

Chester County Water Resources Authority

Weekly Summary of Hydrologic Conditions – Week Ending 02/10/2012

PRECIPITATION (Average Annual Precipitation for Chester County according to NOAA Historic Data is 45.53 inches)

Date	24-Hr Precip Forecast	24-Hr Forecast, inches	Year to Date Precip, inches	Year to Date Departure	90/365 Days Precip, inches	90/365 Days Departure
01/13/12	5%	0.00	1.30	0.00	12.70/63.30	2.10/17.80
01/20/12	90%	0.29	1.70	-0.40	12.30/62.80	1.70/17.30
02/03/12	10%	0.00	2.80	-0.80	11.90/61.30	1.30/15.80
02/10/12	80%	0.21	2.90	-1.40	12.00/61.10	1.50/15.60

GROUNDWATER AND RESERVOIR LEVELS

Date	Well 10	Well 10, median	Chambers Lake level, elevation	Chambers Lake capacity, Mgals	Chambers Lake capacity, %	PADEP Drought Status
01/13/12	9.56	12.04	580.37	395.3	103%	Normal
01/20/12	9.98	12.25	579.80	378.7	99%	Normal
02/03/12	10.17	12.45	579.51	372.3	98%	Normal
02/10/12	10.36	12.18	580.11	386.0	100%	Normal

STREAM FLOWS


Date	Schuylkill River 01472000 Q _{7,10} 204.9 cfs	French Creek 01472157 8.8 cfs	East Valley Creek 01473169 10.7 cfs	Crum Creek 01475850 2.9 cfs	Chester Creek 01477000 13.08 cfs	Red Clay 01479820 3.0 cfs	White Clay Strickersville 01478245 n/a	White Clay Avondale 01478120 n/a	Elk Creek Forestville 01494850 n/a
01/13/12	3,820	221	44	36	184	62	167	28	19
median	1,600	68	23	16	66	34	65	12	10
01/20/12	2,080	103	31	21	94	52	95	19	13
median	1,530	75	30	20	73	39	79	12	11
02/03/12	2,540	98	30	23	101	48	87	17	12
median	1,640	101	28	23	81	36	87	17	15
02/10/12	1,820	89	28	21	89	47	83	16	12
median	1,710	75	24	17	76	30	59	12	10

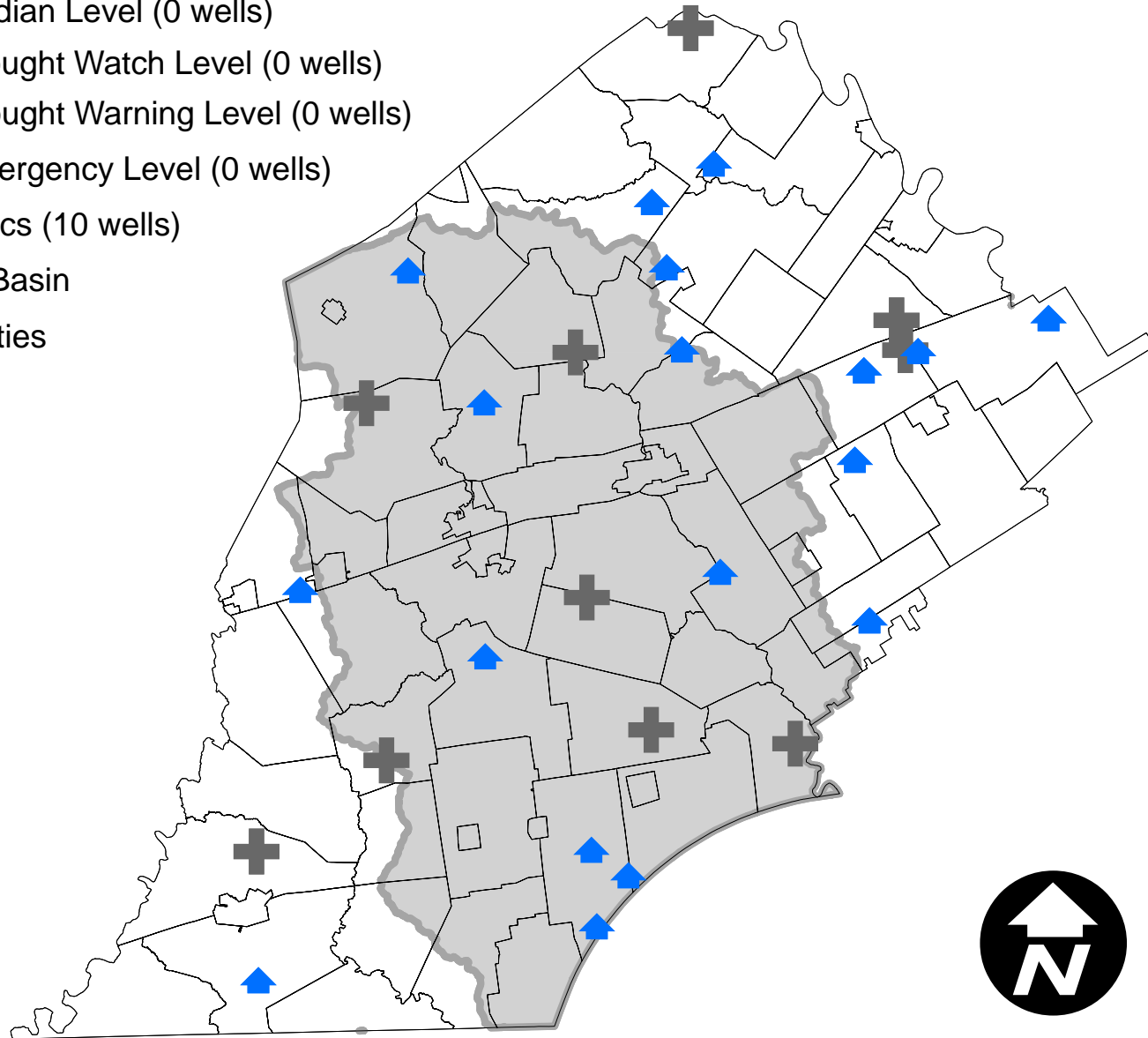
STREAM FLOWS – BRANDYWINE

Date	Honey Brook 01480300 Q _{7,10} 3.5 cfs	Birch Run 01480400 n/a	Coatesville 01480500 8.3 cfs	Modena 01480617 17.5 cfs	Broad Run 01480638 n/a	Below Marsh Creek 01480685 0.76 cfs	near D'Town 01480700 13.4 cfs	below D'Town 01480870 28.9 cfs	Chadds Ford 01481000 73 cfs
01/13/12	54	18	137	115	16	66	183	293	1,120
median	18	4.4	48	58	12	31	86	122	400
01/20/12	22	21	79	88	13	63	125	182	621
median	19	5.9	51	69	11	33	110	150	458
02/03/12	25	1.6	58	104	12	63	120	173	547
median	23	6.8	64	87	13	31	99	160	468
02/10/12	22	5.6	56	102	12	28	83	130	477
median	18	5.5	48	61	8.9	26	75	122	361

Chester County Observation Wells Status - December 2011

Measured December 19 & 20, 2011

-  Above Median Level (18 wells)
-  Below Median Level (0 wells)
-  Below Drought Watch Level (0 wells)
-  Below Drought Warning Level (0 wells)
-  Below Emergency Level (0 wells)
-  No Statistics (10 wells)
-  Christina Basin
-  Municipalities



January 6, 2011

CHESTER COUNTY OBSERVATION WELL NETWORK - REPORT FOR DECEMBER 2011

Levels Indicated are Depth to Water Below Land Surface in Feet

WELL NO.	MUNICIPAL LOCATION	CURRENT MONTH		NET CHANGES		REFERENCE DATA to DETERMINE STATUS			
		DEPTH TO WATER (feet)	DROUGHT STATUS	FROM ONE MONTH AGO (1)	FROM ONE YEAR AGO (1)	DROUGHT EMERGENCY > 95%	DROUGHT WARNING > 90%	DROUGHT WATCH > 75%	BELOW MEDIAN 50%
CB-2	Honey Brook	5.71 *	Above Median	-1.96	-4.27	12.86	11.93	9.88	8.54
CB-10	W. Marlborough	10.00	Above Median	-1.58	-2.47	15.00	14.82	14.20	13.07
12	W. Bradford	31.65	Above Median	-1.44	-5.35	38.50	38.50	38.50	37.50
CB-38	New Garden	5.32	Above Median	-1.88	-5.18	14.98	14.45	11.12	9.00
89	E. Whiteland	134.96	N/A	-2.90	-7.38	Drought-trigger levels not determined			
210	Tredyffrin	18.01	Above Median	-2.32	-3.68	27.14	25.06	21.94	21.24
254	E. Nottingham	21.18	Above Median	-0.68	-2.22	28.60	26.63	25.37	23.81
1201	W. Sadsbury	4.26	Above Median	-0.49	-1.03	6.83	6.76	6.12	5.66
CB-1229	Upper Uwchlan	33.49	Above Median	-2.40	-5.10	41.71	41.43	39.84	37.95
CB-1247	W. Vincent	27.08	Above Median	-1.07	-2.17	34.16	33.33	32.45	31.22
1387	Thornbury	30.59	Above Median	-1.79	-3.15	37.14	36.76	36.01	34.88
1571	E. Vincent	5.93	Above Median	0.28	-1.25	10.94	10.00	7.79	6.50
1921	New Garden	40.03	Above Median	-1.04	-3.59	49.37	48.26	47.06	44.98
2273	W. Brandywine	-1.20	Above Median	-0.16	-2.05	4.33	3.56	1.37	-0.09
2313	E. Whiteland	3.72	Above Median	-1.80	-6.68	15.96	14.47	11.52	9.50
2328	E. Nantmeal	0.41	Above Median	-0.58	-2.51	5.24	5.03	3.00	2.46
2457	E. Goshen	15.50	Above Median	-2.68	-4.41	23.56	22.56	21.09	19.52
2561	Charlestown	91.61	N/A	-1.26	3.56	Drought-trigger levels not determined			
2584	E. Marlborough	17.23	N/A	-1.38	-2.47	Drought-trigger levels not determined			
2663	New Garden	9.91	Above Median	-0.32	-0.79	11.07	10.94	10.68	10.03
3289	Tredyffrin	16.16	Above Median	-4.27	-4.85	30.15	26.75	22.22	20.23
5422	Londonderry	16.27	N/A	-1.78	-2.94	Drought-trigger levels not determined			
6513	N. Coventry	13.77	N/A	-0.53	-1.76	Drought-trigger levels not determined			
6516	Pennsbury	-0.09	N/A	0.41	-0.68	Drought-trigger levels not determined			
6517	W. Caln	58.63	N/A	-1.65	-4.07	Drought-trigger levels not determined			
6518	Lower Oxford	18.86	N/A	-1.67	-3.14	Drought-trigger levels not determined			
7007	Wallace	24.54 ^N	N/A	-3.13 ^z	-9.54	Drought-trigger levels not determined			
7269	Newlin	8.52 ^N	N/A	NR	NR	Drought-trigger levels not determined			
MEAN CHANGES OF ALL WELLS				-1.48	-3.06				

Wells were measured on December 19-20, 2011

CB = wells monitored for the Christina Basin Drought Management Plan

NR = no reading available

(1)"NET CHANGES": A (-) negative number indicates a decrease in the depth from the land surface to the water level in the well, or the level of water in the well has risen compared to the previous period.

* = a new Minimum Depth to water in the well for this month

** = new Maximum Depth to water in the well for this month

*** = well was dry at time of observation

^N = Not enough data to determine statistics

Wells CH 2273, CH 2328 and CH 6516 can have ground water flowing above the land surface (known as an artesian well);

a (-) negative number under "DEPTH TO WATER" indicates water flowing above the land surface.

Reference Data Percentiles shown were revised as of September 1, 2007 to reflect updated statistical analysis performed by the U.S. Geological Survey (USGS Data Series 292, 2007).

SUMMARY

Number of wells below Median Level = 0 (0 of these are also below watch, warning or emergency levels)
 Number of wells below Drought Watch Level = 0 (0 of these are also below warning or emergency levels)
 Number of wells below Drought Warning Level = 0 (0 of these are also below emergency levels)
 Number of wells below Drought Emergency Level = 0

18 of the 28 wells have statistics

For additional information contact the Chester County Water Resources Authority at (610)344-5400.

**CHESTER COUNTY WATER RESOURCES AUTHORITY VOLUNTEER RAINFALL OBSERVER NETWORK
MONTHLY PRECIPITATION IN INCHES AS REPORTED FOR THE MONTH OF DECEMBER 2011**

I.D. = Insufficient Data		N.R. = No Report		NOTE: Monthly averages are reported only when there is 5 years or more data					
NO.	MUNI. LOCATION	WATERSHED	START	PRECIPITATION	AVG. FOR MONTH	YTD 2011	YTD 2010	YTD 2009	AVG.YTD
12	West Bradford Twp.	West Branch Brandywine	5/79	4.70	3.45	63.80	43.98	52.43	45.41
20	East Coventry Twp.	Schuylkill River	5/79	4.59	3.72	65.44	46.90	51.87	49.29
21	New Garden Twp.	Red Clay Creek	5/79	4.51	3.59	61.31	45.58	55.74	46.23
29	Penn Twp.	White Clay Creek	11/94	4.85	4.22	59.80	47.51	56.31	50.67
45	West Brandywine Twp.	West Branch Brandywine	6/79	4.65	3.50	55.42	43.24	48.06	46.28
50	West Chester Boro.	East Branch Brandywine	8/79	4.73	3.93	69.11	48.93	53.80	49.78
57	Honey Brook Twp.	East Branch Brandywine	11/81	3.17	3.00	43.85	39.27	ID	43.02
58	Kennett Twp.	Main Stem Brandywine	1/82	5.07	4.17	ID	ID	60.53	50.74
70	East Nottingham Twp.	Octoraro Creek	1/85	5.05	3.78	62.32	44.12	55.85	46.63
76	Uwchlan Twp.	East Branch Brandywine	7/85	4.68	3.90	65.57	52.43	61.22	50.10
78	Willistown Twp.	Crum Creek	1/86	4.60	4.18	56.32	51.55	55.65	50.52
79	West Pikeland Twp.	Pickering Creek	5/89	5.00	4.00	68.20	49.32	58.55	49.12
83	London Britain Twp.	White Clay Creek	8/89	5.31	4.37	69.13	49.17	58.90	52.44
84	Westtown Twp.	Main Stem Brandywine	8/89	4.97	4.42	64.71	51.42	54.67	50.89
85	East Goshen Twp.	Ridley Creek	2/90	4.25	3.99	71.49	60.60	ID	48.24
92	West Caln Twp.	West Branch Brandywine	4/97	4.88	3.75	60.79	ID	48.06	48.78
103	Wallace Twp.	East Branch Brandywine	1/98	4.55	3.97	66.73	47.08	56.68	51.58
104	Elverson Boro.	French Creek	9/99	4.36	4.32	64.20	43.06	61.37	52.20
105	Upper Uwchlan Twp.	East Branch Brandywine	5/06	4.39	4.51	57.55	43.85	54.12	49.51
106	East Pikeland Twp.	French Creek	10/09	4.53	ID	63.74	ID	ID	ID
COUNTYWIDE AVERAGE				4.64	3.94	62.60	47.53	55.52	49.02
NATIONAL WEATHER SERVICE/NATIONAL CLIMATIC DATA CENTER 30 YEAR NORMALS (1971-2000)									
Chadds Ford (Delaware County)					3.59				47.56
Coatesville 2 W					3.85				49.02
Devault 1W					3.28				43.72
Glenmoore					3.76				48.62
Honey Brook 1S					3.45				44.52
Octorara Lake					3.61				45.43
Phoenixville 1E					3.59				43.87
West Chester 1W					3.79				47.89
AVERAGE					3.62				46.33
NOAA HISTORIC AVERAGE (1931-PRESENT)					3.67				45.53
NOAA HISTORIC MINIMUM				Monthly	0.31	1955	Annual	32.52	1941
NOAA HISTORIC MAXIMUM				Monthly	8.96	1973	Annual	64.71	2003
CCWRA VOLUNTEER NETWORK HISTORIC MINIMUM				Monthly	0.72	1980	Annual	34.20	2001
CCWRA VOLUNTEER NETWORK HISTORIC MAXIMUM				Monthly	8.89	1996	Annual	68.09	1996

Date Prepared: 1/26/2012

For additional information please call the Chester County Water Resources Authority at (610) 344-5400

Note: Please be aware that these data are collected by our network volunteers. Our rainfall observation network is maintained to collect precipitation data that provide a relative index of rainfall across Chester County, and to provide early warning information during severe weather events. Thus, the data have not been scientifically or statistically validated.