05/18/95
CCS

Development of White River 7-day Flood Profile

1. A frequency analysis was performed on the data for the gage located on the White River near Petersburg, Indiana. The frequency analysis was used to determine the minimum elevation for the 7-day flood flow. The 7-day flood elevation at the gage was determined to be 418.3 feet.

2. A 7-day flood profile was developed on the White River. Starting with the 7-day flood elevation determined in step 1, the high water profile gradients were followed to develop the profile downstream of the Petersburg gage. The high water profiles used were those surveyed by the U.S. Army Corps of Engineers, Louisville, Kentucky.

3. Using this 7-day flood profile, a 7-day flood elevation at the mouth of the White River was estimated at approximately 394 feet.

4. A second estimation of the 7-day flood elevation at the mouth of the White River was made based on the Wabash River gages frequency analyses and profiles developed from those analyses. This elevation at the mouth of the White River was estimated at approximately 390.5 feet.

5. The higher of the two elevations determined in steps 3 and 4 was chosen as a conservative estimate of the 7-day flood elevation at the mouth of the White River. Therefore, the 394 foot elevation was selected and the profile developed in steps 1, 2, and 3 was chosen to represent the 7-day flood profile on the White River.