

Released on receipt  
but intended for use  
March 12, 1926

A Science Service Feature

? WHY THE WEATHER ?

Mailed March 5, 1926

By Dr. Charles F. Brooks  
of Clark University

RAINFALL FOR RESERVOIRS

Perhaps the most difficult problem for the water supply engineer is to determine how much rain water can be made available. If all the rain that fell could be captured and held for use, the matter would be relatively simple. The usual climatological network of stations, one about every 25 miles, would provide averages over a long period of years from which a general idea of the rainfall could be obtained. But the engineer must then set up new rainfall stations well scattered over the watershed to be used and others nearby that may also have to be drawn into the system. And he must carefully check over the older records in the region, to determine to what extent inaccuracies may have crept into them. Was the rain gauge kept properly exposed in the open? Were leaks promptly repaired? Was the rainfall measured at the same spot throughout the period? Was care employed to determine the water content of the snowfall?

After five or ten years of records kept at his new stations, in parallel with those at the old ones, the engineer can form ratios to determine the probable average rainfall over his watersheds. The longer records will give him some idea of the fluctuations to be expected, and how much of the average is likely to be lost in floods. His work is well begun but his reservoirs are not started. Run-off and evaporation must be determined.

(All rights reserved by Science Service, Inc.)

-----  
SCIENCE SERVICE,  
21st and B Sts.,  
Washington, D.C.