

Draft Report of Upper Passaic River Fallen Tree Survey Results
By Allyson Salisbury, Passaic River Coalition
August 24, 2011

The GPS points collected on the canoe and hiking trips were used to make the maps of the Upper Passaic River in Appendix A. It should be noted that the GPS unit used to collect the data is accurate within a 30-foot radius; the points plotted on the maps are not intended to show the precise location of each snag.

A total of 130 fallen trees and debris piles were mapped at the end of the survey. These sites were classified into five categories based on a review of the photos taken during the survey:

1. Small snag (usually just large branches in the water)
2. Snag – Partial River Width (a tree that has fallen about half-way across the river)
3. Snag – Full River Width (a tree that has fallen and spans the whole width of the river)
4. Group of Trees (a site where several trees have fallen in close proximity to each other)
5. Pile of Debris (usually where a large amount of smaller debris is caught in a fallen tree)

Appendix B contains photos of each site, their classification, and which side of the river the tree’s trunk was located on. Several of the sites are listed as being in both counties since their origin could not be determined from the photos.

The tables below show the breakdown of the 130 sites into the different classification groups. Most of the sites were partial width snags with the second highest count being full river width.

Breakdown of Fallen Trees

Classification	Count
Small Snag	11
Snag – Partial River Width	61
Snag – Full River Width	45
Group of Trees	4
Pile of Debris	9
Total	130

Fallen Trees in Morris County

Classification	Count
Small Snag	3
Snag – Partial River Width	33
Snag – Full River Width	29
Group of Trees	2
Pile of Debris	3
Total	70

Fallen Trees in Somerset County

Classification	Count
Small Snag	3
Snag – Partial River Width	9
Snag – Full River Width	5
Group of Trees	1
Pile of Debris	0
Total	18

Fallen Trees in Union County

Classification	Count
Small Snag	2
Snag – Partial River Width	12
Snag – Full River Width	1
Group of Trees	0
Pile of Debris	1
Total	16

Fallen Trees in two counties at once

Classification	Count
Small Snag	3
Snag – Partial River Width	7
Snag – Full River Width	10
Group of Trees	1
Pile of Debris	5
Total	26

Fallen Trees in Long Hill Twp.

Classification	Count
Small Snag	3
Snag – Partial River Width	24
Snag – Full River Width	27
Group of Trees	2
Pile of Debris	1
Total	57

Fallen Trees in Warren Twp.

Classification	Count
Small Snag	3
Snag – Partial River Width	9
Snag – Full River Width	5
Group of Trees	1
Pile of Debris	0
Total	18

Fallen Trees in Berkeley Heights

Classification	Count
Small Snag	1
Snag – Partial River Width	8
Snag – Full River Width	1
Group of Trees	0
Pile of Debris	1
Total	11

Fallen Trees in New Providence

Classification	Count
Snag – Partial River Width	3

Fallen Trees in Summit

Classification	Count
Small Snag	1
Snag – Partial River Width	1
Total	2

Fallen Trees in Chatham Twp.

Classification	Count
Snag – Partial River Width	8
Snag – Full River Width	2
Pile of Debris	2
Total	12

Fallen Trees in Chatham Boro.

Classification	Count
Snag – Partial River Width	1

Fallen Trees in Long Hill and Warren

Classification	Count
Small Snag	3
Snag – Partial River Width	5
Snag – Full River Width	8
Group of Trees	1
Pile of Debris	3
Total	20

Fallen Trees in Long Hill and Berkeley Heights

Classification	Count
Snag – Full River Width	1
Pile of Debris	1
Total	2

Fallen Trees in Chatham Twp. And Berkeley Heights

Classification	Count
Snag – Partial River Width	1
Snag – Full River Width	1
Pile of Debris	1
Total	3

Fallen Trees in Chatham Twp. And New Providence

Classification	Count
Snag – Partial River Width	1

The goal of this section is to provide a general overview of the distribution of fallen trees and debris in this stretch of river. Included in this report are suggestions about which snags may be easiest to access for removal and may be good candidate for an initial phase of removal.

Segment 1: King George Road to Plainfield Road/Stirling Road, 3.5 miles

This first section contains the highest concentration of fallen trees along the river with 75 snags. Since the river is more narrow here, it is easier for the fallen trees to reach from bank to bank. On the first day of paddling, the PRC staff gave up canoeing about 1.5 miles in because they were portaging and carrying the canoe more than they were paddling on the water. The remainder of the section was completed on foot the following week by walking along the Morris County side.

Much of this section is owned by Morris County, Warren Township, Long Hill Township, and the Passaic River Coalition, though most of the river is not near a road making most of the snags difficult to access. However, Snags 15 to 28 could be accessed from Warren Township farm (?) property. Additionally Snags 68 to 74 might be accessible through the Long Hill Little League property (on Poplar Drive) while Snags 59 to 62 are close to the Long Hill Sewage Treatment Facility on South Warren Ave. A large electric utility line does run through this area and could presumably accommodate heavier equipment if access permission was obtained.

Segment 2: Plainfield Road/Stirling Road to Mountain Ave, 1.2 miles

This section was much easier to canoe since most of the 13 snags only extended partly into the water. Much more of the waterfront is privately owned here. However Snags 78 to 83 could be accessed from Long Hill's Riverside Park.

Segment 3: Mountain Ave to Valley Road, 0.8 miles

Soon after going under Mountain Ave, the river becomes much wider than normal, almost forming a shallow lake, though there is no dam here. Camp Riverbend's boat launch is located just upstream of this area. The first snag in the segment, 89, is lying in this extra wide section and is on private property; consequently it does not pose much of a canoeing hazard and does not need to be prioritized for removal. The other four snags on the stretch are also all on private property.

Segment 4: Valley Road to Bridge Ave/Snyder Ave, 1.3 miles

While the majority of the riverbanks here are publicly owned, by Union and Morris Counties, there are not many roads nearby for vehicular access. Snags 103 to 105 could be reached from the Berkeley Heights Snyder Avenue Sewage Treatment Facility. Snags 98 and 99 are also close to the power line right of way, another potential entry point in to the area.

Segment 5: Bridge Ave/Snyder Ave to Fairmont Ave/Central Ave, 1.3 miles

There are 13 snags, including 3 debris piles in Segment 5. Again in this segment most of the riverfront is owned by Morris and Union Counties. Snags 113 and 114 (a debris pile) are located near the Passaic River Park soccer fields on Springfield Avenue which could serve as an entry point to the river. The electric utility crosses the river here as well before going over Central Ave.

In this segment, the river's character begins to change from a soft, muddy river bed to a harder, rocky bottom.

Segment 6: Fairmont Ave/Central Ave to Passaic St, 1.6 miles

On the Morris County side, most of this stretch is privately owned with the exception of several smaller lots owned by the Passaic River Coalition and Chatham Township. Snags 121 to 124 are located next to the Coalition's properties. Snag 124 is also next to Union County land near Salt Creek.

Segment 7: Passaic St to Mt. Vernon Ave, 1.2 miles

There are two snags in the section, though Snag 126 is rather small. Snag 127 is located on Union County property.

Segment 8: Mt. Vernon Ave to Kollock Park, Chatham Borough, 1.2 miles

This last stretch of the study area has three snags. Snag 128 is fairly small while 129 looked as though it had recently fallen into the river. While labeled a partial snag, 130 is a fairly large tree and seemed to have a large amount of sediment built up behind it. The river was running faster the day this stretch was canoed and the water was being funneled into a narrower channel across from the snag so we didn't get a close look at the tree. Snag 130 is located on the Summit side of the river on Union County property, however the bank between Passaic Ave and the river is very steep and could be difficult to reach.

APPENDIX A

Aerial Photo Map Series of Fallen Trees along the Upper Passaic River

The locations of fallen trees in the Upper Passaic River from King George Road in Bernards Township to Main Street in Chatham Borough were mapped during the summer of 2011 by the staff of the Passaic River Coalition. The river was surveyed by canoe and on foot. A Garmin GPSmap 76CSx was used to map the location of the fallen trees, also called snags; the locations of these points are accurate within a radius of 30 feet. The companion report to this map contains photographs of each snag or set of snags. Any tree or large branch that extended at least halfway across the river across the river was counted as a snag.

Data Sources: NJDEP Office of GIS Land Use/Land Cover - Lakes (2002), Aerial Photographs (2007), Municipal and County Boundaries (2011), Highways (2000); Passaic River Coalition, Fallen Trees in Upper Passaic River (2011).

This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.

Created in ArcMap 9.2 by Allyson Salisbury, August 2011.