

November 4, 2015  
Mayor Tim Mahoney  
City of Fargo

Thank you for the opportunity to talk with you today regarding the ongoing flood control work in Fargo. Later on in your agenda you will hear from Chairman Vanyo regarding the FM Area Diversion Project. I was asked to talk with you today regarding the \$60M appropriated last session to the City regarding the work we have done to construct levees and floodwalls. The goal of this effort is to reduce our reliance on sandbags and other emergency measures and to remove properties from the current FEMA 39.3 foot floodplain, which has put approximately 1,800 homes in Fargo into a high rate flood insurance floodplain.

To date, the City has purchased and removed 183 houses, constructed close to 19 miles of flood protection at a cost of over \$125 M. Mapping of projects completed to date, and of projects that are in progress, has been provided to you today. Planning and development of additional projects has also continued. You will find in your packet a map depicting the estimated cost and locations of projects that are being advanced for construction in 2016. As you can see, there is the potential to complete over \$68 M in flood risk reduction projects next year.

Each of the projects completed have been permitted by the state. Permitting of these projects has only been possible because each of these projects has tied in to natural ground lower than the 100 year flood elevation which, without emergency measures, would allow water to flow around them and continue to flood the City.

The problem we are facing is that as the City progresses toward the point of tying projects together and closing the gaps, the projects will no longer end at ground below the 100 year floodplain, which forces the water to go elsewhere. When this happens, the existing floodplain storage will be cut off and that loss of storage will need to be mitigated or it will cause stage increases to other property. In preparation for the construction of these projects, the City began the process of quantifying the impacts and planning for the mitigation. With the current modeling tools, it is also possible to predict the impacts of the loss of flow from the area outside of the river channel. It is important to note that this mitigation is measured from the state of nature compared against the with project conditions. The Water Commission has identified the mitigation limit as .1 feet on land regardless of whether or not there is an impacted structure. This means that a property right would have to be acquired on lands impacted by as little as .1 feet during a 100-year flood event. For reference, the Minnesota DNR uses .5 feet when an insurable structure is not affected.

Applying these limits to the problem we are trying to solve in Fargo has provided a preliminary estimate of the volume of storage it will take to mitigate the impact from the projects. The results were staggering. An estimated 2,000 Acres adjacent to the city would need to be flooded to a depth of 10' to provide the necessary offset volume. This has a rough estimated cost of an additional \$180 M more than previously thought. We are continuing to refine the state of nature model in hopes to better evaluate the impacts and reduce the costs because our technical staff is confident that the current model is wrong and it does not accurately represent the reality of what happens in a flood. This work is ongoing.

The critical parameter that I want to make you aware of, as it is adjustable, is the limit to which mitigation is required. To our knowledge, the state has not constructed a major flood control project since the determination of the .1 foot limit was made. It is our opinion that this limit should be

reevaluated; as the difference between .1 and .5 could dramatically increase the price of flood protection projects and, in some cases, reduce the technical feasibility to a point where they are not viable at all. This mitigation limit has the risk of leaving communities with a continued reliance on emergency measures and homeowners facing high rate flood insurance requirements.

It is important to note that this mitigation limit will not only be a requirement on internal flood protection for Fargo, but would be applied to all other flood control projects across the state, including the FM Diversion. As such, we think this is an important conversation that needs to be started among the water professionals and political leaders in our great state.

In summary of our internal work in Fargo, I am happy to report that approximately \$10M has been expended of the \$60M that you provided in legislation last year. City staff is currently working with the SWC to facilitate reimbursements and, as you can see, Fargo continues to make efficient use of the funding that has been made available to advance efforts to remove 1,800 homes from the current FEMA floodplain.

Before I turn it back to you for questions, I want to remind you of the complex flood protection situation in Fargo and our surrounding metro area. These internal efforts are extremely important, but they do not offer a replacement of the protection needed, and that would be provided, from the FM Diversion. The risk we face from future FEMA floodplain changes is great as 19,000 homes in Fargo would be put in the situation we are trying to solve today for the 1,800.

Last month, we went to Washington and we were well received by all of the parties that we met with and we left encouraged that there is support in Washington for the P3 delivery approach.

Thank you for allowing me the chance to update you on our efforts.