

basis. So we have the element of conflict between maximizing output at Mica creek and maximizing output at Libby.

The Canadian plans for diverting the Kootenay took several forms. Diversions of various magnitudes were studied, each one a little bit larger than the other, the first one at Canal flats and the intermediate one at Copper creek involving a dam at Luxor. The difference between the Canal flats type of diversion and the Copper creek-Luxor or the Bull river-Luxor is extremely important because the Canal flats diversion is an unregulated diversion whereas both Copper creek-Luxor diversions and the Bull river-Luxor diversions are regulated. In other words, as the flows come down the Kootenay they are collected in a reservoir and fed in a relatively steady flow to Mica creek, so that this increases the supply of the Mica creek reservoir without contributing to an additional necessity of drawing it down further, and when power comes to be installed in Mica creek this becomes an important consideration.

Much has been made of the economics of the Dorr dam. I do not think that it has ever really been stated, and in deference to Mr. Olson's request I tried to emphasize in my presentation points which I do not think have been made before. The Dorr diversion dam, which has always been in the studies made by government sources to which I had access, has always been evaluated in terms of its economics, justified by the power which it will produce. I therefore think it is useful to point out that the Dorr dam per se cannot be justified economically simply on the basis of the power that it will produce. This was not the reason for including the Dorr dam in any one of these sequences. The reason lies I think in an agreement between Canada and the United States that any solution to the development of the upper Columbia which does not solve the flood problem at Bonners Ferry, Kootenay flats or Creston flats is not a solution. Therefore, the Dorr dam has been put in as a constraint because without the Dorr dam you cannot come up with a solution. Therefore, to regard the Dorr dam incrementally and judge it on its economics is exactly the same as saying that you want to build a skyscraper but the basement and foundations are expensive so let us leave them out. This is a point which I wish to emphasize.

Much of the opposition to the full diversion plan has centred on this business of the incremental economics of the Dorr dam and the studies which are based on power. The benefits based on power are rather irrelevant because it is not valid to use the incremental analysis approach unless you know in which direction you are incrementing. The local flood control problem in the Bonners Ferry and Kootenay flats imposes a constraint on this problem, and the problem itself cannot be solved without Dorr. The primary function of Dorr is to capture the flash floods of the Bull and Elk rivers, and without Dorr the flood problem in Bonners Ferry and Kootenay flats would not be solved because the Bull river and the Elk river are flashy rivers and unless you can capture that inflow, then the problem is not solved. This is why as a substitute for the Libby dam you have to include a dam at the border to capture these floods.

Now, it happens that we can build Dorr, Bull river and Luxor at less cost than Libby can be built. Assume for the moment that the full diversion plan is being studied. This extra bit of diversion which as we have said is uneconomic is assigned only the benefits for the incremental power that it will produce not only at Mica creek but at the other plants downstream in Canada. One of the things which will happen if the water is diverted is that the winter flows on Kootenay lake will be diminished, and this will take water away from the west Kootenay plant.