

Forecasting the Run-Off  
from the Winter Snow Cover  
[A Theory to be Established].

I. For Streams without Reservoirs.

1. General Forecast ... April 1

Total run-off April-July barring loss  
by freezing.

2. First Revision ... May 1 - (For <sup>planting</sup> all crops?)

(a) Total run-off corrected for freezing.

Freezing should occur before May 1, if  
it occurs at all. Exceptions 10%.

Furthermore, freezing occurs not to  
exceed 1 year in 6 <sup>or 7</sup>.

(b) Probable minimum ~~amount~~ of run-off,  
for unless the season from March 15  
to May 1 has been abnormally warm,  
the later run-off should not fall  
much below normal.

3. Second Revision ... June 1

(For assurance mostly  
and possibly in planting alfalfa).

Later run-off based on earlier.

Barring freezing, the total run-off  
during April-July is approximately  
the same as the snow cover  
(percentage system). Consequently, the  
later run-off is inversely  
proportional to the earlier. For example,  
25% early run-off means 75% late.

Value in putting  
dry farming land  
under partial  
irrigation for season.

This variation is caused primarily by variations from the normal temperatures.

4. The Late-Summer Run-Off.

This is possibly erratic but, in general, is a uniform minimum, considering the great diversity between the earlier portions of the seasons. No general rule has yet been worked out.

II. For Streams with Reservoirs.

<sup>Reservoirs</sup>  
1. With outlet smaller than inlet at flood. all forecasts essential to provide against flooding and yet keep the reservoir to its maximum efficiency.

2. Small Reservoirs.

These can release their store of water in early spring, if run-off is slow, and be replenished when the run-off increases later in the season.

3. Very Large Reservoirs with ample outlets.

General Forecast of most interest; also First Revision. But neither absolutely essential, except possibly when the run-off is very slow in early spring and the water must be economically used.