

DIVERSIONS OF WATER FOR IRRIGATION AND OTHER CONSUMPTIVE USES

COLUMBIA RIVER BASIN

I. Schemes for Diversion of Water Out of the Columbia River Basin

Article XIII(1) of the proposed Columbia River Treaty does not prevent diversions out of the Columbia River Basin for consumptive purposes. Such diversions for irrigation purposes have been a subject of several preliminary studies. Diversions from the Columbia or Kootenay Rivers would affect existing and potential water-use developments in the Columbia River Basin.

The purpose of this paper is to provide a brief outline of the major diversion possibilities that have been studied. It should be noted at the outset, that few of the diversion schemes have been studied in depth, and much additional examination would be required before feasibility of the schemes could be established. The studies, however, have indicated that diversions from the Basin could be accomplished only through the construction of complex and costly storage and conveyance facilities. On the basis of the preliminary studies, the major diversion possibilities from the Columbia River Basin for consumptive purposes outside of the Basin have been found to be relatively unattractive under present-day conditions. The usefulness of these diversion possibilities as elements of long-range water-use planning, however, cannot be discounted entirely because economic conditions are ever changing.

1. Diversions from the Columbia and Kootenay Rivers in Canada to the Saskatchewan River Basin in the Prairie Provinces

A reconnaissance study was carried out for the Saskatchewan Power Corporation by Crippen Wright Engineering Ltd. to assess the possibilities of augmenting the water supply of the Saskatchewan River system by diversions from outside the basin. The study was initiated on the premise that present river flows will be considerably depleted in the future by irrigation, municipal, and industrial requirements.

Although no long-range forecasts of consumptive uses in the Prairie Provinces are available, it has been suggested