

WABASH STUDIES. IV: THE FLOOD OF MARCH, 1913, AT TERRE HAUTE.

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The natural channel of the Wabash at Terre Haute is 700 feet wide and 15 feet deep, low water standing at 446 feet A. T. The flood plain which becomes a channel at high water is 460 feet A. T. and from 9,000 to 13,000 feet wide. The bluff on the west rises to about 550 feet and the terrace on the east to 490 feet. An island terrace, a mile long and a quarter of a mile wide, rising to 480 feet, stands in the flood plain near the west side.

The city of Terre Haute occupies the terrace along the east bank of the Wabash, 45 to 65 feet above low water and 30 to 50 feet above the flood plain. West Terre Haute (population 6,000) stands on the island terrace 10 to 20 feet above the flood plain. Taylorville, a slum district (population 600), is built on the flood plain at the west bank of the river. Toadhop (population 200) is a workmen's village in the flood plain where Sugar Creek breaks through the west bluff.

The grade of the Big Four Railroad, fifteen feet high, crosses the flood plain diagonally to the northwest, but has an opening midway 200 or 300 feet wide, crossed by a trestle. The grade of the Vandalia Railroad, of equal height, crosses the plain at right angles without a break except an underpass about fifteen feet wide for the Paris interurban line near the west end. The Wabash avenue grade to West Terre Haute parallels the Vandalia and forms a complete dam, paved with brick. Each of these roads crosses the river by a steel bridge about 700 feet long resting on four or five piers.

On March 24, 1913, the river gauge stood at 17 feet and the water was out of the channel, flooding Taylorville. On March 27th the river had risen to 31.25 feet (477 feet A. T.), where it stood for about fourteen hours. Taylorville and Toadhop were submerged and the waters occupied West Terre Haute except two small islands. The railroad grades were washed

out for about half a mile and water a foot deep poured over the whole length of the Wabash-avenue grade, forming a waterfall about two feet high upon the interurban track on the south side. A bayou which cuts into the terrace on the northwestern edge of Terre Haute was flooded and about sixty houses were covered or floated away. The flood still lacked thirteen feet of reaching the lowest levels of the Terre Haute terrace, but threatened or reached the basements of several public utility stations along its river edge. The water-works pumping station did not suspend operation, although the filtering plant was unusable. The station which furnishes city light and power for car lines was protected by a temporary levee and out of business but a few hours. The gas works shut down fourteen hours.

Terre Haute was without railroad communication for about a week, but mail and passengers were transferred two miles by boat. One of the peculiar and interesting marks left by the flood was the spreading out of the gravel from the broken Vandalia grade into a great fan, which buried many houses in West Terre Haute up to the second story in gravel. The railroad and street grades acted as so many dams to compel the flood water to pass through the normal channel 700 feet wide. If they had been provided with adequate openings high water would have been several feet lower, the grades would have been left intact and West Terre Haute uncovered by water or gravel. During midsummer low water the discovery was made that the piers of the Wabash-avenue bridge had been seriously undermined and they had to be strengthened with concrete. The discharge of flood water under the bridges has been estimated at 300 times as great as the normal, a contingency for which the bridge engineers had not provided.