

17 February 1965

MEMO FOR RECORDSUBJECT: Avon Bypass Project, Skagit River, Washington

1. On 16 February, Colonel Holbrook and I were invited to address an evening session of the Burlington City Council on the Corps of Engineers planning in the Skagit River basin with particular reference to the Avon Bypass project. Prior to the meeting which convened at 8:00 o'clock, we had a supper meeting with the following Skagit County officials:

<u>County Commissioners</u>	<u>Claude Wilson</u>
	<u>Jack Wylie</u>
<u>Diking District 2</u>	<u>Noble Lee</u>
<u>Commissioners</u>	<u>Albert Gerriets</u>
<u>Skagit County Engineer</u>	<u>Lloyd Johnson</u>

The County and Diking District Commissioners assured us of their support and interest in the Avon Bypass project.

2. The meeting with the City Council was a formal session with Mayor Strong presiding, all members of the Council present, and the Clerk recording all discussions. Colonel Holbrook presented the Corps' program of planning and advance engineering studies in the Skagit River basin and discussed the flood hazards in the basin with respect to recurrence of previous floods and in the context of major flood damage that occurred in the Pacific Northwest in 1964. Colonel Holbrook emphasized that the purpose of our initial planning on the Avon Bypass was to arrive at a cost of local interest cooperation and to determine their willingness and ability to participate in the project. My presentation was directed toward details of the Avon Bypass project and the problems and design involved in alternative alignment studies. Copies of our presentations are on file in the Basin Planning Branch.

3. Following the formal presentations, the meeting was opened for discussion. There were about 15 to 20 persons attending the Council meeting. There was a hard core of about 3 or 4 persons, including Mr. Mapes of Diking District 12, who completely oppose the Bypass. The remainder of the group ranged from those who strongly favor the project to those who were just interested and wished to be further informed.

4. The most significant questions are set forth below:

Ques. Are there any alternatives to the plans proposed by the Corps of Engineers, which are Levee and Channel Improvements, Bypass and Upstream Storage?

Ans. Other alternatives considered were levee raising and setback of

levees for floodway construction. These plans were found infeasible or more costly than the Corps recommended plan. **Levee raising infeasible because of excessive head differential.**

Ques. How will you handle the flows that could come in behind the Bypass and flood the Burlington - Samish River basin area?

Ans. These flows will be cut off by a levee extending upstream from the headworks of the Bypass.

Ques. What if storage isn't feasible, would a second Bypass be necessary?

Ans. A second Bypass could protect the delta area in lieu of upstream storage.

Ques. Will the Bypass be dry in periods of non-use?

Ans. An intermediate weir will maintain water levels in the Bypass approximately equal to those in the adjacent grounds so that there will be a minimum disturbance in the adjacent groundwater table. The levee would have enough water for boating and for fishery at all times.

Ques. **You say the 1921 Flood, occurring under present-day condition, would cause flood damage of \$13,000,000.** Why is it worth spending \$24,000,000 for the Bypass?

Ans. This is only one flood that would occur in a 50-year period, occurrence of other floods greatly increases flood damage potential. Overall, the average of flood damages and flood benefits for a 50-year period are estimated to have a benefit-cost ratio of about 1.6, which is very good.

Ques. Will fisheries interests make it impossible to build the Sauk River Dam?

Ans. We have learned to live and work with fishery interests in basin planning to provide appropriate mitigation and enhancement measures. We do not see this as a block at this time.

Ques. Flood insurance **for a \$20,000 house** could be bought for as little as \$20 to \$25 a year. This would be cheaper than a tax assessment for flood control, why build the Bypass? 

Ans. We have been advised informally that any mass sale or mass purchase of flood insurance in the Skagit River basin cannot be made at the prices quoted. Mr. Johnson, County Engineer, commented that the **City of Anacortes had attempted to buy flood insurance for its watersupply intake structure and found it impossible to purchase at any price.**

Ques. What have been the actual flood damages over the past 50 years?

Ans. We do not determine actual flood damages, as in many instances it is impossible to obtain data for past conditions. Our basis for computation of flood damages is recurrence of a past flood under present-day conditions. As an aside to this question, the actual damages for the 1951 flood were estimated to be about \$1,000,000.

Ques. If there is not any additional flood protection, what will be the affect on the future development of Skagit County and on the building potential?

Ans. In the near future, we plan to publish a flood plain information map. This map will show that the most of the 68,000 acres in the Skagit are in an area susceptible to flood damage.

Ques. Why not buy out Fir Island and let the water flood over the entire land down there and thereby reduce flooding upstream?

Ans. Fir Island is in the tidal range of control at the mouth of the river. Removal of the dikes on Fir Island would only have a minor effect on flood stages in the vicinity of Mount Vernon. The stage at Mount Vernon is dependent primarily on the slope and channel section of the river upstream from the North and South Forks.

Ques. The costs of this project appear excessive and beyond the capability of Skagit County.

Ans. Skagit County has already spent close to 3-1/2 million dollars over the past 15 years in maintaining a levee and channel system of very limited capability. On this basis the local interest cost do not appear excessive.

Ques. What about the cost of operation at \$30,000 a year?

Ans. This is only 10 to 15 percent of the annual expenditure for flood control by Skagit County, obviously it is not excessive.

5. The meeting was concluded about 10:00 p.m. A cordial note of appreciation and cooperation was extended by Mayor Strong and members of the City Council.

cc: Col. Holbrook thru C, Engr Div
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