

KANSAS GEOLOGICAL SURVEY

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

May 12, 2006

Ms. Tammy M. Duley, City Clerk
City Hall
P.O. Box 205
Scammon, Kansas 66773

Dear Ms. Duley,

I have reviewed the proposed project to replace one of your existing city wells. I paid particular attention to the well construction data provided with the application. I compared well and casing depths with data on the elevation of the top of the Ozark aquifer and the estimated depth and thickness of the Roubidoux Formation and the depth to the top of the Gasconade Dolomite, both of which are major suppliers of ground water within the Ozark aquifer to water supplies within the Tri-state region.

My concerns with the project are that (1) the proposed length of the 10-inch casing is not sufficient to screen out poorer quality water in the overlying Springfield Plateau aquifer and (2) the total depth of the well need not exceed 1,300 feet to attain an adequate supply of water for the number of customers you serve. The 10-inch casing should be at least 600 feet long and possibly as much as 700 feet to insure that the well is withdrawing water only from the Ozark aquifer. Based on surveys I have conducted in your area the estimated depth to water for a well open only to the Ozark aquifer is approximately 250 feet from surface at the proposed location. The estimated depth to water in the proposed well is above the top of the aquifer because the ground water is under confining pressure.

I would be happy to discuss any of these concerns with your consulting engineers and I look forward to reviewing your completed application for financial assistance.

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 countywide 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.

Sincerely yours,

P. Allen Macfarlane

*Al MacFarlane — please respond
to this —
This — well*

CITY OF SCAMMON

**Scammon City Hall
202 E. 3rd
P.O. Box 205
Scammon, KS 66773**

**Open Mon-Fri.
2 pm. – 5pm
620-479-2321
620-479-6105(Fax)**

April 19, 2006

Dr. Lee Allison
Director
KS Geological Survey
1930 Constant Avenue
Lawrence, KS 66047

RE: Kansas Intergovernmental Review Process

Dear Dr. Allison,

The City of Scammon has filed a pre-application with the U.S. Department of Agriculture, Farmers Home Administration (FmHA) for financial assistance to drill a new water well. Per their guidelines the City of Scammon is respectfully asking a review of the proposed project.

Enclosed please find a site map of the proposed well, engineer's projected costs, and agency review transmittal form. Thank you for your assistance in this matter.

Sincerely,

Tammy M. Duley

Tammy M. Duley
City Clerk

Enclosures

AGENCY REVIEW TRANSMITTAL FORM

Comments by: _____

Transmittal Date _____

City of Scammon New Water Well Project

PROJECT TITLE: _____

Notification of Int

Preapplication

Final Application

Direct Development

CONTACT PERSON: Tammy Duley or Debra Norris

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: City of Scammon
P.O. Box 205
Scammon, KS 66773

PART I

REVIEW AGENCIES/COMMISSIONS

☐ Aging	☐ Education	☐ State Forester,
☐ Agriculture - DWR	☒ Geological Survey, KS	☐ Transportation
☐ Biological Survey, KS	☐ Health & Environment	☐ Water Office, KS
☐ Conservation Comm.	☐ Historical Society	☐ Wildlife & Park
☐ Corporation Comm.	☐ Human Resources	_____
☐ Commerce	☐ Social & Rehab. Serv.	_____

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

COMMENTS: *See attached*

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
☐ Clearance of the project should not be granted.	clarify the questions or concerns indicated above.
☐ 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 *P. Ann MacFarlane*

Date *5/12/06*

meeting the City's demand. This alternative would then require costly expenses to upgrade RWD#4's water supply and treatment.

V. Recommendation and Probable Costs

The optimum solution is to construct a new well at the existing site. Not only does it appear to meet the City's needs the best, but it is also the most cost effective solution. The probable costs are anticipated to be:

Item Description	Est. Quantity	Unit Price	Total Price
WELL DRILLING			
Drill 14" Dia. Hole (0 - 500 feet)	500 ft	\$35.00	\$17,500.00
Drill 10" Dia. Hole (500 - 1500 feet)	1,000 ft	\$33.00	\$33,000.00
Install 10" Dia Casing	500 ft	\$39.00	\$19,500.00
Pressure Grouting	500 ft	\$13.00	\$6,500.00
Pump Testing of Well	1 LS	\$10,000.00	\$10,000.00
Surface Casing	40 ft	\$100.00	\$4,000.00
NEW WELL PUMP	1 LS	\$35,000.00	\$35,000.00
CONNECTING PIPING AND ELECTRICAL	1 LS	\$8,000.00	\$8,000.00
ABANDON AND PLUG EX. WELL	1 LS	\$2,000.00	\$2,500.00
SUBTOTAL			\$136,000.00
CONTINGENCY (10%)		10%	\$13,600.00
CONSTRUCTION COST TOTAL			\$149,600.00
ENGINEERING		10.55%	\$15,782.80
RESIDENT INSPECTION		8%	\$11,837.10
GRANT ADMINISTRATION		\$8000 + 3%	\$12,488.00
TOTAL			\$189,707.90

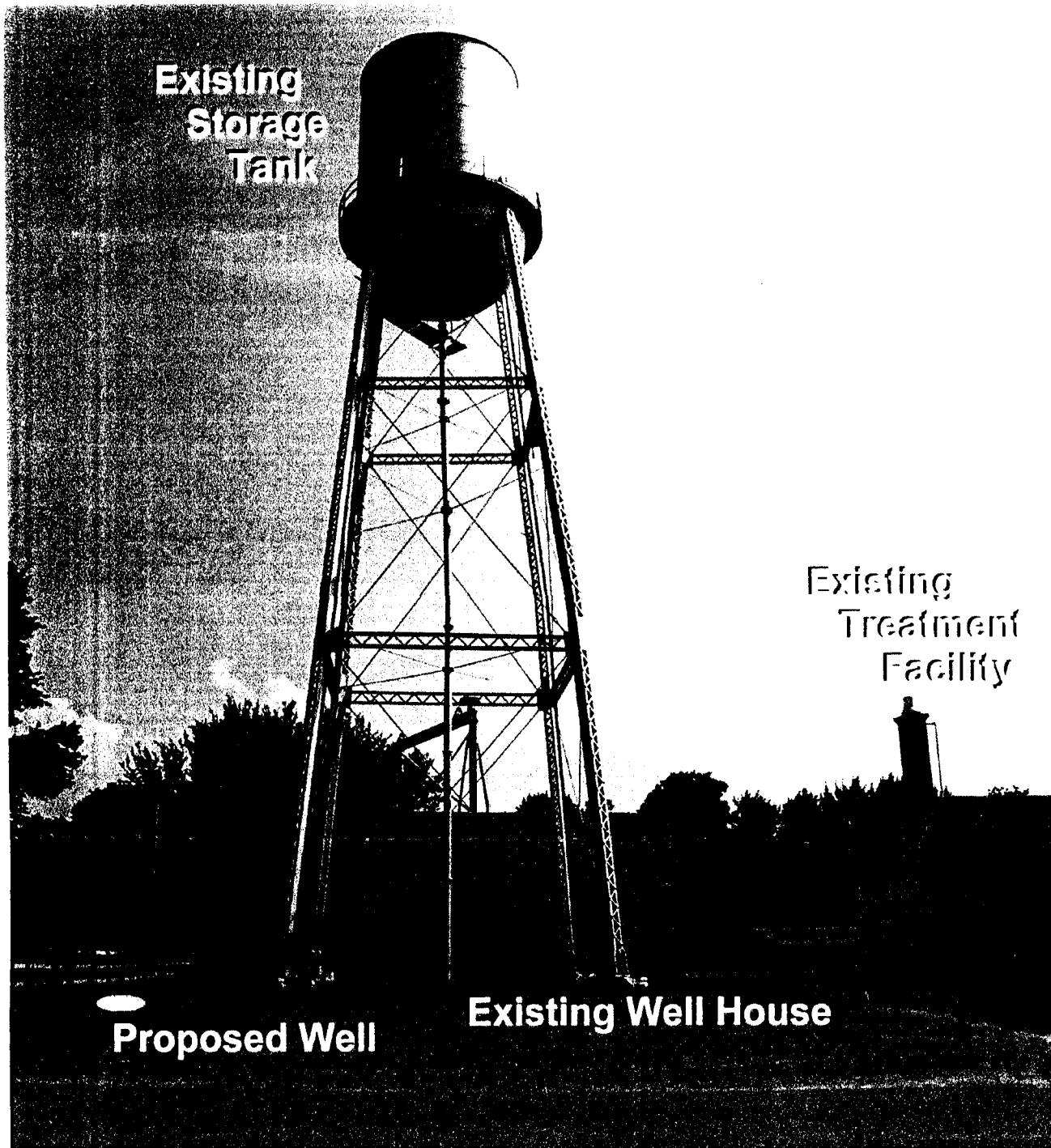
VI. Budget and Funding

A. Existing Budget:

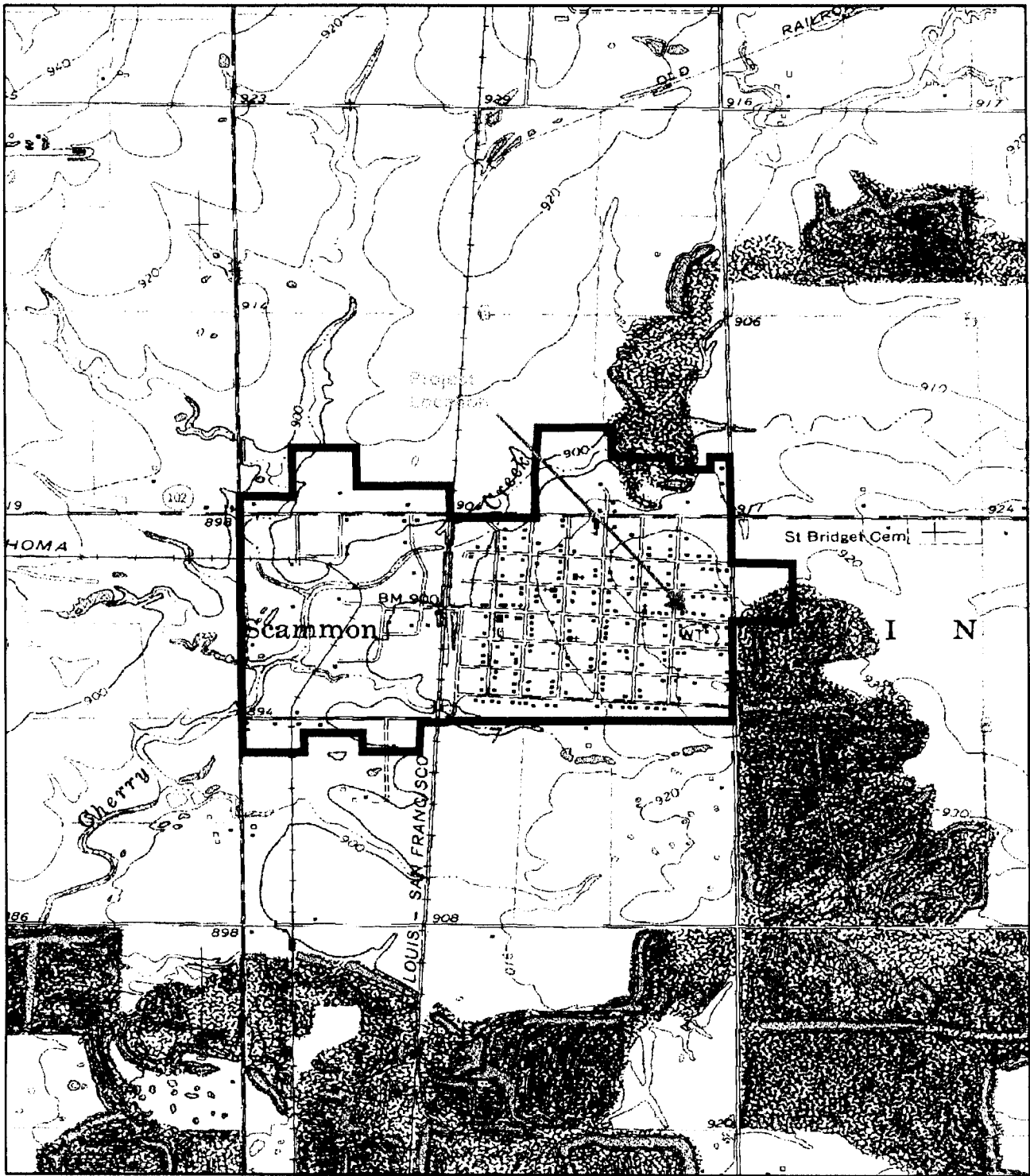
The current fee structure for the City's water customers is a \$7 fee and includes the first 1000 gallons, followed by \$2.50 for each additional 1000 gallons. The average water usage is 6000 gallons for an average bill rate of \$19.50

The city has 212 customers, which will provide an estimated \$49,600 per year based upon the above usage and rates. The City was able to meet its expenses of \$47,000 for the year 2004 (see Appendix A.4); however, it did not meet its budgeted amount of \$68,800. The City recognizes that it should set aside this additional \$21,800 per year above its routine operation and maintenance expenses in order to have funds available for future replacements and major repairs. The engineer concurs that this is a reasonable estimate considering the age of the system and the amount of equipment required for pumping, treating storing and distributing the water. Future expenses could include upgrades to the treatment system (new pumps, filters, etc.), a new storage tank, water line replacements, or a water meter replacement program.

City of Scammon Water Plant
Graphical Image



Area Map



Legend

 Scammon City Limits



1 inch equals 2,000 feet

