

**CHESTER COUNTY**

**395045075434702. Local number, CH 5173.**  
**(New Garden Township, Chester County, Spray Irrigation Project)**

**LOCATION.**--Lat 39°50'45", long 75°43'47", 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 62 ft, cased to 62 ft, closed end, screened from 42-62 ft.

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

**DATUM.**--Elevation of land surface is 401.6 ft above sea level. Measuring point: Top of plywood shelf, 1.9 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, and XXX.

**PERIOD OF RECORD.**--July 31, 1998 to current year.

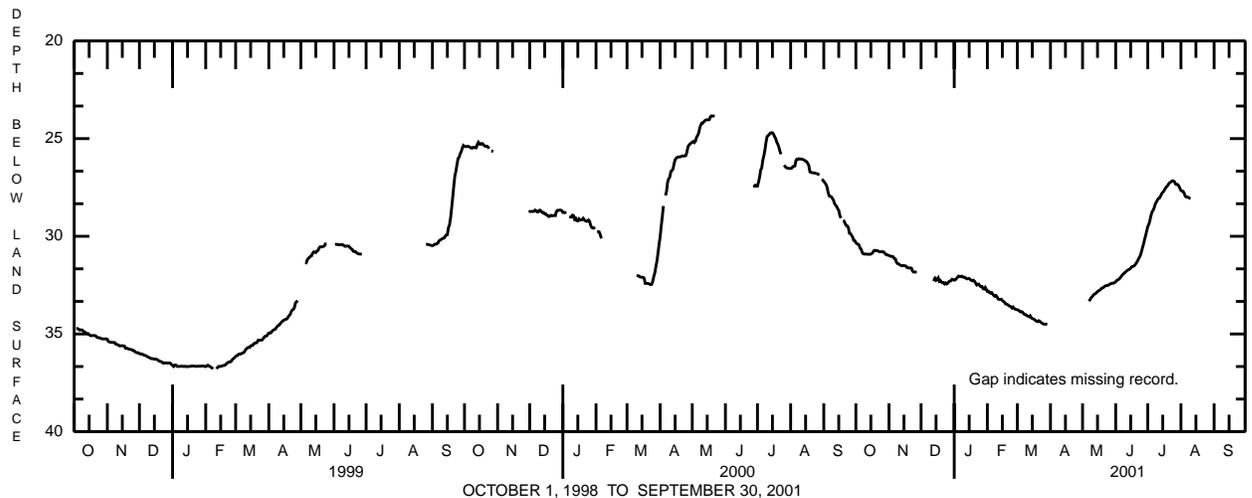
**EXTREMES FOR PERIOD OF RECORD.**--The extremes shown are extremes of the instantaneous depth below land surface for the period of record indicated above.

Highest water level, 23.83 ft below land-surface datum, May 22, 2000; lowest, 36.81 ft below land-surface datum, Feb. 9, 1999.

**EXTREMES FOR CURRENT YEAR.**--Highest water level, 27.13 ft below land-surface datum, July 24; lowest, 34.53 ft below land-surface datum, Mar. 26.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30.33	30.98	---	32.25	32.82	33.76	---	---	32.33	29.50	27.65	---
2	30.38	31.01	---	32.23	32.81	33.78	---	---	32.26	29.39	27.69	---
3	30.40	31.03	---	32.17	32.89	33.83	---	---	32.23	29.19	27.70	---
4	30.46	31.03	---	32.11	32.91	33.87	---	---	32.20	28.94	27.79	---
5	30.61	31.05	---	32.04	32.88	33.86	---	---	32.14	28.75	27.94	---
6	30.67	31.14	---	32.05	32.96	33.89	---	---	32.07	28.67	27.99	---
7	30.84	31.16	---	32.07	33.03	33.97	---	33.32	31.99	28.54	27.99	---
8	30.90	31.33	---	32.04	33.07	34.01	---	33.24	31.94	28.35	28.01	---
9	30.91	31.40	---	32.07	33.03	34.01	---	33.15	31.88	28.25	28.05	---
10	30.91	31.41	---	32.11	33.09	34.06	---	33.09	31.84	28.15	28.06	28.67
11	30.91	31.46	---	32.10	33.21	34.09	---	33.02	31.78	28.06	---	---
12	30.92	31.49	32.22	32.15	33.23	34.12	---	32.96	31.74	28.04	---	---
13	30.92	31.51	32.23	32.18	33.23	34.07	---	32.94	31.71	27.94	---	---
14	30.92	31.50	32.15	32.17	33.22	34.17	---	32.89	31.68	27.82	---	---
15	30.91	31.50	32.25	32.16	33.29	34.21	---	32.83	31.63	27.75	---	---
16	30.88	31.51	32.19	32.21	33.33	34.23	---	32.79	31.56	27.69	---	---
17	30.82	31.53	32.12	32.26	33.38	34.26	---	32.76	31.54	27.59	---	---
18	30.73	31.61	32.30	32.28	33.46	34.31	---	32.71	31.53	27.50	---	28.59
19	30.72	31.62	32.26	32.25	33.47	34.35	---	32.65	31.47	27.45	---	---
20	30.73	31.62	32.34	32.30	33.50	34.37	---	32.64	31.39	27.37	---	---
21	30.74	31.62	32.38	32.40	33.55	34.32	---	32.60	31.31	27.28	---	---
22	30.76	31.63	32.37	32.49	33.58	34.35	---	32.54	31.20	27.24	---	---
23	30.79	31.78	32.44	32.45	33.60	34.41	---	32.53	31.09	27.20	---	---
24	30.79	31.83	32.39	32.45	33.67	34.44	---	32.52	30.99	27.16	---	---
25	30.79	31.83	32.44	32.54	33.62	34.48	---	32.51	30.81	27.17	---	---
26	30.80	31.83	32.40	32.58	33.69	34.50	---	32.47	30.60	27.21	---	---
27	30.80	31.83	32.32	32.57	33.73	34.49	---	32.43	30.40	27.33	27.99	---
28	30.86	---	32.29	32.68	33.75	34.50	---	32.42	30.17	27.35	---	---
29	30.93	---	32.28	32.70	---	34.51	---	32.40	29.96	27.35	---	---
30	30.94	32.03	32.20	32.62	---	---	---	32.40	29.73	27.42	---	---
31	30.97	---	32.22	32.72	---	---	---	32.37	---	27.54	---	---
MEAN	30.78	31.47	32.29	32.30	33.29	34.18	---	32.73	31.44	27.91	27.90	28.63
MAX	30.97	32.03	32.44	32.72	33.75	34.51	---	33.32	32.33	29.50	28.06	28.67
MIN	30.33	30.98	32.12	32.04	32.81	33.76	---	32.37	29.73	27.16	27.65	28.59



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WATER-QUALITY RECORDS

REMARKS.-- Samples collected with disposable bailers from recovery water after well was bailed more than three times the casing volume. Some values for "dissolved" parameters exceed values for the corresponding "total" parameter. These results are within the limits of analytical precision and methods.

PERIOD OF RECORD.--May 1998 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	TIME	AGENCY ANA-LYZING SAMPLE NUMBER (00028)	AGENCY COLLECTING SAMPLE NUMBER (00027)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	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)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ANC WATER UNFLTRD IT FIELD (MG/L AS CAC03) (00419)
OCT 2000											
16...	1200	9813	1028	6.9	155	13.5	--	--	--	--	18
NOV 13...	1200	9813	1028	6.5	124	12.1	--	--	--	--	14
DEC 12...	1100	9813	1028	6.0	157	9.4	18.0	2.75	4.10	6.2	24
JAN 2001											
16...	1200	9813	1028	6.0	126	11.1	--	--	--	--	31
FEB 20...	1200	9813	1028	5.5	127	12.4	--	--	--	--	12
MAR 26...	1200	9813	1028	6.7	126	11.2	11.9	2.67	3.80	6.5	18
MAY 07...	1100	9813	1028	6.3	131	13.3	--	--	--	--	16
30...	1100	9813	1028	6.3	135	13.4	--	--	--	--	17
JUN 25...	1200	9813	1028	6.5	139	15.4	12.4	2.87	3.71	6.7	18
JUL 16...	1000	9813	1028	6.3	141	14.0	--	--	--	--	17
AUG 27...	1100	9813	1028	6.2	144	14.7	--	--	--	--	21

DATE	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	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)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L AS N) (70300)	NITROGEN, DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, TOTAL (MG/L AS N) (00610)	NITROGEN, DIS-SOLVED (MG/L AS N) (00602)	NITROGEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)
OCT 2000										
16...	--	--	--	--	--	--	<.020	<.02	.54	.490
NOV 13...	--	--	--	--	--	--	<.020	<.02	.72	.550
DEC 12...	<.20	2.6	<.2	20.3	34.2	132	<.020	--	.61	.520
JAN 2001										
16...	--	--	--	--	--	--	<.020	<.02	.78	.580
FEB 20...	--	--	--	--	--	--	<.020	<.02	.75	.610
MAR 26...	<.20	3.0	<.2	21.4	29.5	120	<.020	--	.70	.590
MAY 07...	--	--	--	--	--	--	<.020	<.02	1.3	.660
30...	--	--	--	--	--	--	<.020	.02	.95	.780
JUN 25...	<.20	5.0	<.2	22.9	28.0	212	<.020	--	.77	.760
JUL 16...	--	--	--	--	--	--	<.020	<.02	.88	.820
AUG 27...	--	--	--	--	--	--	<.020	<.02	1.1	.860

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DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	BORON, DIS- SOLVED (µG/L AS B) (01020)	IRON, DIS- SOLVED (µG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (µG/L AS MN) (01056)	ZINC, DIS- SOLVED (µG/L AS ZN) (01090)
OCT 2000 16...	<.040	<.010	<.010	--	--	--	--	--
NOV 13...	<.040	.011	.010	--	--	--	--	--
DEC 12...	<.040	<.010	<.010	<1.0	<200	<20	31.0	12
JAN 2001 16...	<.040	<.010	<.010	--	--	--	--	--
FEB 20...	<.040	<.010	<.010	--	--	--	--	--
MAR 26...	<.040	.011	<.010	<1.0	<200	<20	24.0	12
MAY 07...	<.040	<.010	<.010	--	--	--	--	--
30...	<.040	.010	<.010	--	--	--	--	--
JUN 25...	<.040	<.010	<.010	<1.0	<200	<20	21.0	25
JUL 16...	<.040	<.010	<.010	--	--	--	--	--
AUG 27...	<.040	<.010	<.010	--	--	--	--	--