

DROUGHT MONITORING TASK FORCE

Drought Status Report

July 21, 2008

Statewide precipitation for the previous water year (October 1, 2006 through September 30, 2007) was below normal (81% of normal). Statewide precipitation for the period from October 1, 2006 through July 18, 2008 was below normal (81% of normal). Statewide precipitation for the period from January 1, 2008 through July 18, 2008 is in the normal range (85% of normal). Precipitation greater than 85% of normal is considered to be in the normal range. While precipitation for the period from July 1 through July 18 was normal to above normal in all drought evaluation regions except the Eastern Shore, York-James and the Northern Coastal Plain this short period was dominated by a series of significant thunderstorm events. The period from June 1 through July 18 is a more accurate reflection of overall drought conditions and indicates below normal statewide precipitation for the period (79% of normal). The following drought evaluation regions are currently below normal for the period beginning October 1, 2006; Big Sandy (73%), New River (78%), Roanoke (78%), Upper James (82%), Middle James (83%), Northern Piedmont (84%), Northern Coastal Plain (82%) and York-James (79%). Cumulative precipitation deficits for the period beginning October 1, 2006 have remained relatively constant since the last report with areas south of Route 64 generally experiencing increased deficits while areas to the north generally experiencing decreases in accumulated deficits. The Shenandoah, Northern Virginia, Chowan, Southeast Virginia and Eastern Shore drought evaluation areas currently are in the normal range of precipitation for this extended period. Appendix A contains precipitation tables for periods dating to October 1, 2006 provided by the Climatology Office of the University of Virginia. The long-range monthly climatologic outlook calls for equal chances of below normal, normal and above normal precipitation and temperatures for the Commonwealth through August of 2008. The long-range seasonal outlook calls for equal chances of below normal, normal and above normal precipitation for the Commonwealth through October 2008. The long range seasonal outlooks calls for above normal temperatures in the northern third of the Commonwealth and for equal chances of below normal, normal and above normal temperatures for the southern two thirds of the Commonwealth through October 2008.

The latest NOAA drought monitor indicates stable drought conditions in the Commonwealth since the last report. The western and southern portions of the Commonwealth continue to experience below normal moisture conditions to moderate drought conditions. The drought monitor is included as Appendix B. Appendix C contains information from the national drought monitor with only Virginia displayed. The NOAA seasonal drought outlook through October 2008 indicates that drought conditions are likely to improve in all areas of Virginia currently experiencing drought. The seasonal drought outlook is included as Appendix D.

Seven day average streamflows for July 20 are below normal in the area of the Commonwealth generally south of Interstate 64. Areas in the upper Roanoke and New river basins are exhibiting flows indicative of moderate drought (6th to 9th percentiles while areas in the Holston river basin in Washington and Smyth counties are exhibiting flows indicative of severe drought conditions (< 5th percentile). While drought monitoring ground water levels data is scarce, ground water levels are generally in the lower range of expected water levels in areas north of Route 64 and are generally lower than normal in the area south of Route 64. Ground water levels appear to also decline to the west in the area that is experiencing lower than normal levels. Twelve dedicated drought monitoring wells are at levels indicative of normal ground water levels, six are at levels indicative of moderate hydrologic drought (10th to 24th percentiles), and two are at levels indicative of severe hydrologic drought conditions (< 10th percentile). Levels of most large reservoirs have declined during the last month but most levels are in the range of expected mid-summer conditions.

While the Virginia Department of Health has not reported any impacts to public water supplies that have compromised their ability to provide the needs of their customers', 21 systems remain on voluntary water conservation requirements and 4 systems remain on mandatory water conservation requirements. Appendix E contains a table of waterworks that includes systems that have initiated water conservation requirements.

The Department of Forestry reports that summertime wildfire activity continues at slightly elevated levels when compared to what would be considered normal for Virginia. Over the last month the Department of Forestry has responded to an average of roughly 3-5 wildfires daily which have burned about 7-8 acres on a daily basis. The leading cause of wildfire continues to be human carelessness, although there has been an upturn in lightning-caused fires related to the very dry conditions. Observed fire behavior over the last few weeks indicates that the rates of spread and level of fire intensity is much greater than would normally be expected during this time of the year. The low overall fuel moisture conditions make suppression operations more difficult and lead to increased long term monitoring, which can place a drain on firefighter resources. This has not been a significant problem up to this point, however significant resource problems can develop if drought conditions persist or increase over time. Since July 1, 2008, the VDOF has responded to 95 wildfires which have burned 426 acres. The large fire in the Dismal Swamp, which is now at 4664 acres, is estimated to be 95% contained. The fire is a ground-based fire, burning the dry organic oils of the refuge as a result of the low water table. The

incident is completely on the federal lands of the National Wildlife Refuge and is being managed by the US Fish and Wildlife Service. The VDOF currently has 29 personnel on voluntary assignment, assisting with this incident. The Air Division of the Department of Environmental Quality reports that the Dismal Swamp fire, in combination with another similar but much larger fire in Hyde County North Carolina have the potential to adversely impact air quality in broad areas of the Commonwealth for the coming weeks or months.

The Department of Forestry also reports that drought stresses in the Commonwealth's forests will likely lead to increasing problems with pest related outbreaks as opportunistic forest pests take advantage of the already stressed trees.

Gypsy moths are a forest pest that impact the foliage of deciduous trees. There are several developing major local outbreaks of gypsy moth activity in scattered communities through the western mountains of the Commonwealth. This activity is expected to continue over the next two months causing significant defoliation on a local level. The Southern Pine Beetle, a fatal pest of some conifers is expected to remain active through the summer in isolated areas. The Department of Forestry will continue to monitor these situations and will respond with local landowners as appropriate.

The Department of Game and Inland Fisheries reports no agency operations currently impacted by drought or low water conditions. All boat ramps are open with the exception of those closed for renovation or repairs, and there have been no reports of anglers or boaters having problems navigating any waters. Although water flows are currently good at DGIF hatcheries, those in southwest Virginia are starting to experience lower flows into the facilities.

The intensity of drought impacts has remained relatively stable during the last month. While streamflows in many areas of the Commonwealth reacted very positively to the precipitation events of the first two weeks of July, the lower than normal ground water levels, especially in the western portions of the Commonwealth, will result in very rapid decreases in streamflows without additional precipitation. These below normal streamflows continue to cause concerns regarding future reservoir conditions, especially in the western half of the Commonwealth. It should also be noted that the areas that are currently experiencing drought conditions in western Virginia are the same areas that experienced the greatest agricultural drought impacts last year. It is important to remember that localized drought impacts, particularly agricultural drought impacts, are a normal occurrence in an "average" Virginia summer.

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

Report of the Climatology Office of the University of Virginia

The typical summertime precipitation source, thunderstorm activity, has continued to determine the amount and distribution of moisture across the Commonwealth. Thus, the last thirty days have seen a wide range of precipitation totals across Virginia and even within individual counties. Overall, rainfall amounts during the first half of July have (with notable exceptions in some eastern regions) averaged near normal, but local shortages can be found throughout the state.

As anticipated, the rates of evaporation and transpiration (water consumption by plants) have continued to rise and are approaching their yearly climatological peak. As such, even normal rainfall results in a net loss of moisture and the prospects of sufficient rainfall to penetrate past topsoil layers before being lost are poor. Groundwater reserves are not expected to receive widespread replenishment until the end of the growing season. In addition, topsoil layers can suffer severe drying over a period of only one to two weeks without rain.

The longer-range outlooks (through October) from NOAA suggest temperatures somewhat above normal in northern portions of Virginia, but give little useful guidance regarding precipitation. Tropical cyclone activity remains an important wildcard in determining moisture status as the summer progresses. Although the resulting effects on the Commonwealth cannot be assumed, the forecast is for this hurricane season to be more active than average. This does increase the likelihood that tropical systems (or their remnants) may help to reduce any emergent problems with water availability.

Report of the National Weather Service

The 6-10 day outlook suggests above normal temperatures west of the Blue Ridge and normal temperatures for the rest of the Commonwealth coupled with normal precipitation statewide. The 8-14 day outlook suggests above normal temperatures with below normal precipitation in Northern Virginia and normal precipitation elsewhere. If these conditions materialize it is unlikely that significant improvement in drought conditions will occur in the next two weeks. The 30 to 90 day outlooks do not show a trend towards either drier than, wetter than or near normal conditions. It should

be noted that longer term precipitation forecasts tend to have very high errors, so an error on the wet side is certainly possible, especially if any tropical influence occurs.

Virginia Department of Agriculture and Consumer Services Status of Agricultural Drought

According to the USDA Crop Weather Report released on July 15, 2008, 71% of topsoil moisture ranged from adequate to surplus. The recent rain and warm temperatures contributed to the good progress made in corn silking. Despite the good weather, some of the Commonwealth's corn was showing poor stands from the earlier effects of the cool and wet spring. Some corn producers feel that with continual rains the corn crop will be favorable. The winter wheat harvest is almost complete, as well as the planting of double crop soybeans. Hay and pasture conditions improved due to the precipitation. Farmers anticipate another cutting of hay. However, in some parts of the State, the hay and pasture fields are still suffering from the lack of water. In some cases, farmers are feeding livestock hay to compensate for poor pasture growth.

Impact on Crops

Wheat & Barley Crop: Most of the wheat crop in Virginia has been harvested. Growers experienced excellent harvest conditions as there was very little rainfall during that period. It appears that growers harvested one of the best wheat crops in recent history as they saw phenomenal yields coupled with excellent test weights.

Corn Crop: Growers are reporting that the crop is in below average condition. The high temperatures in late May and early June took a toll on the crop. Some corn tasseled out around four feet tall. However, the rainfall that started around the 4th of July has helped tremendously and probably saved the crop from becoming a disaster. Some rainfall is needed over the next three weeks in order to salvage the 2008 corn crop.

Soybean Crop: Most of the soybean acreage has been planted. The rainfall since early July has really helped the crop come along, as it was quickly becoming a critical situation for producers in some areas. They had to stop the planting of their double crop beans because it was simply too dry to get the seed in the ground. Growers are hoping to get timely rains in order to produce a good crop.

Nursery and Horticulture

Virginia's Nursery and Landscape Industry reports that the recent rains have failed to significantly replace needed soil moisture. Many plants are still suffering from the dry conditions they experienced last year. Nurserymen have had increased returns of plants sold last year that succumbed to the excessive level of stress caused by the lack of moisture. Replacement of guaranteed plants by the nursery has cut into this spring's profits. Nurserymen and landscapers are concerned that recent wet, humid conditions are causing increased fungal disease impacts on already stressed and root damaged plants. If significant soil moisture replacement does not occur and severe drought conditions return again during the 2008 growing season, Virginia's nursery and landscape industries will have a difficult time maintaining healthy plant material and viable businesses.

Waivers for Hauling of Emergency Supplies Expire

Temporary waivers of registration and license requirements along with normal weight and width restrictions for carriers transporting emergency supplies of hay or animal feed expired on June 15, 2008.

Virginia Department of Environmental Quality Condition of Major Reservoirs

Most major reservoirs are near normal mid-summer levels. Smith Mountain Lake is 1.3 feet below full pond and falling slowly. Stakeholders have held three conference calls to consider release reductions. No action has yet been taken. The next conference call is scheduled for July 22, 2008. Carvins Cove and Spring Hollow Reservoirs, the water supply for much of the Roanoke area, are at 82 and 80 per cent of useable storage capacity, respectively, which is adequate for this time of year. Philpott Lake has fallen 2.5 feet in the past month and is now 3.5 feet below the guide curve. The lake has a small drainage area and is used to make hydroelectric energy. Inflows are only 68% of the median inflow for July. Even if the Corps of Engineers makes only the minimal amount of hydroelectric energy this lake will probably continue to fall significantly below the guide curve. Kerr Reservoir has fallen 0.75 feet so far this month and at 299 feet above sea level is only 0.5 feet below guide curve. The project is making the minimum amount of energy necessary to meet its contractual obligations, so releases are reduced and the project is falling slowly. The project will release extra water during the week of July 21 while conducting tests on a turbine. Lake Anna remains full and is currently only releasing water through its small hydroelectric turbine. The Lake Moomaw project on the Jackson River is 77% full, having fallen 16% in the past month. The project is releasing 180 cfs more than inflow into the reservoir. This low flow augmentation

currently accounts for 13% of the flow of the James River at Richmond. The often vulnerable Rivanna Water and Sewer Authority system is 96% full.

United States Geological Survey Streamflow and Ground Water Levels

Stream gages in the northern portion of the State as well as the Valley and Ridge Physiographic Province (north of I-64 and west of I-81) are recording flow in the normal range for statistics based on historic July flows. Precipitation from thunderstorms associated with frontal passages in the northern half of the State has kept streamflow in the normal to above normal range for most of the month. Stream flows in this area are receding at normal rates indicating that ground-water storage is at normal levels.

Stream gages in the rest of the State are recording flows in the below normal and well below normal ranges. Streamflows are statistically lowest in the central James, upper Roanoke, Kanawha, and eastern Tennessee River Basins. Graphs of current stream flow conditions plotted over flow-duration statistics show flow recessions that are steeper than normal at gages in these basins. The rapid recessions of stream flow indicate that ground-water storage in these areas is low. Precipitation from thunderstorms in these areas has been scattered.

Ground water wells in the southern half of the State generally show levels well below normal while wells in the northern half of the State generally show levels in the normal range. Observations of ground-water levels are consistent with current surface-water conditions.

Streamflow conditions based on daily values for July 20 are presented in Appendix F. Area summaries of 7-day average streamflows from the USGS drought watch web page show similar flow conditions and are presented in Appendix G. Ground water levels based on conditions on July 20 are presented in Appendix H.

APPENDIX A

Precipitation departures by Drought Evaluation Region.

PRELIMINARY PRECIPITATION SUMMARY

Prepared:
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DROUGHT REGION	OBSERVED	Jul 1, 2008 NORMAL	- Jul 18, 2008 DEPARTURE	% OF NORM.
1 Big Sandy	2.79	2.60	0.19	107%
2 New River	2.06	2.20	-0.14	93%
3 Roanoke	2.44	2.55	-0.11	96%
4 Upper James	3.20	2.35	0.85	136%
5 Middle James	2.85	2.56	0.29	111%
6 Shenandoah	2.48	2.18	0.30	114%
7 Northern Virginia	2.03	2.19	-0.16	93%
8 Northern Piedmont	2.71	2.55	0.16	106%
9 Chowan	2.30	2.62	-0.32	88%
10 Northern Coastal Plain	1.32	2.58	-1.27	51%
11 York-James	1.64	2.96	-1.32	55%
12 Southeast Virginia	3.15	2.94	0.20	107%
13 Eastern Shore	1.24	2.32	-1.08	53%
Statewide	2.47	2.52	-0.05	98%

DROUGHT REGION	OBSERVED	Jun 1, 2008 NORMAL	- Jul 18, 2008 DEPARTURE	% OF NORM.
1 Big Sandy	5.72	7.42	-1.70	77%
2 New River	4.89	6.41	-1.52	76%
3 Roanoke	4.99	6.88	-1.89	72%
4 Upper James	5.74	6.63	-0.89	87%
5 Middle James	4.77	6.80	-2.03	70%
6 Shenandoah	6.25	6.02	0.22	104%
7 Northern Virginia	6.77	6.53	0.24	104%
8 Northern Piedmont	7.75	6.77	0.97	114%
9 Chowan	3.73	6.71	-2.98	56%
10 Northern Coastal Plain	4.79	6.74	-1.96	71%
11 York-James	3.51	7.23	-3.72	49%
12 Southeast Virginia	5.25	6.80	-1.55	77%
13 Eastern Shore	5.71	5.84	-0.14	98%
Statewide	5.33	6.78	-1.45	79%

DROUGHT		May 1, 2008 - Jul 18, 2008			
REGION	OBSERVED	NORMAL	DEPARTURE	% OF NORM.	
1	Big Sandy	8.17	12.24	-4.07	67%
2	New River	7.47	10.62	-3.16	70%
3	Roanoke	8.26	11.21	-2.95	74%
4	Upper James	8.42	10.91	-2.48	77%
5	Middle James	8.88	11.04	-2.16	80%
6	Shenandoah	10.49	9.86	0.63	106%
7	Northern Virginia	15.03	10.87	4.16	138%
8	Northern Piedmont	13.36	10.99	2.36	122%
9	Chowan	7.30	10.80	-3.50	68%
10	Northern Coastal Plain	10.85	10.90	-0.05	100%
11	York-James	5.94	11.50	-5.56	52%
12	Southeast Virginia	9.26	10.66	-1.40	87%
13	Eastern Shore	9.85	9.36	0.49	105%
	Statewide	9.29	11.04	-1.75	84%

DROUGHT		Apr 1, 2008 - Jul 18, 2008			
REGION	OBSERVED	NORMAL	DEPARTURE	% OF NORM.	
1	Big Sandy	12.39	16.00	-3.61	77%
2	New River	12.17	14.17	-2.00	86%
3	Roanoke	13.49	15.01	-1.52	90%
4	Upper James	13.14	14.31	-1.16	92%
5	Middle James	14.79	14.38	0.41	103%
6	Shenandoah	15.58	12.78	2.80	122%
7	Northern Virginia	21.07	14.17	6.90	149%
8	Northern Piedmont	18.93	14.28	4.65	133%
9	Chowan	13.74	14.23	-0.49	97%
10	Northern Coastal Plain	15.12	13.99	1.13	108%
11	York-James	12.68	14.80	-2.12	86%
12	Southeast Virginia	15.73	13.91	1.82	113%
13	Eastern Shore	14.20	12.28	1.92	116%
	Statewide	14.60	14.46	0.14	101%

DROUGHT		Mar 1, 2008 - Jul 18, 2008			
REGION	OBSERVED	NORMAL	DEPARTURE	% OF NORM.	
1	Big Sandy	16.19	20.25	-4.06	80%
2	New River	14.72	17.84	-3.13	82%
3	Roanoke	16.53	19.28	-2.75	86%
4	Upper James	15.62	18.10	-2.47	86%
5	Middle James	17.89	18.44	-0.55	97%
6	Shenandoah	18.09	15.98	2.11	113%
7	Northern Virginia	23.80	17.83	5.97	133%
8	Northern Piedmont	21.55	18.09	3.46	119%
9	Chowan	17.47	18.60	-1.13	94%
10	Northern Coastal Plain	18.43	18.27	0.16	101%
11	York-James	17.36	19.49	-2.13	89%
12	Southeast Virginia	18.86	18.11	0.74	104%
13	Eastern Shore	16.33	16.59	-0.26	98%
	Statewide	17.67	18.50	-0.83	96%

DROUGHT		Feb 1, 2008		- Jul 18, 2008	
REGION	OBSERVED	NORMAL	DEPARTURE	% OF NORM.	
1	Big Sandy	18.67	23.83	-5.16	78%
2	New River	16.46	20.77	-4.31	79%
3	Roanoke	18.73	22.59	-3.86	83%
4	Upper James	17.51	20.95	-3.43	84%
5	Middle James	20.50	21.56	-1.06	95%
6	Shenandoah	20.04	18.39	1.65	109%
7	Northern Virginia	26.46	20.50	5.96	129%
8	Northern Piedmont	23.95	21.06	2.89	114%
9	Chowan	20.23	21.77	-1.54	93%
10	Northern Coastal Plain	20.94	21.41	-0.48	98%
11	York-James	21.05	23.02	-1.97	91%
12	Southeast Virginia	22.49	21.61	0.87	104%
13	Eastern Shore	19.52	19.78	-0.27	99%
	Statewide	20.09	21.63	-1.54	93%

DROUGHT		Jan 1, 2008		- Jul 18, 2008	
REGION	OBSERVED	NORMAL	DEPARTURE	% OF NORM.	
1	Big Sandy	20.94	27.56	-6.62	76%
2	New River	17.70	23.98	-6.28	74%
3	Roanoke	19.63	26.51	-6.88	74%
4	Upper James	18.78	24.23	-5.45	78%
5	Middle James	21.47	25.22	-3.75	85%
6	Shenandoah	21.02	21.24	-0.22	99%
7	Northern Virginia	27.84	23.78	4.06	117%
8	Northern Piedmont	26.85	24.58	2.26	109%
9	Chowan	21.42	25.88	-4.46	83%
10	Northern Coastal Plain	22.15	25.16	-3.01	88%
11	York-James	22.46	27.16	-4.70	83%
12	Southeast Virginia	24.00	25.77	-1.78	93%
13	Eastern Shore	21.32	23.34	-2.02	91%
	Statewide	21.46	25.27	-3.81	85%

DROUGHT		Dec 1, 2007		- Jul 18, 2008	
REGION	OBSERVED	NORMAL	DEPARTURE	% OF NORM.	
1	Big Sandy	23.85	31.20	-7.35	76%
2	New River	20.15	26.69	-6.54	76%
3	Roanoke	22.85	29.76	-6.91	77%
4	Upper James	21.74	27.18	-5.43	80%
5	Middle James	24.15	28.39	-4.24	85%
6	Shenandoah	23.97	23.83	0.14	101%
7	Northern Virginia	30.87	26.88	4.00	115%
8	Northern Piedmont	29.75	27.86	1.89	107%
9	Chowan	25.56	28.90	-3.34	88%
10	Northern Coastal Plain	24.90	28.44	-3.55	88%
11	York-James	26.57	30.55	-3.98	87%
12	Southeast Virginia	27.65	28.95	-1.30	95%
13	Eastern Shore	25.89	26.58	-0.69	97%
	Statewide	24.53	28.39	-3.86	86%

DROUGHT REGION		OBSERVED	Nov 1, 2007 NORMAL	- Jul 18, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	25.55	34.48	-8.94	74%
2	New River	20.60	29.72	-9.12	69%
3	Roanoke	23.33	33.12	-9.79	70%
4	Upper James	22.15	30.54	-8.39	73%
5	Middle James	24.66	31.90	-7.24	77%
6	Shenandoah	25.08	26.88	-1.81	93%
7	Northern Virginia	32.46	30.29	2.17	107%
8	Northern Piedmont	30.62	31.66	-1.05	97%
9	Chowan	26.01	32.01	-6.00	81%
10	Northern Coastal Plain	26.00	31.58	-5.58	82%
11	York-James	27.39	33.92	-6.53	81%
12	Southeast Virginia	28.22	32.02	-3.81	88%
13	Eastern Shore	26.73	29.52	-2.79	91%
	Statewide	25.33	31.62	-6.29	80%

DROUGHT REGION		OBSERVED	Oct 1, 2007 NORMAL	- Jul 18, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	27.51	37.36	-9.85	74%
2	New River	24.31	32.89	-8.58	74%
3	Roanoke	26.94	36.83	-9.89	73%
4	Upper James	24.52	33.79	-9.27	73%
5	Middle James	28.28	35.74	-7.46	79%
6	Shenandoah	27.29	30.07	-2.79	91%
7	Northern Virginia	35.70	33.77	1.93	106%
8	Northern Piedmont	33.63	35.65	-2.03	94%
9	Chowan	29.10	35.59	-6.49	82%
10	Northern Coastal Plain	31.38	35.09	-3.72	89%
11	York-James	31.23	37.45	-6.22	83%
12	Southeast Virginia	33.49	35.68	-2.20	94%
13	Eastern Shore	30.10	32.73	-2.64	92%
	Statewide	28.64	35.12	-6.48	82%

DROUGHT REGION		OBSERVED	Sep 1, 2007 NORMAL	- Jul 18, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	28.76	40.82	-12.06	70%
2	New River	25.95	36.30	-10.35	71%
3	Roanoke	29.02	41.06	-12.04	71%
4	Upper James	26.77	37.29	-10.51	72%
5	Middle James	29.10	39.87	-10.77	73%
6	Shenandoah	29.23	33.74	-4.51	87%
7	Northern Virginia	36.87	37.84	-0.97	97%
8	Northern Piedmont	34.62	39.93	-5.32	87%
9	Chowan	30.07	40.02	-9.95	75%
10	Northern Coastal Plain	32.62	39.18	-6.56	83%
11	York-James	33.13	42.35	-9.22	78%
12	Southeast Virginia	34.21	40.11	-5.90	85%
13	Eastern Shore	31.66	36.34	-4.69	87%
	Statewide	30.06	39.12	-9.06	77%

DROUGHT REGION		OBSERVED	Aug 1, 2007 NORMAL	- Jul 18, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	29.94	44.65	-14.71	67%
2	New River	27.14	39.61	-12.47	69%
3	Roanoke	29.85	44.78	-14.93	67%
4	Upper James	28.22	40.62	-12.40	69%
5	Middle James	31.82	43.69	-11.87	73%
6	Shenandoah	32.00	37.07	-5.07	86%
7	Northern Virginia	38.73	41.69	-2.96	93%
8	Northern Piedmont	37.00	43.75	-6.76	85%
9	Chowan	32.07	44.33	-12.26	72%
10	Northern Coastal Plain	34.07	43.04	-8.98	79%
11	York-James	35.45	47.22	-11.77	75%
12	Southeast Virginia	37.69	45.23	-7.54	83%
13	Eastern Shore	34.15	40.21	-6.06	85%
	Statewide	31.93	42.95	-11.02	74%

DROUGHT REGION		OBSERVED	Jul 1, 2007 NORMAL	- Jul 18, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	34.43	48.45	-14.02	71%
2	New River	30.07	43.04	-12.97	70%
3	Roanoke	33.13	48.73	-15.60	68%
4	Upper James	30.56	44.09	-13.53	69%
5	Middle James	34.17	47.37	-13.20	72%
6	Shenandoah	34.00	40.70	-6.70	84%
7	Northern Virginia	41.19	44.98	-3.79	92%
8	Northern Piedmont	38.53	47.94	-9.42	80%
9	Chowan	35.13	48.40	-13.27	73%
10	Northern Coastal Plain	35.49	46.89	-11.41	76%
11	York-James	38.90	51.46	-12.56	76%
12	Southeast Virginia	41.00	50.05	-9.05	82%
13	Eastern Shore	36.24	43.67	-7.43	83%
	Statewide	34.66	46.82	-12.16	74%

DROUGHT REGION		OBSERVED	Jun 1, 2007 NORMAL	- Jul 18, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	37.18	53.27	-16.09	70%
2	New River	33.11	47.25	-14.14	70%
3	Roanoke	36.05	53.06	-17.01	68%
4	Upper James	34.31	48.37	-14.06	71%
5	Middle James	37.53	51.61	-14.08	73%
6	Shenandoah	37.28	44.54	-7.27	84%
7	Northern Virginia	43.13	49.32	-6.19	87%
8	Northern Piedmont	40.68	52.16	-11.49	78%
9	Chowan	37.35	52.49	-15.14	71%
10	Northern Coastal Plain	37.34	51.05	-13.71	73%
11	York-James	41.08	55.73	-14.65	74%
12	Southeast Virginia	44.22	53.91	-9.69	82%
13	Eastern Shore	41.49	47.19	-5.70	88%
	Statewide	37.52	51.08	-13.56	73%

DROUGHT REGION		OBSERVED	May 1, 2007 NORMAL	- Jul 18, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	38.92	58.09	-19.17	67%
2	New River	34.89	51.46	-16.57	68%
3	Roanoke	38.02	57.39	-19.37	66%
4	Upper James	36.33	52.65	-16.31	69%
5	Middle James	39.99	55.85	-15.86	72%
6	Shenandoah	39.47	48.38	-8.92	82%
7	Northern Virginia	44.40	53.66	-9.26	83%
8	Northern Piedmont	42.77	56.38	-13.62	76%
9	Chowan	40.23	56.58	-16.35	71%
10	Northern Coastal Plain	38.59	55.21	-16.63	70%
11	York-James	42.64	60.00	-17.36	71%
12	Southeast Virginia	46.19	57.77	-11.59	80%
13	Eastern Shore	43.23	50.71	-7.48	85%
	Statewide	39.55	55.34	-15.79	71%

DROUGHT REGION		OBSERVED	Apr 1, 2007 NORMAL	- Jul 18, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	43.39	61.85	-18.46	70%
2	New River	38.01	55.01	-17.01	69%
3	Roanoke	41.24	61.19	-19.95	67%
4	Upper James	39.83	56.05	-16.21	71%
5	Middle James	43.22	59.19	-15.97	73%
6	Shenandoah	43.04	51.30	-8.26	84%
7	Northern Virginia	48.12	56.96	-8.83	84%
8	Northern Piedmont	45.86	59.67	-13.81	77%
9	Chowan	44.67	60.01	-15.34	74%
10	Northern Coastal Plain	42.30	58.30	-16.01	73%
11	York-James	46.68	63.30	-16.62	74%
12	Southeast Virginia	50.70	61.02	-10.32	83%
13	Eastern Shore	47.78	53.63	-5.85	89%
	Statewide	43.19	58.76	-15.57	74%

DROUGHT REGION		OBSERVED	Mar 1, 2007 NORMAL	- Jul 18, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	46.53	66.10	-19.57	70%
2	New River	42.04	58.68	-16.64	72%
3	Roanoke	44.93	65.46	-20.53	69%
4	Upper James	43.47	59.84	-16.37	73%
5	Middle James	46.27	63.25	-16.98	73%
6	Shenandoah	45.92	54.50	-8.58	84%
7	Northern Virginia	51.28	60.62	-9.34	85%
8	Northern Piedmont	48.29	63.48	-15.19	76%
9	Chowan	47.23	64.38	-17.15	73%
10	Northern Coastal Plain	45.11	62.58	-17.48	72%
11	York-James	48.40	67.99	-19.59	71%
12	Southeast Virginia	52.64	65.22	-12.58	81%
13	Eastern Shore	49.56	57.94	-8.38	86%
	Statewide	46.26	62.80	-16.54	74%

DROUGHT REGION		OBSERVED	Feb 1, 2007 NORMAL	- Jul 18, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	47.93	69.68	-21.75	69%
2	New River	43.69	61.61	-17.92	71%
3	Roanoke	46.98	68.77	-21.79	68%
4	Upper James	45.92	62.69	-16.76	73%
5	Middle James	48.24	66.37	-18.13	73%
6	Shenandoah	47.98	56.91	-8.94	84%
7	Northern Virginia	54.12	63.29	-9.17	86%
8	Northern Piedmont	50.74	66.45	-15.72	76%
9	Chowan	49.40	67.55	-18.15	73%
10	Northern Coastal Plain	47.61	65.72	-18.11	72%
11	York-James	50.14	71.52	-21.38	70%
12	Southeast Virginia	54.91	68.72	-13.81	80%
13	Eastern Shore	52.35	61.13	-8.78	86%
	Statewide	48.35	65.93	-17.58	73%

DROUGHT REGION		OBSERVED	Jan 1, 2007 NORMAL	- Jul 18, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	51.11	73.41	-22.30	70%
2	New River	46.65	64.82	-18.17	72%
3	Roanoke	50.86	72.69	-21.83	70%
4	Upper James	48.93	65.97	-17.04	74%
5	Middle James	51.82	70.03	-18.21	74%
6	Shenandoah	49.54	59.76	-10.23	83%
7	Northern Virginia	56.36	66.57	-10.21	85%
8	Northern Piedmont	53.25	69.97	-16.72	76%
9	Chowan	51.92	71.66	-19.74	72%
10	Northern Coastal Plain	51.85	69.47	-17.62	75%
11	York-James	52.75	75.66	-22.91	70%
12	Southeast Virginia	58.08	72.88	-14.80	80%
13	Eastern Shore	54.52	64.69	-10.17	84%
	Statewide	51.41	69.57	-18.16	74%

DROUGHT REGION		OBSERVED	Dec 1, 2006 NORMAL	- Jul 18, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	53.10	77.05	-23.95	69%
2	New River	48.44	67.53	-19.09	72%
3	Roanoke	53.03	75.94	-22.91	70%
4	Upper James	50.92	68.92	-17.99	74%
5	Middle James	53.40	73.20	-19.80	73%
6	Shenandoah	50.66	62.35	-11.70	81%
7	Northern Virginia	58.03	69.67	-11.64	83%
8	Northern Piedmont	55.01	73.25	-18.25	75%
9	Chowan	54.09	74.68	-20.59	72%
10	Northern Coastal Plain	53.56	72.75	-19.20	74%
11	York-James	54.57	79.05	-24.48	69%
12	Southeast Virginia	60.53	76.06	-15.53	80%
13	Eastern Shore	57.27	67.93	-10.66	84%
	Statewide	53.26	72.69	-19.43	73%

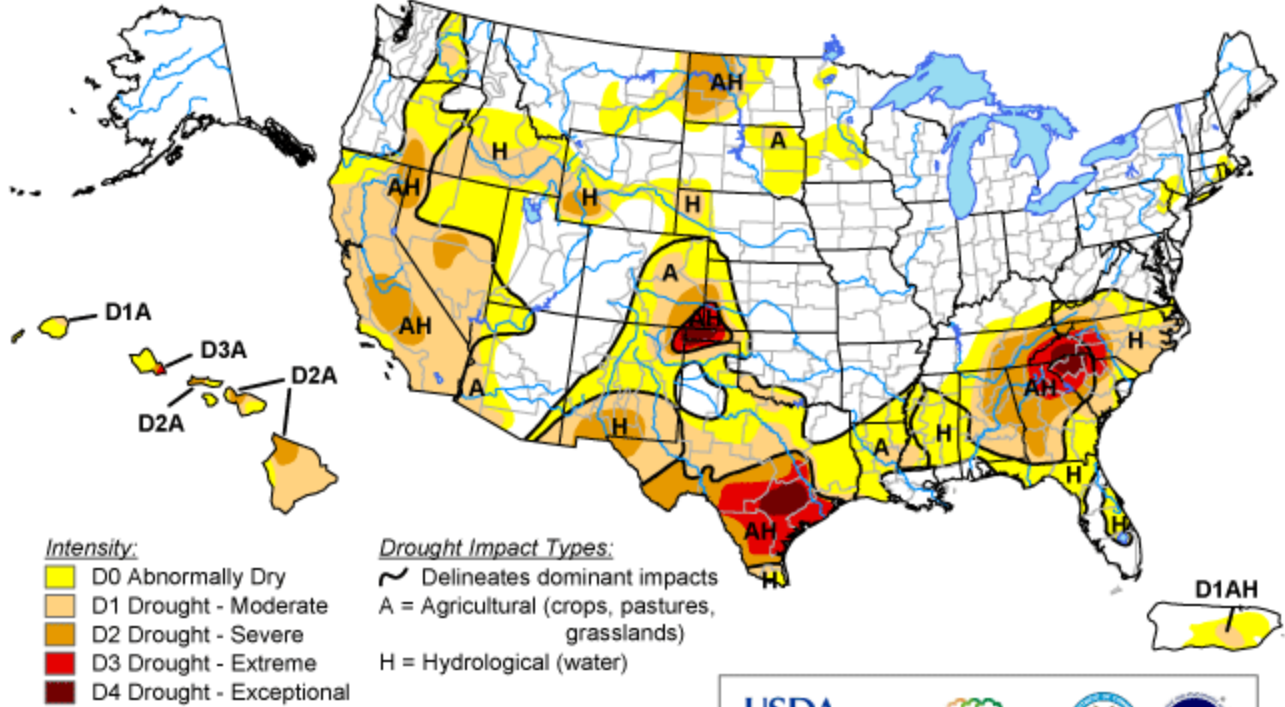
DROUGHT REGION		OBSERVED	Nov 1, 2006 NORMAL	- Jul 18, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	55.86	80.33	-24.48	70%
2	New River	52.39	70.56	-18.17	74%
3	Roanoke	58.43	79.30	-20.87	74%
4	Upper James	54.70	72.28	-17.57	76%
5	Middle James	59.14	76.71	-17.57	77%
6	Shenandoah	54.80	65.40	-10.60	84%
7	Northern Virginia	63.82	73.08	-9.26	87%
8	Northern Piedmont	61.31	77.05	-15.74	80%
9	Chowan	61.46	77.79	-16.33	79%
10	Northern Coastal Plain	58.86	75.89	-17.04	78%
11	York-James	60.24	82.42	-22.18	73%
12	Southeast Virginia	68.15	79.13	-10.99	86%
13	Eastern Shore	62.15	70.87	-8.73	88%
	Statewide	58.42	75.92	-17.50	77%

DROUGHT REGION		OBSERVED	Oct 1, 2006 NORMAL	- Jul 18, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	60.83	83.21	-22.38	73%
2	New River	57.38	73.73	-16.35	78%
3	Roanoke	64.47	83.01	-18.54	78%
4	Upper James	61.63	75.53	-13.89	82%
5	Middle James	66.83	80.55	-13.72	83%
6	Shenandoah	60.05	68.59	-8.55	88%
7	Northern Virginia	68.61	76.56	-7.95	90%
8	Northern Piedmont	67.84	81.04	-13.20	84%
9	Chowan	69.17	81.37	-12.20	85%
10	Northern Coastal Plain	64.93	79.40	-14.47	82%
11	York-James	68.24	85.95	-17.72	79%
12	Southeast Virginia	73.22	82.79	-9.58	88%
13	Eastern Shore	69.08	74.08	-5.00	93%
	Statewide	64.66	79.42	-14.76	81%

APPENDIX B

U.S. Drought Monitor

July 15, 2008
Valid 8 a.m. EDT



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, July 17, 2008
Author: Brad Rippey, U.S. Department of Agriculture

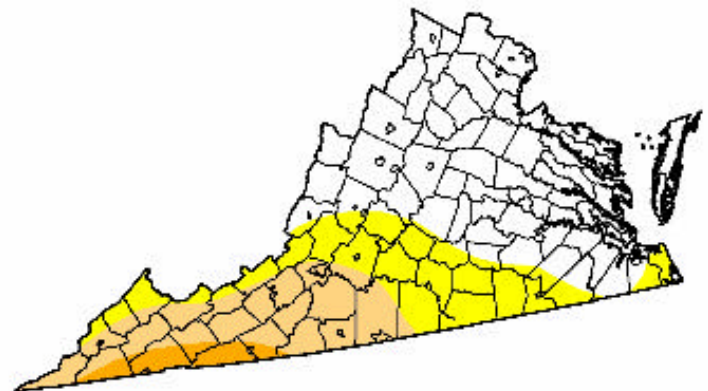
APPENDIX C

U.S. Drought Monitor Virginia

July 15, 2008
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	54.0	46.0	23.5	3.9	0.0	0.0
Last Week (07/08/2008 map)	53.8	46.2	26.1	4.5	0.0	0.0
3 Months Ago (04/22/2008 map)	12.1	87.9	48.1	6.2	0.0	0.0
Start of Calendar Year (01/01/2008 map)	8.0	92.0	74.8	27.3	9.2	6.3
Start of Water Year (10/02/2007 map)	0.1	99.9	92.7	76.4	25.0	5.0
One Year Ago (07/17/2007 map)	0.0	100.0	64.7	15.4	0.3	0.0



Intensity:

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

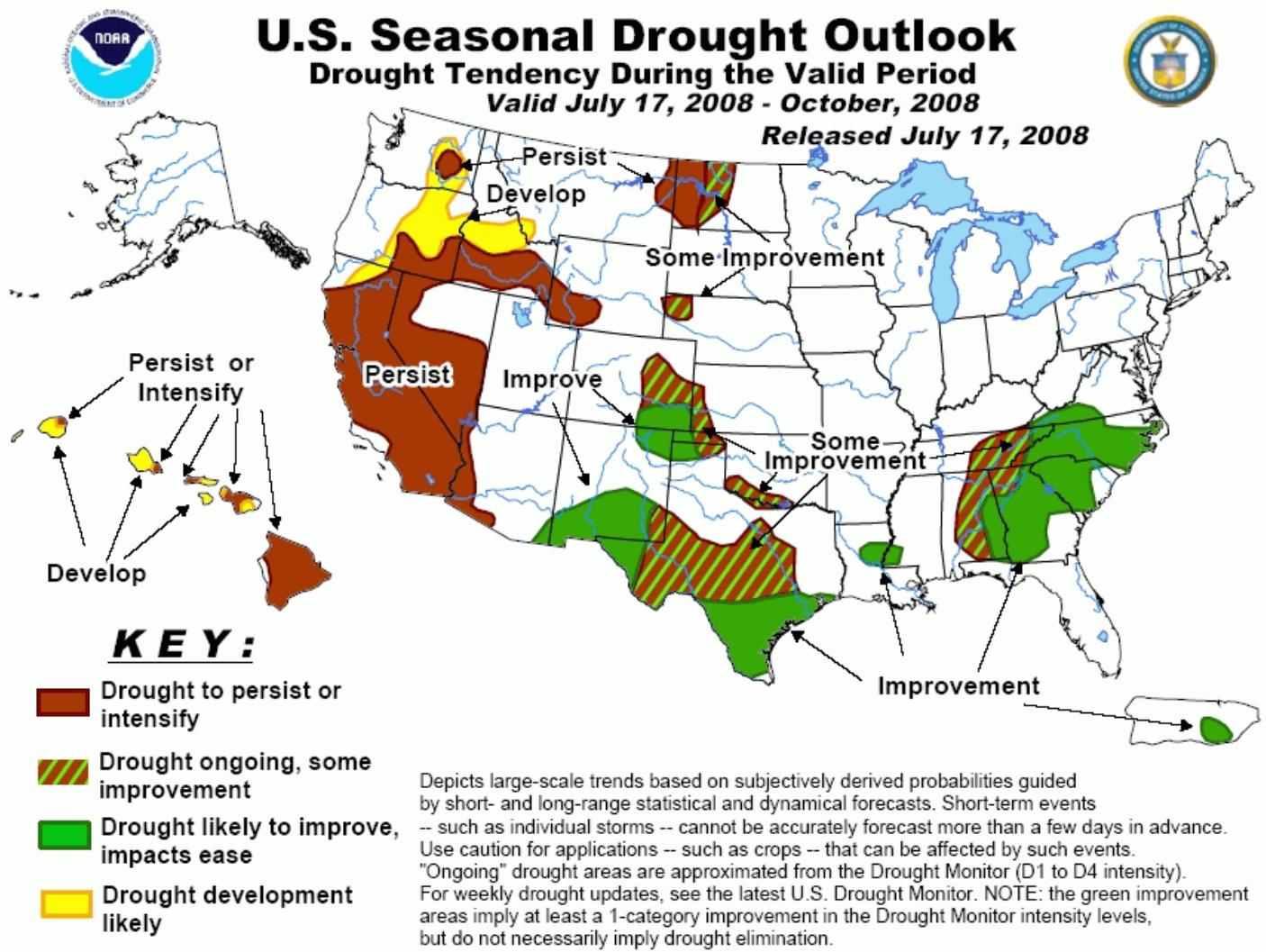
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements

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



Released Thursday, July 17, 2008
Author: Brad Rippey, U.S. Department of Agriculture

APPENDIX D



APPENDIX E

Condition of Public Water Supplies

July 17, 2008

ODW Drought Situation Report

Date: **7/17/08**

	Restriction totals
Mandatory	4
Voluntary	21
Total	25

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

PWSID	Waterworks	Source Name	Restrictions	Situation	Population Served
1105400	Lee County PSA	KVS Quarry	N	W 07/16/08: Water level in quarry is currently at 173 inches below catwalk . Level was 133.5 inches below catwalk on 05/12/08.	
1195050	Town of Appalachia	reservoir	M	W 7/14/08: down 4'-4.5" from overflow; 73.5 MG, 162 days ± 10 left. Level was 2'-4" down on 6/19/08. Slightly worse than July '07, but now have auxiliary river source. Will start pumping from river on 7/17/08.	
1195100	Town of Big Stone Gap	Big Cherry Reservoir	M	W 7/16/08: Reservoir down 2.0 ft from overflow. 558 MG, 186 days left. Slightly better than July '07. Reservoir down 1.25 ft on 6/19/08. Reservoir was full on 04/14/08 and removed from drought report at that time.	
1195950	Town of Wise	reservoir	N	W 07/16/08: Reservoir down 4'-1.5", 177 MG left, 295 days left @ 0.6 MGD. Not using auxiliary mine well source other than to occasionally exercise the pump. Two ft lower than same time last year. Reservoir was down 1.75 ft on 4/14/08 and source removed from drought report at that time.	
1720076	City of Norton	reservoirs	N	W 07/16/08: Upper reservoir full. Lower reservoir down 16'-2" from overflow. 92.5 MG left. In slightly better shape than July '07. Buying water from Wise County PSA. By March '08 the reservoirs were full and source removed from drought report in April '08.	
2023720	Town of Troutville	Five Drilled Wells	N	S - Town reported the pumping rate of their No. 3 well dropped from 123 gpm to 40 gpm. The pumping rates of the other four wells are the same.	500
2043125	Berryville, Town of	Shenandoah River	V	S - Voluntary conservation requested on 11 December 2007.	2,965

2065250	Fluvanna Correctional Center for Women	Mechunk Creek and on-site Raw Water Reservoir	V	S - Reservoir is 88% full (~35 MG stored). Moderate Drought Condition continues to conserve water.	1,650
2560100	Town of Clifton Forge	Smith Creek	V	S - Voluntary conservation has been requested. This has not been implemented as a result of limited or low source water quantity, but rather at the request of the Governor's letter requesting conservation	4,679
2660345	City of Harrisonburg	North River, Dry River/Switzer Reservoir (Rawley Springs)	V	S - Voluntary conservation has been requested. This has not been implemented as a result of limited low source water quantity, but rather at the request of the Governor's letter requesting conservation.	44,500
3081550	GCWSA - Jarratt	Nottoway River	N	S - 7/15/08 - Waterworks production rate still reduced due to lower demand; river level and discharge less than last month, sufficient to allow plant operation at 2.0 mgd	7,190
3093120	Isle of Wight County	Suffolk	V	B - follows Suffolk's lead on conservation.	1,284
3550050	Chesapeake - Western Branch system	City of Portsmouth	V	S - 7/16/08 This portion of the city is consecutive to (receives water from) the city of Portsmouth. City Council voted to go to voluntary conservation city-wide - it took effect on 24 Oct 2007. Still following Portsmouth's lead on conservation.	36,444
3550051	Chesapeake	Northwest River, City of Norfolk Raw Water (Lake Gaston)	V	S - as of 7/16/08 City Council voted to go to voluntary conservation city - wide - took effect on 24 Oct 2007. Chlorides are used as an indicator of drought, the higher the levels the more concentrated the contaminant in a lesser amount of surface water. The chlorides have began a steady increase from average (40-60 mg/l) in mid-June to a high of 800 mg/l. Heavy rains last week brought levels to 300 mg/l range. Only 1-inch of rainfall recorded in June which amounts to a year to date deficit of 1.22 inches. Since the 30 year average rainfall for July is 5.05 inches they remain shy of 1.27 at this point.	101,428
3550052	Chesapeake - South Norfolk system	City of Norfolk	V	S - 7/16/08-This portion of the city is consecutive to (receives water from) the city of Norfolk. City Council voted to go to voluntary conservation city - wide - it took effect on 24 Oct 2007. Still following Norfolk's lead on conservation.	38,611
3570150	Colonial Heights	ARWA	V	S - Lifted mandatory restrictions on 12/1/07. Voluntary restrictions currently in place.	17,286
3595250	Emporia	Meherrin River	N	S - 7/15/08 - Water is going over the dam.	5,600
3670800	Virginia-American Water Company (Hopewell)	Appomattox & James Rivers	N	S - 7/15/08 - Intake levels are at mid-range or higher. Alkalinity and pH values increased during a dry June.	25000 - Primary / 42463 Total including Consecutive System (Ft. Lee)

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.	V	S - As of 07/15, reservoirs at 86.4% (slightly up from 86.1% on 06/17). Historic reservoir capacity is 88.6% at this time of year. Avg. pumping from Lake Gaston = 55 MGD (historical avg. = 30 MGD at this time of year). Called for voluntary conservation 11/1/07.	261,250 - Primary / 755,617 - Total including consecutive systems (Va Beach + military bases).
3740600	Portsmouth	Lakes Cohoon, Meade, Kilby, and Speights Run	V	S - As of 07/15, reservoirs at 93% (down from 97% on 06/13). Median reservoir capacity is 94% for the month and historical average capacity is 92% (period of 1969-2006). Both emergency wells are OFF. Called for voluntary conservation on 10/10/07.	100,400 - Primary / 120,400 Total including consecutive systems (military bases)
3800805	Suffolk	Lone Star Lakes, Cumps Mill Pond	V	B - Will follow Portsmouth's lead and the region as far as conservation. As of 7/17/08-Reservoir levels look good. Southern Lakes at 69.4% capacity, for the Northern Lakes at 99.1% and Crumps Mill Pond at 84.7% Based on the data from 2007 as compared to 2008 around tis time it appears that they are in better condition. For 2008 (83%) and for 2007 (78.2 %). The Southern Lakes are for emergency use only. Still purchasing water from Portsmouth per their contract, no drought measure taken to date.	62,562
3810900	Virginia Beach	Norfolk	V	S - obtains water from Norfolk. Called for voluntary conservation on 9/19/07.	423,743
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. Water level is normal.	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. Reservoir is normal.	263,000
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 at 100%.	8,870
4075283	EASTERN GOOCHLAND CENTRAL WATER SYSTEM	Purchased surface water	N	S -purchases water from Henrico County	2,500
4075735	JAMES RIVER CORRECTIONAL CTR	Surface water; James River	N	S	9,300

4085398	HANOVER SUBURBAN WATER SYSTEM	Surface water; North Anna River; some groundwater wells; purchases finished water	N	S	71,000
4085770	SPRING MEADOWS-MEADOW GATE	Groundwater wells	N	S- A replacement well will be drilled shortly and other improvements are proposed in the PER.	2,300
4087125	HENRICO COUNTY WATER SYSTEM	Surface water; James River	N	S- Similar to City of Richmond	289,000
4101900	WEST POINT, TOWN OF	Groundwater wells	N	S	3,000
4127110	DELMARVA PROPERTIES	Groundwater wells	V	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 in the James River are back to normal; under James River Regional Flow Management Plan; counties of Henrico, Chesterfield, Goochland, and Hanover counties purchase water from the City.	197,000
5515050	City of Bedford	Stoney Creek Reservoir and Wells 1 to 5	N	S - good levels	6,946
5143210	Town of Gretna	Georges Creek Res	N	S- Visual observation of reservoir on 7/8 indicated reservoir full and still overflowing slightly	2,500
5031150	CCUSA	Surface - Big Otter River	N	B - Current stream flow 82 cfs	20,000
5029085	Buckingham County	Troublesome Creek Reservoir	N	W- water is 1/2- inch below spillway	5,751
5037300	Town of Keysville	Keysville Reservoir	N	S	800
5083550	Town of Halifax	Bannister River Reservoir	N	S	1,389
5780600	Town of South Boston	Dan River	N	S	9,726
5141640	Town of Stuart	South Mayo River	N	S	1,500
5147170	Town of Farmville	Appomattox River	N	B	7,011
5011050	Town of Appomattox	Wells	V	S - Operation reports show water levels rising in the wells. The town is actively looking for additional water sources. Well #15, a high production well, is off line for repairs.	1,708
5135160	Town of Crewe	Crystal Lake	N	B - good levels	3,500
5111450	Town of Kenbridge	Flat Rock Creek and Offstream Reservoir	N	S - good levels	1,400
5067785	Ridgscreech	Wells	N	B	52
5067265	Hales Point	Wells	N	B	46
5067937	Stripers Landing	Wells	N	B	125
5680200	City of Lynchburg	Pedlar Reservoir	N	W - 65 inches below spillway. May have to use the James River source.	76,000

6047070	Emerald Hill Elementary School	Groundwater	N	S - Well EHS-3 is onstream at a reliable production rate of 12 gpm. Well 1 has been reworked for improved production. Water hauling is no longer needed.	977
6047500	Town of Culpeper	Lake Pelham	N	S - On Monday, July 14, 2008, Lake Pelham continued to be full.	14,200
6061200	Marshall	Groundwater	M	S - No water was hauled in June. Water distribution system repairs and line replacements are being done.	2,134
6061600	Town of Warrenton	Reservoir on Cedar Run and groundwater	N	S - On Monday, 7/14/08, Warrenton Reservoir is full. Airlie Reservoir is full.	11,160
6107150	Town of Hamilton	Groundwater	M	S - 7/14/08 Water levels in wells satisfactory. No water supply problems. Town Council voted to maintain Mandatory water use restrictions until new Well 14 is placed in service.	2,000
6107200	Town of Hillsboro	Spring/Well	N	S - 7/14/08 Increased flow from spring and new well have been adequate to meet current demand. A leak survey revealed 10 potential leaks in the distribution system.	58
6107221	LCSA Lenah Farms	Groundwater	V	S - 7/14/08 Voluntary conservation in place beginning 3/11/08 due to concerns about possible GUDI sources. Both wells in service.	810
6107400	Town of Lovettsville	Groundwater	V	S - 7/14/08 Voluntary water use restrictions remain in place; however there is no problem with water supply.	1,280
6107450	Town of Middleburg	Groundwater	V	S - 7/14/08 - Voluntary water use restrictions replace mandatory water use restrictions on 4/10/08.	590
6107600	Town of Purcellville	Hirst Reservoir and groundwater	V	S - 7/14/08 Reservoir is satisfactory. Mandatory water conservation replaced with voluntary water conservation, 4/2/08.	6,300
6107650	Town of Round Hill	Groundwater	V	S - 7/14/08 - Voluntary water use restrictions replace mandatory water use restrictions on 4/1/08.	3,156
6113200	Town of Madison	White Oak Run	N	S -- Stream flow remains adequate to meet normal demands.	778
6137300	Rapidan Service Authority - Rt. 15	Purchase treated surface water from Town of Orange (Rapidan River)	N	S - Town of Orange raw water availability is well above minimum.	273
6137400	Town of Gordonsville	Purchase treated surface water from RSA and Town of Orange	N	S--No water use restrictions are in place.	1,800
6137500	Town of Orange	Rapidan River	V	S - 7/10/08 - Fourteen day running average of Rapidan River flow is 277 cfs (withdrawal restrictions are imposed below 44 cfs).	4,500
6137999	Rapidan Service Authority - Wilderness and Lake of the Woods	Rapidan River	N	Rapidan River flow has been steady at an adequate level.	11,331

6153260	Woodbridge Mobile Home Park	Groundwater	M	B -- 7/14/08 Well #3 pumping rate increased to approx 15 gpm, pressure has improved. Waterworks may continue to have low pressure due to inadequate sources and leaks in the distribution system. This problem is indirectly related to drought as source problems existed previously.	320
6179100 and 6179775	Stafford County	Smith Lake and Abel Lake	N	S -- Both lakes are full. Mandatory restrictions went into effect Sept 2007 and were lifted March 2008. June 2008 - Water supply emergency rescinded with county wide conservation requested.	53,086

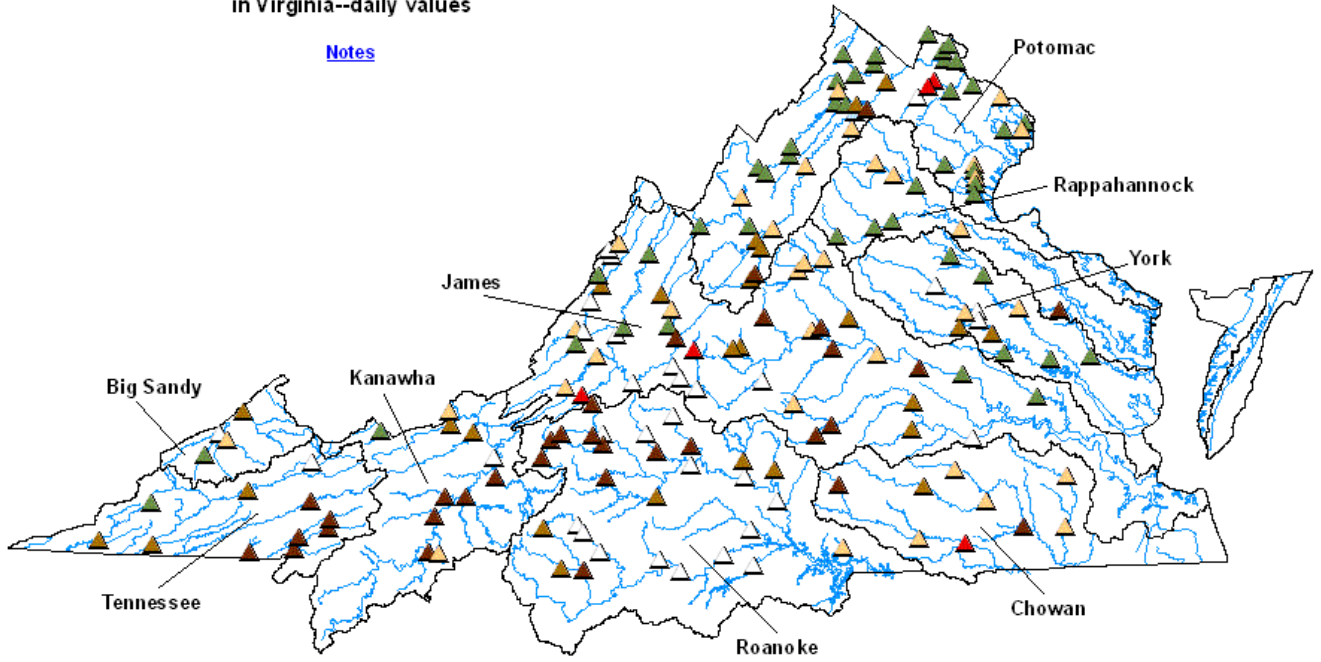
Notes of interest:

- (1) Metropolitan Washington Council of Governments lifted the drought Watch, returning to Normal status, lifting a region-wide voluntary conservation advisory, on 4/1/08, covering DC, Maryland, and Northern Virginia.
- (2) Interstate Commission on the Potomac River Basin (ICPRB) gathers meteorological, drought, and water supply data from all of the major water suppliers in the Metro Washington area and determines the need for upstream reservoir releases, if any, to augment the flow in the Potomac River for water supply withdrawal. ICPRB has predicted that likelihood of releases from upstream reservoirs is slightly below normal.

APPENDIX F

Streamflow conditions for 07/20/2008
in Virginia--daily values

[Notes](#)



**Streamflow Statistics based on
average flows**

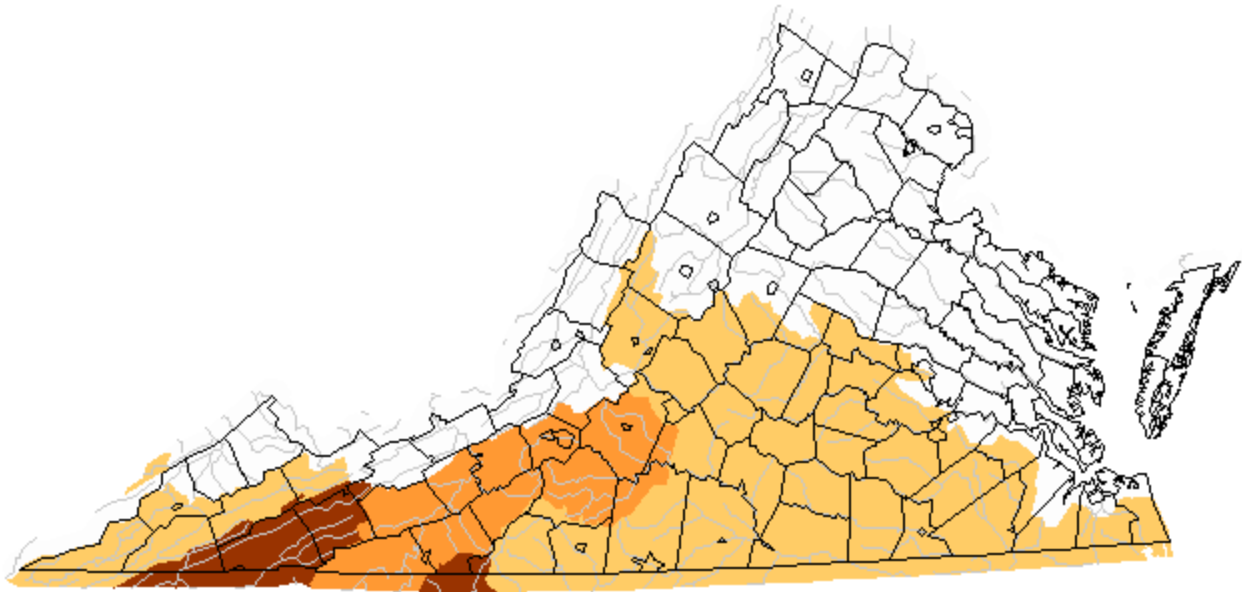
Click on map or table to select River Basin



APPENDIX G

Drought Watch -- USGS State Information on Drought Map of below normal 7-day average streamflow

Sunday, July 20, 2008

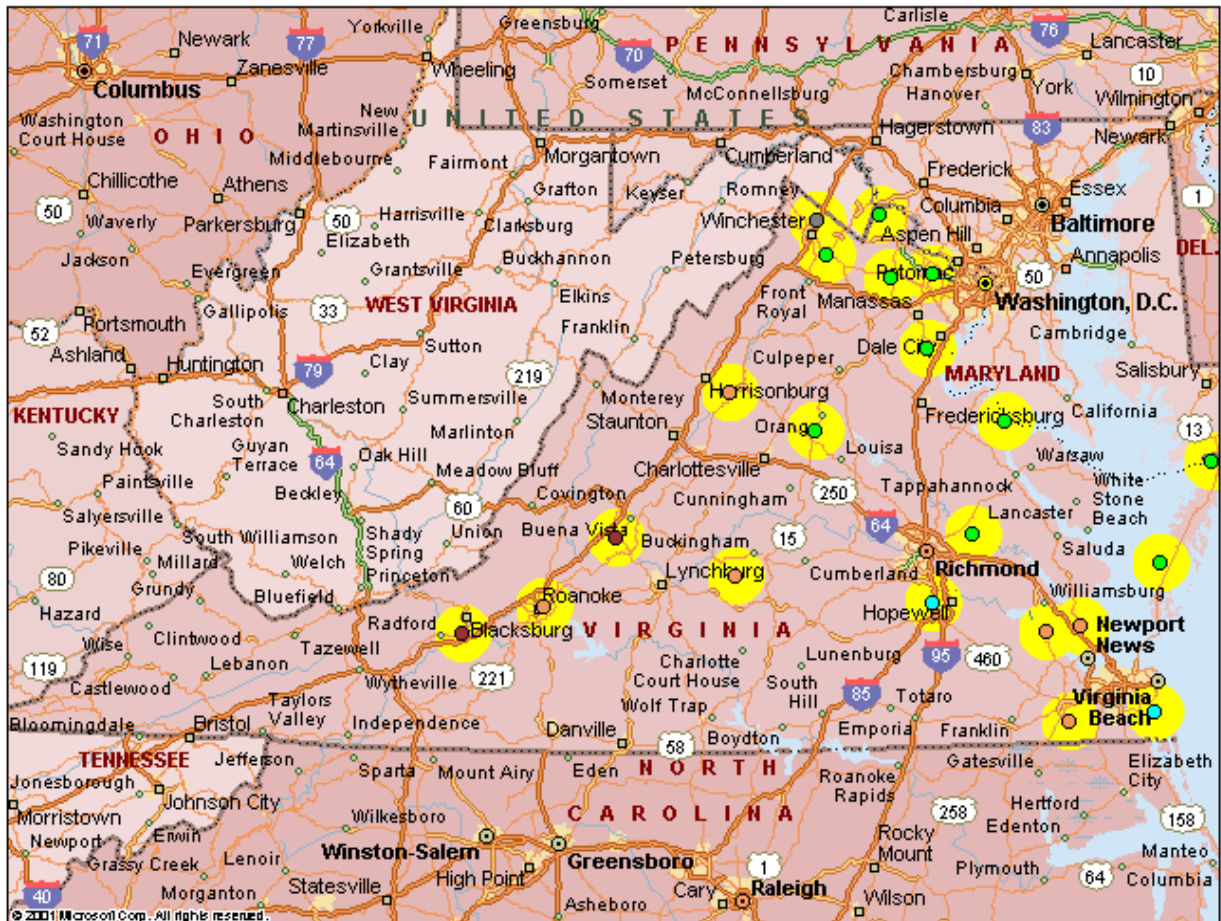


Explanation - Percentile classes				
Low	≤5	6-9	10-24	Insufficient data for a hydrologic region
Extreme hydrologic drought	Severe hydrologic drought	Moderate hydrologic drought	Below normal	

APPENDIX H

Virginia Climate Response Network

July 20, 2008



Explanation - Percentile classes								
	●	●	●	●	●	●	●	●
New Low	<10	10-24	25-75	76-90	>90		New High	Not Ranked
	Much Below Normal	Below Normal	Normal	Above Normal	Much Above Normal			