U. S. Department of griculture Soil Conservation Service Portland, Oregon

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NEWSLETTER SNOW SURVEY ACTIVITIES October - November 1954

This is our first snow survey NEWSLETTER, intended to keep each of you current in snow survey activities. The success of this -- how informative and useful it is to each of you -- depends on you. The material that will go into this for the most part will be lifted from your own monthly reports.

CURRENT WATER SUPPLY OUTLOOK

Homer Stockwell reports that Colorado mountain soils contain somewhat more moisture than at this time in 1952-53. On the debit side of the picture carry-over reservoir storage is the lowest of record, and streamflow is extremely low. The general water supply outlook for next year, as of right now, is poor.

M. W. Nelson of Idaho reports that the southeastern Idaho area is experiencing unusual dry conditions. Wells have gone dry this year which have been known as constant water producers for more than 50 years. Snow fall will have to be above normal from now on out to produce adequate runoff.

Norman Hall reports only one Nevada reservoir with carry-over storage for next irrigation season. The others are empty. Unless Nevada receives normal or above winter precipitation, next year's water supply outlook will continue poor. It is the second consecutive year that drought conditions have existed in Nevada.

George Peak reports mountain soils extremely dry in Wyoming. Jack Frost finds the same situation in Oregon.

FIELD TRIPS AND CONFERENCES

All the leaders have been fully extended to accomplish needed field work before snow fly. Jack Frost and Manes Barton just completed installation of fiberglass electrode units on several Oregon watersheds. Dr. Chester Youngberg of Oregon State College Soils Department assisted in the installations.

- B. H. Hopkins and George Peak met with Wyoming State Engineer Bishop. The purpose of this conference was to explore means of increasing Wyoming's State allocation to the snow survey program.
- R. A. Work presented a 30-minute talk to the NRA on snow surveys, followed by the film "Snow Harvest."

Homer Stockwell attended semi-annual state office-area conservationists meeting at which an area snow report was proposed, consisting of two pages (map and tabulations), to be prepared by the area conservationists based on

data furnished by the snow survey leader. A short narrative on water supply outlook would also be included.

Morley Nelson presented cost estimate from District Engineer of Geological Survey for installing stream gage stations on small watersheds to the Idaho staff conference with a suggested plan on how the installations might be financed through county, state, and Federal cooperation.

Bill Anderson and R. A. Work took part in the Arizona State SCS Planning Conference,

EXHIBITS

Ash Codd prepared a snow survey exhibit for the Montana State Reclamation group at Billings. The SCS-Forest Service snow survey display at the 23rd Annual Meeting of the National Reclamation Association in Portland attracted favorable comment. More than 800 attended this meeting. Photos of this exhibit have been sent to you. This exhibit is available for use by any of you.

ACCOMPLISHMENTS IN 1954

The statistical round-up of 1954 accomplishments in snow surveys is well toward completion, but two states are still unreported. Will brief you on this in next month's letter.

EQUIPMENT

Norman Hall and Don Bagley have come up with a scheme to use old surplus fighter plane cockpit "blisters" for M-7 over-snow machine cab.

The snow machine being produced by Utah Research Foundation, under terms of a development contract with SCS, is completed. Pearson and Work gave this machine preliminary bareground and mud tests several weeks ago. R. A. Work will initiate further tests of the final model on December 30.

Homer Stockwell reports production of more trail markers and snow course markers at Fort Collins. Anybody need?

Jack Frost acquired surplus shortwave radio sets from USFS for use in transmitting reports from remote outlying points lacking communication facilities.

Idaho acquired an M-7 from Corps of Engineers for use in the Twin Falls area. Two of the three Eskelsleds purchased in 1953 have been converted by Kenneth Steel of Boise, under Nelson's supervision. Conversion of the third machine is now under way. Morley Nelson describes this machine, when converted, as a "Christine" model over-snow machine. Sounds reasonable.

AGREEMENTS

All cooperative snow survey agreements for 1954-55 are completed or soon will be. This includes the seasons contracts with flying snow surveyors, USFS, USBR, USED, etc.

ANALYSIS UNIT

The analysis unit, established in September, has been collecting and processing data which will provide a complete record of forecast accuracy of all SCS runoff forecasts made to date. These records will show data pertinent to forecast accuracies as follow: (1) Forecast date, (2) Forecast period, (3) River forecasted, (4) River Basin and State, and (5) Percent error and accumulated error and average error each station. When completed, these records will give for the first time a complete picture of the performance on each river in each state for the many years forecasts have been made in the West by SCS.

Arrangements have been made to collect soil moisture records from the F.S. Priest River Experiment Station. Efforts are under way to correlate these records with streamflow.

TRAINING SCHOOLS

George Hardman, State Conservationists of Nevada, is arranging for two snow survey training schools in Nevada, one at Elko January 3 and 4th, and one at Reno on January 6 and 7th. Will provide training to a total of 40 snow surveyors.

Colorado has announced preliminary plans for a series of snow survey training sessions to benefit 40 or more SCS snow surveyors.

Gregg Pearson attended the Hydrology Training Session at Phoenix, held early in December for engineers of the Watershed Protection Units of the several western states.

MISCELLANFOUS

Bob Beaumont has another snow survey article in December issue of WEATHERWISE. Homer Stockwell featured a short snow survey article in Colorado A & M publication.

R. A. Work, Head Water Supply Forecasting Section

cc: Snow Survey Leaders
 State Conservationists
 J. H. Wetzel