



KANSAS GEOLOGICAL SURVEY

1930 Constant Ave., Campus West
The University of Kansas
Lawrence, Kansas 66047-3726
phone 785-864-3965
fax 785-864-5317

Proposed Project for Application to the Kansas Department of Health and Environment for the Kansas Public Water Supply Loan Fund

Applicant: City of Frontenac
Water Supply System Improvements, KPWSLF Project No. 2434

Contact Person: Mike Dalrymple, P.E.
Address: Kramer Engineering, P.A.
2348 SW Topeka Blvd.
Topeka, KS 66611-1286

Sent to the Kansas Geological Survey for environmental review.

Agency Review Comments:

In general, the long-term benefits of the improvements to Well No. 2, the distribution system, the water towers, and the water supply treatment plant should offset any short-term adverse environmental impacts during construction.

The continued pumping of ground water from the Ozark aquifer in southwest Missouri and southeast Kansas is having some impacts on water levels. It might be beneficial to determine the local effect of pumping Well No. 2, when it is again operable, on water levels at Wells No. 1 and 3, to assist in separation of local impacts from regional impacts of pumping. Allen Macfarlane of the Kansas Geological Survey has been conducting a water-level monitoring program of the Ozark aquifer in southeastern Kansas and may have made some measurements on your wells.

Recommended Action:

- ☒ Clearance of project should be granted
- ☐ Clearance of project should not be granted
- ☐ Clearance of project should be delayed until the issues or questions have been clarified
- ☐ Clearance of project should not be delayed, but the applicant (in the application) should address or clarify the questions or concerns indicated above

Donald Whittemore
Reviewer's Name

Geohydrology Section, Kansas Geological Survey
Division/Agency

10/20/06
Date


Reviewer's Signature

The above discussion represents our best assessment based on the information that the Kansas Geological Survey has about this locality and/or proposed project at the time of this writing. Other geologic conditions, not discussed herein, or for which the Kansas Geological Survey has no knowledge, may affect the viability or safe operation of this facility or property. The information provided in this letter is from regional or county-wide studies and should not be used as a substitute for detailed site characterization by a licensed geologist or engineer. It is the responsibility of the applicant to provide any required site characterizations.



KRAMER ENGINEERING, P. A.

CONSULTING ENGINEERS • SURVEYORS

2348 SW TOPEKA BLVD • TOPEKA, KANSAS 66611 • 785-234-6600 • FAX 785-234-6611

October 3, 2006

Re: Water System Improvements
City of Frontenac, Kansas
Kansas Public Water Supply Loan Fund
KPWSLF Project No. 2434

Dear Addressee:

Enclosed for your comments are Intergovernmental Review Forms for the referenced project with attached project description and site location map. Please complete the transmittal form and return it to our office by November 3rd, 2006.

The City of Frontenac, Kansas, is preparing an application to the Kansas Department of Health and Environment for a loan from the Kansas Water Supply Loan Fund for the referenced project. Improvements to the existing water system are being made so the City can provide adequate water supply to its existing and future residents, maintain minimum recommended system pressures throughout the distribution system, and upgrade the water treatment plant equipment and controls. This project will comply with appropriate state laws concerning the application.

If you have any questions about the review or the project, please contact me at 785-234-6600.

Sincerely,

KRAMER ENGINEERING, P.A.


Mike Dalrymple, P.E.
Vice President

MD/cs

Enclosures



KRAMER ENGINEERING, P. A.

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WATER SYSTEM IMPROVEMENTS CITY OF FRONTENAC, KANSAS

KPWSLF Project No. 2434

October 3, 2006

The City of Frontenac, Kansas, (City) is located in Crawford County and the City of Pittsburg borders Frontenac just to the south. According to current records, the City has a population of approximately 3,000 persons. The City's water system serves a total of 1,474 meters which consists of 1,468 residential meters including those that serve the churches, the City's schools, and City utilities, and 6 commercial meters. The Planning Area for this project is all land within the city limits of Frontenac. All proposed improvements will take place inside the city limits. (Refer to attached Planning Area Map)

The existing water system consists of three (3) public water supply wells, water treatment plant, distribution system, and two (2) elevated water storage towers. The untreated water is withdrawn from the water supply wells and chlorinated and filtered at the water treatment plant. The treated water is stored in an underground concrete clearwell at the water plant and in two (2) elevated water storage tanks and is distributed throughout the water distribution system.

Improvements to the existing water system are being made so the City can provide adequate water supply to its existing and future residents, maintain minimum recommended system pressures throughout the distribution system, and upgrade the water treatment plant equipment and controls.

The City has decided to construct well improvements that include rehabilitation of existing Well No. 2, new well pump, and new piping and valves. Well No. 2 is not operational at this time. Well No. 1 and Well No. 2 are located at the water treatment plant site. Well No. 3 is located 500 feet north of the water treatment plant site. Distribution system improvements include replacing the remainder of asbestos cement piping in the system, replacing the majority of old sand cast iron piping in the system, replacing nonfunctioning valves and fire hydrants, and increasing water line sizes and looping water lines to improve pressures and water quality. In addition, both water towers will be repaired and repainted.

Water treatment plant improvements will include replacement of existing filter controls, filter media, and valves, new telemetry for water tower level control, new control building at the water plant site for better plant operational control, and improvements to other plant controls.

The opinion of probable project cost is \$1,882,000, which includes engineering, legal, testing, inspection services, construction, equipment, materials, supplies, labor, and administrative fees all needed to complete the project. The City plans to finance the project with Kansas Public Water Supply Loan Funds administered by KDHE. Also, the City expects to increase water rates to repay any borrowed funds.

INTERGOVERNMENTAL REVIEW TRANSMITTAL FORM

Comments By: Kansas Geological Survey Transmittal Date October 3, 2006

Project Title: Water System Improvements, City of Frontenac, Kansas

Contact Person: Mike Dalrymple, P.E., Project Engineer

Return To: KRAMER ENGINEERING, P.A.
2348 SW Topeka Blvd.
Topeka, Kansas 66611-1286

This form provides notification and the opportunity for your agency to review and comment on the proposed project as required by Executed Order 12372. Please complete Parts I and II as appropriate. Your response by November 3, 2006 will be appreciated.

PART I - AGENCY REVIEW COMMENTS:

PART II - RECOMMENDED ACTION COMMENTS:

- ☐ Clearance of the project should be granted.
 - ☐ Clearance of the project should not be granted.
 - ☐ Clearance of the project should be delayed until the issues or questions have been clarified.
 - ☐ Clearance of the project should not be delayed, but the Applicant should (in final design and/or permit application) address and clarify the questions or concerns indicated above.
 - ☐ Request the opportunity to review final application prior to submission to the federal funding agency.
 - ☐ Request the State Process Recommendation in concurrence with above comments.
-

Reviewer's Name: _____

Date: _____