



# Sycamore Park Interpretive Sites



■ Site Marker Base photograph dated 2003

## 1 1998 Flood Chute

Site 1 overlooks a 500-foot long depression in the floodplain scoured by the New Haven River during the flood of June 1998 (**flood chute**). One of the ten homes in Palmer's Court was located on this spot prior to the flood. Compare this location on the 2003 photograph above with the same position on the 1995 photograph on the reverse side of this brochure.

## 2 Floodplain Forest

To the north and east of Site 2 is a pocket of mature floodplain forest which includes sugar maple, white ash, and basswood, with a diverse understory layer dominated by ostrich fern. These are tree and plant species that would be expected in other areas of the park, if these lands had not been previously cleared for agriculture and residential use. This natural community ideally relies on occasional overbank flooding from the river to supply fine sediments and organic materials that support development of rich, frequently flooded soils. Due, in part, to channel management and land use changes in the upstream watershed that have occurred over several decades, the river channel has cut downward, losing some connection to the surrounding floodplain. As a consequence, the river only rarely accesses this floodplain—it now takes a large event like the flood of 1998.



## 3 Tributary Confluence

Walk out to the river's edge from the site marker. At typical high-water conditions which are achieved once every year to two years (**bankfull**), water will reach nearly up to the site marker. At low water you can walk out onto the beach of sediments. Note the size of pebbles carried by the river and deposited on the inside of this bend in the channel, which is called a **point bar**. This point bar has grown considerably



since the 1998 flood as the channel shifts to the east. Sediment is coming from actively eroding areas upstream of the park. On the opposite side of the channel, note the underwater plume of sediments carried into the New Haven River by the Notch Brook tributary. Upstream land clearing, removal of buffers, and beaver activities in the Notch Brook watershed contribute to sediment loading at this tributary confluence.

## 4 Forming a New Floodplain

Walk to the river's edge from the site marker (follow the path through the **Japanese Knotweed**). Streambank armoring (**rip-rap**) was installed on the opposite bank following floods of the mid-1970s, to protect the fields beyond and attempt to keep the river in a fixed position. During the flood of 1998, this rip-rap was outflanked by the raging flood waters. (Look for angular boulders submerged in the middle of the channel). In recent years the channel has become wider and shallower. Flow rates have decreased, and sediment has deposited to create a **mid-channel bar**, which causes flows to split and the channel to widen even more. Over time, the river will choose a single flow path and the deposited sediment will become vegetated, forming a new floodplain at a lower elevation than the park lands. The new floodplain can be accessed more frequently by the New Haven River to dissipate the high scour energy of floods. This is also an area of active deposition where the river can store sediments in the process of forming the new floodplain.

## 5 Bankfull Channel

The bankfull channel is the typical high-water condition that occurs on average once every one to two years—usually in the spring of the year. Two markers have been placed at Site 5. 5A is located near the edge of the bankfull channel that existed in 1995 when the river was located further to the northeast. 5B is installed at the current bankfull channel (2009). These two markers help to demonstrate how far the channel has shifted in those 14 years.



## 6 A Shifting Channel

Site 6 is above normal flood stage and provides a relatively protected vantage point from which to observe this changing river channel. Revisit this site in different seasons, at different flow stages of the river, and through the years, to see how the landscape and the riverscape changes!

Visit the Stream Team website, hosted by Mt. Abraham High School:  
[http://www.mtabe.k12.vt.us/enviro\\_website/enviro/index.html](http://www.mtabe.k12.vt.us/enviro_website/enviro/index.html)

Print additional copies of this brochure at the Bristol Conservation Commission website:  
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