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AS FLOOD CONTROL MEASURE

Avon By-pass Pushed

The Avon By-Pass has again been proposed to Skagit County by the Corps of Army Engineers as the most practical means of additional flood control.

Many miscellaneous other uses of this by-pass other than flood control are under study, such as fish farming, recreation, drainage, irrigation and water transportation. The U.S. Fish and Wildlife consider fish farming conditions in the upper part of the by-pass as very good and they are reporting as being enthusiastic about the prospects. The Skagit River water temperatures are near ideal for fish farming. Plans for swimming, boating and other recreation will be utilized to everyone's advantage.

It is said the Avon By-Pass will give much greater flood protection to the area west of Sedro-Woolley. Many indirect benefits, it is claimed will occur to areas outside the flood plain, such as protection of the Anacortes Water supply which is used by Shell Oil Refinery, Texaco Refinery, Whidbey Island Navy Base and the City of LaConner. Businesses on Fidalgo Island, Bayview Hill and most other parts of Skagit County would be brought to a near standstill by a large flood, proponents say.

Local interests consisting of Skagit County, the State of Washington, diking districts, and possible flood control zones, as authorized by the 1961 Legislatures, would have to furnish the right of way costs and pay

for the construction of the highway bridges made necessary by this project.

Mr. Earl Hanson, president of the Skagit County Flood Control Council, has appointed a by-pass committee, consisting of Mr. George Dynes, Dike District No. 20 commissioner, Chairman; Mr. Tom Shane, Dike District No. 1 commissioner; Mr. Noble Lee, Dike District No. 2 commissioner; and as secretary, Mr. Lloyd Johnson, Skagit County Flood Control co-ordinator. This committee will work with the Board of Skagit County Commissioners in the furthering of the project.

Flood damages for a flood larger than that of 1951 have been estimated at over six million dollars at today's prices and with our present development.

The residents of Skagit County may now have this by-pass with its recreation possibilities for about one-half the damage costs of one large flood.

The Avon By-Pass was authorized by the Flood Control Act of 1936 as a structure that would divert flood waters from the Skagit River to Padilla Bay. Under this authorization, local participation included the costs of constructing or modifying all bridge crossings. At that time the local interests could not provide the necessary funds to meet the required local cooperation and therefore the By-Pass was not constructed.

The Corps has recently made a restudy

of the by-pass under the comprehensive studies that are presently being made for development of flood control and other water resources. Under this study the by-pass design has been revised to provide for a deep, narrow channel requiring less land and shorter bridges. This has been possible because the capacity of the Skagit River has been increased from levee and channel improvement work which has permitted the flow requirements in the by-pass to be reduced.

The by-pass channel as authorized in 1936 contemplated a shallow channel approximately 1,600 feet wide. The channel now proposed has been deepened and narrowed to a 340 foot bottom with 3 to 1 side slopes. The cost of the necessary modifications to the GNRR bridges, which previously were a local cost, can be accomplished at Federal expense under authority of the 1946 Flood Control Act.

The intake to the channel has been moved about three miles upstream from the previous location at Avon to above the Great Northern Railroad crossing. This location will provide increased protection for the area in the vicinity of Burlington. The channel has been relocated to utilize Gages Slough and follow the hillside north of the valley, thereby keeping to a minimum the amount of valuable farmland required.

The structure would have a gated concrete intake approximately 350 feet long. A concrete control structure is being considered for the lower end of the channel to keep tidal waters from backing into the structure and to minimize channel erosion during periods of ebb tides. Total cost of the by-pass would be approximately \$19,000,000, of which the Federal cost would be approximately \$15,000,000. Average annual benefits from the project would be over \$1,000,000 a year.

Construction of the by-pass with some minor levee improvements appears to provide

the most practical approach to flood control in the basin. Protection for about a 10-year flood is provided by the present levee system. With the by-pass constructed the area below the intake would have protection for about a 30-year flood. For the 1951 flood the by-pass would have lowered flood stages 3 to 5 feet in the Skagit River and 2 to 4 feet in the North and South Forks of the Skagit River. Some minor levee improvements of raising low areas of the levees would be required to realize maximum benefits from the bypass. Flood protection from levee construction alone would require extensive raising of the entire levee system. Consideration is being given to additional flood protection by upstream storage. Complete protection from storage alone is not feasible because suitable storage sites are limited. The best sites for multiple purpose storage have been developed for single purpose uses.