

Water-Data Report 2007

340743078202006 Local number BR-107; DENR Bear Pen Research Station well EE36k6.

Northern Atlantic Coastal Plain aquifer system Peedee Formation

Brunswick County, NC

LOCATION.--Lat 34°07'43", long 78°20'20" referenced to North American Datum of 1983, Brunswick County, NC, Hydrologic Unit 03040206, 9 mi north of Supply on Federal Road, near North Carolina Forest Service airstrip. Owner: NCDENR (North Carolina Department of Environment and Natural Resources).

GROUND-WATER RECORDS

WELL CHARACTERISTICS.--Drilled observation well, depth 110 ft, diameter 4 in.; cased to 48 ft, open interval from 48 to 110 ft.

DATUM.--Land-surface datum is 61 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of instrument shelf, 0.69 ft above land-surface datum.

PERIOD OF RECORD.--August 1999 to January 2008 (discontinued). Continuous record April 2000 to January 2008.

GAGE.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at station.

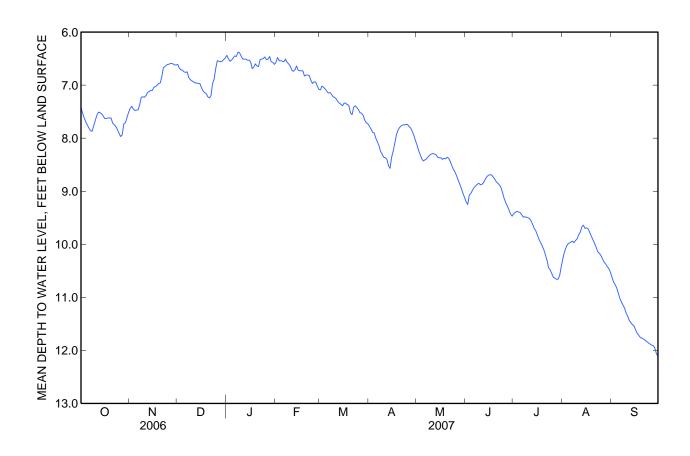
REMARKS.--Well is part of Brunswick County ground-water study. Water-level data may be influenced by local pumping.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 6.35 ft below land-surface datum, January 8, 2007; lowest water level recorded, 13.29 ft below land-surface datum, October 10, 2007.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007 DAILY MEAN VALUES

| Day | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|
| 1 | 7.42 | 7.44 | 6.61 | 6.44 | 6.57 | 7.09 | 7.78 | 8.13 | 9.20 | 9.42 | 10.27 | 10.62 |
| 2 | 7.53 | 7.40 | 6.68 | 6.50 | 6.48 | 7.02 | 7.83 | 8.23 | 9.25 | 9.40 | 10.15 | 10.71 |
| 3 | 7.62 | 7.45 | 6.71 | 6.55 | 6.54 | 7.04 | 7.89 | 8.31 | 9.07 | 9.38 | 10.06 | 10.76 |
| 4 | 7.69 | 7.48 | 6.72 | 6.53 | 6.54 | 7.07 | 7.90 | 8.39 | 9.04 | 9.39 | 10.0 | 10.82 |
| 5 | 7.75 | 7.47 | 6.75 | 6.49 | 6.55 | 7.11 | 8.00 | 8.43 | 8.98 | 9.40 | 9.98 | 10.92 |
| 6 | 7.81 | 7.47 | 6.76 | 6.45 | 6.56 | 7.15 | 8.07 | 8.41 | 8.93 | 9.44 | 9.96 | 11.02 |
| 7 | 7.86 | 7.37 | 6.75 | 6.46 | 6.51 | 7.14 | 8.14 | 8.39 | 8.90 | 9.49 | 9.94 | 11.09 |
| 8 | 7.87 | 7.23 | 6.86 | 6.38 | 6.57 | 7.17 | 8.25 | 8.35 | 8.87 | 9.48 | 9.97 | 11.15 |
| 9 | 7.77 | 7.22 | 6.90 | 6.39 | 6.60 | 7.22 | 8.30 | 8.32 | 8.85 | 9.49 | 9.93 | 11.21 |
| 10 | 7.67 | 7.23 | 6.92 | 6.45 | 6.64 | 7.23 | 8.36 | 8.30 | 8.88 | 9.50 | 9.90 | 11.30 |
| 11 | 7.57 | 7.20 | 6.94 | 6.51 | 6.72 | 7.26 | 8.37 | 8.29 | 8.87 | 9.52 | 9.82 | 11.36 |
| 12 | 7.51 | 7.14 | 6.96 | 6.51 | 6.74 | 7.31 | 8.40 | 8.30 | 8.84 | 9.56 | 9.77 | 11.44 |
| 13 | 7.52 | 7.12 | 6.96 | 6.51 | 6.71 | 7.34 | 8.52 | 8.31 | 8.78 | 9.63 | 9.67 | 11.48 |
| 14 | 7.54 | 7.10 | 6.97 | 6.53 | 6.64 | 7.36 | 8.57 | 8.36 | 8.73 | 9.70 | 9.64 | 11.52 |
| 15 | 7.58 | 7.10 | 6.97 | 6.53 | 6.72 | 7.39 | 8.36 | 8.37 | 8.70 | 9.75 | 9.70 | 11.54 |
| 16 | 7.63 | 7.04 | 7.05 | 6.56 | 6.73 | 7.34 | 8.24 | 8.37 | 8.69 | 9.83 | 9.69 | 11.62 |
| 17 | 7.63 | 7.03 | 7.11 | 6.69 | 6.73 | 7.34 | 8.09 | 8.40 | 8.69 | 9.91 | 9.71 | 11.68 |
| 18 | 7.62 | 7.00 | 7.14 | 6.66 | 6.73 | 7.37 | 7.94 | 8.38 | 8.73 | 9.97 | 9.78 | 11.72 |
| 19 | 7.62 | 6.97 | 7.16 | 6.60 | 6.83 | 7.38 | 7.85 | 8.39 | 8.77 | 10.03 | 9.85 | 11.76 |
| 20 | 7.62 | 6.96 | 7.22 | 6.64 | 6.81 | 7.52 | 7.80 | 8.36 | 8.82 | 10.10 | 9.91 | 11.77 |
| 21 | 7.72 | 6.84 | 7.24 | 6.65 | 6.81 | 7.56 | 7.77 | 8.38 | 8.85 | 10.20 | 9.98 | 11.79 |
| 22 | 7.75 | 6.67 | 7.20 | 6.52 | 6.82 | 7.42 | 7.75 | 8.44 | 8.88 | 10.30 | 10.06 | 11.81 |
| 23 | 7.78 | 6.65 | 6.97 | 6.51 | 6.91 | 7.39 | 7.75 | 8.52 | 8.93 | 10.44 | 10.14 | 11.83 |
| 24 | 7.84 | 6.62 | 6.89 | 6.50 | 6.97 | 7.42 | 7.74 | 8.59 | 9.03 | 10.48 | 10.17 | 11.86 |
| 25 | 7.91 | 6.61 | 6.69 | 6.47 | 6.94 | 7.46 | 7.74 | 8.64 | 9.14 | 10.55 | 10.21 | 11.88 |
| 26 | 7.97 | 6.60 | 6.54 | 6.52 | 6.94 | 7.52 | 7.78 | 8.71 | 9.22 | 10.62 | 10.27 | 11.90 |
| 27 | 7.94 | 6.59 | 6.55 | 6.51 | 7.01 | 7.53 | 7.81 | 8.79 | 9.28 | 10.64 | 10.33 | 11.91 |
| 28 | 7.73 | 6.60 | 6.56 | 6.46 | 7.08 | 7.57 | 7.87 | 8.87 | 9.35 | 10.66 | 10.37 | 11.95 |
| 29 | 7.71 | 6.62 | 6.55 | 6.56 | | 7.66 | 7.95 | 8.95 | 9.43 | 10.66 | 10.42 | 12.06 |
| 30 | 7.61 | 6.62 | 6.52 | 6.57 | | 7.71 | 8.04 | 9.04 | 9.47 | 10.59 | 10.46 | 12.11 |
| 31 | 7.52 | | 6.49 | 6.61 | | 7.73 | | 9.12 | | 10.42 | 10.52 | |
| Mean | 7.69 | 7.03 | 6.85 | 6.52 | 6.73 | 7.35 | 8.03 | 8.48 | 8.97 | 9.93 | 10.02 | 11.49 |
| Max | 7.97 | 7.48 | 7.24 | 6.69 | 7.08 | 7.73 | 8.57 | 9.12 | 9.47 | 10.66 | 10.52 | 12.11 |
| Min | 7.42 | 6.59 | 6.49 | 6.38 | 6.48 | 7.02 | 7.74 | 8.13 | 8.69 | 9.38 | 9.64 | 10.62 |

| | Water Year 2007 | | | | | |
|------|-----------------|--|--|--|--|--|
| Mean | 8.26 | | | | | |
| High | 6.38 | | | | | |
| Low | 12.11 | | | | | |



DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008 DAILY MEAN VALUES

| Day | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|------|-------|-------|-------|-------|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | 12.14 | 11.77 | 11.75 | 11.64 | | | | | | | | |
| 2 | 12.15 | 11.67 | 11.75 | 11.65 | | | | | | | | |
| 3 | 12.18 | 11.60 | 11.71 | 11.70 | | | | | | | | |
| 4 | 12.23 | 11.55 | 11.75 | 11.66 | | | | | | | | |
| 5 | 12.28 | 11.51 | 11.75 | 11.57 | | | | | | | | |
| 6 | 12.29 | 11.46 | 11.88 | 11.53 | | | | | | | | |
| 7 | 12.32 | 11.47 | 11.93 | 11.52 | | | | | | | | |
| 8 | 12.35 | 11.44 | 11.95 | | | | | | | | | |
| 9 | 12.37 | 11.40 | 11.98 | | | | | | | | | |
| 10 | 12.46 | 11.38 | 12.00 | | | | | | | | | |
| 11 | 12.44 | 11.43 | 12.02 | | | | | | | | | |
| 12 | 12.51 | 11.42 | 12.03 | | | | | | | | | |
| 13 | 12.57 | 11.41 | 12.05 | | | | | | | | | |
| 14 | 12.62 | 11.37 | 12.09 | | | | | | | | | |
| 15 | 12.66 | 11.34 | 12.11 | | | | | | | | | |
| 16 | 12.69 | 11.39 | 12.02 | | | | | | | | | |
| 17 | 12.71 | 11.42 | 12.13 | | | | | | | | | |
| 18 | 12.72 | 11.45 | 12.16 | | | | | | | | | |
| 19 | 12.72 | 11.47 | 12.11 | | | | | | | | | |
| 20 | 12.79 | 11.47 | 12.09 | | | | | | | | | |
| 21 | 12.88 | 11.47 | 12.04 | | | | | | | | | |
| 22 | 12.90 | 11.46 | 12.06 | | | | | | | | | |
| 23 | 12.88 | 11.53 | 12.01 | | | | | | | | | |
| 24 | 12.88 | 11.59 | 12.01 | | | | | | | | | |
| 25 | 12.86 | 11.59 | 12.01 | | | | | | | | | |
| 26 | 12.79 | 11.57 | 11.91 | | | | | | | | | |
| 27 | 12.62 | 11.60 | 11.90 | | | | | | | | | |
| 28 | 12.45 | 11.67 | 11.87 | | | | | | | | | |
| 29 | 12.28 | 11.66 | 11.79 | | | | | | | | | |
| 30 | 12.10 | 11.70 | 11.72 | | | | | | | | | |
| 31 | 11.93 | | 11.69 | | | | | | | | | |
| Mean | 12.51 | 11.51 | 11.94 | 11.61 | | | | | | | | |
| Max | 12.90 | 11.77 | 12.16 | 11.70 | | | | | | | | |
| Min | 11.93 | 11.34 | 11.69 | 11.52 | | | | | | | | |

| | Water Year 2008 | | | | | |
|------|-----------------|--|--|--|--|--|
| Mean | 11.97 | | | | | |
| High | 11.34 | | | | | |
| Low | 12.90 | | | | | |

