

1930 Constant Avenue
Lawrence, KS 66047-3724
September 28, 2007

Rosemary Saunders, Senior Consultant
Ranson Financial Consultants, L.L.C.
200 W. Douglas, Suite 600
Wichita, KS 67202

Dear Ms. Saunders:

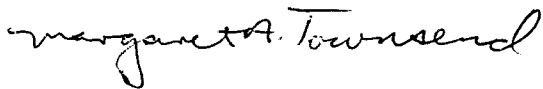
I was asked to comment on the wastewater treatment expansion plans for the City of Severy. I noticed that the area of the proposed lagoon is situated on silty clay loams. These soils are of fairly low permeability and suitable for the lagoons provided that the soil is compacted or lined. One comment is that there will be a large amount of soil and sediment removed for the installation of the embankment. Where will that sediment be taken from? How will the sediment removal area be renovated to prevent leaching if the topsoil (fairly low permeability) is removed? There was no information provided about the lower sediment/rock composition so I do not know how thick the overlying soil is in terms of potential leaching issues at depth.

The other observation is that lagoons are located near the stream. I presume that precautions have been taken to prevent flooding either of the lagoon by the stream or overflow from the lagoons to the stream.

The project looks fairly straightforward and I have no problem with it going forward if the above comments are evaluated in the process.

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

The following form may be used by the Review Agency/Commission for comments in response to the request for clearance from the proposed Municipal Programs Section Revolving 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 & Parks
☐ U.S. Dept. of Agriculture, Natural Resources Conservation Service
☐ Kansas Department of Health & Environment
☐ U.S. Department of the Interior, Fish & Wildlife Services

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

Comments: _____

Recommended Action: (to be completed by 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.

Margaret A. Townsend KGS 9-28-07
Reviewer's Name Division/Agency/Commission Date

Project Title: Municipal Programs Section Revolving Loan Fund Application

Applicant: City of Severy, Kansas

Contact Person: Rose Mary Saunders, Ranson Financial Consultants, LLC

Address: 200 W. Douglas Avenue

City, State: Wichita, KS 67202-3006

August 24, 2007

Director
Kansas Geological Survey
University of Kansas
1930 Constant Avenue
Lawrence, KS 66047

RE: City of Severy, Kansas
Wastewater System Improvements
KWPCRF Project No. C20-1724-01

Dear Director:

The City of Severy, Kansas is preparing an application to the Kansas Department of Health & Environment for a loan from the Water Pollution Control Revolving Loan Fund for improvements to its wastewater treatment facility. The City is also submitting an application to the Kansas Department of Commerce Small Cities Program for the balance of the funding.

The proposed project will consist of excavating 10,500 cy of soil and using 8,500 cy of soil to construct the embankment. In addition, existing lagoon berms will be repairs and new intake, transfer (2), and discharge structures along with 1,170' of 8" piping will be installed. Additional items included in the project will be the mobilization/demobilization, pond sterilization, installing 785 of fencing, installed 2,600 ton of rip rap (erosion protection), 2 acres of seeding disturbed areas and the demolition of the existing structures. The estimated project cost is \$342,445.00.

The proposed project is adjacent to the existing two-cell lagoon facility located in the South Half, Southwest Quarter, Northwest Quarter, Section 17, T28 South, Range 11 East in Greenwood County, Kansas. The attached map shows the existing lagoons and the proposed construction for your information.

No persons will need to be relocated due to the construction of this project. If there are any special permits or conditions that apply, please let us know. We would appreciate receiving your comments by September 24, 2007 regarding this project. A Project Review Form has been enclosed for your convenience.

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Kansas Geological Survey
August 24, 2007

If you have any questions regarding the construction, please contact Stuart Porter of Schwab-Eaton, PA at (785) 539-4678. If you have any questions regarding the City's application, please feel free to call me at (316) 264-3400.

Sincerely,

Ranson Financial Consultants LLC.



Rose Mary Saunders
Senior Consultant

Enc.

S/2, SW/4, NW/4
S17, T28S, R11E
GREEN WOOD County, Kansas

COUNTY



ROAD

NORTH

POND 3
0.60 AC.
120' x 220'

LAGOON
FENCE

DISCHARGE
STRUCTURE

30' WIDE CHANNEL

8" PVC DISCHARGE
PIPING

DISCHARGE
HEADWALL

CON
STR

DESIGN
WATER SUR

MAX. WTR LEVEL
TOE OF DIKE

PROPOSED
TOP DIKE

POND OVERFLOW
STRUCTURE

HEADWALL WITH
FLAPGATE

MANHOLE

FL 72.6

STRUCT TRANSFER
CTURE

INTAKE STRUCTURE W/
8" DIP INTO PONDS 1 & 2

DEMOLISH EXISTING
STRUCTURE AND PIPING

POND 2
1.43 AC.
(EXISTING)

POND 1
2.16 AC.
(EXISTING)

DEMOLISH EXISTING
STRUCTURE AND PIPING

8" PVC TRANSFER
PIPING

TRANSFER
STRUCTURE

8" PVC TRANSFER
PIPING

8" GATE
VALVES

6" VCP

6" CLIP VALVE

6" CLIP VALVE

MANHOLE

MANHOLE

FENCE

540'

TO OF OUTSIDE DIKE
EL. 34.92.0

INLET PACE

TOP OF INLET DIKE
EL. 34.92.0

6" CLIP VALVE

6" CLIP VALVE

6" CLIP VALVE

6" CLIP VALVE

100'

S

S

S

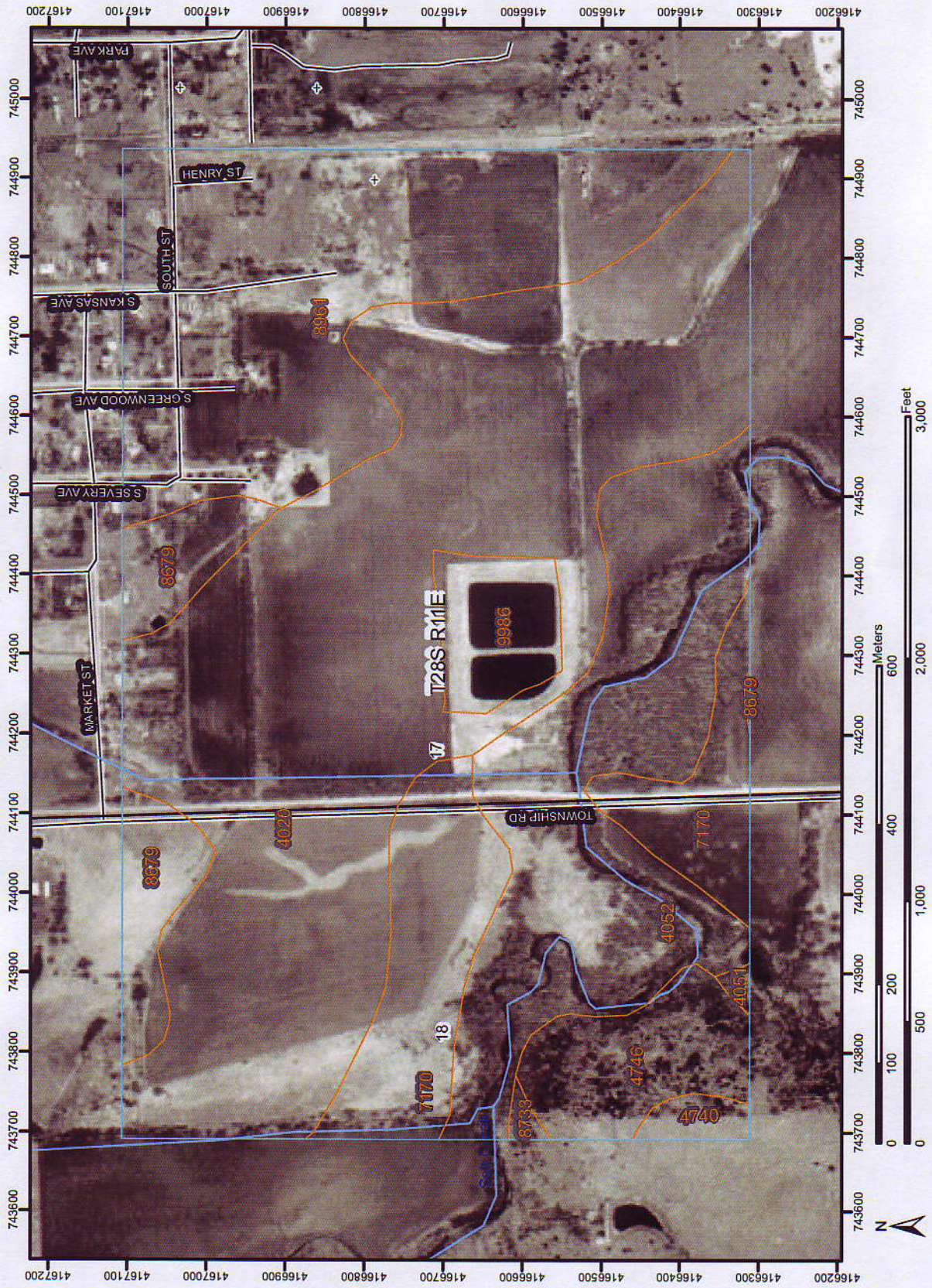
S

S

6'

6'

Soil Map—Greenwood County, Kansas
(Greenwood County, City of Severy)



MAP LEGEND

	Area of Interest (AOI)		Very Stony Spot
	Area of Interest (AOI)		Wet Spot
	Soils		Other
	Soil Map Units	Special Line Features	
	Special Point Features		Gully
	Blowout		Short Steep Slope
	Borrow Pit		Other
	Clay Spot	Political Features	
	Closed Depression		Public Land Survey
	Gravel Pit		Township and Range
	Gravelly Spot		Section
	Landfill	Municipalities	
	Lava Flow		Cities
	Marsh		Urban Areas
	Mine or Quarry	Water Features	
	Miscellaneous Water		Oceans
	Perennial Water		Streams and Canals
	Rock Outcrop	Transportation	
	Saline Spot		Rails
	Sandy Spot	Roads	
	Severely Eroded Spot		Interstate Highways
	Sinkhole		US Routes
	Slide or Slip		State Highways
	Sodic Spot		Local Roads
	Spoil Area		Other Roads
	Stony Spot		

MAP INFORMATION

Original soil survey map sheets were prepared at publication scale. Viewing scale and printing scale, however, may vary from the original. Please rely on the bar scale on each map sheet for proper map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 14N

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Greenwood County, Kansas
Survey Area Data: Version 4, Dec 13, 2006

Date(s) aerial images were photographed: 3/12/1996; 3/26/1996

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

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	Special Point Features		Special Line Features
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