N	S - 05/02/2011 - Reservoir level sufficient for normal operation.	5,600
3670800	Virginia-American Water Company (Hopewell)	Appomattox & James Rivers	N	S - 05/02/2011 - Level at intakes sufficient to supply plant. MIB (taste & odor) detected in raw water and finished water.	28000 - Primary / 45463 Total including Consecutive System (Ft. Lee)
3700500	Newport News	Chickahomony River, Skiffs Creek, Diascand, Little Creek, Harwoods Mill, Lee Hall	N	W - 5/02/11 * Reservoir Status: 94.8 % Full (down 1.4%) * 39.7 Million Gallons Delivered	414,000
3710100	Norfolk	Lake Prince, Lake Burnt Mills, Western Branch reservoir, Nottoway River, Blackwater River, 4 western wells; Little Creek reservoir, Lakes Smith, Lawson, Whitehurst, and Wright. Lake Gaston.	N	S - As of 05/02/11, reservoirs at 94.1% (down from 96.4% on 04/11/11). Historic reservoir capacity is 95.2% at this time of year. Avg. pumping from Lake Gaston = 30.16 MGD. Total Reservoir Storage = 14,317 MG.	261,250 - Primary / 755,617 - Total including consecutive systems (Va Beach + military bases).
3740600	Portsmouth	Lakes Cohoon, Meade, Kilby, and Speights Run	N	S - As of 04/29/11, reservoirs at 99% (from 100% on 04/08/11). Median reservoir capacity is 100% for the month and historical average capacity is 99% (period of 1969-2008). The emergency wells are OFF.	100,400 - Primary / 120,400 Total including consecutive systems (military bases)

3800805	Suffolk	Lone Star Lakes, Cumps Mill Pond	N	B -05/03/2011- Received 0.22 inches of rain from 04/27/2011 through 5/1/2011. Average reservoir levels : Southern Lakes at 82.5% capacity, for the Northern Lakes at 103.53% and Crumps Mill Pond at 95.24% . No conservation measures implemented at this time but will continue to monitor.	66,631
3830850	Williamsburg	Waller Mill Reservoir	N	W - 5/03/11: 6.5" above primary spillway (down an inch from last report) - about 95% of usable capacity.	16,400
4041035	APPOMATTOX RIVER WATER AUTHORITY	Surface water; Lake Chesdin	N	S - Wholesaler to Chesterfield County, Prince George County, Dinwiddie County; Cities of Petersburg and Colonial Heights. All restrictions have been lifted. The reservoir is 0.5 inches below full.	200,000
4041845	CHESTERFIELD CO CENTRAL WATER SYSTEM	Surface water; Swift Creek reservoir; purchases finished water	N	S - Purchases water from the City of Richmond and the Appomattox River Water Authority. All restrictions have been lifted. The reservoir is full.	286,000
4057800	TAPPAHANNOCK , TOWN OF	Groundwater wells	N	S	2,100
4073311	GLOUCESTER CO WATER TREATMENT PLT	Surface water, Beaverdam reservoir; 2 deep groundwater wells	N	S -Reservoir is full.	12,000
4075283	EASTERN GOOCHLAND CENTRAL WATER SYSTEM	Purchased surface water	V	S -purchases water from Henrico County	2,500

4075735	JAMES RIVER CORRECTIONAL CTR	Surface water; James River	N	S- Conservation at all DOC facilities	9,300
4085398	HANOVER SUBURBAN WATER SYSTEM	Surface water; North Anna River; some groundwater wells; purchases finished water	N	S (see Richmond)	71,000
4085770	SPRING MEADOWS- MEADOW GATE	Groundwater wells	N	S	2,300
4087125	HENRICO COUNTY WATER SYSTEM	Surface water; James River	N	S (see Richmond)	289,000
4101900	WEST POINT, TOWN OF	Groundwater wells	N	S	3,000
4127110	DELMARVA PROPERTIES	Groundwater wells	N	S-New Kent Co. encourages conservation at all county owned waterworks.	7,700
4145675	POWHATAN COURTHOUSE	Groundwater wells	N	S	2,600
4193280	COLONIAL BEACH, TOWN OF	Groundwater wells	N	S	3,300
4760100	RICHMOND, CITY OF	Surface water; James River	N	S- water levels do not affect intake; James River Regional Flow Management Plan set restrictions based on James River level for counties of Henrico, Chesterfield, Goochland, and Hanover counties, which purchase water from the City.	197,000
6047500	Town of Culpeper	Surface water - Lake Pelham	N	S - Lake Pelham level was 5.5" above overflow invert on 5/2/11.	14,200
6059501	Fairfax Water	Surface Water - Potomac River and Occoquan Reservoir	N	S - 5/4/11 - Potomac River is flowing at about 21,000 cuft/sec, which is safely above the watch level. Occoquan Reservoir is full.	823,216 primary 1.8MM total

6061200	Marshall	Groundwater	M	S - The WSA Alert Messaging Service maintains the Water Use Restriction Notice as of 5/2/2011. The mandatory water use restriction is not directly drought related but depends on water source development.	2,134
6061600	Town of Warrenton	Surface (Cedar Run) and groundwater	N	S-On Monday, May2, Warrenton Reservoir surface was at 445.5 ft vs full level of 445.3 ft.	11,160
6107150	Town of Hamilton	Groundwater	V	S - 5/3/11 Voluntary water use restrictions initiated 7/6/2010 anticipated to be lifted in the near future. No supply problems.	2,000
6107300	Town of Leesburg	Surface Water - Potomac River	N	S -5/4/11 - Potomac River is flowing at about 21,000 cuft/sec, which is safely above the watch level.	46,300
6107600	Town of Purcellville	Surface water/groundwater	V	S - 5/4/11 - Surface water reservoir is full and is overflowing. Voluntary water conservation initiated 7/2/10. No water supply problems.	6,300
6107650	Town of Round Hill	Groundwater	V	S - 5/4/11 - Voluntary water use restrictions replaced mandatory on 10/21/10. No problems.	3,156
6137500	Town of Orange	Surface: Rapidan River	N	S - 14-day average of Rapidan River flow was 1795 cfs on 5/2/11.	4,500

6137999	Wilderness	Surface - Rapidan River	N	S	11,331
6600100	City of Fairfax	Surface Water	N	S - 5/4/11 Goose Creek flow has been sufficient. Beaver Dam Reservoir is full.	24,000

APPENDIX G

USGS Streamflow Conditions for May 4, 2011

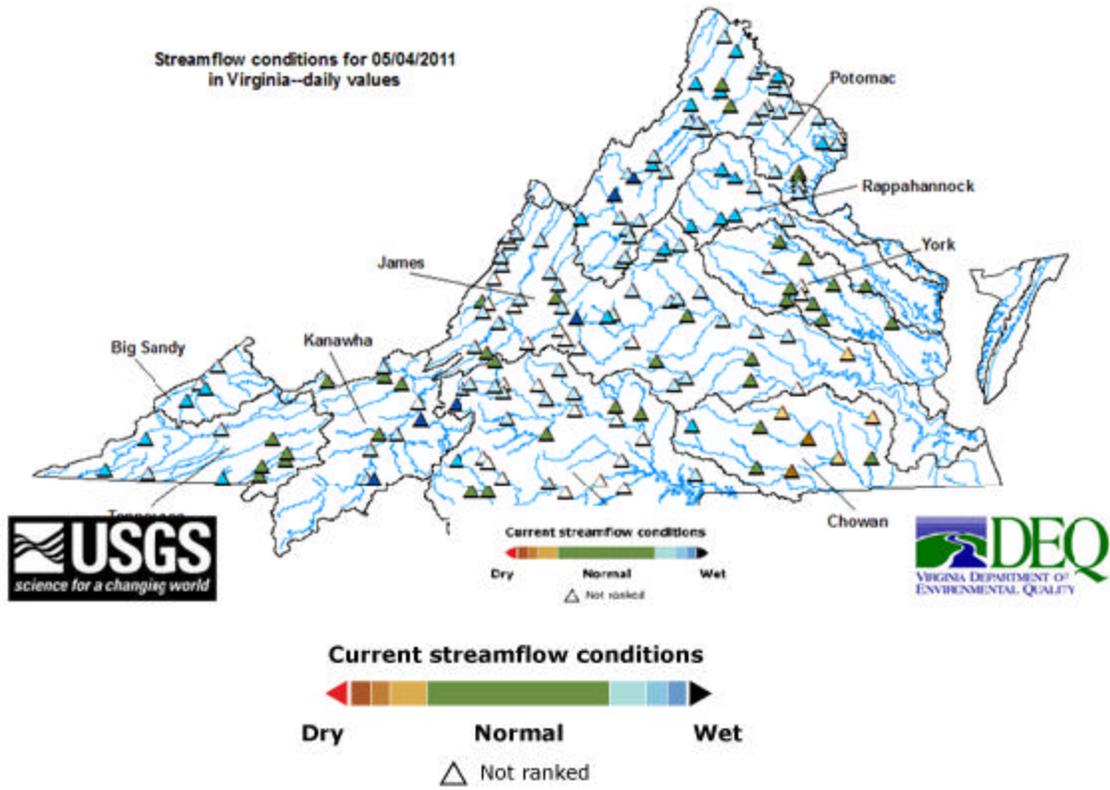


Figure 1. Streamflow conditions in Virginia for May 4, 2011

APPENDIX H

Groundwater level conditions for in Virginia May 4, 2011

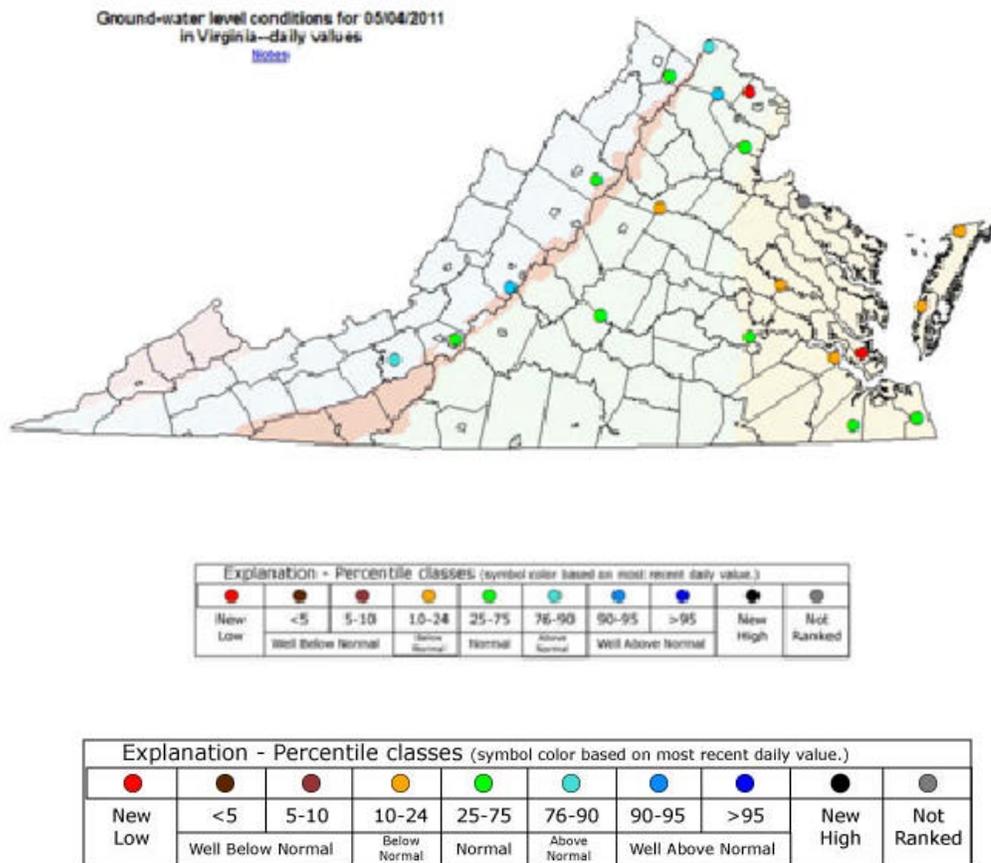


Figure 2. Groundwater-level conditions in Virginia for May 4, 2011

APPENDIX I

Drought Conditions Based on Daily Average Streamflow May 4, 2011

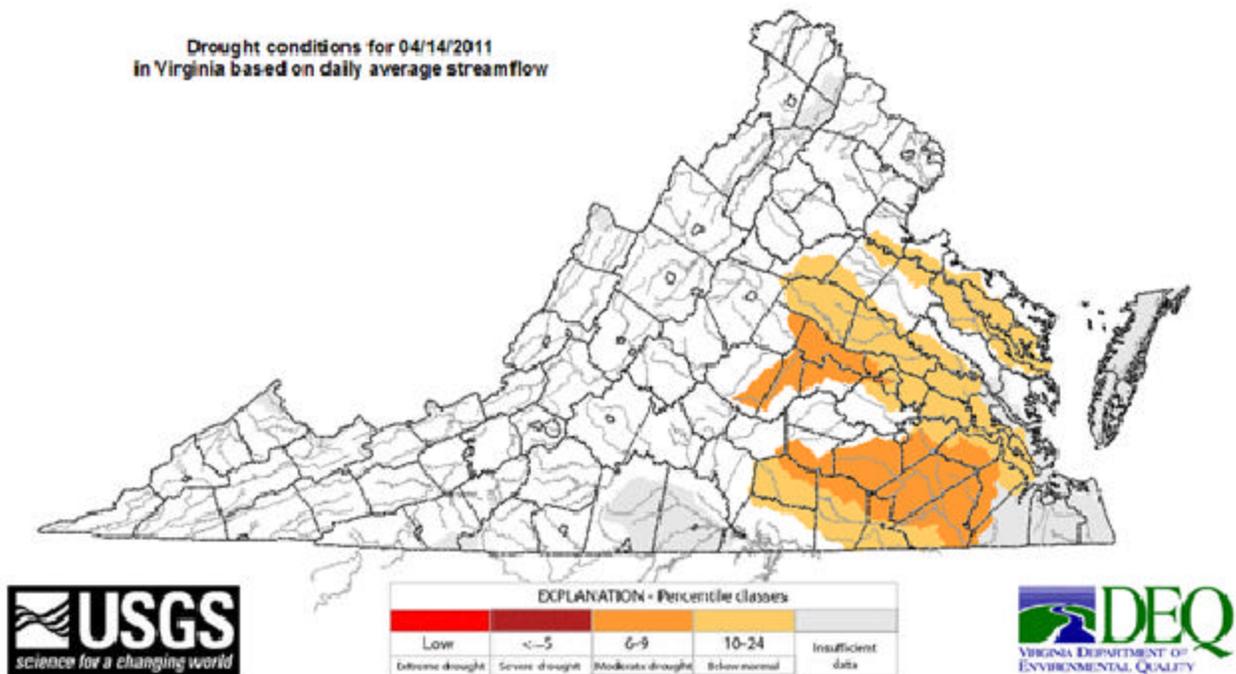


Figure 3. Drought conditions, based on average daily streamflow for May 4, 2011