

FLASH FLOOD DAMAGE

TOMS BROOK - JULY 26, 1973

Heavy rainfall in the upper drainage basin of Toms Brook on the evening of July 26, 1973 caused extensive water damage to structures in the flood plain. The only scouring damage noted was related to the downstream wingwalls of several bridges on State Road 653. Several small soil slides were noted on the east embankment of the south bound lane of Interstate 81. At this point the north bound lane had been covered by approximately four (4) feet of water. (This was the point where a woman and child were swept away by the swift moving water.)

In the town of Toms Brook the stream is normally no more than fifteen (15) feet wide and three (3) feet deep where U. S. Highway 11 crosses the stream. About fifty (50) yards south of U. S. 11 a two story frame house was floated from its foundation and moved 100 yards downstream. At this location the stream makes a sharp bend to the east and the water level was eight (8) to ten (10) feet above the stream banks. A resident of the town stated that the water spilled from its channel, reached maximum flooding, and receded in about fifteen (15) minutes.

Near the State Road 653 bridge in Toms Brook a cement mixer truck was picked up and carried approximately 1/4 mile downstream.

There was little evidence of scour action except at bridges where backwater eddies were active. The lack of scouring may be due to the clayey nature of the soil which is directly related to the carbonate bedrock. The only sedimentary deposits directly related to the flooding were very thin fine sand, mud, and small gravels deposited on the flood plain in the town of Toms Brook near the area where the house was moved.

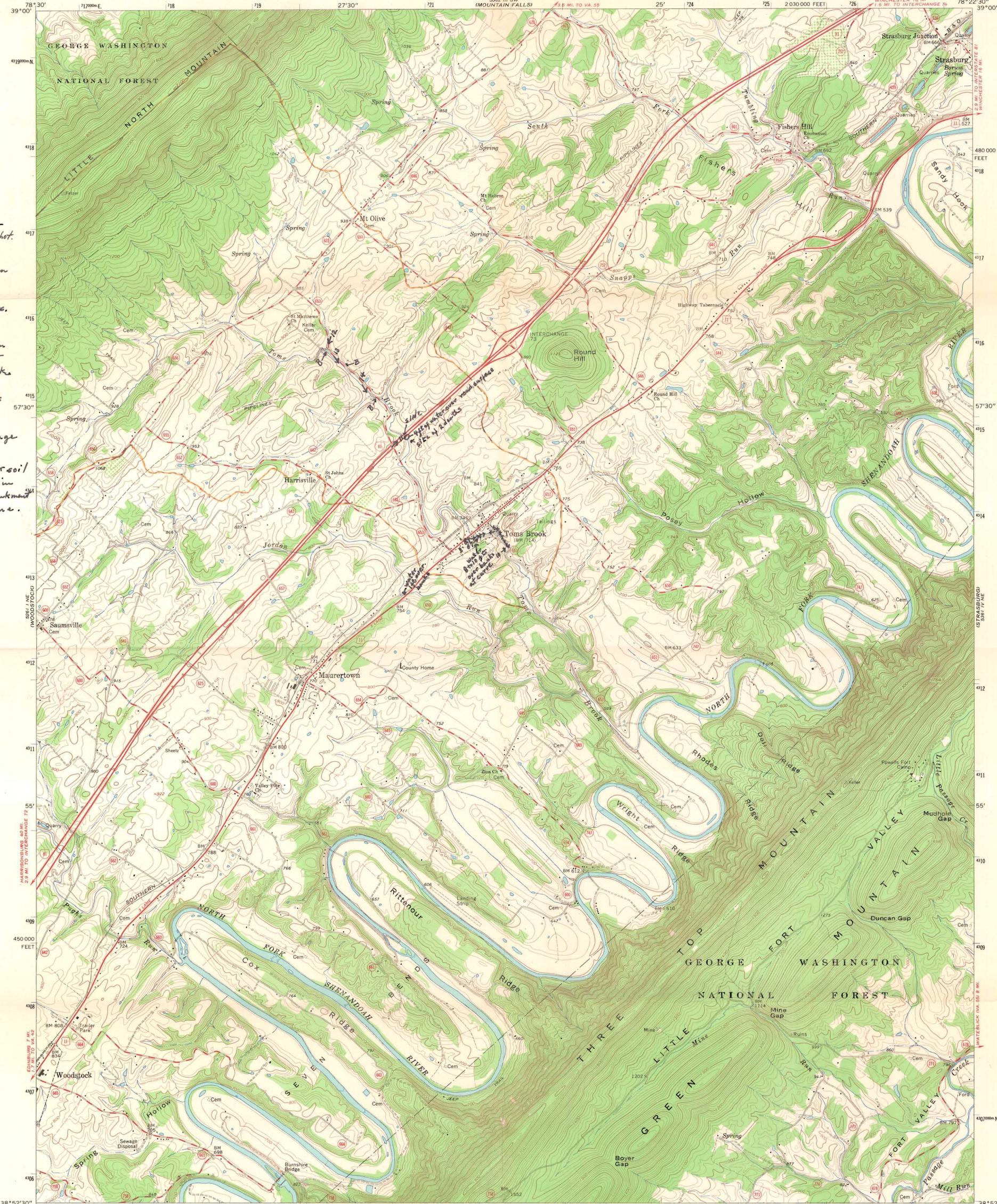
The localized nature of the rainfall could be seen in the stream immediately south of Toms Brook. The water level of Jordan Run rose to only one foot above the banks.

Slide Description:

- Slide 5. View of Toms Brook look west from bridge on State Road 653 in Toms Brook. Note fallen trees.
- Slides 6
& 7. View of house which was moved by the flood waters.
- Slide 8. View of the foundation. Stream bank in right center. Note garden in center where maximum flooding may be seen.
- Slide 9. Movement path of house taken from the foundation.
- Slide 10. View of cement mixer truck downstream from Toms Brook.
- Slide 11. View of Interstate 81 looking north from State Road 653. Note small soil slide in east embankment of south bound lane.
- Slide 12. View looking south on State Road 653 near Keller Cem. Note damage to vegetation; extensive bridge damage at the road grader.
- Slide 13. Flood plain of Toms Brook looking southeast. Note debris lodged against tree.
- Slide 14. Large tree twisted and uprooted by flood waters.
(Root system ten (10) feet across.)

E. K. Rader

J. Wunder
August 16, 1973



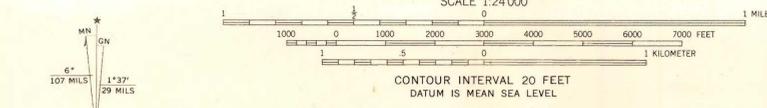
10 →
Photograph-
direction of shot.

→→→
Track taken
by house
moved by
flood waters.

Track taken
by cement
mixed trucks
moved by
flood waters.

B
Bridge damage
side
slide; minor soil
movement in
east embankment
of south bank.

Mapped, edited, and published by the Geological Survey
Control by USGS, USC&GS and USCE
Topography by photogrammetric methods from aerial photographs
taken 1964. Field checked 1966
Polyconic projection. 1927 North American datum
10,000-foot grid based on Virginia coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks, zone 17,
shown in blue
Fine red dashed lines indicate selected fence and field lines where
generally visible on aerial photographs. This information is unchecked



ROAD CLASSIFICATION

Heavy-duty ——— Light-duty ———
Medium-duty ——— Unimproved dirt ———
○ Interstate Route □ U. S. Route ○ State Route

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, WASHINGTON, D. C. 20242
AND VIRGINIA DIVISION OF MINERAL RESOURCES, CHARLOTTEVILLE, VIRGINIA 22903
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

TOMS BROOK, VA.
NW/4 STRASBURG 15' QUADRANGLE
N3852.5—W7822.5/7.5

1966

AMS 5361 IV NW—SERIES V834

4/25/68 209-B