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May 14, 2012

Ms. Patricia Petersen-Klein
Executive Director
Kansas Corporation Commission
1500 S.W. Arrowhead Road
Topeka, Kansas 66604-4027

Re: Docket No. 12-SUBW-359-RTS; Water Distribution System Improvements

Dear Ms. Petersen-Klein,

During the May 7, 2012 hearing on the Stipulation and Agreement in the above-referenced docket, Suburban Water Company ("Suburban") was requested to prepare a summary of the actions it has taken regarding the recommended improvements contained in Section V of the 2004 revised Water Supply, Water Distribution System and Water Storage Facility Report prepared by Kramer Engineering, which was an exhibit entered into the record in Suburban's 2007 rate case, Docket No. 07-SUBW-1352-RTS. Enclosed for filing in this docket is a summary of the actions taken by Suburban regarding the recommended improvements contained in the 2004 revised Kramer Engineering Report. Suburban has also included a list of additional capital projects that it is in the process of evaluating. The summary also includes a copy of Section V of the Kramer Report. An electronic copy of this letter and enclosures is being provided to the parties to the above referenced-matter and the advisory counsel.

I would appreciate receiving a filed-stamped copy of this filing. Let me know if you have any questions.

Sincerely,

James G. Flaherty
Anderson & Byrd, LLC
Attorney for Suburban Water Company

JGF:jlc
Enclosures
Ecc: Judy Jenkins
Holly Fisher
Niki Christopher
Melissa Doeblin

Kramer Report 2004 – Water Distribution System Improvements

Recommendations from pages V-2 thru V-5:

1. The existing 6-inch water main from the BPU connection along State Ave. west to the end of the existing 6-inch main should be replaced with approximately 3,300 feet of 16-inch PVC main.

Suburban Water has completed this project with the installation of a 20-inch DIP main. The size of this main was increased to enable Suburban Water to meet anticipated future water demands

2. Approximately 1 mile of 12-inch water main should be installed along Evans Rd. from 158th Street west to 166th Street.

Suburban Water has not completed this improvement because the anticipated growth in the area has not taken place. This proposed improvement remains in the queue that Suburban Water anticipates completing in the future in response to developments in the area.

3A. A 1.5 million gallon water storage tank should be installed west of 222nd Street, approximately 1 mile south of the City of Tonganoxie. A 16 inch water main should be installed from the water tank east approximately 1 ½ miles to 214th Street, then north approximately 1 mile to Evans Rd.

Suburban Water has completed the installation of the 1.5 million gallon water storage tank in the location proposed by Kramer Engineering.

Suburban Water has installed a 24-inch water main from the storage tank approximately 3000 feet east to 222nd Street and Kansas Avenue.

Suburban Water has installed a 12-inch water main from the end of the 24-inch water main east to 214th Street then north approximately one mile to Evans Road.

3B. A 16-inch water main should be installed along Evans Road from 214th Street east approximately 1 mile to 206th Street. A 12-inch water main should be constructed along Evans Road from the new 16-inch main at 206th Street east approximately 12,220 feet to the existing 8-inch main just east of 190th Street.

Suburban Water has installed a 12-inch main along Evans Road from 214th Street east one mile to 206th Street.

Suburban Water has installed a 12-inch main along Evans Road from 206th Street approximately 12,220 feet to the existing 8-inch main just east of 190th Street.

4A. A 12-inch main should be installed along State Ave. from 178th Street east approximately 6,660 feet to Node 331 (connect to existing 12-inch PVC main ending west of 166th Street).

Suburban Water has not completed this improvement because the anticipated growth in the area has not taken place. This proposed improvement remains in the queue that Suburban Water anticipates completing in the future in response to developments in the area.

4B. A 16-inch main should be installed along 178th Street from Evans Road north approximately 15,100 feet to Leavenworth Road, then approximately 1,000 feet east along Leavenworth Road. A 12-inch main should be installed from the new 16-inch main at 178th Street and Evans Road east along Evans Road approximately 1,700 feet to tie into the existing 8-inch water main.

Suburban Water has not completed these improvements because the anticipated growth in the area has not taken place. These proposed improvements remain in the queue that Suburban Water anticipates completing in the future in response to developments in the area.

5. An 8-inch water main should be installed from the Harper Well Field east along Parallel Road approximately 2,100 feet to 158th Street, then south approximately 1,700 feet along 158th Street to the existing 8-inch main.

Suburban Water has not completed these improvements because the anticipated growth in the area has not taken place. These proposed improvements remain in the queue that Suburban Water anticipates completing in the future in response to developments in the area.

6. A 10-inch water main should be installed from the Moran Well Field north and west to 166th Street, then north approximately 1 ½ miles along 166th Street to Evans Road.

Suburban Water has not completed the installation of this proposed main from the Moran Well Field because the yield from the Moran Well Field has been decreasing. Currently, there is a 6- inch water main from the Moran Well Field north to Kansas Avenue which has the capacity to transmit the current and future yield from the wells at the Moran Field. When the study was performed by Kramer Engineering in 2003-2004, the yield from the Moran Well Field was twice what it currently is today.

7. An 8-inch water main should be installed along 182nd Street north to Parallel Road, then west along Parallel Road to 183rd Street, then north along 183rd Street approximately 6,100 feet to the existing 6-inch main.

Suburban Water has not completed these improvements because the anticipated growth in the area has not taken place. Based upon current trends, Suburban Water does not anticipate future development in this area to warrant these improvements.

8. An 8-inch water main should be installed from 174th Street east to the existing 6 inch main at Node 308 (approximately 1,500 feet east of 174th Street).

Suburban Water has not completed this improvement because the anticipated growth in the area has not taken place. Based upon current trends, Suburban Water does not anticipate future development in this area to warrant this improvement.

9. An 8-inch water main should be installed along Hollingsworth Road from 179th Street east approximately 1 mile to 172nd Street.

Suburban Water has not completed this improvement because the anticipated growth in the area has not taken place. Based upon current trends, Suburban Water does not anticipate future development in this area to warrant this improvement.

10. An 8-inch water main should be installed along 158th Street from the existing 8-inch main at Node 253 (approximately 2,500 feet north of Evans Rd.) to the existing 4-inch main at Node 250 (approximately 2,500 feet south of State Ave.).

Suburban Water has installed a 16-inch water main along 158th Street from State Ave. to Evans Rd. A larger main was required to meet the fire protection demands for a new school built in the area.

11. An 8-inch water main should be installed along Kansas Avenue from 182nd Street east approximately ½ mile to 178th Street.

Suburban Water has not completed this improvement because the anticipated growth in the area has not taken place. Based upon current trends, Suburban Water does not anticipate future development in this area to warrant this improvement.

12. An 8-inch water main should be installed along 198th Street from the existing 6-inch main at Node 359 north approximately 4,150 feet to the new 12- inch main along Evans Road.

Suburban Water has installed a 6-inch main from Node 359 north to the new 12-inch main along Evans Road. Current and anticipated future development in the area warranted a 6-inch size main.

13. A 12- inch water main should be installed along 214th Street from Hemphill Road north approximately 8,600 feet to the new 16 main connecting to the new storage tank.

Suburban Water has not completed this improvement because the anticipated growth in the area has not taken place. This proposed improvement remains in the queue that Suburban Water anticipates completing in the future in response to developments in the area.

Summary

Completed Projects	Projects still in Queue	Projects No Longer Proposed
1		
	2	
3A		
3B		
	4A	
	4B	
	5	
		6
		7
		8
		9
10		
		11
12		
	13	

Suburban Water's Engineering Division

May 11, 2012

ADDITIONAL PROJECTS CURRENTLY BEING REVIEWED BY SUBURBAN WATER

The following recommended water main installations are based upon reviewing and evaluating the existing distribution system. These new and replacement water mains will strengthen the existing water distribution system to allow better water service (flow rates, pressures, and quality). Future new subdivisions may result in changes to these recommendations:

1. Replace 2,800 feet of 4-inch main with 12-inch along 166th Street from Coralberry Crossing to Parallel Road,
2. Replace 3,400 feet of 4-inch main with 12-inch along Parallel Road from 166th Street to 171st Street,
3. Replace 5,600 feet of 4-inch main with 16-inch along 174th Street from Donahoo to Hollingsworth Road,
4. Parallel 2,700 feet of 6-inch main with 12-inch main along Hollingsworth Road from 168th Street to 172nd Street,
5. Install 4,600 feet of 12-inch main along Hollingsworth Road from 172nd Street to 179th Street,
6. Parallel 7,800 feet of 6-inch main with 12-inch main along State Avenue from 170th Street to 182nd Street,
7. Replace 4,500 feet of 4-inch main with 12-inch along 178th Street from north of Parallel Road to Leavenworth Road,
8. Replace 3,000 feet of 4-inch main with 12-inch along Leavenworth Road from 175th Street to 179th Street,
9. Replace 10,700 feet of 4-inch main with 12-inch along 179th Street from Leavenworth Road to Hollingsworth Road
10. Parallel 6,500 feet of 8-inch main with 12-inch main along 175th Street from Leavenworth Road to Donahoo Road,
11. Parallel 7,800 feet of 6-inch main with 8-inch main along 198th Street from Evans Road to north of Metro Avenue,
12. Replace 10,000 feet of 4-inch main with 12-inch along 198th Street and Douglas Road from north of Metro Avenue to 206th Street,
13. Replace 4,000 feet of 4-inch & 6-inch mains with 12-inch along 206th Street from Douglas Road to connection with RWD#10.

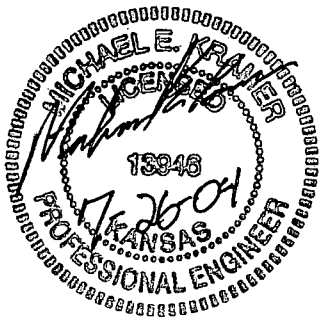
PRELIMINARY
ENGINEERING REPORT

WATER SUPPLY,
WATER DISTRIBUTION SYSTEM
AND
WATER STORAGE FACILITY

SUBURBAN WATER COMPANY
LEAVENWORTH COUNTY, KANSAS

ENGINEERS:

KRAMER ENGINEERING, P.A.
2348 SW Topeka Blvd.
Topeka, Kansas 66611
(785) 234-6600



Job No. 0235

April 2003
Revised July 26, 2004

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SECTION V
RECOMMENDED IMPROVEMENTS

GENERAL

This section covers the recommended improvements to the water supply/quality, water distribution system and water storage that are needed to continue to meet the existing and future water needs of the Suburban Water Company. The proposed improvements may be constructed in phases or all improvements as one project.

The Hydraulic Analysis should be updated periodically to determine the effects of population changes on the system. Increases in population densities and water usage in areas of the system may significantly alter recommended improvements shown herein.

WATER STORAGE IMPROVEMENTS

As previously stated in Section III, the minimum water storage needed is 500,390 gallons to provide two days average use and fire flow storage for the Water Company's present users. For the design year 2024, the recommended minimum storage is approximately 969,140 gallons.

It is recommended that Suburban Water Company continue its plans to construct a 1.5 million gallon water storage tank approximately 1 mile southwest of the City of Tonganoxie, as shown on the improvements map in the Appendix. The additional storage will enable the Water Company to meet the current and future water storage requirements for domestic water use, plus storage for fire. If the proposed

annexation of the areas southwest of the present system boundaries is not completed, the alternate tank locations as discussed herein should be considered. Water line improvement recommendations would need to be updated for the alternate tank locations

The alternate recommendation for storage improvements is the construction of two 500,000 gallon elevated water storage tanks – one tank located at the existing standpipe site and the second tank located in the north area of the Water Company. The Water Company is anticipating growth in the north area, and new storage in this area would provide higher flows for the existing and future users. The two elevated storage tanks together would provide for storage requirements through the year 2024.

WATER DISTRIBUTION SYSTEM IMPROVEMENTS

As a part of this hydraulic analysis, several main line improvements are recommended in order to increase pressures and flows in several areas in the system. Most of the improvements include looping lines, which helps to provide higher quality of water to the customer. The Water Company's existing hydraulic model was modified to include the recommended improvements. The Appendix contains the pressures for the nodes resulting from the improvements model. The Appendix also contains the fire flows resulting from the looped lines.

A listing of the water distribution system improvements is shown below, and has been listed in order of priority. The priority rating is based on the impact the improvement will have on the Water Company's existing distribution system. The Water Company will ultimately determine which projects to complete and when, based on project costs and available funds.

1. The existing 6 inch water main from the BPU connection along State Ave. west to the end of the existing 6 inch main should be replaced with approximately 3,300 feet of 16 inch PVC main.

2. Approximately 1 mile of 12 inch water main should be installed along Evans Rd. from 158th Street west to 166th Street.

3A. A 1.5 million gallon water storage tank should be installed west of 222nd Street, approximately 1 mile south of the City of Tonganoxie. A 16 inch water main should be installed from the water tank east approximately 1 ½ miles to 214th Street, then north approximately 1 mile to Evans Rd.

3B. A 16 inch water main should be installed along Evans Rd. from 214th Street East approximately 1 mile to 206th Street. A 12 inch water main should be constructed along Evans Rd. from the new 16 inch main at 206th Street east approximately 12,220 feet to the existing 8 inch main just east of 190th Street.

4A. A 12 inch main should be installed along State Ave. from 178th Street east approximately 6,660 feet to Node 331.

4B. A 16 inch main should be installed along 178th Street from Evans Rd. north approximately 15,100 feet to Leavenworth Rd., then approximately 1,000 feet east along Leavenworth Rd. A 12 inch main should be installed from the new 16 inch main at 178th Street and Evans Rd. east along Evans Rd. approximately 1,700 feet to tie into the existing 8 inch water main.

5. An 8 inch water main should be installed from the Harper Well Field east along Parallel Rd. approximately 2,100 feet to 158th Street, then south approximately 1,700 feet along 158th Street to the existing 8 inch main.

6. A 10 inch water main should be installed from the Moran Well Field north and west to 166th Street, then north approximately 1 ½ miles along 166th Street to Evans Rd.

7. An 8 inch water main should be installed along 182nd Street north to Parallel Rd., then west along Parallel Rd. to 183rd Street, then north along 183rd Street approximately 6,100 feet to the existing 6 inch main.

8. An 8 inch water main should be installed from 174th Street east to the existing 6 inch main at node 308.

9. An 8 inch water main should be installed along Hollingsworth Rd. from 179th Street east approximately 1 mile to 172nd Street.

10. An 8 inch water main should be installed along 158th Street from the existing 8 inch main at Node 253 to the existing 4 inch main at Node 250.

11. An 8 inch water main should be installed along Kansas Ave. from 182nd Street east approximately ½ mile to 178th Street.

12. An 8 inch water main should be installed along 198th Street from the existing 6 inch main at Node 359 north approximately 4,150 feet to the new 12 inch main along Evans Rd.

13. A 12 inch water main should be installed along 214th Street from Hemphill Rd. north approximately 8,600 feet to the new 16 main connecting to the new storage tank.

WATER SUPPLY AND WATER QUALITY IMPROVEMENTS

Currently as shown in Section III of this report, Suburban Water uses water from their existing wells and the BPU. The water is not mixed in the distribution system because of the differences in the water chemistry of the two supplies. The BPU water uses combined chlorine (chlorine and ammonia), while Suburban Water uses free chlorine to treat the wells. Mixing of the two sources of supply will increase the tendancy to form trihalomethanes (THM) and haloacetic acids (HAA), which are quality issues regulated by Federal and State requirements. Not being able to mix the water limits the ability of the Suburban Water system to operate efficiently, and limits the ability of Suburban Water to meet fire flows.

It is recommended that a new chemical feed system be designed and installed at the Suburban Water well fields to produce water with combined chlorine so that the water from the BPU supply may be mixed with the supply from the wells in the distribution system. It is also recommended that a 70,000 gallon clearwell, and high service pumps be designed and installed at the Moran Well Field to provide additional ground storage, and improve the efficiency of the well field and pumping operations.

The "MONITORING PLAN for SUBURBAN WATER", dated January 2004 should be reviewed and updated when the water treatment process is changed and also annually to determine if reduced monitoring procedures can be implemented,

and to determine if other necessary monitoring and reporting requirements must be added to the plan in order to comply with Federal and State requirements.

The Proposed Groundwater Rule, US EPA, may effect the recommendations herein. The proposed rule contains requirements concerning the disinfection of groundwater to reliably achieve a 4-log inactivation or removal of viruses. Imporvements to meet the Groundwater Rule are beyond the scope of this report and should be studied in detail when they are published and/or when the recommended improvements are designed for the well field.

DESIGN AND PERMITTING OF IMPROVEMENTS

All improvements to the Water Supply, Storage and Distribution System are subject to regulatory design and permitting requirements as shown in Section VIII of this report. All improvements must be designed and sealed by a licensed professional engineer.