

1930 Constant Avenue
Lawrence, KS 66047-3724
August 7, 2007

Brian J. Foster, E. I. T.
BG Consultants, Inc.
2508 W. 15th Ave.
Emporia, KS 66801

Dear Mr. Foster,

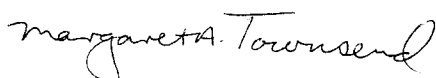
I was asked to comment on the wastewater treatment expansion plans for the City of Neosho Rapids. I noticed that the area of the proposed lagoon expansion is situated on the Ivan, Kenoma, and Ladysmith silty clay loams. These soils are of fairly low permeability and suitable for the lagoons provided that the soil is compacted or lined.

I also noticed that your project involves removal of sludge from the lagoons. There was no information provided as to where the disposal of the sludge would occur. The soils in the area would have minimal infiltration and might be conducive to leachate runoff from the sludge if it is stockpiled in the immediate area. Runoff from waste treatment of sludge is likely to be high in organic matter, nitrogen, and other potentially soluble contaminants that may impact any surface water that intercepts the runoff water. I think the issue of sludge disposal should also be addressed before this project proceeds.

The project is needed and should proceed provided that the question of liners or compaction of the lagoons is addressed and also the disposal of the sludge removed from the lagoons.

The above comments are based on regional geologic conditions and limited information available to the KGS at the time of writing and cannot be used in substitute for a detailed site characterization. Other geologic conditions, not discussed here, or for which the KGS has no knowledge, may affect the viability or safe operation of this facility or property. Geotechnical engineering and design are outside the purview of the KGS. It is the responsibility of the applicant to produce any detailed site characterizations, geotechnical or environmental testing, or design by a licensed professional geologist or engineer to complete the project.

Sincerely,



Margaret A. Townsend
Hydrogeologist
Geohydrology Section

AGENCY REVIEW TRANSMITTAL FORM

Comments by: Margaret Townsend

Transmittal Date

Neosho Rapids
PROJECT TITLE:

CONTACT PERSON:

☐ Notification of Int

☐ Preapplication

☐ Final Application

☐ Direct Development

This form provides notification and the opportunity for your agency to review and comment on this proposed project as required by Executive Order 12372. Please complete Parts II & III as appropriate. Your prompt response will be appreciated.

RETURN TO:

PART I

REVIEW AGENCIES/COMMISSIONS

☐ Aging
☐ Agriculture - DWR
☐ Biological Survey, KS
☐ Conservation Comm.
☐ Corporation Comm.
☐ Commerce

☐ Education
☒ Geological Survey, KS
☐ Health & Environment
☐ Historical Society
☐ Human Resources
☐ Social & Rehab. Serv.

☐ State Forester,
☐ Transportation
☐ Water Office, KS
☐ Wildlife & Park

PART II (To be completed by review agency and returned to contact person)
AGENCY REVIEW COMMENTS
COMMENTS:

PART III (To be completed by review agency and returned to contact person)
RECOMMENDED ACTION COMMENTS

☐ Clearance of the project should be granted.

☒ Clearance of the project should not be delayed but the Applicant should (in the final application) address clarify the questions or concerns indicated above.

☐ Clearance of the project should not be granted.

☐ Clearance of the project should be delayed until the issues or questions have been clarified

☐ Request the opportunity to review final application prior to submission to the federal funding agency

☐ Request a State Process
Recommendation in concurrence with above comments.

DIVISIONS/AGENCY/COMMISSION

Reviewer's Name Margaret A. Townsend
(09/23/04) PN 532

Date 8-3-07

July 23, 2007

Kansas Geological Survey
University of Kansas
1930 Constant Ave.-Campus West
Lawrence, KS 66047-3726

RE: Environmental Review – Neosho Rapids, KS – Wastewater Treatment and
Collection Improvements

Dear Sirs:

The City will be applying for a Rural Development Loan of approximately \$429,000 and a Rural Development Grant of approximately \$351,000 from the United States Department of Agriculture along with a \$400,000 Department of Commerce Block Grant to upgrade the City's wastewater treatment and collection system. The improvements will be situated within City right of way. The proposed treatment improvements will be within the existing facility. A new lift station and forcemain is also proposed.

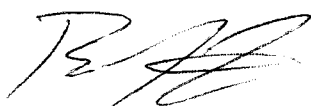
The improvements will be in the City of Neosho Rapids located in Section 29 & 28, Township 19S, Range 13E, Lyon County, Kansas.

I am attaching the Explanation of Alternatives and an aerial map of the proposed improvements. The map does not include the collection line replacement/rehabilitation due to the fact that these lines have not been prioritized at this time. The existing lines are shown and any replacement/rehabilitation would be in the same location.

Please submit your response to BG Consultants, Inc., 2508 W. 15th Avenue, Emporia KS 66801.

Please contact me at (620) 343-7842 with any questions you might have.

Sincerely,



Brian J. Foster, E.I.T.

Enc.



Also

Lawrence, Ks. • Hutchinson, Ks. • Manhattan, Ks.

1.1 REPORT OBJECTIVE

The Wastewater Treatment Facility for the City of Neosho Rapids, Kansas has periodically not been able to stay in compliance with its Kansas Water Pollution Control Permit and the U.S. Environmental Protection Agency, national Pollutant Discharge Elimination System (NPDES). The objective of this report shall be to determine the most cost effective long term solution to the current problem of periodic non-compliance.

1.2 SCOPE

The Wastewater Treatment Facility for the City of Neosho Rapids, Kansas presently consists of a 3-cell discharging lagoon system located Southeast of town. The facility is fed with force main that is fed by gravity sewer lines. The treatment facility discharges into Plum Creek. The purpose of this report shall be to:

- A. Evaluate the condition of the existing 3-cell discharging lagoon system.
- B. Evaluate the existing characteristics of the City of Neosho Rapids, Kansas related to domestic waste generation to the treatment facilities.
- C. Discuss and evaluate various alternatives to updating the existing treatment facilities.
- D. Evaluate the existing conditions of the lift station and the alternatives available.
- E. Evaluate the existing sanitary sewer collection system through previous reports and in field inspections.
- F. Present preliminary design considerations and cost estimates for the alternates chosen.
- G. Evaluate the sewer use charges and determine the best method to pay for the improvements.

1.3 EXECUTIVE SUMMARY

OVERVIEW: The study was conducted due to health and safety concerns and quality of waste water collection and treatment concerns.

ALTERNATIVES: Several possible alternatives were examined and were discussed with the City. A summary of the alternatives is listed below:

- NO ACTION – This is determined to be not an option due to the unreasonable response regarding the health and safety concern issues.
- SOUTH LIFT STATION REPLACEMENT – The existing lift station is aged, pump capacity is in question and existing force main is aged.
- LAGOON IMPROVEMENT (TRIAL 1) – Minimal improvements to the lagoons to provide better flow paths along with sludge removal.
- LAGOON IMPROVEMENT (TRIAL 2) – This is a more extensive lagoon rehabilitation. This is more of a long term fix.

- **COLLECTION SYSTEM IMPROVEMENTS** – This is recommended due to the high I & I issues.

RECOMMENDATIONS: It is recommended that the City of Neosho Rapids replace the aging lift station, evaluate and rehabilitate the existing lagoons system, and rehabilitate the collection system with cure in place pipe (CIPP) and manhole sealant. The opinion of probable cost for the proposed project is \$1,180,480. A detailed cost description is located at the end of Section 6.

FUNDING: There are several different funding options available to the City of Neosho Rapids. The following is a brief description with the deadlines associated with each funding option.

- **Community Block Development Grant (CDBG)** – This grant program is a competitive program with a maximum possible grant of \$400,000. The City must attend a KIAC meeting before submitting for the grant. All grant applications must be submitted by the end of September and funds are awarded in January.
- **State Revolving Loan Fund (KDHE-SRF)** – This SRF loan is a 20 year loan with an interest rate and service fee of around 4%. Projects are selected for funding in May of each year and are competitive with other Cities.
- **Rural Development (RD)** – The Rural Development loan is a 40 year loan with an interest rate that may vary from 4%-5% and is competitive with other Cities, Counties, etc. The grants are base on a percentage of the project and will not exceed 45%. The Rural Development funding is from a federal pool of money that is awarded in October of each year.

USER RATES: The increase in consumer water rates will be dependent upon which funding option is obtained. The current sewer rates for the City of Neosho Rapids are as follows:

Existing rates July, 2007 (*estimated)

USER		NO.	RATE	\$/MO.
A)	Residential	128	\$ 15.00	* 1,920.00
B)	School	1	\$100.00	* 100.00
		Total (monthly)		*\$ 2,020.00
		Total (yearly)		*\$24,240.00



