

PERMISSION TO PHOTOCOPY JOURNAL PAPERS

Permission to photocopy for personal or internal reference beyond the limits in Sections 107 and 108 of the U.S. Copyright Law is granted by the American Society of Civil Engineers for libraries and other users registered with the Copyright Clearance Center, 21 Congress Street, Salem, Mass. 01970, provided the appropriate fee is paid to the CCC for all articles bearing the CCC code. Requests for special permission or bulk copying should be addressed to the Manager of Technical and Professional Publications, American Society of Civil Engineers.

CONTENTS

Emitter Discharge Sensitivity to Pressure and Temperature
by Benjamin Zur and S. Tal 1

Origin and Growth of Federal Reserved Water Rights
by John W. Bird 11

Aquifer Parameter Estimation Using Kalman Filters
Subhash Chander, Prakash N. Kapoor, and Sushil K. Goyal 25

Leaching and Water-Type Effects on Ground-Water Quality
by Donald L. Suarez and Martinus Th. van Genuchten 35

River Basin Hydro-Salinity-Economic Modeling
by Henry O. Fapohunda and Robert W. Hill 53

Infiltration Equations Modified for Surface Effects
by Ian D. Moore 71

Required Head Loss over Long-Throated Flumes
by Marinus G. Bos and Yvonne Reinink 87

This Journal is published quarterly by the American Society of Civil Engineers. Publications office is at 345 East 47th Street, New York, N.Y. 10017. Address all ASCE correspondence to the Editorial and General Offices at 345 East 47th Street, New York, N.Y. 10017. Allow six weeks for change of address to become effective. Subscription price to members is \$7.50. Nonmember subscriptions available; prices obtainable on request. Second-class postage paid at New York, N.Y. and at additional mailing offices. IR.

The Society is not responsible for any statement made or opinion expressed in its publications.

DISCUSSION

Proc. Paper 16068

Storage Coefficients from Ground-Water Maps, by Brij M. Sahni and Harbhajan S. Seth (June, 1979. Prior Discussions: Mar., June, 1980).
closure 105

Crop Response Information for Water Institutions, by Gary D. Lynne and Roy R. Carriker (Sept., 1979. Prior Discussion: Sept., 1980).
closure 107

Modeling Rill Density,^a by Ruh-Ming Li, Victor Miguel Ponce, and Daryl B. Simons (Mar., 1980).
by George R. Foster and Leonard J. Lane 109

INFORMATION RETRIEVAL

The key words, abstract, and reference "cards" for each article in this Journal represent part of the ASCE participation in the EJC information retrieval plan. The retrieval data are placed herein so that each can be cut out, placed on a 3 × 5 card and given an accession number for the user's file. The accession number is then entered on key word cards so that the user can subsequently match key words to choose the articles he wishes. Details of this program were given in an August, 1962 article in CIVIL ENGINEERING, reprints of which are available on request to ASCE headquarters.

^aDiscussion period closed for this paper. Any other discussion received during this discussion period will be published in subsequent Journals.