DRAFT 7 October 1963

Honorable Jack Westland
Representative in Congress
Washington, D.C.

Dear Mr. Westland:

This is in further reply to your letter of 7 September 1963 which inclosed a copy of a letter and press clipping from Mrs. Don Mapes, Burlington, Washington concerning the proposed Avon Bypass Project, Skagit River, Washington. Mrs. Mapes calls attention to interests opposing the project, primarily in the Burlington area. She also states her concern because the bypass channel would cut through her father-in-law's farm.

In 1959, high water flows on the Skagit River led to requests by local interest groups to their Congressional representatives for a study by the Corps of Engineers of flood control and other water resource needs in the Skagit River basin. The study was initiated in 1961. At a public hearing in February 1961, testimony was presented by representatives of diking districts, by the County, by Chamber of Commerce representatives, by municipalities, by representatives of agriculture and by many others. This testimony was overwhelmingly in favor of development of higher standards of flood control in the Skagit River. Our studies to date have confirmed that flood control is the most urgent water resource measure needed in the Skagit River valley. Accordingly, we are preparing interim reports and studies to implement those flood control measures having the highest justification.

The greatest part of the developed portion of Skagit County lies in the broad fertile flood plain of Skagit River from Sedro Woolley to the mouth. Approximately 68,000 acres of intensively farmed, high yield agricultural lands and the municipalities of Burlington, Avon and Mt. Vernon

are partially protected by about 40 miles of levees along this portion of Skagit River. This levee system extends along both banks of the North and South Forks and along both banks of Skagit River to 4 miles above Mt. Vernon and on the right bank to 3 miles below Sedro Woolley. The levee system affords about 5-year flood protection on the average, with individual sections ranging from 3 to 13-year protection. The capacities of leveed sections of river range from 91,000 to 123,000 cubic feet per seconds, except for one small diking district having a higher degree of protection.

By comparison of the foregoing capacities with the following tabulation of historical flood flows at Sedro Woolley, you can appreciate the vulnerability of the Skagit River delta to flood damage.

Nov. 1896 - 185,000 cu.ft./sec.
Nov. 1897 - 190,000 cu.ft./sec.
Nov. 1906 - 180,000 cu.ft./sec.
Nov. 1909 - 220,000 cu.ft./sec.
Dec. 1917 - 195,000 cu.ft./sec.
Dec. 1921 - 210,000 cu.ft./sec.
Feb. 1932 - 157,000 cu.ft./sec.
Nov. 1949 - 140,000 cu.ft./sec.
Feb. 1951 - 150,000 cu.ft./sec.

We have carefully examined all possible means of flood control in the Skagit River basin. This has included raising of levees, dredging the river to increase capacity, the Avon Bypass or equivalent diversion channel and upstream storage. Raising of levees in any substantial amount is not feasible because the fine grained sandy-silty soils on which the levees are founded would permit excessive seepage causing sand boils and blowouts in the leveed areas. Dredging of the river for a flood control channel would not only

undermine existing levees, but would be infeasible to maintain. Upstream storage will be beneficial in any plan, but its feasibility depends on evaluation of many other long range water resource needs such as low flow augmentation for water supply, fisheries, hydro-power development, and other purposes. Our studies have shown we cannot justify a single purpose flood control storage dam and that upstream storage available in a multi-purpose storage dam, by itself, will not be enough to yield the high level of flood protection needed in the Skagit River Valley.

The most feasible plan of flood protection for the valley has three elements which are:

a. Construct Avon Bypass diversion channel and improve and extend 4 miles of levee from the head end of the bypass upstream. Details of this plan are shown on inclosure 1.

b. Make the protection of existing levee system uniform by minor raising of those levees which are low and strengthening weak sections of levees.

c. Provide upstream storage in the future as it becomes feasible. The foregoing items, a and b, would permit control of flood flows of at least 130,000 cubic feet per second and would increase the level of flood protection in the valley from the present 5-year frequency to at least 30-year frequency. On a long range basis, item c upstream storage, could increase flood protection to 100-year frequency.

The District Engineer, Seattle, is taking steps to report on items a and b in the near future. There has been strong public support of the Avon Bypass Project by the County Commissioners and by the business

and agricultural community. The principal objections appear to stem from land owners along the right-of-way of the bypass channel. Other routes have been studied and the most feasible alternative is a channel from Avon shown in red on the inclosed drawing. This route was found to cost over $2,000,000 more than the proposed route. The high cost of the alternative alinement results because lands are much more highly developed along the alternate route; and because river widening would be required from Avon to the Great Northern Railway bridge crossing upstream to achieve the same degree of protection as the proposed alinement.

We have not encountered any outstanding opposition to the plan in the Burlington area from either civic or business leaders, except on an isolated basis. The bypass plan will result in lowering of the flood flow water surface in the vicinity of Burlington by 3 to 4 feet. This lowering in combination with the proposed 4 miles of upstream levee construction in the vicinity of Burlington will increase flood protection for that community from about 5-year frequency at present to 30-year frequency.

I hope this letter will provide desired information about the issues raised by Mrs. Mapes and also about the broad basis of our planning for flood control in the Skagit River Valley.

Sincerely yours,

1 Incl (in quad)
Dwg. Avon Bypass (Prel.)