

**CHESTER COUNTY**

**395052075434201. Local number, CH 5181**  
**(New Garden Township, Chester County, Spray Irrigation Project)**

**LOCATION.**--Lat 39°50'52", long 75°43'42", 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 4 in., depth 40 ft, cased to 40 ft, closed end, screened from 30-40 ft.

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

**DATUM.**--Elevation of land surface is 339 ft above sea level from a GPS unit. Measuring point: Top of plywood shelf, 2.25 ft above land-surface datum.

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

**PERIOD OF RECORD.**--July 14, 1998 to current year.

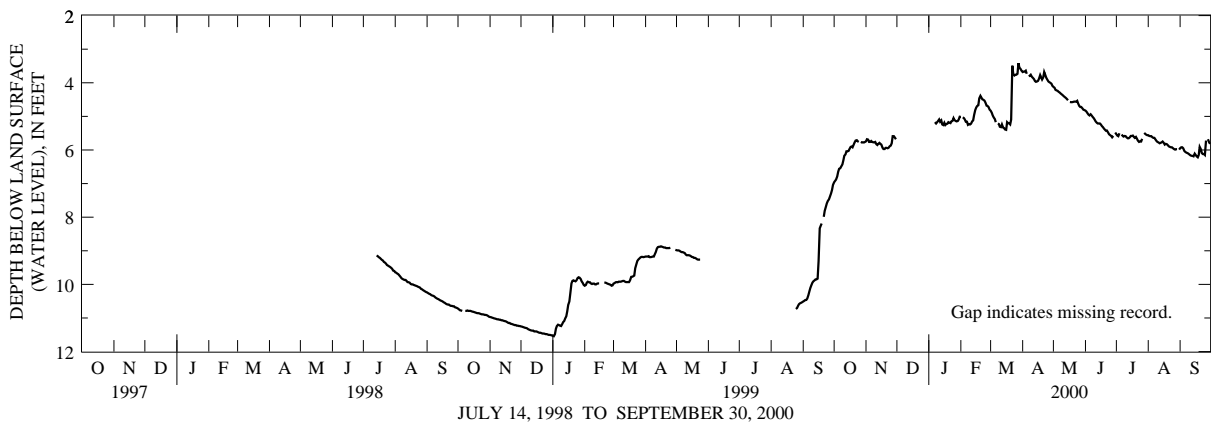
**EXTREMES FOR PERIOD OF RECORD.**--The extremes shown are extremes of the instantaneous depth below land surface for the period of record indicated above.

Highest water level, 3.11 ft below land-surface datum, Mar. 28, 2000; lowest, 11.54 ft below land-surface datum, Jan. 1-3, 1999.

**DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000**  
**DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.96	5.74	---	---	5.02	4.83	3.68	4.12	4.83	5.53	5.56	5.95
2	6.92	5.68	---	---	---	4.89	3.67	4.15	4.86	5.57	5.58	5.92
3	6.88	5.69	---	---	5.03	4.97	3.67	4.21	4.91	5.59	5.59	5.92
4	6.79	5.76	---	---	5.05	5.03	3.64	4.23	4.95	5.50	5.59	5.95
5	6.65	5.76	---	---	5.10	5.08	3.73	4.24	4.97	---	5.62	6.03
6	6.56	5.73	---	---	5.16	5.17	---	4.27	4.94	5.54	5.64	6.06
7	6.54	5.76	---	5.17	5.16	---	3.81	4.29	4.97	5.57	5.64	6.08
8	6.49	5.77	---	5.21	5.25	5.21	3.79	4.32	5.01	5.60	5.69	6.09
9	6.43	5.77	---	5.18	5.23	5.23	3.76	4.34	5.05	5.58	5.73	6.11
10	6.31	5.76	---	5.13	5.24	5.31	3.82	4.37	5.10	5.59	5.76	6.14
11	6.17	5.83	---	5.09	5.22	5.32	3.85	4.40	5.15	5.62	5.78	6.16
12	6.13	5.85	---	5.16	5.15	5.24	3.89	4.42	5.19	5.65	5.80	6.17
13	6.04	5.82	---	5.12	5.12	5.33	3.95	4.45	5.21	5.65	5.79	6.18
14	6.04	5.79	---	5.24	4.96	5.35	3.97	4.48	5.21	5.62	5.77	6.19
15	6.03	5.82	---	5.26	4.81	5.39	3.96	4.52	5.21	5.58	5.75	6.11
16	5.97	5.84	---	5.19	4.74	5.40	3.94	---	5.24	5.58	5.79	6.15
17	5.91	5.93	---	5.26	4.69	5.17	3.88	4.57	5.29	5.57	5.84	6.19
18	5.90	5.97	---	5.23	4.67	5.20	3.77	4.58	5.32	5.61	5.82	6.22
19	5.92	5.97	---	5.22	4.46	5.21	3.84	4.58	5.36	5.64	5.83	6.15
20	5.84	5.94	---	5.17	4.39	5.24	3.90	4.57	5.40	5.61	5.86	5.91
21	5.77	5.94	---	5.19	4.44	5.10	3.84	4.56	5.43	5.66	5.89	5.98
22	5.72	5.95	---	5.20	4.49	3.49	3.68	4.56	5.42	5.72	5.91	6.09
23	5.71	5.93	---	5.15	4.51	3.74	3.77	4.56	5.48	5.76	5.92	6.12
24	5.74	5.89	---	5.13	4.53	3.78	3.85	4.54	5.53	5.75	5.92	6.12
25	5.76	5.87	---	5.05	4.59	3.76	3.90	4.62	5.56	5.75	5.95	6.15
26	---	5.80	---	5.11	4.68	3.76	3.96	4.69	5.58	5.67	5.97	5.72
27	5.76	5.59	---	5.14	4.69	3.73	3.98	4.72	5.62	---	5.99	---
28	5.78	5.59	---	5.15	4.72	3.42	4.00	4.72	5.58	5.49	5.98	5.68
29	5.77	5.63	---	5.14	4.80	3.55	4.03	4.76	---	5.52	5.98	5.77
30	5.78	5.68	---	5.09	---	3.59	4.09	4.80	5.48	5.54	---	5.82
31	5.76	---	---	5.01	---	3.64	---	4.81	---	5.56	5.99	---
MEAN	6.13	5.80	---	5.16	4.85	4.67	3.85	4.48	5.24	5.61	5.80	6.04
MAX	6.96	5.97	---	5.26	5.25	5.40	4.09	4.81	5.62	5.76	5.99	6.22
MIN	5.71	5.59	---	5.01	4.39	3.42	3.64	4.12	4.83	5.49	5.56	5.68

WTR YR 2000: HIGHEST 3.42, MARCH 28; LOWEST 6.96, OCTOBER 1.



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WATER-QUALITY RECORDS

REMARKS.-- Samples collected with submersible pump from recovery water after well was pumped dry.  
 PERIOD OF RECORD.--June 1998 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	AGENCY ANA-LYZING SAMPLE (CODE NUMBER) (00028)	AGENCY COL-LECTING SAMPLE (CODE NUMBER) (00027)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
OCT 1999											
26...	1400	9813	1028	.6	6.9	255	13.1	--	--	--	--
DEC 01...	1000	9813	1028	2.8	6.0	257	12.1	--	--	--	--
JAN 2000											
05...	1600	9813	1028	1.3	6.5	246	12.6	25.9	6.98	5.0	7.3
FEB 02...	1100	9813	1028	3.4	6.5	233	10.5	--	--	--	--
MAR 07...	1300	9813	1028	2.8	5.4	248	10.6	--	--	--	--
APR 06...	1200	9813	1028	2.4	6.3	254	12.6	--	--	--	--
MAY 16...	1400	9813	1028	1.5	6.6	264	13.9	27.8	6.30	5.3	7.0
JUL 05...	1300	9813	1028	1.2	7.0	248	12.8	--	--	--	--
27...	1400	9813	1028	1.7	7.3	243	12.5	27.8	6.89	5.4	7.3
AUG 30...	1000	9813	1028	1.2	7.1	248	13.0	--	--	--	--
SEP 27...	1400	9813	1028	1.3	6.7	219	13.2	27.2	6.67	5.4	7.1

DATE	ANC WATER UNFLTRD IT FIELD (MG/L AS CACO3) (00419)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)
OCT 1999											
26...	63	--	--	--	--	.15	.150	3.72	4.3	.110	.007
DEC 01...	56	--	--	--	--	<.02	.030	3.86	4.2	<.040	.024
JAN 2000											
05...	50	7.4	<.2	12.8	32.7	--	<.020	3.63	4.3	<.040	.032
FEB 02...	--	--	--	--	--	<.02	<.020	4.20	4.5	<.040	.018
MAR 07...	48	--	--	--	--	<.02	<.020	5.10	5.3	<.040	.029
APR 06...	48	--	--	--	--	<.02	<.020	5.50	4.2	<.040	<.010
MAY 16...	51	6.8	<.2	17.1	34.2	--	<.020	5.14	5.4	<.040	.013
JUL 05...	46	--	--	--	--	.04	<.020	5.10	5.3	<.040	.016
27...	44	6.9	<.2	19.6	35.4	--	<.020	5.20	5.6	<.040	.020
AUG 30...	45	--	--	--	--	<.02	<.020	4.50	4.8	<.040	<.010
SEP 27...	60	7.0	<.2	16.8	33.2	--	<.020	3.95	4.2	<.040	<.010

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L) (70300)	ALUM- INUM, DIS- SOLVED (µG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (µG/L AS SB) (01095)	ARSENIC DIS- SOLVED (µG/L AS AS) (01000)	BARIUM, DIS- SOLVED (µG/L AS BA) (01005)	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)
OCT 1999											
26...	<.002	--	--	--	--	--	--	--	--	--	--
DEC											
01...	<.010	--	--	--	--	--	--	--	--	--	--
JAN 2000											
05...	<.010	<1.0	160	--	--	--	--	<200	<.20	--	--
FEB											
02...	<.010	--	--	--	--	--	--	--	--	--	--
MAR											
07...	<.010	--	--	--	--	--	--	--	--	--	--
APR											
06...	.011	--	--	--	--	--	--	--	--	--	--
MAY											
16...	<.010	<1.0	192	18	--	--	--	<200	<.20	--	--
JUL											
05...	<.010	--	--	--	--	--	--	--	--	--	--
27...	.014	<1.0	186	21	--	--	--	<200	<.20	--	--
AUG											
30...	.014	--	--	--	--	--	--	--	--	--	--
SEP											
27...	<.010	<1.0	148	18	<2	<4.0	67	<200	<.20	<10.0	<4.0

DATE	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)	MANGA- NESE, DIS- SOLVED (µG/L AS MN) (01056)	MERCURY DIS- SOLVED (µG/L AS HG) (71890)	NICKEL, DIS- SOLVED (µG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (µG/L AS SE) (01145)	STRON- TIUM, DIS- SOLVED (µG/L AS SR) (01080)	ZINC, DIS- SOLVED (µG/L AS ZN) (01090)
OCT 1999										
26...	--	--	--	--	--	--	--	--	--	--
DEC										
01...	--	--	--	--	--	--	--	--	--	--
JAN 2000										
05...	--	300	--	--	114	--	--	--	--	<10
FEB										
02...	--	--	--	--	--	--	--	--	--	--
MAR										
07...	--	--	--	--	--	--	--	--	--	--
APR										
06...	--	--	--	--	--	--	--	--	--	--
MAY										
16...	--	70	--	--	50	--	--	--	--	14
JUL										
05...	--	--	--	--	--	--	--	--	--	--
27...	--	50	--	--	54	--	--	--	--	22
AUG										
30...	--	--	--	--	--	--	--	--	--	--
SEP										
27...	<4	60	<1	<25.0	59	<.2	<4	<7.0	108	16