KANSAS GEOLOGICAL SURVEY

1930 Constant Ave., Campus West
The University of Kansas
Lawrence, Kansas 66047-3726
phone 785-864-3965
fax 785-864-5317

Project for Application to KDHE Kansas Water Pollution Control Revolving Loan Fund

Applicant: City of Gardner

Contact Person: Julie Highfill, City Accountant
Address: City of Gardner
120 E. Main
Gardner, KS 66030

Sent to the Kansas Geological Survey for environmental review.

Agency Review Comments:

The long-term benefits of the conversion of the Bull Creek treatment plant to a lift station, assuming that as a part of the plan to centralize all wastewater treatment at the Kill Creek plant the wastewater treatment will continue to meet the water-quality regulations of the Kansas Department of Health and Environment, should offset any short-term adverse impacts during construction of the project.

Recommended Action:

_X_ 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

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

Donald Whittemore	Geohydrology Section, Kansas Geological Survey	4/23/06
Reviewer's Name	Division/Agency	Date

Donald W Whittemore
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.

Additional note: The letter to the Kansas Geological Survey was addressed to Dr. Lee Allison. Please note that Dr. Allison has not been the Director of the Kansas Geological Survey since the middle of August 2004. The current Director is Dr. William Harrison.

GARDNER
KANSAS

FINANCE

120 E. Main, Gardner, Kansas 66030 (913) 856-7535

March 10, 2006

Dr. Lee Allison
Kansas Geological Survey
KU-1930 Constant Ave-Campus West
Lawrence, KS 66047

Re: City Of Gardner, Kansas
Kansas Water Pollution Control Revolving Loan Fund
Project No. C20 1721 01

The City of Gardner 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.

The City of Gardner is planning immediate modifications to the Bull Creek Wastewater Treatment Plant occupying approximately 6 acres in the NW quarter of the SW quarter of the NE quarter of Section 26, Township 14S, Range 22E.

Current City wastewater facilities consist of a major treatment plant, Kill Creek, and two smaller treatments plants, Bull Creek and Southeast, along with several lift stations. Studies conducted in cooperation with KDHE identified the best alternative for future growth and development would be to centralize all wastewaster treatment at the Kill Creek plant, with the appropriate number of lift stations. The City has incorporated KDHE recommendations from a Draft Compliance Plan into a facility master plan that converts Bull Creek from a treatment plant to a lift station. Construction of the lift station will be on existing treatment plant property at the present site.

All equipment additions or modifications associated with the conversion to a 4.0 MGD lift station will be in compliance with KDHE's design requirements for wastewater facilities. The conversion of the facility would consist of new, upgraded or expanded equipment including three 50HP submersible dry-weather pumps, a submersible mixer, chemical feed pumps, and a monorail crane. Provisions will be made for the future installation of two wet-weather pumps and a wastewaster holding tank. The electrical building will house the motor control center, variable frequency drives, monitoring system, and other electrical equipment required for station operation. A 500KW standby generator will be installed to operate the lift station in the event of power failure.

Enclosed are a summary of the estimated total cost of the project, a site map, and a Kansas Department of Health and Environment review form for your use. We would appreciate your review of the project description and location, and any comments you may have, within 30 days.

Please call Dave Greene at (913) 856-7535 if you have any questions.

Sincerely,

Julie Highfill

Julie Highfill
City Accountant

The following form may be used by the Review Agency/Commission for comments in response to the request for clearance from the proposed Water Pollution Control Loan Fund Project.

_____ US Dept of the Interior – Fish & Wildlife Service
_____ Army Corps of Engineers
_____ KS Dept of Wildlife & Parks
_____ Kansas Water Office
_____ Kansas State Historical Society
_____ US Dept of Agriculture – Natural Resource Conservation Service
_____ KS Dept of Agriculture – Division of Water Resources
_____ State Conservation Commission
_____ Kansas Biological Survey
_____ Kansas Corporation Commission
_____ Kansas Geological Survey

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

Comments: _____

_____

_____

Recommended Action: (to be completed by the reviewing agency and returned to applicant contact person at name and address below)

_____ Clearance of project should be granted
_____ Clearance of project should not be granted
_____ Clearance of project should be delayed until the issues of 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

_____ _____ _____
Reviewer's Name Division/Agency/Commission Date

Project Title: Water Pollution Control Loan Fund Project

Applicant: _____

Contact Person: _____

Address: _____

City, State: _____ Zip: _____ Phone: (____)-_____-_____

Bull Creek Lift Station
Cost Estimate

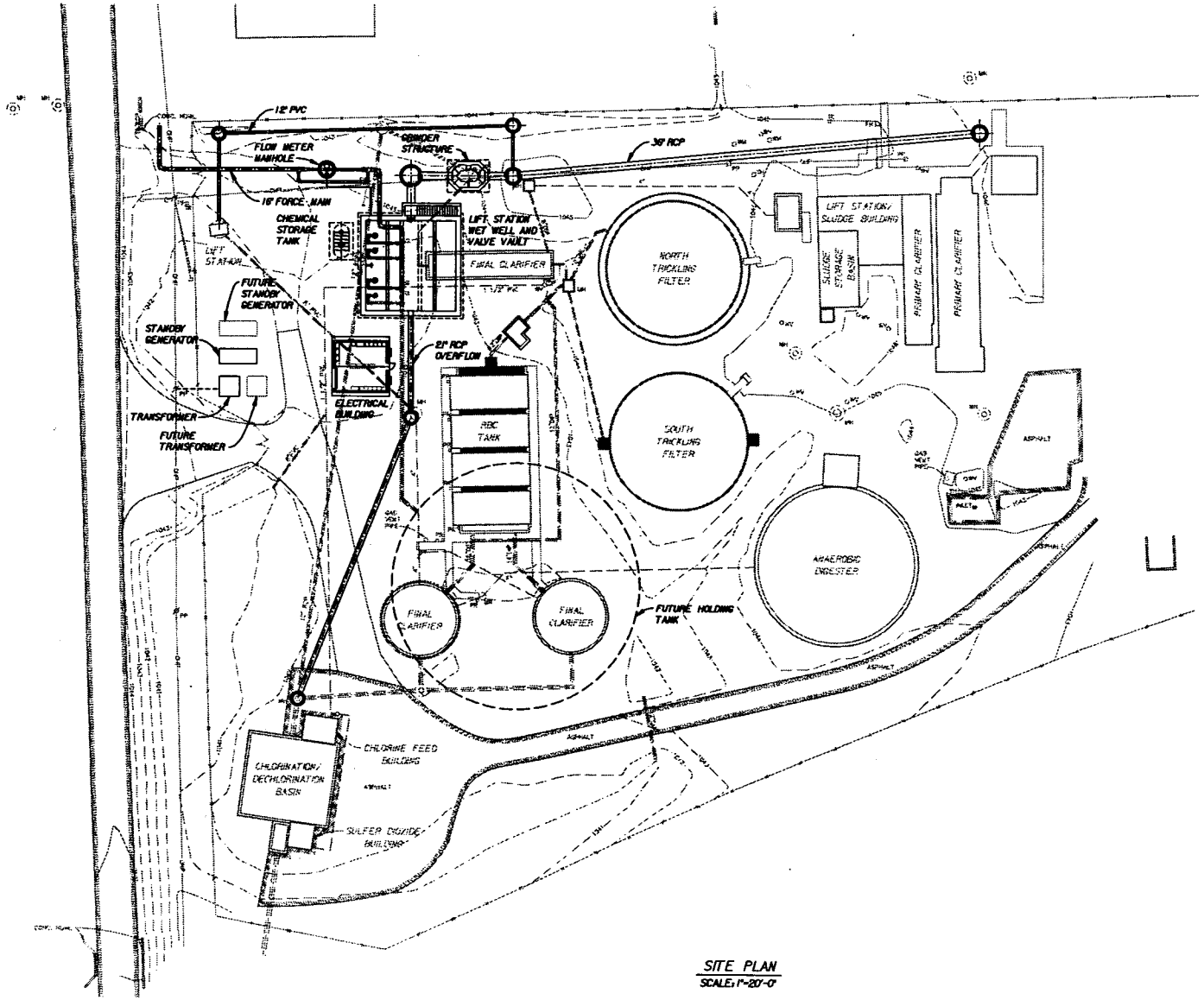
DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
GENERAL REQUIREMENTS				
Construction Trailer, Phone, Utilities, Etc.	10	Month	2,000	20,000
Temporary Construction Surfacing	200	Ton	25	5,000
SITE WORK				
Demolition of Existing Treatment Plant	1	LS	175,000	175,000
Soil Excavation	4,500	CY	5	22,500
Rock Excavation	1,200	CY	40	48,000
Aggregate Fill	100	Ton	25	2,500
Backfill	4,000	CY	5	20,000
18" SDR26 PVC Gravity Sewer	200	LF	85.00	17,000
Standard 4'-0" ID Manhole	1	EA	3,500	3,500
Flow Meter Manhole	1	EA	5,000	5,000
16" Class 250 DIP Force Main	100	LF	75.00	7,500
Asphalt Pavement	500	SY	35	17,500
Aggregate Base for Asphalt Pavement	350	Ton	25	8,750
Site Restoration	1	LS	5,000	5,000
CONCRETE				
Slab-on Grade	250	CY	400	100,000
Suspended Slab and Beams	100	CY	1,000	100,000
Walls	600	CY	800	480,000
Concrete Fill	50	CY	250	12,500
DOORS AND WINDOWS				
Roof Hatches	15	EA	5,000	75,000
FINISHES				
Painting	1	LS	20,000	20,000
EQUIPMENT				
Submersible Mixer	1	EA	20,000	20,000
Submersible Pumps	3	EA	40,000	120,000
Stainless Steel Pipe Guide Rails	1	LS	4,000	4,000
Chemical Feed Pumps	1	LS	5,000	5,000
Chemical Storage Tank	1	LS	60,000	60,000
SPECIAL CONSTRUCTION				
Prefabricated Building	1	LS	75,000	75,000

Bull Creek Lift Station
Cost Estimate

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
CONVEYING SYSTEMS				
Monorail Crane	1	EA	25,000	25,000
MECHANICAL				
Grooved-Joint DIP and Fittings	1	LS	20,000	20,000
16" MJ Plug Valve w/Valve Box	3	EA	6,000	18,000
16" Flanged Plug Valve	3	EA	5,000	15,000
16" Flanged Swing-Check Valve	3	EA	6,000	18,000
Sump Pump	1	EA	2,000	2,000
HVAC Equipment	1	LS	25,000	25,000
ELECTRICAL				
Motor Control Center	1	EA	40,000	40,000
50-HP Variable-Frequency Drive	3	EA	13,000	39,000
Control Panel	1	EA	20,000	20,000
Conduit and Wiring	1	LS	55,000	55,000
Instrumentation and Controls	1	LS	65,000	65,000
Lighting	1	LS	5,000	5,000
500-kW Standby Generator	1	EA	110,000	110,000
Mission Wireless Monitoring System	1	EA	5,000	5,000
Construction Subtotal				1,890,750
Contingencies (25%)				472,700
TOTAL CONSTRUCTION COST				**$ 2,363,450**

Bull Creek Force Main
Alignment 2 Cost Estimate

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
GENERAL REQUIREMENTS				
Construction Trailer, Phone, Utilities, Etc.	6	Month	2,000	12,000
Temporary Construction Surfacing	1,000	Ton	25	25,000
SITE WORK				
Trench Excavation	10,000	CY	5	50,000
Earth Backfill	10,000	CY	5	50,000
Granular Backfill	3,000	Ton	25	75,000
Air Release Valve Manhole	3	EA	7,000	21,000
16" PVC Pipe Force Main	9,500	LF	75.00	712,500
30" Casing Pipe under 175th Street	50	LF	250.00	12,500
Asphalt Pavement Remove and Replace	200	SY	45	9,000
Site Restoration	1	LS	25,000	25,000
Construction Subtotal				992,000
Contingencies (25%)				248,000
Easement Acquisition	4	Acre	5,000	20,000
TOTAL CONSTRUCTION COST				**$ 1,260,000**



SITE PLAN
SCALE: 1"=20'-0"

Date: 12/9/2005 | Time: 9:24:56 AM | File Name: P:\05.045.01\Drawings\Sheets\Pump Station\03-C001.dgn

REV.	DATE	BY	REVISIONS
1			
2			
3			
4			
5			

SCALE: -
DATE CHECKED: DEC. 9, 2005
DESIGNED BY: J. B. MCCLANNAHAN
DRAWN BY: M. R. SCHMITZ
CHECKED BY: J. B. MCCLANNAHAN

DELICH, ROTH & GOODWILLIE, P.A.
ENGINEERS
913 SHEEDLEY AVE., SUITE 110 BONNER SPRINGS, KS 66012
600 BROADWAY, SUITE 230 KANSAS CITY, MO 64105

PROJECT TITLE: BULL CREEK LIFT STATION
CLIENT: CITY OF GARDNER, KANSAS
DRAWING TITLE: SITE PLAN
PROJECT NO.: 05.045.01
SHEET NO.: C-1
SHEET: 1 OF X