



KANSAS GEOLOGICAL SURVEY

1930 Constant Ave., Campus West
The University of Kansas
Lawrence, Kansas 66047-3726
Phone: 785-864-3965
Fax: 785-864-5317

July 6, 2005

Ms. M. Schlickbernd, I. E.
Wilson & Company
P.O. Box 1640
Salina, KS 67401-1640

Dear Ms. Schilckbernd,

I received your request for review of the Pretty Prairie wastewater treatment plant lagoon facility. I have done work in that area regarding the high nitrate-N concentration that occurs in the local ground water. At the time of my work the primary source of contamination appeared to be fertilizer. However, I have worked in other areas of Reno County with similar lithologies in the unsaturated zone that were contaminated by animal waste.

I have no problem with the need for the treatment facilities. I would strongly recommend that the lagoons be adequately lined both with bentonite and/or a liner to prevent any possibility of leakage. The unsaturated zone in Pretty Prairie is sand and is very permeable for recharge of water whatever the origin: rainfall, wastewater, or irrigation water.

The materials sent to me did not include a technical description of what will be done. I talked with one of the employees at Wilson & Company and found out that a liner of some sort will be utilized.

I also presume that some sort of monitoring system will be in place. It might be useful to include some sort of unsaturated zone samplers at an angle below the lagoon in order to have an earlier warning system for leakage than the traditional water well system. The area already has enough of a nitrate problem without the potential of future contamination from wastewater.

The comments made in this letter are based on the limited information provided to me and on the limited information I was able to access at my office. If you have questions concerning my comments please feel free to contact me.

Sincerely,

Margaret A. Townsend
Hydrogeologist

WILSON & COMPANY

1700 East Iron Avenue
Salina, Kansas 67401
P.O. Box 1640 67402-1640
785-827-0433
785-827-5949 Fax

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Wilson & Company
Latin America, LLC

15 June 2005

Dr. William Harrison, Interim Director
Kansas Geological Survey
University of Kansas
1930 Constant Avenue - Campus West
Lawrence, KS 66047

Re: Environmental Clearance
Wastewater Treatment Lagoon Facility
Pretty Prairie, Kansas
WCI File: X4-410-074; Ph 02; T.C. 71

The City of Pretty Prairie is seeking funding through the Kansas Water Pollution Control Revolving Loan Fund as administered by the Kansas Department of Health and Environment (KDHE) for the construction of a wastewater treatment lagoon facility. The proposed new discharging wastewater treatment lagoon facility includes: three (3) lagoon cells; control structures and piping; a new pump station; and a new outfall structure. An additional description of the proposed improvements is attached. A copy of the cover sheet to the City's proposed loan application is also attached for reference.

As part of the Intergovernmental Review process, we are asking for your agency to review and comment on the proposed project. An Agency Review Transmittal Form is included for your convenience. Please complete Parts I and II, as appropriate, and return the form to my attention. Your response is requested by 15 July 2005.

WILSON & COMPANY



Melissa D. Schlickbernd, I.E.
Project Engineer

Enclosures

cc: Curt Miller, Mayor, City of Pretty Prairie (w/ Enclosure)

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Kansas Department of Health and Environment

APPLICATION FOR SRF LOAN ASSISTANCE		New	Amendment
Project Number	C 20-1399-01	Application Type	X
1. Legal Applicant / Recipient		2. Type of Applicant / Recipient	
Applicant Name	City of Pretty Prairie, Kansas	A. City B. County C. Other (Specify) Enter Appropriate Letter A	
Organization Unit	City		
Street / PO Box	119 West Main / P.O. Box 68		
City	Pretty Prairie		
County			
State / Zip code	Kansas / 67570		
Contact Person Name	Curt Miller, Mayor		
Telephone Number	620-459-6392		
3. Title of applicants project City of Pretty Prairie, Wastewater Lagoon Facility			
4. Type of Project Wastewater Treatment Facility - Discharging Lagoons			
5. Employer Identification Number			
6. Area of project impact (Names of cities, counties, etc)		City of Pretty Prairie - Reno	
7a. Congressional District / Applicant		First	
7b. Congressional District / Project		First	
8. Type of change		Increase dollars	\$ -
		Decrease dollars	\$ -
9. Proposed Funding			
SRF Loan 9a.	\$ 721,403	10. Project Start Date 03/01/06 (Estimated) 11. Project Duration 9 mos. (Months) 12. Date Submitted (To KDHE)	
Applicant 9b.	\$ -		
CDBG 9c.	\$ 400,000		
EPA 9d.	\$ -		
EDA 9e.	\$ -		
Other 9f.	\$ -		
Total	\$ 1,121,403		
13. Requested Loan Repayment Period (Must not be over 20 years) 20 yrs.			
14. The applicant certifies that: To the best of my knowledge and belief, data in this pre-application / application is true and correct, the document has been duly authorized by the governing body of the applicant and the applicant will comply with the attached assurances if the assistance is approved		This notice of intent / preapplication / application was made available to the state executive order 12372 process for review on: Date	
15. Certifying Representative		Signature	
Name	Curt Miller		
Title	Mayor		
Mail completed application to: Kansas Department of Health and Environment Bureau of Water / Attn: Rod Geisler Municipal Programs Section, Suite 420 1000 SW Jackson Street Topeka, KS 66612-1367		If you need assistance please contact: Bill Mond Administrative / Finance Section, Suite 420 1000 SW Jackson Street Topeka, KS 66612-1367 785-296-4049	

PROJECT DESCRIPTION

City of Pretty Prairie, Kansas
Wastewater Treatment Facility

Background

The City of Pretty Prairie, under the authority of the National Discharge Elimination System (NPDES) Permit No. M-AR75-0001, discharges wastewater effluent from a mechanical treatment plant that utilized a trickling filter into the Ninnescah River via the Smoots Creek via an Unnamed Tributary. The NPDES is administered by the Kansas Department of Health and Environment (KDHE). A map showing the general location of the existing wastewater treatment facility is attached.

The City of Pretty Prairie was issued a new NPDES permit in November 2003. The permit contained new limits on effluent ammonia, fecal coliform, and total chlorine residual and more stringent limits on effluent BOD. The City is to also continue monitoring the effluent for total phosphorus, nitrates, nitrites, and total kjeldahl nitrogen (TKN). Based on the effluent data from other similar mechanical treatment facilities in Kansas, KDHE presently predicts an effluent limitation for total phosphorus and total nitrogen will be required in the near future, possibly when the NPDES permit is reissued.

Project Description

The construction of a discharging wastewater treatment lagoon facility appears to be the best long-term wastewater treatment process and the most cost effective for the City. The proposed project includes the following components as described below and the location is indicated on the attached map:

1. Construction of a 3-cell, 120-day detention time discharging wastewater treatment lagoon facility.
2. Construction of a new outfall structure in a new location of the creek.
3. Construction of a new pump station located at the existing treatment facility and approximately 4,770 feet of force main piping to the new lagoon facility.

Project Cost

The current opinion of probable costs for the proposed improvements is:

New Lagoon Facility Complete	\$941,169
Engineering, Administrative, Legal, and Fiscal Costs	<u>\$180,234</u>
Total Probable Project Cost	\$1,121,403

Project Financing

As partial financing for the proposed improvements, the City intends to apply for low interest loan funding through the Kansas Water Pollution Control Revolving Loan Fund (KWPCRLF) as administered by KDHE. The loan fund money can be obtained for terms up to twenty years at lower interest rates than commercially available. Loan repayments begin one year after construction completion and can be generated through sewer user charges, sales tax, or general obligation bonds.

In an effort to minimize the amount of loan funding necessary, the City also intends to apply for grant funding through Community Development Block Grant (CDBG) program as administered by the Kansas Department of Commerce and Housing.

AGENCY REVIEW TRANSMITTAL FORM

Comments by: Dr. William Harrison 15 June 2005

Project Title: City of Pretty Prairie, Kansas
Wastewater Treatment Lagoon Facility
KDHE Project No. C20 1399-01

Contact Person: Melissa Schlickbernd, I.E.
Project Engineer

Return To: Melissa Schlickbernd, I.E.
Wilson & Company, Inc.
1700 East Iron Avenue
P.O. Box 1640
Salina, KS 67401

This form provides notification and the opportunity for your agency to review and comment on the proposed project. Please complete Parts I and II as appropriate. Your response by 15 **July 2005** 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 design and plans.
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Reviewer's Name: _____

Date: _____