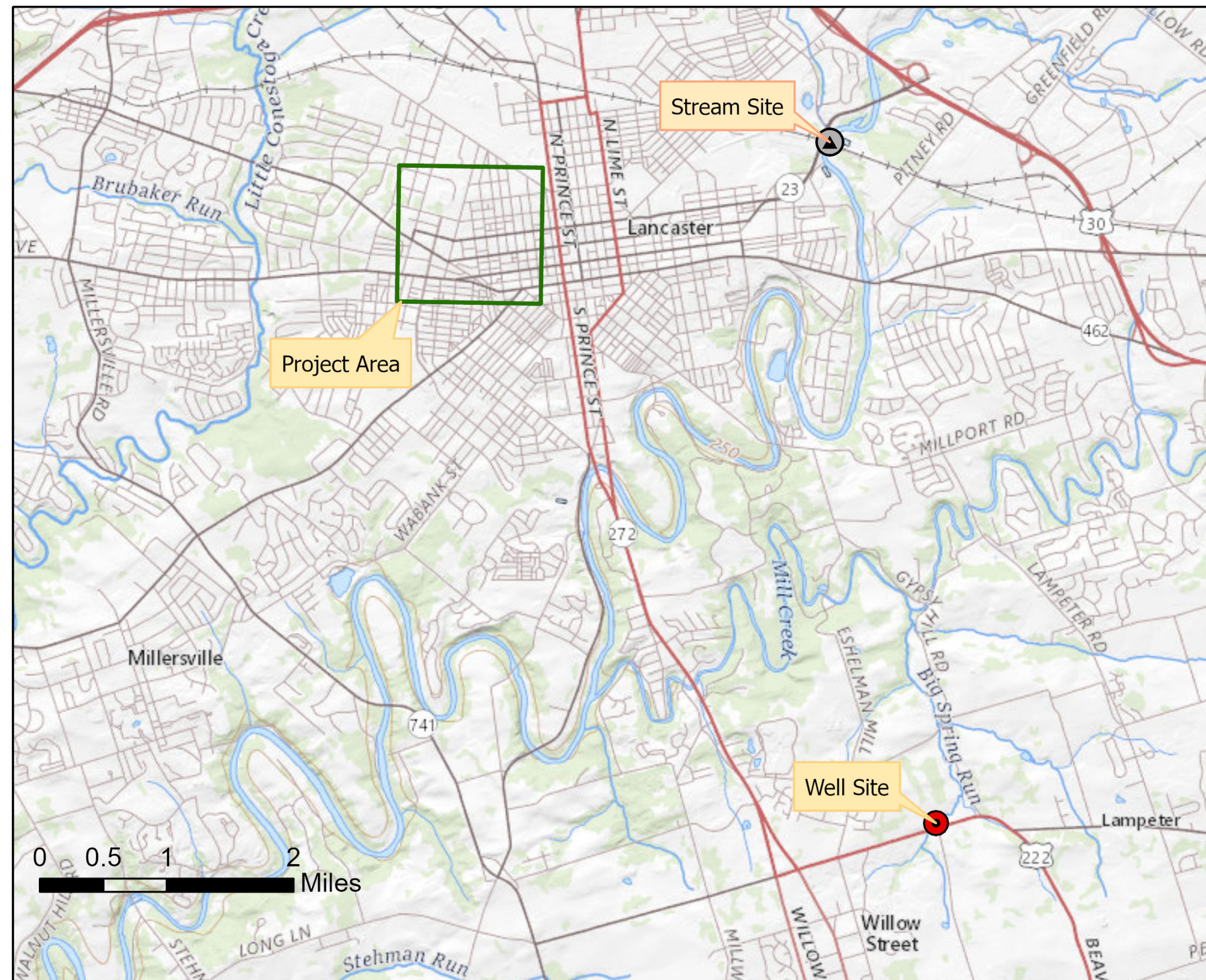


Ground and surface water characteristics at sites near Lancaster City, PA

Map adapted from the USGS National Map



The USGS National Water Information System database was used to obtain information about water at the sites shown on the map to the left. The sites shown are those closest to the project area with data available.

The stream site, on the Conestoga river, has the USGS identifier 01576500. Groundwater data was obtained for the well with USGS identifier 395926076155501 (LN 2148).

The following data for the Conestoga river at the stream site was collected from 1929 to 2020. Based on USGS monthly figures, data collection was apparently continuous except for a gap during parts of 1932-1933. Usage of 'cfs' means cubic feet per second.

Mean annual discharge ranged from minimum of 138.4 cfs (2002) to maximum 799 cfs (2019). When discharge over the near century of collected data was grouped by calendar month, March showed the greatest mean discharge (698 cfs) and October had the minimum mean (257 cfs). The peak streamflow over the entire time period was 50,300 cfs attained on June 23, 1972 (concurrent with Hurricane Agnes). The maximum gage height reached was 27.9 feet. The zero value for this gage is 245.63 feet elevation based on the NGVD29 vertical datum (in practical terms, using another reference datum eg: NAVD88 could result in a variance of 1-2 feet).

The maximum measurement of suspended solids was 148 Mg/L on August 4, 1970. A minimum of 5 mg/L is documented on multiple dates. The maximum measurement of dissolved oxygen was 14.6 mg/L on April 12, 1976. The recorded minimum was 7.2 mg/L on August 4, 1969.

Data for the well site shown on the map was recorded between November 2012 and September 2013. The following are ranges of data over that time period.

Depth to water (feet below land surface datum) ranged from 0.95 to 2.63. The land elevation at the site is 323.62 ft (NAVD88 datum), thus water table elevation ranged from 320.99 to 322.67 feet.

Specific conductance ranged from 693 to 869 microsiemens/cm (@ 25 C degrees), which is at the upper end of the typical range for drinking water.

Water was 'very hard', with hardness ranging from 315 to 399 mg/L (as CaCO₃).

Measurement of Nitrate and Nitrites varied from 0.01 (estimated) to 0.07 mg/L, well below the 10mg/L safety threshold for drinking water, and indicative of no major infiltration from septic systems.