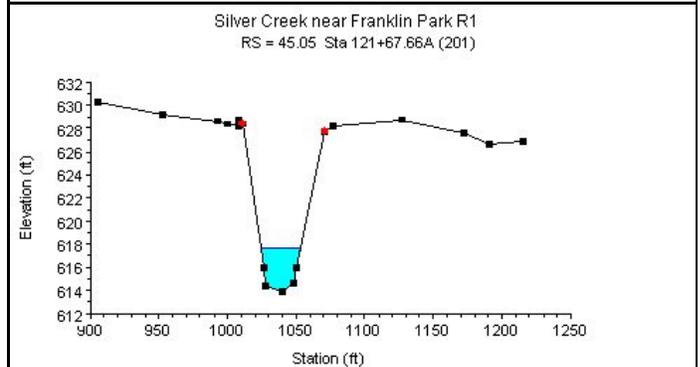
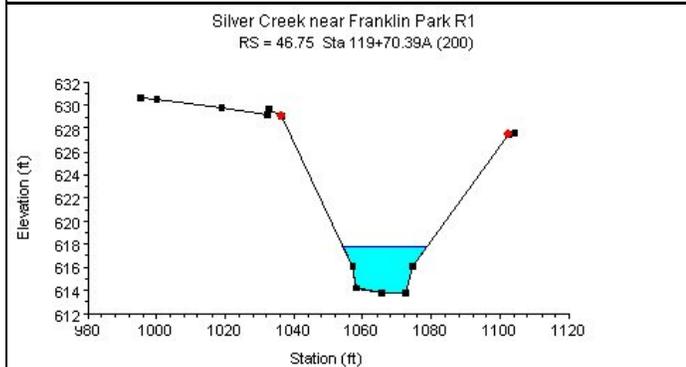
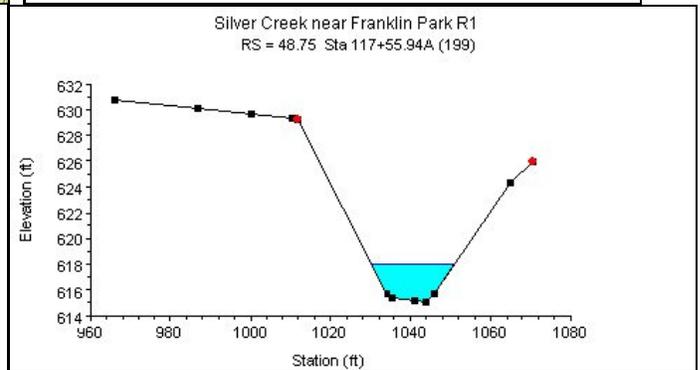
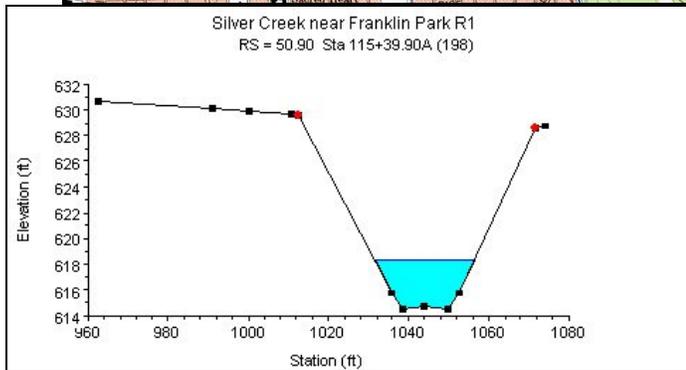
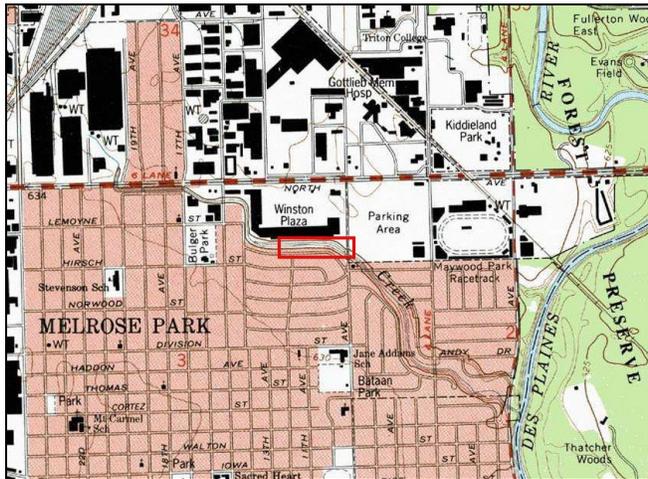


Silver Creek at Melrose Park, IL (Reach 1)



Study Reach.--The study reach is located between the downstream side of a footbridge off of the corner of Park and 12th Avenues (behind Winston Plaza) to upstream side of 9th Avenue. The length of the reach is 950 ft.

Gage Location.--The location of discharge measurement is lat $41^{\circ}54' 17''$, long $87^{\circ}50' 42''$. This study reach is at SW1/4 NW1/4 NW1/4 sec.2, T.39N, R.12E, Cook County, Hydrologic Unit 07120004. USGS streamgage-station number is 05530700.

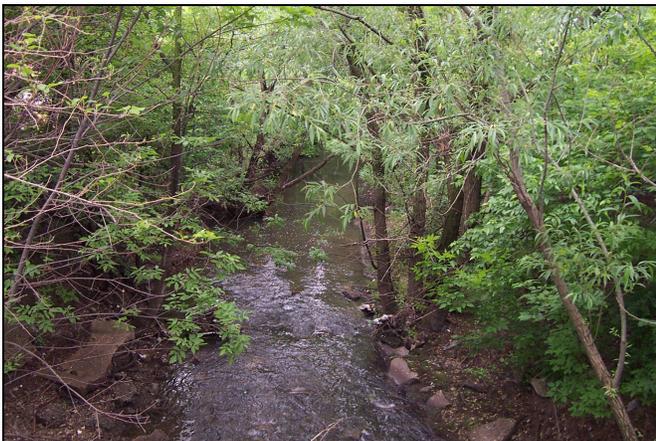
Drainage Area.--11.16 sq mi.

Gage Datum and Elevations of Reference Points.--The upstream reference point (RP-N2) is located on the downstream face of the foot bridge, elevation= 632.34ft. The downstream reference point (RP-N1) is located on the upstream face of

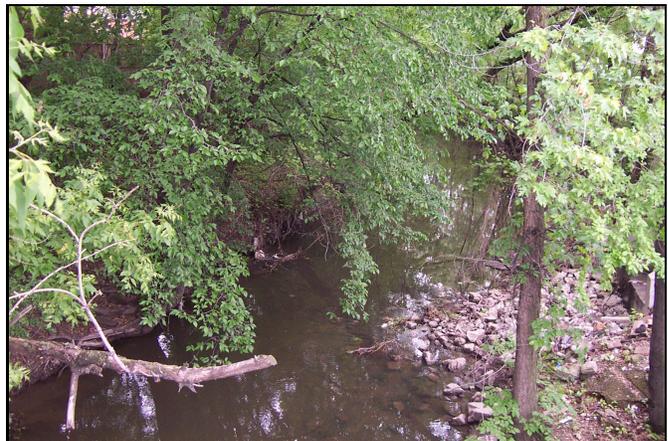
the 9th Avenue bridge, elevation=631.27ft. Elevation are in NGVD 1929 convention.

Stage, Discharge Measurements, and Computed n-Values.--Discharges are measured from upstream of 9th Avenue bridge. At low-water stages as depth less than 1 foot, discharges are measured by wading at a section upstream of the 9th Avenue bridge. At medium and high flows discharges are measured from the bridge. For extreme slow-moving water, a discharge can be measured just downstream of the riffles below the footbridge. The water surface elevations are measured from reference points set on bridges and measured with a weighted tape. Discharge measurements are made using the conventional current meter method where total discharge is the summation of the products of the subsection areas of the stream cross section and their respective average velocities.

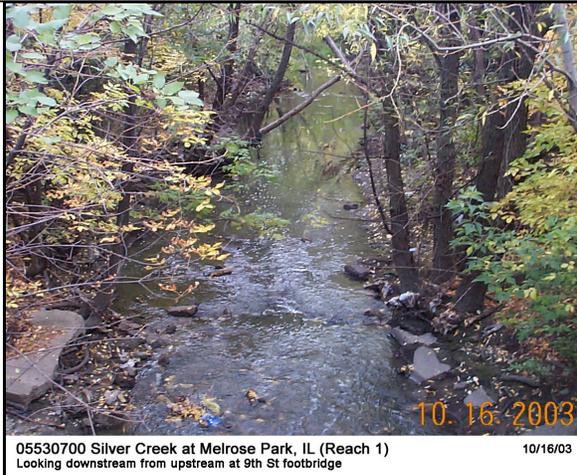
| Date of Observation | Discharge (ft ³ /s) | Average Cross Section Area (ft ²) | Hydraulic Radius (ft) | Mean Velocity (ft/s) | Slope | Coefficient of Roughness <i>n</i> |
|---------------------|--------------------------------|---|-----------------------|----------------------|----------|-----------------------------------|
| 5/2/2006 | 24.9 | 38.9 | 1.49 | 0.72 | 0.001993 | 0.136 |
| 6/26/2006 | 43.4 | 44.3 | 1.62 | 1.09 | 0.001991 | 0.093 |
| 4/25/2007 | 125.0 | 75.3 | 2.29 | 2.00 | 0.001077 | 0.042 |
| 4/25/2007 | 132.0 | 76.2 | 2.31 | 2.08 | 0.001105 | 0.041 |



05530700 Silver Creek at Melrose Park, IL (Reach 1)
Looking Downstream from upstream of 9th St footbridge 06/03/03



05530700 Silver Creek at Melrose Park (Reach 1)
Looking Upstream from 9th St, canopy 06/03/03



05530700 Silver Creek at Melrose Park, IL (Reach 1)
Looking downstream from upstream at 9th St footbridge 10.16.2003



05530700 Silver Creek at Melrose Park, IL (Reach 1)
Looking downstream from upstream at 9th St footbridge 5.2.2006



05530700 Silver Creek at Melrose Park, IL (Reach 1)
Looking downstream from upstream (below 9th St footbridge) 05/02/06



05530700 Silver Creek at Melrose Park, IL (Reach 1)
Looking downstream from bridge 06/26/06



05530700 Silver Creek at Melrose Park, IL (Reach 1)
Looking downstream from bridge 06/26/06



05530700 Silver Creek at Melrose Park, IL (Reach 1)
Bed material downstream of 9th St 06/03/03



05530700 Silver Creek at Melrose Park (Reach 1)
Bed near footbridge upstream of 9th St 06/03/03

Description of Channel.--The study reach is slightly meandering with alternating pools and riffles. Cross sectional shape is basically trapezoidal. Top width varies around 40 ft., bank height about 15 ft., and bottom width around 20 ft. Channel bed consists of sand, gravel, matrix of cobbles, and drifted debris; the bank slope is steep and bank materials vary as alternating sections in cobbles in firm clay to matted tree roots with light tree coverage. Trees on top of banks are dense but with diameters less than 1 foot, in general. Canopy cover overhangs the channel and touches the water surface at low flows.

Floods.--Maximum discharge, 15,500 ft³/s, Apr. 13, 1994, gage height, 20.46 feet.

Estimated n-Values using Cowan's Approach.--