

KANSAS GEOLOGICAL SURVEY

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Proposed Project for Application to the Kansas Department of Health and Environment for the Kansas Water Pollution Control Revolving Loan Fund

Applicant: Sewer District No. 7, Lake Ridge Estates, Jefferson County
Wastewater Treatment Facility Improvements

Contact Person: Cara C. Hendricks, P.E.
Address: Kramer Engineering, P.A..
2348 SW Topeka Blvd.
Topeka, KS 66611-1286

Sent to the Kansas Geological Survey for environmental review.

Agency Review Comments:

Treatment of sewage to meet regulations of the Kansas Department of Health and Environment at the proposed location is particularly important because the location is next to Perry Lake, which receives the treated wastewater effluent. It is particularly important that the waste lagoons meet the maximum leakage allowed by the KDHE to minimize the amount of incompletely treated sewage that could seep into the shallow ground water and discharge into the lake. The long-term benefits of the wastewater treatment facility improvements should offset any short-term adverse environmental impacts during construction.

Recommended Action:

- ☒ 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

Donald Whittemore
Reviewer's Name

Geohydrology Section, Kansas Geological Survey
Division/Agency

9/19/06
Date


Reviewer's Signature

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 county-wide 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.



KRAMER ENGINEERING, P. A.

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2348 SW TOPEKA BLVD • TOPEKA, KANSAS 66611 • 785-234-6600 • FAX 785-234-6611

August 24, 2006

Re: Wastewater Treatment Facility Improvements
For Sewer District No. 7, Lake Ridge Estates
Jefferson County, Kansas

Dear Addressee:

Enclosed for your comments is an Intergovernmental Review Form for the referenced project with attached project description and site location map. Please complete the transmittal form and return it to our office by September 24, 2006.

Jefferson County Sewer District No.7, Lake Ridge Estates is preparing an application to the Kansas Department of Health and Environment for a loan from the Kansas Water Pollution Control Revolving Loan Fund for the referenced project. This project will comply with appropriate state laws concerning the application.

If you have any questions about the review or the project, please contact me at (785) 234-6600.

Sincerely,

KRAMER ENGINEERING, P.A.

Cara C. Hendricks, P.E.
Project Engineer

CCH/cs

Enclosures



KRAMER ENGINEERING, P. A.

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WASTEWATER TREATMENT FACILITY IMPROVEMENTS FOR SEWER DISTRICT NO. 7, LAKE RIDGE ESTATES JEFFERSON COUNTY, KANSAS

August 24, 2006

Wastewater treatment facility improvements are being proposed for Sewer District No. 7, Jefferson County, Kansas. The Sewer District serves Lake Ridge Estates, which is located in Jefferson County, west of Perry Lake and south of Hilldale South Subdivision. Lake Ridge Estates is located east of Highway 237, and contains approximately 116 single family residential homes, and 579 empty lots. The Subdivision also includes a country club and golf course located in the middle of the Subdivision. See Figure I-1 for the Planning Area map.

The Sewer District maintains its own sewer collection system, which flows into waste stabilization ponds for treatment. The system serves the Subdivision's population of approximately 290 residents, and consists of 46,305 linear feet of 8-inch gravity sewer line and 203 manholes. The system also consists of force main and nine sewage pump stations.

The District has a two-cell waste stabilization lagoon that treats all of the wastewater from the District. The treatment facility is located directly west of Lake Ridge Estates, and discharges into a small creek that flows into Perry Lake under authorization of the District's Kansas Water Pollution Control Permit. The original design for the two-cell facility was based on 38 homes, or 122 persons. According to the District, after the 38 homes were exceeded, a third cell was to be constructed.

Due to the population growth within Lake Ridge Estates, it is recommended that several improvements to the existing wastewater treatment facility be implemented. In order to achieve the required detention time for the projected wastewater flows, it is recommended that the existing two cells be enlarged, and a third cell be constructed south of the existing two cells. It is also recommended that the existing sewer piping from the manhole east of the lagoon facility be enlarged to an 8-inch main. The existing 4-inch main causes surcharging in the existing manholes east of the lagoon during peak flow periods.

The opinion of probable costs for the project is \$438,550. The District is proposing to use Kansas Water Pollution Revolving Loan funds to finance the project. The proposed improvements will take place on land currently owned by the District. All improvements to be constructed are above the 100 year flood plain.

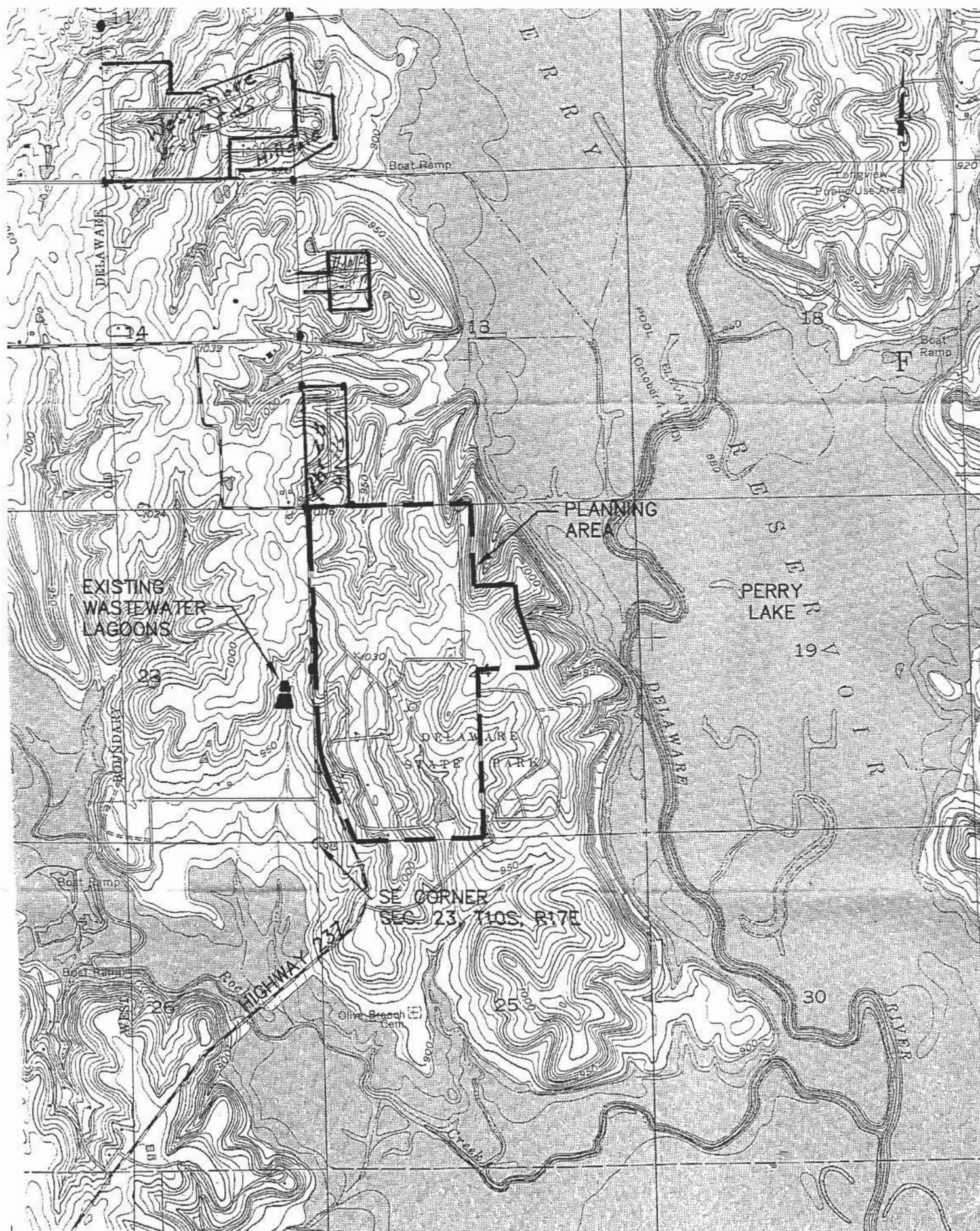


FIGURE I-1
 PLANNING AREA MAP
 Lake Ridge Estates, Jefferson County, Kansas

SCALE: 1" = 2000'

INTERGOVERNMENTAL REVIEW TRANSMITTAL FORM

Comments By: Kansas Geological Survey Transmittal Date August 24, 2006

Project Title: Wastewater Treatment Facility Improvements
Sewer District No. 7, Lake Ridge Estates, Jefferson County, Kansas

Contact Person: Cara Hendricks, P.E., Project Engineer

Return To: KRAMER ENGINEERING, P.A.
2348 SW Topeka Blvd.
Topeka, Kansas 66611-1286

This form provides notification and the opportunity for your agency to review and comment on the proposed project as required by Executed Order 12372. Please complete Parts I and II as appropriate. Your response by September 18, 2006 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 application prior to submission to the federal funding agency.
 - ☐ Request the State Process Recommendation in concurrence with above comments.
-

Reviewer's Name: _____

Date: _____