**Flood Control Committee August 23, 2012**

The **Flood Control Committee** met Thursday, August 23, 2012, at 6:00 p.m. in the City Hall Conference Room. Present were Committee Chairperson John Hollowell and Committee Members Susanne Galbraith, Jerry Partridge and Dwayne Andrews. Also present were Floodplain Administrator Sam Malenovsky, Public Utilities Director Al Kelm, Program Administrator/Grant Writer Dawn Colton, Mayor C.A. Grenz and Recorder Billie Burkhalter.

1. **Discussion with the Engineering Firm of Kadrmas Lee & Jackson (KLJ) on Flood Plain Issues**

Representatives from KLJ explained at a previous meeting that the Committee had requested their company produce a preliminary analysis report on the dike and flood insurance study. They were asked specifically to explain in further detail why there are such abrupt surface changes in the flood plain elevations. Joel Paulsen, Professional Engineer with KLJ, explained the United States Army Corp of Engineers (USACE) Study, which is what FEMA used to base Miles City’s flood maps on, used a method of one dimensional modeling, which can only force water going in one direction from Point A to Point B. The downfall of this method is that it cannot demonstrate water going sideways. In the USACE scenario, FEMA modeled three independent breaches in the Tongue River levee. Each of those breaches resulted in a specific corridor of where the water was going to go and modeled what the water would do at each breach.

 Mr. Paulsen explained FEMA has accepted other forms of mapping, such as a two dimensional model analysis, which is basically a real life representation of taking the whole ground surface and showing where water is going to go. This would be a more realistic version of what would happen if the levy were to be breached. In reference to the Yellowstone River, FEMA is in effect, not mapping any effective flooding from the Yellowstone; it is all coming from the Tongue River. If the Tongue River had a certified levy, the three surfaces would be mapped in a different zone and flood insurance would not be mandated in those zones.

Ed Quinlan, 914 Tatro, questioned how changing anything along the Yellowstone River changes anything on the map when it’s the Tongue River that the map is showing. Mr. Paulsen stated a potential project that could be done is to build a levy along the Tongue River up to the Tongue and Yellowstone confluence. But, if a levy were to be built in this area, it would have negative effects on the Yellowstone River and that would have to be looked at and modeled.

Chairperson Hollowell questioned if remapping would result in a decrease in the flood plain through mistakes, errors or miscalculations within the USACE Study. Mr. Paulsen stated he did not see anything in the report that would lend itself to battling FEMA. There are a few things that could be done, but is unsure how effective this would be. He explained in the past, when his firm would question FEMA, most of the time they would get a vague response, but there is an option for rebuttal. The bigger question to FEMA is why wasn’t a two dimensional analysis done, knowing that the technology exists. FEMA’s program is based on the fundamental fact that it wanted to use the best technology and data to remap the flood maps. In this case, using an old technique and new data and coming up with a modified version of what Miles City had before is a misrepresentation.

Administer Malenovsky questioned that if a two dimensional model was completed, would this cause a drastic change in the flood plain and whether this project would be more cost effective than building a levy/dike. Mr. Paulsen responded that it would definitely reduce the flood plain, but the only way to know how much is to remap it. This would give a more accurate representation of how the water would flow. Director Kelm questioned if FEMA would do a two dimensional model at its cost. Mr. Paulsen explained that FEMA would state they do not have the funding for it and, therefore, Miles City would have to provide the funding.

After further discussion, it was decided that the option of doing a Request for Qualifications (RFQ) for a feasibility study with hydraulic modeling would be explored.

**2. Requests of Citizens**

No request of Citizens.

**3. Adjournment**

\*\* *Councilperson Andrews moved to adjourn the meeting, seconded by*

*Councilperson Galbraith and passed unanimously, 4-0.*

There being no further business, the Committee adjourned at 7:00 p.m.

Respectfully Submitted, Flood Control Committee Chairperson

Billie D. Burkhalter, Recorder John Hollowell, Chairperson