

April 9, 2007

Robert E. Hosack
Hosack Community Planning and Development Services
209 E. 10th St
Chanute, KS 66720

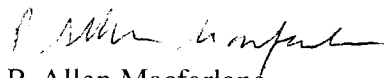
Dear Mr. Hosack,
I have reviewed the proposed project for the city of St. Paul, Kansas.

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.

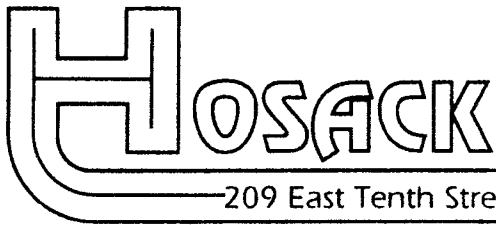
The above discussion represents our best assessment based on the information that the Kansas Geological Survey has about this locality and/or proposed project at the time of this writing. Other geologic conditions, not discussed herein, or for which the Kansas Geological Survey has no knowledge, may 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



Community Planning and Development Services

209 East Tenth Street — Chanute, Kansas 66720 — (316) 431-9547

March 31, 2007

Allen Macfarlane

Mr. Donald Whittermore, Senior Scientist
Kansas Geological Survey
The University of Kansas
1930 Constant Avenue, Campus West
Lawrence, Kansas 66047-3726

**Re: City of St. Paul, Kansas
CDBG Environmental Assessment
Raw Water Intake Structure Replacement Project**

Macfarlane

Dear Mr. ~~Whittermore~~:

The City of St. Paul, Kansas, located in Neosho County, is applying for Community Development Block Grant (CDBG) funds to construct a new raw water intake structure to replace its existing structure. As a part of the CDBG environmental review process, comments on this proposed project by your agency are hereby requested. In order for your agency's comments to be considered, they must be received in writing at the **letterhead address** above on or before **Tuesday, May 1, 2007**. If your agency does not respond by the specified date, it will be considered as a **"no comment"** on the project.

Recently, the City experienced a failure with its raw water intake due to an inflow of silt, which is described in the enclosed document entitled *Raw Water Structure Replacement Project*. This problem has put the community's water supply for potable uses and fire protection at risk. The project is to consist of the construction of a new raw water intake structure at a location immediately adjacent to the existing structure on the Neosho River. In addition to the above-cited document, please find enclosed a project location map for your review.

To obtain technical information on this project, please contact Shoeb Uddin, P.E., of CP Engineers and Land Surveyors, Inc., Topeka, Kansas, at (785) 267-5071. If you should have any other questions, please do not hesitate to contact me at (620) 431-9547.

Sincerely,

Robert E. Hosack
St. Paul Project Administrator

Enclosures (2)

RAW WATER INTAKE STRUCTURE REPLACEMENT PROJECT

CITY OF ST. PAUL, NEOSHO COUNTY, KANSAS

PREPARED BY CP ENGINEERS AND LAND SURVEYORS, INC.

MARCH 5, 2007

Introduction

The Raw Water Intake Structure in St. Paul, Kansas, is located on the Neosho River and consists of a concrete storage well, pump house, two pumps, shut-off valve and accessories. The storage well is 6 feet by 6 feet in horizontal dimensions and 40 feet deep. Water from Neosho River flows into the storage well through a buried water line.

Problem Statement

In December of 2006, the City Maintenance crew noticed that the pumping rate at the raw water intake structure was varying widely. The pumping rate went down from the regular 200 gallons per minute to about 50 gallons per minute. It was determined that the silt deposit at the bottom of the storage well reached a point when it was interfering with the pump operation. This problem was solved, rather temporarily, by frequently sending one person with a 5-gallon bucket and torch light down into the narrow and dark 40-foot deep storage well to remove the silt. Since then it has been a continuous challenge for the City of St. Paul to clean up the silt deposits from the bottom of the storage well. The existing storage well is narrow and deep. The City maintenance crew has been performing this dangerously daunting task of manual removal of the silt from the bottom of the storage well. It usually takes few trips before all the silt deposits are removed. This procedure, while manual, tedious and outright dangerous, was interrupted recently when the Shut-off valve quit functioning properly. This valve is used to shut off the inflow of water from the river into the storage well so the crew can go into the storage well to clean up the silt. As silt is getting deposited at the bottom, the City is facing a serious risk of sudden interruption of water supply to its residents.

On January 09, 2007, Shoeb Uddin, P.E., from CP Engineers and Land Surveyors, Inc., Topeka, Kansas, visited the Raw Water Intake Structure Site at the request of the St. Paul City Council. In search of alternative solutions to the water intake problem, the engineer investigated the feasibility of a back up water supply from Erie, Kansas, which is located approximately 5 miles to the northwest from St. Paul. While a back up water supply source would have allowed some more time to fix the problem experienced at the Intake Structure, which is the primary source of water for St. Paul residents, this approach would cost in excess of \$750,000.00 and hence considered not to be financially feasible.

The engineer also investigated the alternative of a band-aid measure that would involve installing a valve just outside the intake structure so the water inflow from the river could be shut off when the silt deposits inside the storage well interfere with the pump operation. While the estimated cost for this work is over \$10,000.00, this alternative was rejected because it is only a temporary partial solution that would do nothing to eliminate the inflow of silt and the dangerous need of having a city employee frequently climb down into the narrow and dark, 40-foot deep storage well with a bucket and torch light to remove the silt.

Therefore, the only feasible alternative available to the City of St. Paul is the immediate replacement of the Raw Water Intake Structure to ensure that the community has a continuous supply of water for potable uses and fire protection. This alternative will also eliminate the dangerous situation of having a city employee climb down into the narrow and dark, 40-foot deep storage well with a bucket and torch light to remove the silt.

Over the years, water pumps at the Intake Structure have been replaced many times. One of the pumps was installed approximately 3 years ago. The other pump was rebuilt 7 years ago. In 1997, the intake pipe broke at the bank due to a tree branch getting entangled in the pipe during a high flood. C.P. Engineers and Land Surveyors, Inc. led a successful and emergency design-build project to repair the broken pipe.

Proposed Improvements

In order to ensure uninterrupted water supply to the residents of St. Paul, we propose the following emergency improvement measures with respect to the Water Intake Structure and the Water Treatment Plant.

- Build a New Water Intake Structure equipped with new pumps, pump house, intake pipe etc.
- Abandon Existing Intake Structure

System Maintenance

It is estimated that this facility will require an annual maintenance budget of approximately \$10,000.00 to pay for all labor and materials for the short term as well as for the long term.

Estimated Total Project Cost

An itemized table presenting the Estimated Total Project Cost appears below on Page 3.

ESTIMATED TOTAL PROJECT COST

<u>Item</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Extension</u>
Mobilization -	L.S.	L.S.	\$ 15,000.00
Clearing and Grubbing -	L.S.	L.S.	\$ 10,000.00
Water Intake Structure	L.S.	L.S.	\$180,000.00
Pump House -	L.S.	L.S.	\$ 60,000.00
Pumps (3 each) -	3	\$20,000.00	\$ 60,000.00
Water Line (River to Intake Structure)	400 L.F.	\$106.00	\$ 42,400.00
Fencing and Gate	L.S.	L.S.	\$ 5,000.00
Seeding	L.S.	L.S.	\$ 5,925.00
Access Gravel Road	L.S.	L.S.	\$ 10,000.00
Land Acquisition	L.S.	L.S.	\$ 10,000.00
Abandon Exist. Intake structure	L.S.	L.S.	\$ 20,000.00
Geotechnical Exploration	L.S.	L.S.	\$ 10,000.00
Construction Staking	L.S.	L.S.	\$ 15,000.00
Total Construction Cost			\$443,325.00
Engineering Design			\$ 45,050.00
Construction Inspection			\$ 25,000.00
Grant Administration			\$ 18,000.00
Legal Fees			\$15,000.00
Total Project Cost			\$546,375.00



NORTH



CITY OF ST. PAUL, KANSAS **WATER INTAKE STRUCTURE REPLACEMENT** **PROJECT LOCATION MAP**

LEGEND

- Project Location on North Side of the Neosho River.