



### "THE FLOOD OF '85"

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Each Potomac Valley flood has its personality. The "Flood of '85", which our most recent tragedy now seems to be called, was no exception. The titanic flood of 1889, for example, began with a disturbance described as a cyclone which entered the valley near Martinsburg, West Virginia, with a 44½ foot crest at Williamsport, higher than any recorded in the history of the valley at the time. Other floods had their beginnings on the upper Shenandoah. Agnes dealt its blow to the Canal most heavily below Harpers Ferry. The "Flood of '85", which began on November 5, had its beginnings on the upper South Branch of the Potomac, sweeping fast and wide, taking property and life with it until it slammed against the canal at the South Branch confluence where it took a wide turn to the right down the Potomac, taking homes, trees and other property downriver. At one time the South Branch was so backed up at the confluence of the Potomac, trees were observed floating upstream toward Oldtown.

Massive river and canal damage begins at the South Branch confluence, two miles downstream from Oldtown. The Canal and the river were relatively spared above the confluence. Some say it was due to the carrying capacity of the Bloomington Dam which was not full at the beginning of the rainy period. Corps of Engineers flood controls along the North Branch were also credited with keeping the losses down. These observations will be sorted out in due time. Whatever the reason, Cumberland and the 22 miles downriver to the South Branch were mercifully spared.

Desolation along the river beginning at the South Branch confluence includes mounds of debarked and flattened trees on both sides, continuing for miles. Wall to wall carpeting, refrigerators, twisted trailers, furniture and all manner of small debris are deposited everywhere.

Today's damage to the Canal will be costly but the nature of the damage differs from Agnes. Agnes, we remember, destroyed or damaged major historic structures on the Canal which, for the most part, had little or no attention after 1924, the year the Canal was wrecked and finally abandoned. Some of November's crests reached Agnes levels and some were exceeded. The crests of "85" were longer than the Agnes crests, a few lasting almost 24 hours, unheard of in Potomac River flood reporting. Williamsport's crest was 14 inches above Agnes.

Agnes repairs involved a lot of big ticket items, aqueducts, locks and other historic treasures. The devastation below Great Falls at Widewater, for example, took a big chunk of Agnes repair money. The total for Agnes exceeded \$14 million. "85" will require over 9 million with a possible need for additional funds if further structural damage is uncovered. Towpath damage and cleanup forms the bulk of the corrective work needed:

Towpath surface scouring and undermining, minor to as much as eight feet deep.

Towpath breaks, 30 or more.

Massive timber pileups and debris on the towpath and in the Canal prism.

Mounds of river debris and uprooted trees deposited between the towpath and the river.

Bank erosion, towpath and berm side of the Canal.

Supporting backfills (structural) washed away.

Backs of lock walls saturated with water and full of air pockets, Cave-ins anticipated.

Heavy silt deposits, requiring removals.

Culverts clogged with debris and silt.

In addition, there is a huge blowout below Fletchers at Mile No. 3, (a repair priority). At the foot of Lock 33 (Harpers Ferry), there is an extensive washout exposing the Canal prism to the river at the Shenandoah River Lock. This requires immediate correction. Two lockhouse were extensively damaged along with utility systems, lockgates and several non-historic structures, damaged or lost.

No aqueducts, locks or other large masonry structures were significantly damaged. This is the result of the park's continuous repair and stabilization program over the past five years. The rebuilding of flood control devices, culverts, waste-weirs and other structures kept the losses down. There were no serious injuries that we know of and no deaths along the line of the Canal during or after the flood. Some folks along the river had time to move trailers and personal effects to high ground. Sadly, others did not. Most of our park furniture and equipment was pulled out in time.

A few modern modifications to the canal seem essential. For example, a flood control structure below Fletchers will be designed. As in Agnes, a blowout between Foundry Branch and Fletchers saved the Lock 3 complex in Georgetown. Some kind of large hand-controlled weir must be installed. Other non-historic strengthening will also be considered. We have begun work on a high wall, an historic feature, to be buried underground within the perimeter of the Winch House at Dam No. 4. The Winch House, as in Agnes, stood high and untouched after having its massive riverward backfill scoured. It patiently straddled its high foundation stones again, a troubling sight.

I cannot praise the park staff enough. They worked long and difficult hours and many went without sleep for two and three days during the height of the flood. Our hats are off, too, to the many volunteers who assisted in keeping the well-meaning flood sightseers under control and safe. Bravo to those who helped with the sand-bagging and undertook many unglamorous and difficult chores. They deserved rounds of applause, too.

Only 40 miles of towpath are open now, as follows:

TOWPATH UPDATE-END OF NOVEMBER

| <u>Milepost</u> | <u>General Areas Open</u>                |
|-----------------|--|
| 0.0 to 1.48     | Tidelock in Georgetown to Foundry Branch |
| 8.3 to 13.7     | Lock 8 to Stop Lock Gate (Widewater)     |
| 14.3            | Great Falls Tavern - Towpath Closed      |
| 21.5 to 24.5    | Blockhouse Point to Seneca               |
| 69.9 to 74.0    | Antietam Creek to Lock 39 - No bicycles  |
| 108.7 to 116.0  | Four Locks to Licking Creek              |
| 166.7 to 184.5  | Oldtown to Cumberland Terminus           |

All campsites and Hiker-Biker camps are closed indefinitely.  
No drinking water is available.

Our top priority will be to link as many miles of towpath as we can to develop continuity for the 1986 visitation season. Complete repairs may take two years or more. Towpath updates will be published periodically.

There is a lot of hard work to be done. We are counting on the public to help us return the Canal to its former beauty and utility. The Canal needs you.

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