Skagit River near Concrete, Wash.

Historic Flood Peaks

In Mr. Bodhaine's memorandum of review dated 5-13-54, he recommends that the highwater rating be extended through a discharge of 225,000 cfs (as computed by Benson) for the stage of the 1921 flood, up to the published figure of 500,000 for the stage of the 1815 flood (as determined by Stewart). This gives a logical looking curve. He further recommends that because the percentage difference between discharges from this curve for historical floods and those published in W.S.P. 612 are all less than 7.7 precent that no revision of the published figures (referred to as Stewart's figures) be made. We agree with both recommendations.

In view of the above decision not to revise the published discharges for the historic floods, there is little need for making further refinement. However, the question of gage site and datum should be looked into and corrected if necessary in the compilation report. It appears to us that the "Gage" paragraph of the annual reports 1951 is incorrect.

Reference is made to memorandum by F. J. Flynn dated 12-21-45 and Mr. Calkins answer thereto. Based only on the location and datum statements published in W.S.P.'s 552 and 612, it would appear that the flood heights published in those books for historic floods are at site 200 ft upstream and at same datum used Dec. 10, 1924, to Oct. 27, 1937.

The statement given under "Gage" paragraph in recent (since 1951) manuscripts states that the gage used prior to Dec. 10, 1924, was at same site (present site) and at different datum (unknown datum implied). Apparently the statement should read: "Prior to Dec. 10, 1924, staff gage at site 200 ft upstream at datum 12.7 ft higher."

When we wrote our memorandum of 12-21-45 we had no idea of the slopes involved. However from the falls measured in the slope-area determination, the fall between the two gage sites is probably on the order of 0.2 ft. At the discharges in question this difference will amount to less than 1%. Even though the error due to neglecting fall between the two gage sites would tend to increase the percentage differences between Stewart's figures and the present curve, no changes in the published figures of discharge are warranted.

F. J. Flynn

F. J. Flynn
7-16-54