



Bulletin

MAYOR'S MESSAGE: *Where is Flood Hazard Reduction in Burlington Headed?* Mayor "Gus" Tjeerdsma

Burlington is once again facing difficult times and tough questions with respect to "How High Will The Water Get?" That question was asked and answered when the Flood Insurance Rate Maps were adopted on January 3, 1985, following an intense debate and compromise by local and federal officials. Today that debate has started all over again.

What are the key components of the proposal to raise flood elevations in Burlington by 6 feet at Interstate 5? It appears that there are two sides to the issue.

One is the big question of whether there will really be 240,000 cubic feet per second coming down the Skagit River and into the flats. This is the Hydrology question and the debate over the following elements:

- Larry Kunzler has exposed the flaws in the Stewart report on the 1921 flood and a wall section from a house in Hamilton will be studied to see if on the ground data supports the position that Stewart was wrong. Other technical analysis of floods demonstrates that the data is incorrect, but nothing has not been accepted by Federal agencies.
- Puget Sound Energy, not the Corps of Engineers, regulates Lower Baker Dam and they are needed to help provide storage of floodwater during

flood peaks, but are not yet on board with this program. Because Lower Baker Dam is old and does not meet current seismic standards, the Corps has given no credit for storage at this location in their figures.

- Nookachamps Creek is assumed to produce a lot more water than it can, since its headwaters don't even extend to Lake Cavanaugh, so the amount of flood storage in the Nookachamps that is actually occurring is not given credit.

The other side is, assuming there is that much water coming to the area, and they did in the studies that led to the 1985 Flood Insurance Rate Maps that are in use today, how do they arrive at a completely different result in Burlington, with a six foot increase in flood height at Interstate 5?

- The Corps of Engineers has used a new computer model.



11/9/06—Home surrounded by flood waters on Lafayette Road, east of Burlington, north of Highway 20

Public release of the proposed new flood maps will happen as soon as the Federal Emergency Management Agency decides their review and approval is complete and they are satisfied with the work. It is not too late for them to change their position, although the Agency has signaled it will not change. This will put the community in the position of having to appeal the flood maps.

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Better Safe than Sorry!

Jon T. Aarstad, City Administrator

Recently the Skagit River threw another scare into our community with the real threat of a flood event in early November. The City of Burlington, Dike and Drainage District #12, Skagit County and the U.S Army Corp of Engineers worked together to develop a flood fight program to insure the safety of the citizens of Burlington and to remove the threat of real property loss within our community. Many factors play into the decisions that emerge during the initial notification of an upcoming flood event. However, the primary indicators used to determine a flood event are the long range and short term weather reports we receive from the weather service.

During this most recent flood event, cities and dike districts were assembled at the 911 Center to meet with the Area Command from Skagit County to report on the pending storm occurrence and to review the predictions of a record breaking flood of the Skagit River. At this time everyone was planning for the possibility of a necessary evacuation of our respective cities, the formation of sandbagging crews, procurement of supplies, patrolling the dikes of the Skagit River, closure of roads and controlling the rumors that surround an emergency situation.

Several meetings were scheduled during the flood preparation and watch process to keep everyone abreast of the latest weather reports and the conditions of the dikes in our valley. Early on all weather reports and river gages indicated we would be experiencing a record flood event. Consequently, the Mayor and staff of the City of Burlington had to determine if it would be proper to call for an all out evacuation of the citizens of Burlington. Of greatest concern at the immediate moment were our local resident home care facilities and their respective needs for the proper evacuation of their special care residents. The evacuation of these facilities is far more complicated for logistical reasons. Staff from the City contacted all of these special facilities and warned them of a possible evacuation.

Our second concern was the determination of a closure of the schools. Should a flood occur and the students needed to be returned to their home there may not be a parent or guardian to care for them should the river run over the levees.

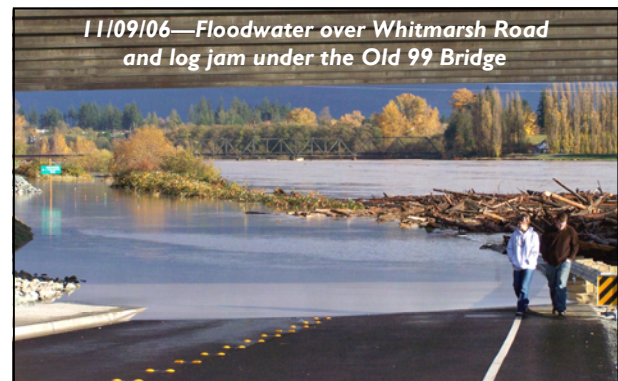
And the third concern required us to alert 8,200 city residents of a pending flood and manage the evacuation of these citizens. At our 7:00 pm Monday evening flood meeting the Area Command stated that all weather indicators predicted the flooding in the lower valley would occur on Tuesday at 4:00 pm and we should begin an

evacuation notification process on Tuesday morning. We were prepared to proceed with the evacuation notification as directed; however, the unpredictability of the weather began to enter into the flood event. The winds driving the storm shifted and began to move the storm southward which reduced the volume of rain in the three major watersheds and multiple creeks and streams that feed the Skagit River. The Skagit River began to recede in the upper valley and the decision to evacuate was put on hold and eventually was removed altogether.

The point I want to make is the unpredictability of the storms create a great deal of tension for those who are responsible for your safety. We may make an early call for an evacuation as we did in 2003, but it is done solely for your safety and the safety of your fellow citizens. No one likes to disrupt a nursing home, schools, families or businesses, however the alternative is equally disrupting should a dike break or water overflows into our community. We have to use the best available data to make these decisions and plan for the worst occurrence. In the minds of those who have to make the call it is far better to “Be Safe than Sorry”.

In the future if you would like to receive current information regarding a flood event you can contact the Skagit County Flood Information Hot Line at (360) 419-3425, check the National Weather Service link or join the County’s “List Serve” at www.skagitcounty.net, click on Departments and Offices, scroll down to Emergency Management and click, then click on “Current Emergency Information on the left side of the screen and your final step is to click on “Join The List”. You will receive the most recent information published from the Area Command Center regarding the emergency at hand. Other options include calling the Burlington City Hall at (360) 755-0531 and listening to KAPS 660 AM or KBRC 1430 AM.

There are so many people to thank for their unselfish efforts to provide a positive service to the public. I want to thank the staff and Volunteer Firefighters of the City of Burlington for their dedication to its citizens to make sure they are informed, safe and protected. Their dedication is admirable.



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Where is Flood Hazard Reduction in Burlington Headed?



Before the new flood maps become effective, a public meeting is held to describe the findings. Following issuance of the findings, there is a 90-day appeal period to appeal to the Federal Insurance Administrator. This goes on an appeals docket in Washington DC and is heard by an administrative hearing judge, with the next step of appeal to a Federal District Court. Following the Final Determination and the Official Letter, Burlington has 6 months to adopt.

And that is where we stand today. All positive steps toward flood hazard reduction are on hold, except for the on-going work in Burlington by Dike District #12 and the routine preparations for the flood season.

The new Burlington Public Works Director, Chal Martin, is taking every possible step to make the case to the federal agencies with jurisdiction to reconsider their position and come together with local jurisdictions to actually implement flood hazard mitigation programs on the ground that are economically feasible.

The argument that destroying the local economy is a positive solution is pretty tough to swallow.

Highlights of 20 Years of Flood Hazard Mitigation in Burlington

January 3, 1985	100 year base flood elevations were set in order to regularize the flood insurance program after years of debate and compromise. A conventional floodway was not appropriate for the Skagit River delta and instead, flow paths for floodwaters would be maintained, such as the Gages Slough corridor, and preserving farmland in open space.
1990 flood	A hard fought victory for Burlington with many lessons learned about how to fight the flood along the Railroad tracks east of Burlington, where the weak spots in levees were allowing water to boil up on the land side of the dike. Damage occurred when the floodwater that was diverted into Gages Slough went into an opening in the sanitary sewer line that runs from Monroe Street down Section Street. The line sucked in a lot of sand and water and eventually sandblasted both the pumps in Pump Station #4, then collapsed. The culverts in Gages Slough were mostly plugged and it took several days to pump the water over the intersections and out to the Skagit River.
1994 Community Rating System	The City joined the Community Rating System in 1994 in order to get a reduction in flood insurance rates, developed a city specific Flood Emergency Plan, adopted the Gages Slough Management Plan in 1999 after a thorough citizen involvement process, then in 2002 completed and implemented a citywide Evacuation Plan. The adoption of an aggressive Storm Water Management Plan and Utility specifically resulted in upgrade of the pump station at the end of Gages Slough, improving our ability to remove floodwaters if the need arises.
1995 flood	Just elected, Mayor Gus Tjeerdsma coordinated the flood fight along SR 20 east of Burlington including hauling sandbags to the Railroad tracks on a rail car from the Dike District building, taking lessons learned in 1990 to heart. Again, a successful flood fight and only one flooded home that had to be elevated, on Bouslog Road. The great lesson learned was the buildup of debris at the Railroad Bridge that resulted in the collapse of one structural support for the railroad tracks, and the dangerous undermining of the base of Dike District 17's levee (Mount Vernon side), again caused by the buildup of debris.

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<p>1997 Acquisition of National Foods Spray Fields – now Skagit River Park</p>	<p>The Mayor and Dike District Commissioner Chuck Bennett toured the flooded river by boat and came up with the idea for a flood hazard mitigation plan, that included buying the National Foods spray fields (now Skagit River Park), redesigning the levees so they would gradually overtop with a sheet flow of water, rather than blow out, and to create a secondary levee system that would provide additional flood storage. The application for federal grant funding was not approved, but the city took the situation seriously and acquired the land so that the dikes could be improved, through an interlocal agreement between the City and the Dike District. The Dike District has been working on upgrading the levee structure nonstop with installation of clay keyways, widening the top of the levees and adding a long gradual backslope to make sure that the levees overtop with a sheet flow instead of having a major blowout failure.</p>
<p>The Corps of Engineers General Investigation (aka endless studies)</p>	<p>During the same general timeline, the Corps of Engineers and the Federal Emergency Management Agency had been developing a plan of action for countywide flood damage reduction, and that led to the 1993 Reconnaissance Report on the feasibility of reducing flood damage through a series of measures. All was positive, and the doors opened to providing extensive funding for studies. Burlington participated in the process, but the city’s concerns generally fell on deaf ears, as more studies were published in 2002.</p>
<p>2003 – Multi-jurisdictional Natural Hazard Mitigation Plan</p>	<p>Working together with all cities, towns, the county and special districts, Burlington and Dike District #12 play a key role in the Skagit County Natural Hazard Mitigation Planning program. The plan is not just a plan, it is a work program that gets done.</p>
<p>2007? Federal Emergency Management Agency LIKELY raises 100-year Base Flood Elevations using Corps of Engineers work</p>	<p>A 240,000 cubic foot per second flood reaches the valley floor and heads straight for Burlington creating 6 feet of water standing on I-5 – is this even possible?</p>