

**UTILITIES COMMISSION**  
**February 5, 2014**

The regular meeting of the Baxter Utilities Commission was called to order at 4:00 p.m. by Acting Chairman Dave Franzen.

MEMBERS PRESENT: Commissioners Shawn Crochet, Dave Franzen, Bruce Klopfleisch, and Council Liaison Rob Moser.

MEMBERS ABSENT: Chairman Rock Yliniemi.

STAFF PRESENT: Public Works Director/City Engineer Trevor Walter and Administrative Assistant Mary Haugen.

OTHERS PRESENT: WSN Consulting Engineer Aric Welch.

**APPROVAL OF MINUTES**

**MOTION** by Commissioner Klopfleisch, seconded by Council Liaison Moser to approve the Utilities Commission minutes of January 5, 2014. Motion carried unanimously.

**15237 EDGEWOOD DRIVE STORMWATER DISCUSSION**

Public Works Director/City Engineer Walter gave a brief history of the stormwater concern at 15237 Edgewood Drive.

The commission had viewed the high water conditions at 15237 Edgewood Drive in the fall of 2013. The ground water table was encroaching the building at that time but had not entered any of the facilities. Elevation shots showed there was roughly a 1-foot bounce before water would be in contact with the building.

The one problem associated with this wetland is it has no natural outlet, manmade outlet or emergency overflow to divert water. The commission felt the wetland area should be looked at to see if a natural or manmade outlet or emergency overflow to divert storm could be done feasibly.

The commission had requested WSN prepare a storm water study proposal for consideration. Due to funding concerns in the 2013 Storm Water Budget the commission felt the study should wait for funding until 2014.

Public Works Director/City Engineer Walter stated that the 2014 Storm Water Budget has an allotment of \$5,400.00 for engineering fees and the study will take a large portion of the 2014 budget. Council Liaison Moser felt it was important to have the study done so the City would know what options there are for the wetland and the associated costs.

**MOTION** by Council Liaison Moser, seconded by Commissioner Klopfleisch to recommend City Council approve the WSN Proposal for Engineering Services for the Edgewood Drive Stormwater Study in the Not to Exceed amount of \$4,000.00 with funding from the 2014 Stormwater Enterprise Fund. Motion carried unanimously.

**CUYUNA CARDIOVASCULAR SERVICES CLINIC PROJECT ACCEPTANCE**

Public Works Director/City Engineer Walter informed the commission the project has been completed to city specifications and satisfaction and the one year warranty bond has been submitted to the City.

**MOTION** by Commissioner Klopfleisch, seconded by Council Liaison Moser to recommend City Council accept the Cuyuna Cardiovascular Services Clinic Project and release the Anderson Brothers Performance Bond No. 105887734. Motion carried unanimously.

**AUTUMN GLEN SENIOR LIVING AGREEMENT FOR DEVELOPMENT**

The commission reviewed the Autumn Glen Senior Living Agreement for Development. Public Works Director /City Engineer Walter stated this is the standard development agreement used for all development projects.

**MOTION** by Council Liaison Moser, seconded by Commissioner Klopfleisch to recommend City Council approve the Autumn Glen Senior Living Agreement for Development. Motion carried unanimously.

**NEW PUMP INSTALLATION PROJECT SUMMARY**

Public Works Director/City Engineer Walter submitted the New Pump Installation Project Summary into the record. The project was completed in 2013.

This memo is for the files to summarize the results of the City Well #3 Rehabilitation project which also included providing three new pumps for the other three municipal wells. The rehabilitation for Well #3 was completed in mid-April 2013 and proved very successful, increasing the specific capacity from 33.3 gallons per minute (gpm) per foot (ft) of drawdown to 36.5 gpm/ft; thus, restoring the pumping capacity to its original capacity.

The pumping rate for Well #3, as well as the other three wells, was found to be around 800 gpm in well tests completed in October 2012; the design capacity for the wells was 700 gpm. The City made the decision to reduce the pumping rate in the wells to just above 700 gpm, so a new pump was specified for Well #3 as part of the project. The new pump is a two-stage 8FDLC. The impeller diameter was specified at 4.4375 inch which turned out to give a pumping rate of 800 gpm. The contractor was instructed to have the impeller diameter trimmed to 4.18 inch and the pumping rate dropped to around 725 gpm when two pumps were operating after the pump was reinstalled in mid-May 2013. The pump curve for this pump is attached showing the pumping rate at a total dynamic head of 90 feet.

The City then had WSN prepare a change order to put new 8FDLC pumps with 4.18-inch impellers in the three other city wells. The three new pumps were installed the week of July 15, 2013. The wells when pumping individually pump slightly more than the design rate of 725 (see attached system printouts from water plant control center), but when two wells are pumping together the rates are just above or just below 700 gpm (see attached additional system printouts from water plant control

## UTILITIES COMMISSION – 02/05/14

center). The pump replacement project was a success in that it reduced the pumping rate of the wells to near the design capacity of 700 gpm.

There was some concern after the new pumps were installed that the new pumping rates would not keep up with the high service pumps to the water distribution system. The city was able to make some adjustments to the treatment plant operation and the new pumping rate for the wells was suitable. WSN continued to check with the City through the fall into winter on how the pumps are operating. They are satisfied the pumps are working as designed and that the water treatment system is operating acceptably.

### **WILDFLOWER DRIVE, FRANKLIN DRIVE AND WOIDA ROAD IMPROVEMENTS PROJECT UPDATE**

The following Stormwater Basins and Outlets Memo was submitted into record from contracted Engineer, Aric Welch:

The feasibility study showed two stormwater basins; one located on the North Water Tower property and another on an undeveloped residential lot located on the east end of the project adjacent to an existing wetland. The residential lot is not a viable location for a stormwater basin because the majority of the lot was determined to be wetland after the delineation was completed. The tower property is also not an ideal stormwater basin location because of the higher elevations on the property and no feasible outlet for stormwater overflows.

After completing the detailed topographic survey of the roadway corridor and laying out the proposed roadway profile, it was determined that three storm sewer systems and outlets would be needed to serve the roadway and trail improvements. The systems areas are roughly split as follows:

1. Inglewood Drive to former school property (West System)
2. Former school property to Wildflower drive (Central System)
3. Wild Flower Drive to east project limits (East System)

#### West System

The logical location for the stormwater basin on the west end of the project based on topography and access to an adequate outlet is the property located across from water tower at the intersection of Inglewood Drive and Woida Road (see attached drawing). The 5.7 acre parcel is owned by Jim Christensen. The stormwater basin would be located along the east property line and adjacent to Woida Road.

Trevor Walter and I met with Mr. Christensen to discuss potential property acquisition for the proposed stormwater basin. Mr. Christensen expressed interest in pursuing a PUD on the property in the future but is open to selling a piece of property to the City to help pay for the previous Inglewood Drive assessments and to lose one assessment on the Woida Road project.

To maintain the future FUD option, we have limited the stormwater basin to 0.7 acres leaving 5 acres open for development. We have completed two potential development options for Mr. Christensen to review. The

## UTILITIES COMMISSION – 02/05/14

first option is a typical single family development with six R-1 lots located along Inglewood Drive and Woida Road. The second is a PUD option with nine lots.

Due to high ground water levels in the project area, the stormwater basin will need to be constructed as a wet sedimentation basin. A wet sedimentation basin must be designed to maintain a water depth of at least 3'. The high groundwater elevation will also limit the amount of storage that is available in the basin. The stormwater basin will meet NPDES stormwater treatment requirements but the 0.7 acre pond site will not provide adequate storage to capture the entire 100-year storm event. Overflows from the basin will need to be conveyed to the wetland located at the south end of the Christensen property. Stormwater analysis indicates that overflows from the stormwater basin during the 100-year event will raise water levels in the wetland by approximately 0.5.

It does not appear the 0.5' bounce in the existing wetland will create immediate problems for adjacent properties from overland flow, however; we are aware of existing structures in the area that are affected by infiltration during high groundwater conditions. If we are able to secure the Christensen property for stormwater purposes, it is highly recommended the City pursue completing stormwater ditching improvements in Area C and Y of the Section 6 Stormwater Management Plan. This will provide the outlet necessary to insure that area structures and properties are not affected by the runoff from the City roadway corridor.

We are waiting to hear from Mr. Christensen regarding the potential stormwater basin location and development layouts. If Mr. Christensen and the City are in agreement with proposed stormwater basin location, we should discuss and prepare an offer for the property.

### Central System

We have determined the best location for the stormwater basin would be on the Leo Morrison property located along the south side of Woida Road. The property is located in a low point along the roadway corridor and provides outlet access to wetlands that have to the potential to be connected to the Section 6 Stormwater System.

We have had preliminary discussions with Mr. Morrison by phone who is currently residing in Palm Springs, CA. Preliminary stormwater basin layouts and easement documents for Woida Road have been sent by mail. The stormwater basin layout attached to this memo is based on provided enough room for one single family residential lot and 80' roadway corridor for future development of the property between the proposed stormwater basin and existing wetland.

Due to high groundwater, the basin will need to be designed as a wet sedimentation basin. With the current layout, the basin will meet NPDES permit requirements for stormwater treatment but will not be able to capture and retain the entire 100-year stormwater event. The stormwater basin could be sized to capture the 100-year event but the basin size necessary to accomplish this would severely affect the future development potential on the Morrison property.

Two outlet options are available for the proposed basin. The first is the wetland located east of the proposed site. With some additional ditching on the Morrison parcel the wetland could be connected with the Basin B of the Section 6 Stormwater Management Plan. The second outlet option is a 21" storm sewer

## UTILITIES COMMISSION – 02/05/14

pipe located north of Grand Oaks Drive in the Mill Pond Development. The pipe is connected to the pond located in the center of the development which is tied to the Section 6 outlet.

### East System

This system has the smallest drainage basin of the three systems. The system will consist of a four inlets and pipes directing stormwater runoff to a small mechanical treatment unit located on the west side of the existing wetland. Overflows from the unit will be directed to the wetland which will be tied to the Section 6 stormwater system with the previously approved ditching/piping improvements through the Wildflower Drive and Franklin drive project area.

### **Project Update**

#### Summary of Work Completed Since Last Update

The wetland fill application has been completed and submitted to Crow Wing County and will be addressed at the February 4, 2014 TEP meeting.

We met with area utility companies on January 9, 2014. The proposed improvements and status of utility locates were discussed. The utility companies agreed that work on Woida Road will require relocation of existing facilities. The utility companies also agreed to work with their contracted locating services to coordinate their efforts with our surveys to obtain accurate locations of existing underground facilities.

The topographic survey of the project area is complete. Survey crews are working with area utility locators to pick up underground utility locations. Progress obtaining the utility information has been slow due to snow cover and below average temperatures.

We continue to work on obtaining easements and property acquisitions in the project area. I have met or have been in contact with all but one of the affected property owners on Woida Road.

Additional information regarding easement and property acquisitions is discussed in a separate memo for the closed session meeting closed session meeting on February 4, 2014.

We are approximately 95% complete with the design of Woida Road and anticipate submittal to State Aid within the next week. We have been in contact with State Aid during the design process and there is a backlog of projects under review. The current estimate on the initial review time is approximately three weeks. Securing State Aid approval may affect the project schedule.

We are approximately 70% complete with the design of Wildflower Drive and Franklin Road. We anticipate plans will be complete and ready for review by the February 19, 2014 deadline outlined in the project schedule.

The project website is operational. Information contained on the website includes contact information, meeting information, project memos, project updates, easement documents and other project resources. I encourage you to review the website and provide any comments or suggestions on how we can enhance the site.

**UTILITIES COMMISSION – 02/05/14**

**Engineering Budget**

Phase	Compensation	Spent	% Spent
0010 Preliminary Details and Survey	\$ 26,957.00	\$38,669.50	143%
0020 Preliminary Environment Services	\$ 3,177.00	\$ 3,553.00	112%
0030 Soils Investigation	\$ 10,650.00	\$ 6,115.00	57%
0040 Design	\$ 76,028.00	\$46,100.00	61%
0050 Advertising/Bidding/Award	\$ 4,021.00	\$ 0.00	
0060 Final Assessment Calculations/Hearing	\$ 4,273.00	\$ 0.00	
0070 Construction Staking	\$ 18,866.00	\$ 0.00	
0080 Project Management	\$ 24,682.00	\$ 0.00	
0090 Construction Services	\$109,214.00	\$ 0.00	
0100 Construction Testing	\$ 20,623.00	\$ 0.00	
0110 Post Construction Services	\$ 11,429.00	\$ 0.00	

**Work Scheduled Over the Next Two Weeks**

- Continue work on easement and property acquisitions
- Finalize construction plans
- Submit plans for State Aid approval
- Submit plans for City approval
- Send updated plans and schedule another meeting with Utilities Companies

The commission discussed concerns regarding project acquisition and the overall project timeline and engineering fees to date.

**BRAINERD PUBLIC UTILITIES WASTEWATER BOD & TSS RESULTS FOR 2012 – 2013**

The BOD & TSS results for 2012 and 2013 were submitted to the commission as information only.

**THE UPDATE – A REGULATORY COMPLIANCE PUBLICATION BY AE2S**

The Update – A Regulatory Compliance Publication was submitted to the commission as information only.

**FEBRUARY 19, 2014 SPECIAL UTILITIES COMMISSION MEETING AT 4:00 P.M.**

Public Works Director/City Engineer Walter informed the commission the special meeting will be to review the Wildflower Drive, Franklin Drive and Woida Road plans and specifications.

**ADJOURNMENT**

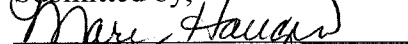
**MOTION** by Commissioner Crochet, seconded by Council Liaison Moser to adjourn the meeting at 5:00 p.m. Motion carried unanimously.

Approved by:



Dave Franzen  
Acting Chairman

Submitted by,



Mary Haugen  
Administrative Assistant