

## Department of Public Works – Engineering Division

### MEMO

**TO:** Utilities Committee

**FROM:** Paula Vandehey, Director of Public Works  
Pete Neuberger, Staff Engineer  
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**DATE:** September 18, 2013

**RE:** Approve Alternative 10C in the West Wisconsin Drainage Study

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The Department of Public Works recommends the approval of Alternative 10C in the West Wisconsin Drainage Area Study by AECOM. This alternative includes the following major components:

- Construction of a dry detention basin immediately south of Glendale Avenue extended west of Birchwood Avenue, requiring acquisition of four residences on five parcels of land.
- Construction of a wet detention basin immediately north of CTH OO in the Town of Grand Chute, requiring acquisition of an approximately 3.5 acre parcel of vacant land.
- Construction of new and upsized storm sewers in public rights-of-way and easements within the drainage study area.

#### Purpose of Drainage Study

During intense rainfall events in 2001 and 2010, the Department of Public Works received reports of significant flooding in the West Wisconsin Avenue Drainage Area. Earth Tech/AECOM completed a study of this area to identify potential flood reduction alternatives in July 2009. DPW reported the results of that report at the July 21, 2009, Utilities Committee, indicating no cost-effective solutions to the 2001 flood event were identified. On January 22, 2013, and April 23, 2013, the Utilities Committee authorized staff to contract with AECOM to perform additional analyses to include possible acquisition of vacant and developed properties in hopes of finding cost-effective flood control alternatives not identified in the original study.

#### Study Findings

Estimated flood reductions and costs for each alternative are shown in the attached “100-Year Storm Event Alternatives Comparison” table. Alternative 10 and its variants (Alternatives 10 through 10C) proved significantly more cost effective than all other alternatives analyzed, based on predicted flood reductions within the drainage study area, including at the seven “major areas of concern” identified in the study. The variants of Alternative 10 were investigated per Utilities Committee request to provide options for the dry pond location dependent upon the willingness of different homeowners to sell their properties.

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DPW contacted homeowners whose properties would potentially be acquired under the Alternative 10 variants. Some property owners north of Glendale Avenue indicated they were unwilling to sell, while none of the owners south of Glendale indicated they were unwilling. Based on anticipated flood reductions, cost effectiveness, and willingness of property owners to sell, the study and DPW staff recommend pursuing Alternative 10C.

#### Next Steps/Schedule

If the recommended alternative is approved, DPW anticipates undertaking the following activities:

- Contract with a consultant to perform preliminary engineering design for the two proposed ponds (2013).
- Contract with a consultant to obtain appraisals for properties identified for purchase (2013).
- Begin acquisition of properties for the two proposed ponds (2014).
- Final Engineering Design and obtain bids for the first pond (2014).
- Construct the first pond and design the second pond (2015).
- Construct the second pond (2016).
- Construct local sewer improvements within the drainage study area (2015+).

Activities in 2014 and beyond are subject to future budget approvals.

#### Conclusion

The Department of Public Works recommends that the Utilities Committee approve Alternative 10C in the West Wisconsin Drainage Area Study by AECOM.