



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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April 9, 1984

Mr. Jeffrey Bragg
Federal Insurance Administrator
Federal Emergency Management Agency
Federal Insurance Administration
500 "C" Street
Washington, D.C. 20472

Dear Mr. Bragg:

In our letter to you dated February 3, 1984, we requested information regarding the Federal Emergency Management Agency's (FEMA's) preliminary maps for the Skagit River Delta. Mr. Brian Mrazik of your office sent this information to us with his letter dated February 24, 1984. As we indicated in our earlier letter, we have some major concerns with the significant differences in some locations between the flood elevation determinations proposed by FEMA and the elevations of the base flood shown on the Corps of Engineers maps we are presently using.

We have completed our review of all the available data with the assistance of the Corps of Engineers staff in Seattle and feel we have no alternative but to appeal the proposed flood elevation determinations for the communities of Mt. Vernon and Burlington, Washington. The basis for our appeal is that the approach used by FEMA and the resulting flood elevations are technically incorrect at some locations within this area.

Some of the specific questions or problems we have which form the basis for our appeal are as follows:

1. The assumption used by FEMA that the entire overland flow of 130,000 cfs goes out of the channel upstream of Burlington is not realistic or consistent with historic flooding, since levee failures and/or overtopping can occur anywhere as they have during previous floods.
2. A photo in the Corps of Engineers 1967 Flood Plain Information Study shows a flood depth of approximately three feet at a street intersection in Burlington during the 1921 flood which had a flow of 210,000 cfs. The elevation of the street intersection is 34.0 feet Mean Sea Level Datum which would make the flood elevation be about 37 feet. The FEMA maps show the elevation of the 100-year frequency flood of 240,000 cfs to be about 31 feet at this location.

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3. The flooding depths of one, two, and three feet south of Mt. Vernon to Conway cannot be supported. The FEMA study indicates that a major portion of this area floods from levee failure. The cover photo on the Corps of Engineers Flood Plain Information Report shows flooding at Conway due to a levee failure during the 1951 flood which was only 150,000 cfs. This photo shows flooding depths in excess of three feet and continued flow into this area would cause greater depths of flooding.
5. The steady-state single dimension HEC-2 analysis used in determining the flood elevations does not account for variable flows and flood plain storage for this area. A more technically correct approach which has been used in other areas would have been to use an analysis involving variable flows which will result from the overtopping or failure of levees as the floodwaters move downstream.
6. Elevations as much as ten feet lower in some areas are shown for the base flood on the FEMA maps than those base flood elevations shown on the Corps of Engineers maps we are presently using. These areas are in particularly hazardous locations near the levees which offer only minimal protection from a major flood. A levee failure anywhere in the area from Burlington to Mt. Vernon would be devastating, since the approach used by FEMA assumes no levee failures or overtopping through this reach.

Our agency is concerned that the filing of this appeal may result in delays for the residents of this area in becoming eligible for flood insurance under the regular program, however, we feel it is the best interests of the citizens of the State and our agencies that these matters be resolved first.

Sincerely,



Donald W. Mocs
Director

DWM:lh

cc: City of Burlington
City of Mt. Vernon
Skagit County
Corps of Engineers

APR 11 1984