

May 29, 2012

To:
United States Army Corps of Engineers
Seattle District
Skagit River General Investigation Study

From:
Skagit County Dike District 17
P.O. Box 2926
Mount Vernon WA 98273

Skagit County Dike District 17 would like to comment on the GI (General Investigation Study) for the Skagit River basin. The district has participated in this process for the past eleven plus years. We have a large investment of time and money into the moving forward of this study towards a usable and affordable alternative for enhance flood control.

Through the evolution of the GI Dike District 17 along with District numbers #12, #1, #3, and #22 have created a perceivable set of goals for flood risk management on the Skagit River delta. Our long term goals are as follows. Provide a minimum of a 1% - 100 year risk management to Skagit County's urban designated and critical infrastructure areas and providing less than 1%-100 year but greater than or equal to present flood risk levels for rural designated areas.

The Commissioners of Dike District 17 believe there are four areas in which the GI study could focus in order to help allow us to reach these goals. They are as follows (1) increase upstream storage, (2) enhancement and redevelopment of existing infrastructures, (3) Increase and divert conveyance of waters to accommodate a major event, (4) enhance and redeveloped interior drainage to displace inundating flood waters.

- (1) **Up stream storage.....**We believe the Corps needs to study and determine the effectiveness of increasing storage of up stream controlled storage structures. These measures may include but may not be exclusive to Upper and Lower Baker Dam storage. We believe the possibility that extra 29,000 acre feet of storage in the Baker dams could significantly reduce flood risk down stream. The Dike District 17 puts high level of importance for the Corps to study of this measure.
- (2) **Enhancement and redevelopment of existing infrastructure.....** We believe our existing levy system can be, in certain areas improved to give better risk management during major flood events. These may include but exclusive to increased levy tops, back slopes designed for overtopping, key ways and levy face slope backs. Redevelopment of levies needs to be studied in other applications. Development of levy set backs and designs to meet FEMA accreditation would have significant impacts in the urban areas and where there is critical infrastructure.
- (3)
 - (a) Increased conveyance or diversion of waters to handle major events..... Current existing conditions can not convey the significant amount of water generated by the run off into the Skagit River during a major event. The current capacity of Skagit County dike and levy systems is not capable of conveying a 100 year event without breaching or overtopping existing structures. **The Corps in our opinion must study potential ways of increasing conveyance or divert water volumes during such an event. We believe the opportunity to divert and covey waters further up the river system will be more productive. Impacts further up stream conveyance changes are made, the greater benefit to flood control structures downstream.** As noted by Mr. Malcolm Latham of NHC, in a 100 year event the Sterling area will, with existing conditions, divert up to 50,000 CFS of water out of the Skagit River. If this conveyance was managed with a flow control structure, there may be opportunity for even larger movement of water during such an event.

- (b) The Swinomish by-pass may also have an opportunity to convey large amounts of water for a 100 year event. The major downfall that we see is the dilemma of getting the maximum flow to that point. There are three major bridge structures interfering with the progression of water to the proposed Swinomish by-pass. Replacements or modifications of those bridges would not fall under a GI funding program. These costs would be unobtainable and unacceptable by the local citizens. The upstream diversion and conveyance of water reduces the downstream flood risk to the community and reduces management costs to the County as well as individual cities, Dike and Drainage Districts.
- (4) Enhancement and redevelopment of interior drainage to displace inundating flood waters.... The interior drainage systems in the lower Skagit delta are not capable of relieving the inundation of potential flood waters during a major event. As one of the goals of the Dike District, rural areas outside the cities UGA would have less than 100 year 1% accredited flood risk. In the case of a major event we expect inundation of flood waters in these areas. At this time there is no infrastructure in place to remove this water in an expedient time frame. The two proposed by-passes have two scenarios. The first is a complete cannel system. The second is a controlled sheet flow concept though focused section of the delta. Without adequate interior drainage the sheeted waters would have nearly no escape route into Puget Sound. It is important for interior drainage to be a part of such a program. We believe the Corps should study interior drainage measures. The alternatives would allow the release of flood waters off the flood plain minimizing impact to life and property.

The Skagit County Flood Control District has preliminarily approved a series of measures to be implemented into the Comprehensive Flood Hazard Management Plan. The measures were looked at by the advisory council as "No Brainers." Dike District 17 Commissioners would like for these measures to be considered for investigation in the GI process. They are listed below. These measures are supported by the Skagit County Flood Control District Advisory Council as well as Skagit County, Cities of Mount Vernon, Burlington, Sedro Woolley, LaConnor. This list is also supported by the Skagit County Dike Districts. We do not in any way believe that this is an exclusive list. We do believe however that these measures are important in achieving our goals.



Relocation of Hamilton...Has been an ongoing process for many years. The project is vital to the continuing survival of the community and beneficial to the salmon habitat.

Sewage Treatment Plant Ring Dike Sedro Woolley...Makes sense. Keep the raw sewage in the plant. Keeps Sedro Woolley's city sewage system functioning.

Ring Dike United General Hospital... We must keep the hospital functioning during an emergency. Simple, inexpensive and effective.

Burlington Levy Certification program... We must take as much of our critical infrastructure out of harms way with the least amount of impact to the environment. Water running through the city and then back to the river or the sound... not good. Life and property!!!!!!

Dike 12 and Burlington have an inner local agreement and have hired PIE and Golder Engineering as primary consultants. They are in the process of the geotechnical engineering work and flood modeling work. Dike 12 has been in the ongoing process of purchasing right of way for this project.

Three Bridge Corridor Levy Set Back and Certification...

Skagit County is the lead agency at this time. Open up the bottle neck at the three bridge corridor. Take the levies off the river bank. Provide better risk management for critical infrastructure. NEPA in process has federal funding, large investments by Dike 17 and Dike 12. Dike 12 and 17 has been purchasing right of way for this project since the 1995 flood. City of Burlington has set a building moratorium for this project to help insure its success.

Anacortes Water Treatment Plant Ring Dike... This is a vital facility for the water supply of Anacortes refineries Whidbey Island and Anacortes. Construction is presently under way.

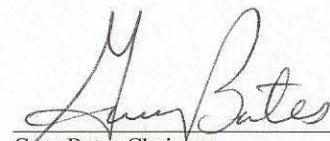
Down Town Mount Vernon Flood Wall and redevelopment... Designed to take down town Mount Vernon of the 1% 100 year flood risk FEMA flood plain. The project goal is to give certified risk management to the down Town Mount Vernon area. This is a vital measure for major infrastructure both private and public.

This project is supported by the city of Mount Vernon, City of Burlington, Skagit County, and the surrounding dike districts.

The phase one work is completed on the flood wall.

La Conner Ring Dike Simple levy process to keep flood waters out of the City of La Conner.

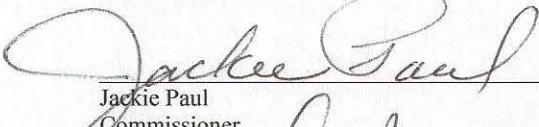
The Skagit River system is complicated whereas many portions of the river take on its own distinct dynamics. Dike District 17 believes in a comprehensive flood plan. We believe it needs to be functional, reliable and cost effective. We also believe it will need elements from all four areas of focus as well as others measures to create the balance in order to achieve our flood risk goals.



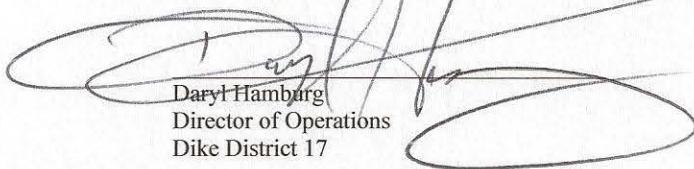
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