

February 28, 2007

Suzanne E. Loomis, PE
City of Newton
P.O. Box 426
Newton, KS 67114-2215

Dear Ms. Loomis,

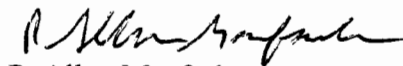
I have reviewed the proposed project for the city of Newton in which improvements are to be made to their water distribution system.

Based on the documents attached to your request, it does not appear that there are any potential geologic hazards worth noting that might impact this project.

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 countywide 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.

If you have questions please do not hesitate to contact me at my office (785 – 864-2068).

Sincerely yours,



P. Allen Macfarlane

The following form may be used by the Review Agency/Commission for comments in response to the request for clearance from the proposed Public Water Supply Loan Fund Project.

☐ Army Corps of Engineers
☐ Kansas Biological Survey
☐ State Conservation Commission
☐ Kansas Corporation Commission
☐ Division of Water Resources/Kansas Department of Agriculture
☒ Kansas Geological Survey
☐ Kansas State Historical Society, State Historic Preservation Office
☐ Kansas Water Office
☐ Kansas Department of Wildlife and Parks
☐ US Dept. of Agriculture - Natural Resources Conservation Service
☐ Kansas Department of Health and Environment
☐ US Department of the Interior - Fish and Wildlife Service

Agency Review Comments: (to be completed by reviewing agency and returned to applicant contact person at name and address shown below)

Comments: See attached

Recommended Action: (to be completed by the reviewing agency and returned to applicant contact person at name and address shown below.)

☒ 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.

P Allen Macfarlane KGS 2/28/07
Reviewer's Name Division/Agency/Commission Date

Project Title: Public Water Supply Loan Fund Application

Applicant: City of Newton, KS
Contact Person: Suzanne Loomis, P.E.
Address: 201 E. 6th, P.O. Box 426
City, State: Newton, KS Zip: 67114-2215 Phone: 316-284-6020



Professional Engineering Consultants, P.A.

January 19, 2007

Kansas Geological Survey
University of Kansas
1930 Constant Ave. - Campus West
Lawrence, KS 66047

Reference: City of Newton, Kansas
Water Tower and 12" Waterline along 12th Street
Kansas Public Water Supply Loan Fund
KPWSLF No. 2465
PEC Project No. 35-06570-158

To Whom It May Concern:

The City of Newton is preparing an application to the Kansas Department of Health and Environment for a loan from the Kansas Public Water Supply Loan Fund for the referenced project. These improvements include the abandonment of the existing standpipe at the intersection of 12th and Walnut, and the installation of a 12" waterline from a new elevated 0.50 MG storage tower to the existing 12" waterline near 12th Street and Main Street. The improvements are located in the SE/4 of Section 8, Township 23 S, Range 1 E (see attached map). All improvements will be made within existing easements and/or right-of-way.

The total combined project estimate for these improvements is \$1,667,259.00.

We would appreciate your review of the project description and location, and any comments you may have, within 30 days. A project review form is enclosed for your use.

Please contact the undersigned at 316.262.2691 if you have any questions.

Very truly yours,

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

Ryan Sims, I.E.
Design Engineer

RES/tac

Encl: As noted

cc: Ms. Suzanne Loomis, P.E., City of Newton, City Engineer (w/o encl.)

DIRECTORS:

D.E. MALTBY, P.E.
M.D. SCHOMAKER, P.E.
J.H. BAILEY, P.E., Ph.D.
D.I. NORTON, P.E.
B.E. REMSBERG, P.E.
G.K. GREENWOOD, P.E.
D.E. HAGER, P.E.
M.W. BERRY, P.E.
J.B. GEORGE, P.E.
R.A. SCHLITT, P.E.

ASSOCIATE

DIRECTORS:

K.L. ROOD, P.E.
W.G. BRITSON, P.E.
T.M. LENZ, P.E.
R.R. YOUNG, P.E.
J.P. MOORE, P.E.
J.L. MARTIN, P.E.
W.G. MOHR, P.E.
W.D. HUBBARD, P.E.
B.J. EDMUNDSON, P.E.
D.L. DOWNES, P.E.

■

303 S. TOPEKA
WICHITA, KANSAS
67202
316-262-2691
316-262-3003 FAX
www.pec1.com

■

WICHITA
TOPEKA
TULSA
LAWRENCE
PITTSBURG

Environmental Assessment
For the
Newton Water Tower and 12" Waterline along 12th Street
KPWSLF Project No. 2465
PEC Project No. 35-06570-158

1.0 Purpose and Need for Project

1.1 Project Description:

This project includes the abandonment of the existing standpipe, (located in the Southeast quarter of Section 8, Township 23S, Range 1E at the intersection of 12th and Walnut in Newton, KS) and installation of a 12" waterline from a new elevated 0.50 MG storage tower to the existing 12" waterline near 12th Street and Main Street.

The waterline portion of the project consists of 1,750 feet of 12" waterline along with 100 feet of 6" waterline that must be constructed along with the necessary hydrants, valves, and reconnections.

1.2 Purpose and Need of the Project:

The purpose and need for the above referenced project is to improve the reliability as well as ensure adequate storage of the water supply for the City of Newton and its community. The existing standpipe at 12th and Walnut has been in service for almost 100 years and is reaching the end of the useful design life. The reliability of the structure has severely deteriorated over the last few years. Several leaks have developed along with areas of rust and corrosion. The city has made several repairs but more repairs or replacement is needed to ensure a reliable storage tank. The new tower will provide a more reliable storage facility and will ensure the surrounding area has adequate flow and pressures.

2.0 Alternatives to the Project:

The City of Newton has two alternatives to correct the problems with the existing standpipe. The first alternative would be to repair the standpipe. After careful inspection by Professional Engineering Consultants, P.A. to review the condition and feasibility of necessary repairs, the standpipe would not prove feasible or cost effective. The second alternative would be to abandon the standpipe. The City would close valves so that water is not fed to the tower. This alternative would involve little or no cost to the City. However, the City would lose the benefit of the storage in the standpipe. This alternative would also decrease the pressures and flows to the area surrounding the standpipe, as well as decrease the available water in times of shortages or emergencies.

3.0 Affected Environment / Environmental Consequences:

3.1 Land Use / Important Farmland / Formally Classified Lands:

No prime farmland, land use or classified lands would be altered or removed from production of the recommended project.

3.2 Floodplains:

No floodplains would be altered or removed because of the recommended project.

3.3 Wetlands:

No known wetlands would be affected by the recommended project.

3.4 Cultural Resources:

No known cultural resources would be affected by the recommended project.

3.5 Biological Resources:

No known biological resources would be affected by the recommended project.

3.6 Water Quality Issues:

No long-term adverse impacts to local water supply, surface waters, groundwater or aquatic environment are anticipated from implementing the recommended project. Short-term impacts include reduced water pressure to users in the impacted construction area during construction of the water mains. After the construction phases are complete and restoration measures are in place, the water quality would return shortly to pre-construction conditions.

3.7 Endangered or Threatened Species:

No known endangered or threatened species would be affected by the recommended project.

3.8 Air Quality:

The recommended project would have minimal air quality impacts to the Newton community. Short-term impacts would occur during the construction phase of the project and include an increase in emissions by

heavy construction equipment and dust emissions during trenching operations. The prompt re-vegetation of bare soils would reduce air quality concerns and the loss of surface soils.

4.0 Summary:

In summary, the project consists of the demolition of the existing water storage standpipe located at the intersection of 12th and Walnut in Newton, KS. The recommended procedures to improve the reliability, as well as ensure adequate storage of the water supply for the City of Newton and its community, include abandoning the existing standpipe and install a 12" waterline from a new elevated 0.50 MG storage tower to the existing 12" waterline near 12th Street and Main Street. The new tower and waterlines will provide a more reliable storage facility and will ensure the surrounding area has adequate flow and pressures.

5.0 Exhibits / Maps

Attached is a map showing the location and alignment of the proposed improvements.

New 0.5 MG Spheroid Elevated Storage Tank

Item	Description	Unit	Quantity	Unit Price	Extension
1	0.5 MG Elevated Storage Tank	LS	1	\$ 1,000,000.00	\$ 1,000,000.00
2	Control Valve & Yard Piping	LS	1	\$ 15,000.00	\$ 15,000.00
3	Telemetry Controls	LS	1	\$ 7,500.00	\$ 7,500.00
4	Site Work	LS	1	\$ 10,000.00	\$ 10,000.00
5	Demolition of Existing Standpipe	LS	1	\$ 25,000.00	\$ 25,000.00
6	Demolition of Existing Foundation	LS	1	\$ 33,000.00	\$ 33,000.00
7	Site Clearing and Restoration	LS	1	\$ 15,000.00	\$ 15,000.00
Construction Estimate = \$					1,105,500.00

12" Waterline along 12th St.

Item	Description	Unit	Quantity	Unit Price	Extension
1	12" Waterline	LF	1,600	\$ 45.00	\$ 72,000.00
2	12" Waterline by Directional Drill	LF	240	\$ 120.00	\$ 28,800.00
3	6" Waterline by Directional Drill	LF	100	\$ 75.00	\$ 7,500.00
4	12" Valve Assembly	Ea.	3	\$ 1,250.00	\$ 3,750.00
5	Fire Hydrant Assembly	Ea.	1	\$ 2,250.00	\$ 2,250.00
6	Reconnect Existing FH Assembly	Ea.	2	\$ 1,250.00	\$ 2,500.00
7	Service Line Reconnections	LS	1	\$ 7,500.00	\$ 7,500.00
8	Erosion Control	LS	1	\$ 2,500.00	\$ 2,500.00
9	Site Clearing & Restoration	LS	1	\$ 10,000.00	\$ 10,000.00
Construction Estimate = \$					136,800.00

Total Construction Estimate = \$ 1,242,300.00

Contingencies (15%) = \$ 186,345.00

Engineering Design (8%) = \$ 99,384.00

Construction Engineering (1.5%) = \$ 18,634.50

Construction Inspection (6%) = \$ 74,538.00

Legal (2.5%) = \$ 31,057.50

Geotechnical Investigation = \$ 15,000.00

Total Project Estimate = \$ 1,667,259.00

