

**CHESTER COUNTY**

**395049075434302. Local number, CH 5179**  
**(New Garden Township, Chester County, Spray Irrigation Project)**

**LOCATION.**--Lat 39°50'49", long 75°43'43", Hydrologic Unit 02040205, at Spray Irrigation Site in New Garden Township.

Owner: New Garden Township Municipal Authority.

**AQUIFER.**--Felsic Gneiss of Precambrian age.

**WATER-LEVEL RECORDS**

**WELL CHARACTERISTICS.**--Drilled observation well, diameter 2 in., depth 39.1 ft, cased to 39 ft, closed end, screened from 24-39 ft.

**INSTRUMENTATION.**--Electronic data logger with 60-minute recording interval.

**DATUM.**--Elevation of land surface is 360 ft above sea level from a GPS unit. Measuring point: Top of plywood shelf, 1.2 ft above land-surface datum.

**REMARKS.**--In addition to the daily mean water levels shown below, daily maximum and minimum water levels, since August 1998, are also available from the District Office. Data for this project are presented in tables on pages 308-313 and 499-542.

**PERIOD OF RECORD.**--August 1, 1998 to current year.

**EXTREMES FOR PERIOD OF RECORD.**--The extremes shown are extremes of the instantaneous depth below land surface for the period of record indicated above.

Highest water level, 6.52 ft below land-surface datum, Sept. 30, 1999; lowest, 20.19 ft below land-surface datum, Jan. 6, 7, 1999.

**DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998**  
**DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	15.24	16.29
2	---	---	---	---	---	---	---	---	---	---	15.27	16.33
3	---	---	---	---	---	---	---	---	---	---	15.29	16.35
4	---	---	---	---	---	---	---	---	---	---	15.30	16.40
5	---	---	---	---	---	---	---	---	---	---	15.33	16.46
6	---	---	---	---	---	---	---	---	---	---	15.35	16.49
7	---	---	---	---	---	---	---	---	---	---	15.37	16.51
8	---	---	---	---	---	---	---	---	---	---	15.42	16.54
9	---	---	---	---	---	---	---	---	---	---	15.46	16.60
10	---	---	---	---	---	---	---	---	---	---	15.48	16.65
11	---	---	---	---	---	---	---	---	---	---	15.51	16.69
12	---	---	---	---	---	---	---	---	---	---	15.54	16.72
13	---	---	---	---	---	---	---	---	---	---	15.59	16.77
14	---	---	---	---	---	---	---	---	---	---	15.62	16.82
15	---	---	---	---	---	---	---	---	---	---	15.66	16.85
16	---	---	---	---	---	---	---	---	---	---	15.71	16.89
17	---	---	---	---	---	---	---	---	---	---	15.73	16.92
18	---	---	---	---	---	---	---	---	---	---	15.75	16.94
19	---	---	---	---	---	---	---	---	---	---	15.81	17.01
20	---	---	---	---	---	---	---	---	---	---	15.85	17.06
21	---	---	---	---	---	---	---	---	---	---	15.89	17.10
22	---	---	---	---	---	---	---	---	---	---	15.92	17.13
23	---	---	---	---	---	---	---	---	---	---	15.94	17.19
24	---	---	---	---	---	---	---	---	---	---	15.98	17.23
25	---	---	---	---	---	---	---	---	---	---	16.03	17.26
26	---	---	---	---	---	---	---	---	---	---	16.08	17.29
27	---	---	---	---	---	---	---	---	---	---	16.11	17.32
28	---	---	---	---	---	---	---	---	---	---	16.13	17.36
29	---	---	---	---	---	---	---	---	---	---	16.14	17.42
30	---	---	---	---	---	---	---	---	---	---	16.20	17.44
31	---	---	---	---	---	---	---	---	---	---	16.25	---
MEAN	---	---	---	---	---	---	---	---	---	---	15.71	16.87
MAX	---	---	---	---	---	---	---	---	---	---	16.25	17.44
MIN	---	---	---	---	---	---	---	---	---	---	15.24	16.29

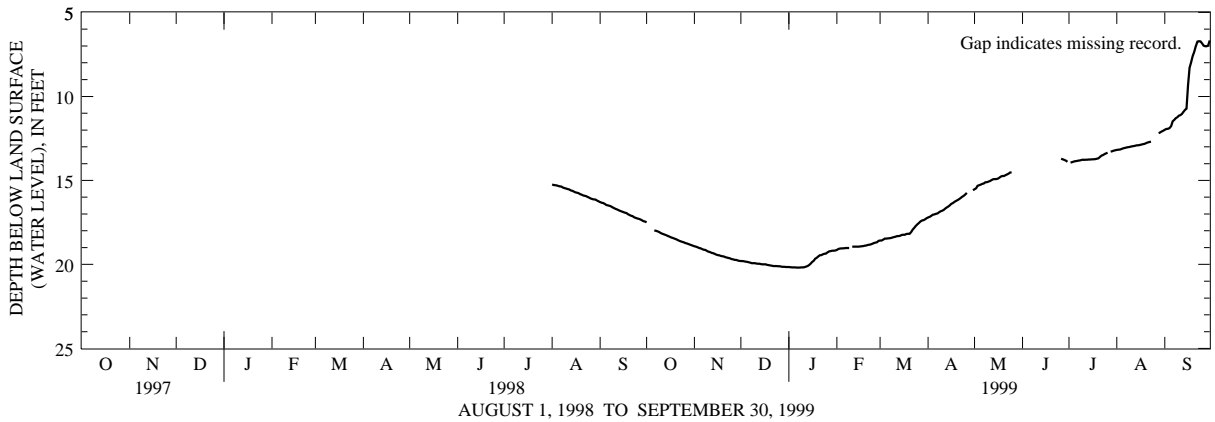
CHESTER COUNTY

395049075434302. Local number, CH 5179--Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.49	18.92	19.80	20.16	19.14	18.58	17.20	15.53	---	---	13.18	11.98
2	---	18.94	19.80	20.17	19.08	18.58	17.17	15.47	---	13.94	13.17	11.94
3	---	18.98	19.81	20.18	19.06	18.52	17.11	15.32	---	13.91	13.16	11.92
4	---	19.02	19.83	20.18	19.05	18.46	17.04	15.29	---	13.88	13.13	11.89
5	---	19.05	19.85	20.18	19.04	18.46	17.02	15.25	---	13.86	13.09	11.77
6	17.98	19.09	19.87	20.19	19.03	18.45	16.99	15.21	---	13.84	13.07	11.48
7	18.00	19.13	19.89	20.19	19.02	18.44	16.96	15.18	---	13.82	13.05	11.40
8	18.03	19.14	19.92	20.19	19.02	18.43	16.90	15.11	---	13.81	13.02	11.30
9	18.06	19.19	19.93	20.18	19.02	18.40	16.84	15.10	---	13.79	13.01	11.24
10	18.12	19.24	19.93	20.18	---	18.37	16.81	15.07	---	13.77	12.99	11.15
11	18.17	19.26	19.95	20.17	18.94	18.35	16.76	15.04	---	13.78	12.97	11.12
12	18.20	19.31	19.96	20.13	18.94	18.32	16.68	14.98	---	13.77	12.96	11.05
13	18.24	19.33	19.96	20.10	18.94	18.31	16.61	14.93	---	13.76	12.93	10.92
14	18.27	19.36	19.98	20.04	18.94	18.29	16.55	14.92	---	13.75	12.91	10.81
15	18.32	19.41	19.99	19.96	18.94	18.25	16.49	14.92	---	13.75	12.91	10.73
16	18.35	19.44	19.99	19.86	18.93	18.24	16.40	14.90	---	13.74	12.89	9.32
17	18.40	19.46	20.00	19.79	18.92	18.23	16.35	14.84	---	13.74	12.86	8.29
18	18.43	19.49	20.03	19.66	18.91	18.19	16.28	14.77	---	13.73	12.84	7.97
19	18.46	19.51	20.04	19.60	18.89	18.18	16.22	14.74	---	13.71	12.82	7.61
20	18.50	19.53	20.06	19.52	18.87	18.18	16.18	14.74	---	13.69	12.77	7.35
21	18.54	19.57	20.08	19.46	18.84	18.08	16.12	14.69	---	13.61	12.74	7.02
22	18.59	19.59	20.10	19.44	18.83	17.93	16.05	14.64	---	13.53	12.72	6.74
23	18.62	19.62	20.10	19.40	18.80	17.82	15.97	14.60	---	13.49	12.69	6.71
24	18.66	19.64	20.10	19.37	18.77	17.71	15.91	14.53	---	13.43	---	6.72
25	18.68	19.68	20.11	19.35	18.73	17.62	15.84	14.52	---	13.39	---	6.84
26	18.73	19.70	20.11	19.29	18.70	17.54	15.74	---	13.71	13.36	---	6.98
27	18.75	19.73	20.13	19.23	18.68	17.45	---	---	13.74	---	---	7.01
28	18.78	19.73	20.14	19.20	18.60	17.39	---	---	13.78	13.29	12.19	7.01
29	18.82	19.76	20.14	19.18	---	17.36	---	---	13.82	13.26	12.14	6.97
30	18.85	19.79	20.15	19.18	---	17.32	15.58	---	13.89	13.23	12.09	6.67
31	18.89	---	20.15	19.17	---	17.25	---	---	---	13.21	12.04	---
MEAN	18.40	19.39	20.00	19.77	18.91	18.09	16.51	14.97	13.79	13.65	12.83	9.33
MAX	18.89	19.79	20.15	20.19	19.14	18.58	17.20	15.53	13.89	13.94	13.18	11.98
MIN	17.49	18.92	19.80	19.17	18.60	17.25	15.58	14.52	13.71	13.21	12.04	6.67

WTR YR 1999: HIGHEST 6.67, SEPTEMBER 30; LOWEST 20.19, JANUARY 6-8.



CHESTER COUNTY

395049075434302. Local number, CH 5179--Continued  
(New Garden Township, Chester County, Spray Irrigation Project)

WATER-QUALITY RECORDS

REMARKS.-- Samples collected with submersible pump from recovery water after well was pumped more than 3 casing volumes.  
PERIOD OF RECORD.--May 1998 to current year.

WATER-QUALITY DATA, MAY 1998 TO SEPTEMBER 1999

DATE	TIME	AGENCY ANA-LYZING SAMPLE (CODE NUMBER) (00028)	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	PH WATER WHOLE LAB (STANDARD UNITS) (00403)	SPECIFIC CONDUCTANCE (µS/CM) (00095)	TEMPERATURE WATER (DEG C) (00010)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)
MAY 1998											
20...	1000	80020	1028	--	5.9	6.5	125	12.5	13	4.1	1.9
OCT 02...	1303	80020	1028	9.4	5.9	6.6	132	12.0	12	4.1	1.9
FEB 1999											
10...	1025	80020	1028	9.0	6.3	6.5	130	11.5	12	4.1	2.2
APR 27...	1111	80020	1028	9.9	5.5	6.3	129	12.5	12	4.2	2.0
MAY 27...	1000	9813	1028	10.7	6.1	--	139	12.7	--	--	--
JUL 01...	0930	9813	1028	10.0	5.7	--	137	11.6	14	4.9	2.1
27...	1230	9813	1028	8.9	6.0	--	152	11.9	--	--	--
AUG 24...	1300	9813	1028	8.8	5.7	--	151	12.5	--	--	--
SEP 23...	1200	9813	1028	4.0	5.9	--	174	13.1	17	6.0	2.3

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ANC WATER UNFLTRD FIELD (MG/L AS CACO3) (00419)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, DIS-SOLVED TOTAL (MG/L AS N) (00610)	NITROGEN, DIS-SOLVED (MG/L AS N) (00602)	NITROGEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)
MAY 1998											
20...	4.0	25	.75	<.10	17	33	.061	<.10	--	--	--
OCT 02...	4.1	37	.79	<.10	17	32	<.020	<.10	--	--	--
FEB 1999											
10...	4.1	25	.83	<.10	18	35	<.020	.11	--	--	--
APR 27...	4.2	14	.76	<.10	17	33	<.020	<.10	--	--	--
MAY 27...	--	23	--	--	--	--	<.020	--	.040	1.1	1.05
JUL 01...	4.8	29	2.2	<.20	16	32	<.020	--	--	1.7	1.33
27...	--	24	--	--	--	--	<.020	--	.020	1.9	1.61
AUG 24...	--	35	--	--	--	--	<.020	--	<.020	1.8	1.40
SEP 23...	4.7	23	8.3	<.20	16	29	<.020	--	--	2.2	1.86

DATE	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITRITE DIS-SOLVED (MG/L AS N) (00613)	PHOSPHORUS, DIS-SOLVED (MG/L AS P) (00666)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	ALUMINUM, DIS-SOLVED (µG/L AS AL) (01106)	ANTIMONY, DIS-SOLVED (µG/L AS SB) (01095)	ARSENIC, DIS-SOLVED (µG/L AS AS) (01000)	BARIUM, DIS-SOLVED (µG/L AS BA) (01005)
MAY 1998											
20...	.664	--	<.010	.012	.025	.037	89	<10	<1.0	<1	65
OCT 02...	.638	--	<.010	.025	.034	.032	87	<10	--	--	--
FEB 1999											
10...	.596	.71	<.010	E.030	.041	<.050	97	<10	--	--	--
APR 27...	.775	--	<.010	<.050	.024	E.041	95	<10	--	--	--
MAY 27...	--	--	<.040	.041	.041	--	--	--	--	--	--
JUL 01...	--	--	<.040	.043	.017	--	--	--	--	--	--
27...	--	--	<.040	.042	.006	--	--	--	--	--	--
AUG 24...	--	--	<.040	.062	.028	--	--	--	--	--	--
SEP 23...	--	--	<.040	.046	.031	--	58	--	<2.0	<4	80

## CHESTER COUNTY

395049075434302. Local number, CH 5179--Continued

## WATER-QUALITY DATA, MAY 1998 TO SEPTEMBER 1999

DATE	BERYL- LIUM, DIS- SOLVED (µG/L AS BE) (01010)	BORON, DIS- SOLVED (µG/L AS B) (01020)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	CADMIUM DIS- SOLVED (µG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR) (01030)	COBALT, DIS- SOLVED (µG/L AS CO) (01035)	COPPER, DIS- SOLVED (µG/L AS CU) (01040)	IRON, DIS- SOLVED (µG/L AS FE) (01046)	LEAD, DIS- SOLVED (µG/L AS PB) (01049)	LITHIUM DIS- SOLVED (µG/L AS LI) (01130)
MAY 1998 20...	<1.0	<16	--	<8.0	<1.0	<12	<1.0	<10	<1.0	<4
OCT 02...	--	<16	--	--	--	--	--	<10	--	--
FEB 1999 10...	--	<16	--	--	--	--	--	<10	--	--
APR 27...	--	E7.5	--	--	--	--	--	<10	--	--
MAY 27...	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	<200	<.20	--	--	--	--	<20	--	--
27...	--	--	--	--	--	--	--	--	--	--
AUG 24...	--	--	--	--	--	--	--	--	--	--
SEP 23...	--	<200	<.20	<10	<4.0	--	<4.0	<20	<1.0	<25

DATE	MANGA- NESE, DIS- SOLVED (µG/L AS MN) (01056)	MERCURY DIS- SOLVED (µG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO) (01060)	NICKEL, DIS- SOLVED (µG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (µG/L AS SE) (01145)	SILVER, DIS- SOLVED (µG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (µG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (µG/L AS V) (01085)	ZINC, DIS- SOLVED (µG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
MAY 1998 20...	<4.0	<.1	<60	<1.0	2	<1.0	64	<10	<20	.30
OCT 02...	<4.0	--	--	--	--	--	--	--	E17	.50
FEB 1999 10...	<3.0	--	--	--	--	--	--	--	41	.60
APR 27...	<3.0	--	--	--	--	--	--	--	22	.80
MAY 27...	--	--	--	--	--	--	--	--	--	--
JUL 01...	<10	--	--	--	--	--	--	--	<10	<1.0
27...	--	--	--	--	--	--	--	--	--	--
AUG 24...	--	--	--	--	--	--	--	--	--	--
SEP 23...	<10	<.2	--	<4.0	<7	--	81	--	<10	<1.0