

NPSEN-DB

Cook/ils/3450  
18 July 1979

Mr. Michael D. Walker  
Attorney at Law  
610 Bellingham Towers  
Bellingham, Washington 98225

Dear Mr. Walker:

I appreciate your coming to the office on 17 July 1979 to go over your comments regarding the Skagit River, Washington, flood control project. The discussion of your written questions among you, Messrs. Kunzler, Boon, and Youngquist permitted a broader range of communication than is possible by writing.

Attached is a written report on your questions and our responses that was discussed on 17 July 1979.

Please contact me any time you have additional questions regarding the proposed project, at telephone (206)764-3450.

Sincerely,

Vernon E. Cook  
Project Manager

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As stated

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REPORT ON MR. MICHAEL D. WALKER'S CONCERNS REGARDING  
SKAGIT RIVER LEVEE IMPROVEMENT PROJECT

1. Question. Will Corps of Engineers staff meet with each and every landowner in the Nookachamps area to determine what specific damage would occur as a result of induced flooding?

Response. One or more members of the Corps of Engineers staff will meet one or more times with each and every landowner in the Nookachamps area, and in other unleveed areas, to determine what effects higher water surfaces would have and what flood damage reduction measures might be warranted.

2. Question. After having met with Nookachamps residents to determine consequential damages, will the Corps outline in detail what structural and nonstructural steps it will take to prevent economic loss as a result of induced flooding? Will these structural and nonstructural steps included in the general design memorandum be included in the legislative authorization bill?

Response. Following examination by Corps of Engineers personnel of buildings in the Nookachamps area, each property owner would be informed, in detail, of the nonstructural measures which can be undertaken to reduce flood damages to his/her improvements. Whether the structural and nonstructural flood damage reduction measures that are being included in the general design memorandum will be authorized by legislation being considered by Congress is unknown. However, Senators Magnuson and Jackson and Congressman Swift have participated in having draft legislation submitted that would provide for nonstructural flood reduction measures in the Skagit River Project. **Congress could fail to authorize or authorize less than we recommend, but our plans are based on Congress authorizing the proposed project.**

3. Question. To the extent that structural measures to prevent induced flooding are not feasible, will the Corps compensate each and every landowner fully for each and every economic loss that will arise out of induced flooding?

Response. The proposed project provides for floodproofing or relocating all residences in the project area to 1 foot above or outside the limits of the (with project) 100-year flood level. All land that would not be covered with water in a 100-year event (without project) but would be covered with water in a (with project) 100-year event will be considered for compensation commensurate with damages. A flowage easement would be an instrument that could be obtained for these lands. All improvements (other than residences) that would

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have induced damages due to construction of the project will be considered on a case-by-case basis to determine what measures are warranted to eliminate or minimize effects of (without project) flooding or higher water due to construction of the proposed project. As a general rule, incidental damages that may occur to land that would be inundated without the project and may have higher water levels with the project would be considered as consequential damages and not necessarily be compensated for.

4. Question. Has the Corps taken the 1974 Public Works Act into consideration in formulating its plan to prevent induced flooding and, in the alternative, in formulating its plan to compensate affected landowners?

Response. We have considered all alternative flood damage reduction measures for the project area and considered effects of increased water surface elevation due to construction of the project. The paragraph above describes the planned action in the unlev-  
eed areas.

5. Question. After meeting with residents who will be affected by induced flooding, does the Corps still take the position that the average annual induced damages as a result of proceeding with alternative 3E will be only \$25,000? At the 19 June 1979 meeting, Corps staff stated that nonstructural measures will be paid for with 20 percent local monies and 80 percent Federal monies. Regardless of the source of the monies, does the Corps guarantee that all losses suffered by affected owners will be paid for in their entirety prior to beginning?

Response. Modifications to Alternative 3E have reduced the average annual induced damages from \$25,000 to \$11,000. This reduction is due primarily to the nonstructural measures that have been added. The total cost of the contemplated nonstructural measures is estimated at \$5 million. The Federal share of these costs would be 80 percent, and non-Federal share would be 20 percent. The nonstructural flood reduction measures would be accomplished in conjunction with other project features but would be finished prior to completion of those structural features that would cause higher water surfaces in the unlev-  
eed areas for larger events.

6. Question. Does the Corps have exact figures on what will be the increased water levels in the Nookachamps area at a 10-year event, a 25-year event, a 50-year event, and a 100-year event? What are those increased water levels in the Nookachamps area as a whole? What are those levels with regard to each individual landowner in the Nookachamps area?

Response. We have figures available for the increased water levels associated with the project in the Nookachamps area for the 1975 level flood (approximately a 10-year event), 50-year, 100-year, and 500-year floods. Generally, the 100-year water surface in the Nookachamps-Clear Lake area would be raised by 1.5 to 2.0 feet over existing conditions. A number of landowners have been provided with estimates of increased water levels as a result of the project for their property, and we will provide this information to any other landowner requesting this data. Additional data will be available in the next 2 or 3 years as more detailed studies proceed; however, the estimated water surfaces are expected to remain essentially unchanged.

7. Question. Does Alternative 3E contemplate congressional funding to compensate for damage that will occur to farm improvement, such as livestock, barns, roads, homes, milking operations, and electricity?

Response. In addition to the measures described in the above paragraphs, construction of animal mounds and modification to barns, mechanical or electrical systems are contemplated.

8. Question. Does Alternative 3E contemplate the payment of flowage easements to any of the residents of the Nookachamps area? If so, on what basis will these flowage easements be computed, and when will they be paid?

Response. Response to questions Nos. 3 and 7 above describes what measures will be taken. The nonstructural measures would be accomplished about 3 years after construction funds are received.

9. Question. Has the Corps of Engineers considered what effect the construction of a highway between Sedro Woolley and Mount Vernon on the dike would have in terms of increased waterflows to the Nookachamps area? If so, what are the increased waterflows which would be caused by the construction of this highway, and who would pay for the increased damages?

Response. Construction of a highway on continuous fill along the river between Burlington and Sedro Woolley could increase water surface levels in the Nookachamps area by 4 to 5 feet in a 100-year flood. We have no authority in determining who would pay for increased damages resulting from the state highway project.

10. Question. In past floods in other areas similar to the Nookachamps area, farmers have lost their whole livestock operations within minutes as a result of the drowning of the livestock. What attention has the Corps given to this possibility in the Nookachamps

area? What steps, if any, does the Corps anticipate taking to prevent this possibility from happening? Has the Corps considered the possibility of insuring the farmers against catastrophic damage that might occur as a result of flooding in the Nookachamps area?

Response. Flooding of the unleveed areas (including the Nookachamps) will occur gradually, as before, with no difference due to construction of the proposed project, **except that water surface levels will be higher for the floods having a frequency of once in about 15 years or more.** Estimates of impending peak floodflows and anticipated times of occurrence are prepared by the National Weather Service River Forecast Center in Portland, Oregon, and disseminated to the county and city officials and news media. One to 2 days of warning in advance of peak winter flows is possible. Skagit County is continuing to improve the flood-warning system. The Corps does not provide insurance for any purpose.

11. Question. Prior to submission of legislation, will the Corps do a complete economic analysis of the farming operations in the Nookachamps area so that they will have an adequate base upon which to compensate farmers for damages that cannot be prevented by structural measures?

Response. Nonstructural flood reduction measures that may be applicable for individual property owners will consider effects of floodflows upon improvements in the unleveed areas in the project area. To the extent that these improvements are involved in the farming operation, the farming operations will be considered.

12. Question. What procedures, if any, must individual landowners in the Nookachamps area follow in order to notify the Corps of specific damages they will suffer as a result of the induced flooding that will occur?

Response. See the answer to question No. 1. During the 2 to 3 years following funding for construction, individuals will be contacted, and during these contacts individuals will have an opportunity to advise the Corps representative of the possible problems. Also, public meetings will be held and information will be mailed to individuals.

13. Question. After the 20 December 1978 workshop, the Skagit County Commissioners requested the Corps to study in more detail the flooding problems of the Nookachamps. In response to the Commissioners' request, what further studies did the Corps undertake and what did those studies reveal?

Response. The Corps conducted studies on hydraulics, hydrology, cost estimates, and foundations and materials investigations. The results of the field and office studies are the project modifications as contained in the public brochure draft No. 2 dated June 1979. There is no subreport on these studies, but the additional raw data is in the office and was used in completing the report.

14. Question. Corps Manager, Vernon Cook, has stated, "No matter which alternative the County Commissioners decided to pursue, the Nookachamps will get more water." Would the Nookachamps get more water under the Sauk containment alternative?

Response. Mr. Cook's statement was in relation to detailed alternatives 3A through 3E and did not relate to the preliminary alternative which included upstream storage on the Sauk River. Construction of a storage project on the Sauk River would reduce flood levels in all areas downstream of the confluence of the Sauk with the Skagit River.

15. Question. If it were not for the existence of the Wild and Scenic Rivers Act, would the Corps have recommended the Sauk Containment Alternative? Please explain.

Response. A very preliminary investigation of single-purpose flood control storage on the Sauk River indicates a lack of economic feasibility. A multipurpose project has not been investigated in many years. A detailed investigation of a single-purpose or multipurpose project on the Sauk River would require a request by Congress and take approximately 4 years to complete a preauthorization report. A request by Congress for such studies is unlikely, based on the recent congressional action on declaring the Sauk River a Wild and Scenic River.

16. Question. What factors have led the Corps to conclude that flood prevention in the Nookachamps area is not cost effective? Please outline in detail all factors considered.

Response. Without considering every environmental problem, structural measures to prevent flooding in the Nookachamps area are not feasible because the economic feasibility of the entire project would fall below unity. The provision of structural flood prevention measures for the Nookachamps Creek area would require levees paralleling the left bank of the Skagit River in the Nookachamps area. This alone would cost \$11 to \$12 million. A pumping plant to remove the ponding of Nookachamps Creek might also be required, adding additional cost. Levees protecting the Nookachamps area would raise the

water surfaces downstream during flooding. To accommodate these additional flows and maintain proposed levels of protection for downstream and upstream areas would require raising three bridges at a cost of about \$30 million, and raising downstream levees at a cost of \$5 to \$10 million.

17. Question. According to Colonel Poteat's statements at the 19 June 1979 meeting, Alternative 3E has been modified to include structural and nonstructural measures to alleviate the induced flooding and, where possible, provide for flood damage reduction measures for improvements on the land in the Nookachamps Valley. Please outline in detail the total cost the Corps anticipates in providing these structural and nonstructural measures.

Response. The levees to protect Clear Lake and the East Fork of Nookachamps Creek are estimated to cost about \$1,300,000. The estimated cost of nonstructural flood reduction measures in the unleveed areas (discussed above) is \$5 million.

18. Question. Finally, please outline in detail how these costs will be allocated.

Response. All costs related to the Skagit River, Washington, project would be cost-shared with Skagit County on an 80-percent Federal and 20-percent non-Federal participation.