

KANSAS GEOLOGICAL SURVEY

1930 Constant Ave., Campus West
The University of Kansas
Lawrence, Kansas 66047-3726
phone 913-864-3965
fax 913-864-5317

February 28, 2007

Susan E. Soelter
Bartlett & West Engineers
1200 SW Executive Drive
Topeka, Kansas 66615-3850

Dear Ms. Soelter,

I have reviewed the proposed project to construct a water treatment plant, install 3 batteries of wells, and install approximately 7 miles of pipeline. The attachments sent with your letter included soils, hydric, farmland classification maps, and a portion of an orthophotoquad. Interestingly, there was no indication of township, range, or section or a scale on any of the maps provided so that the actual project area was difficult to identify.

Based on the documents attached to your request, it does not appear that there are any serious potential geologic hazards worth noting that might impact this project. There appears to be a slight risk of flooding in the vicinity of the planned well batteries as indicated by the table identifying the soils and flooding potential for the soils map. Note that before clearance can be granted, withdrawal of water for the District must meet safe yield requirements set by the Division of Water Resources, Kansas Department of Agriculture.

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.

If you have questions, please do not hesitate to contact me at my office (785 - 864-2068).

Sincerely yours,

P. Allen Macfarlane

AGENCY REVIEW TRANSMITTAL FORM

Comments By: Kansas Geological Survey

Transmittal Date January 22, 2007

Project Title: Shawnee County CRWD No. 4 – Water Treatment Plant PER

Contact Person: Louis Funk, Project Engineer

Return To: Susan E. Soelter
Bartlett & West Engineers, Inc.
1200 SW Executive Drive
Topeka, Kansas 66615-3850

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 February 22, 2006 will be appreciated.

PART I - AGENCY REVIEW COMMENTS:

See attached

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.

Reviewer's Name: Allen McFarlane

Date: 2/28/07

BARTLETT & WEST
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January 22, 2007

~~Donald Whittemore~~ *Allen MacFarlane*
Kansas Geological Survey
1930 Constant Avenue, Campus West
The University of Kansas
Lawrence, KS 66047-3726

Dear ~~Mr. Whittemore~~:

Consolidated Rural Water District No. 4, Shawnee County, Kansas is applying to Rural Development, USDA to construct a water treatment plant, develop wells and install approximately seven miles of pipeline as shown on the enclosed project map. The current plant and wells are at capacity. They now have a supplementary supply from the City of Topeka, but on peak days the two supplies combined are barely keeping up in an area that continues to add growth. The old plant will remain in use. Trenches will be restored and waterways will be directionally bored.

The enclosed materials are provided to you in accordance with Executive Order 12372, which provides for intergovernmental review of federally funded projects. Please provide written comments to me within 30 days of the date of this letter. If there are no areas of concern or comments, we would appreciate your negative report. A project review form is enclosed for your use.

This project will comply with all state laws concerning this type of project.

Funds will not be obligated for this project until after the 30 days have expired and an environmental assessment has been completed.

Sincerely,

Susan E. Soelter (SC)

Susan E. Soelter
Customer Services Representative-
Environmental Coordination

Enclosures

1200 SW EXECUTIVE DRIVE ■ TOPEKA KS 66615-3850
785.272.2252 ■ FAX 785.272.7349 ■ 888.200.6464

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February 2, 2007

Allen Macfarlane

~~Mr. Donald Whittemore~~
Kansas Geological Survey
1930 Constant Avenue, Campus West
The University of Kansas
Lawrence, KS 66047-3726

Re: Project Map Updates

Dear ~~Mr. Whittemore~~:

We are enclosing the appropriate project map for your use in reviewing the project referred to in our correspondence dated January 22, 2007. In that mailing we explained that Shawnee County CRWD No. 4 has applied to Rural Development, USDA to construct a water treatment plant, develop wells, and install approximately seven miles of pipeline.

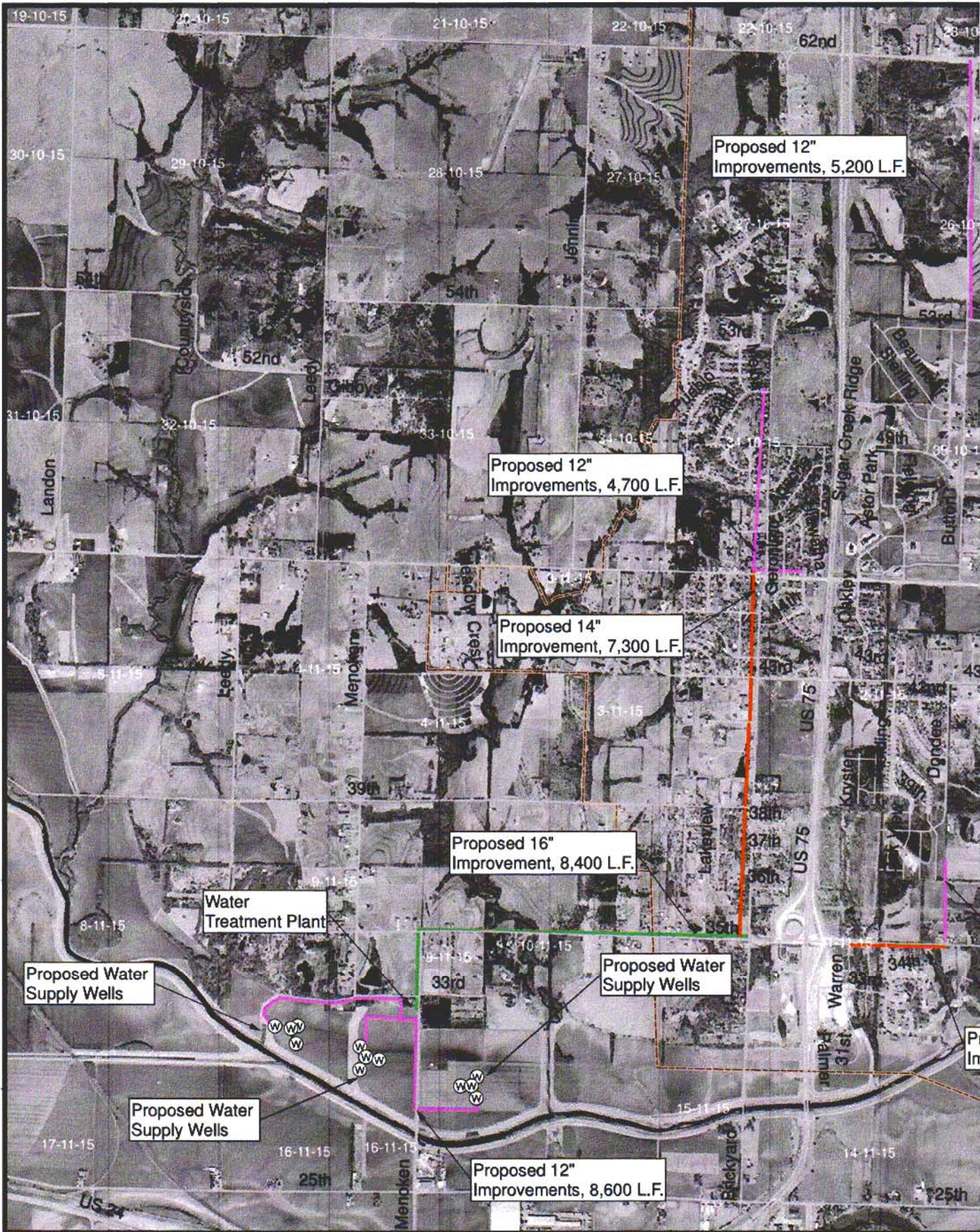
We apologize for inserting the incorrect maps in our initial mailing and hope this replacement will be more helpful in your review. If you are in need of any additional information, please let us know.

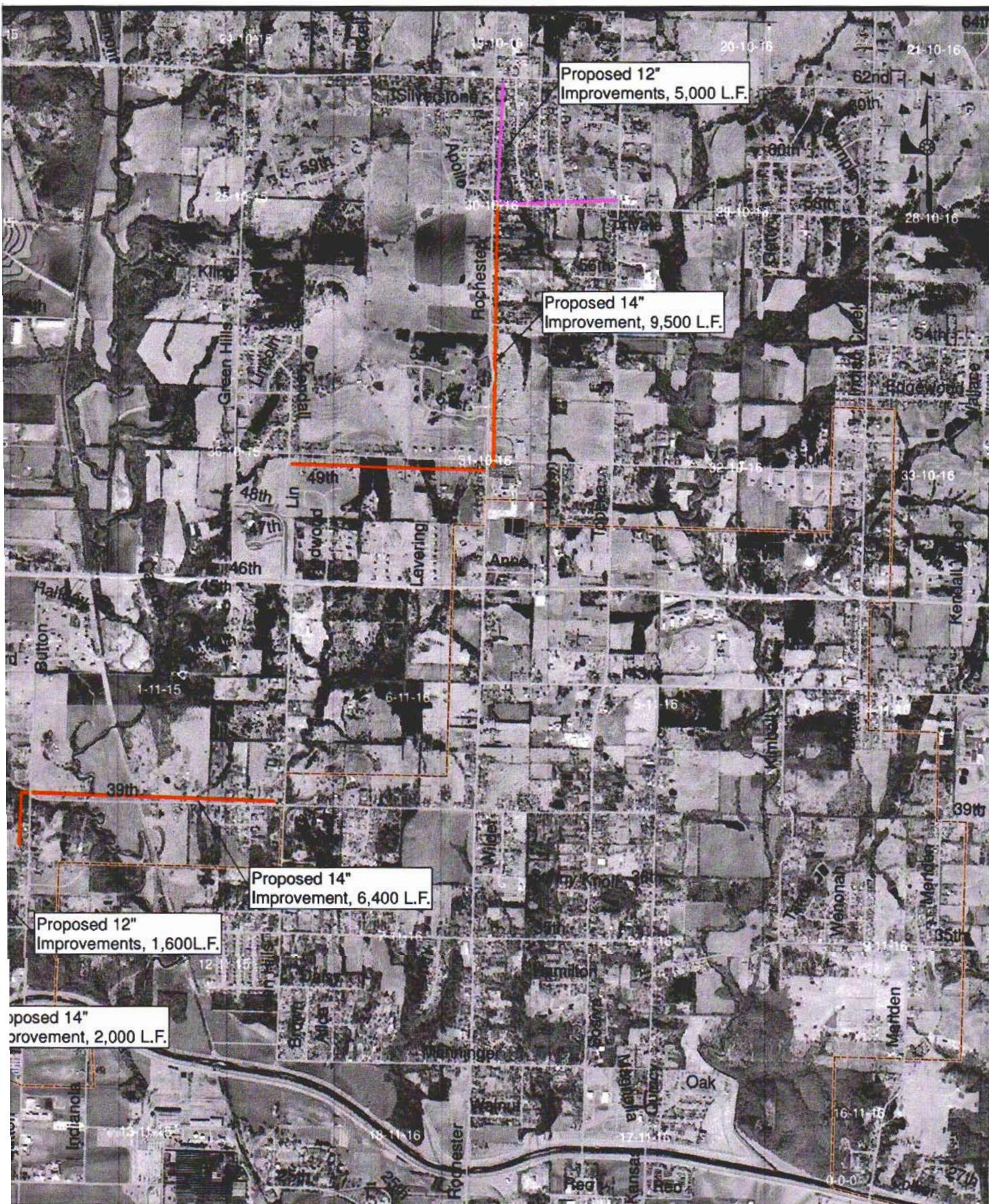
Sincerely,

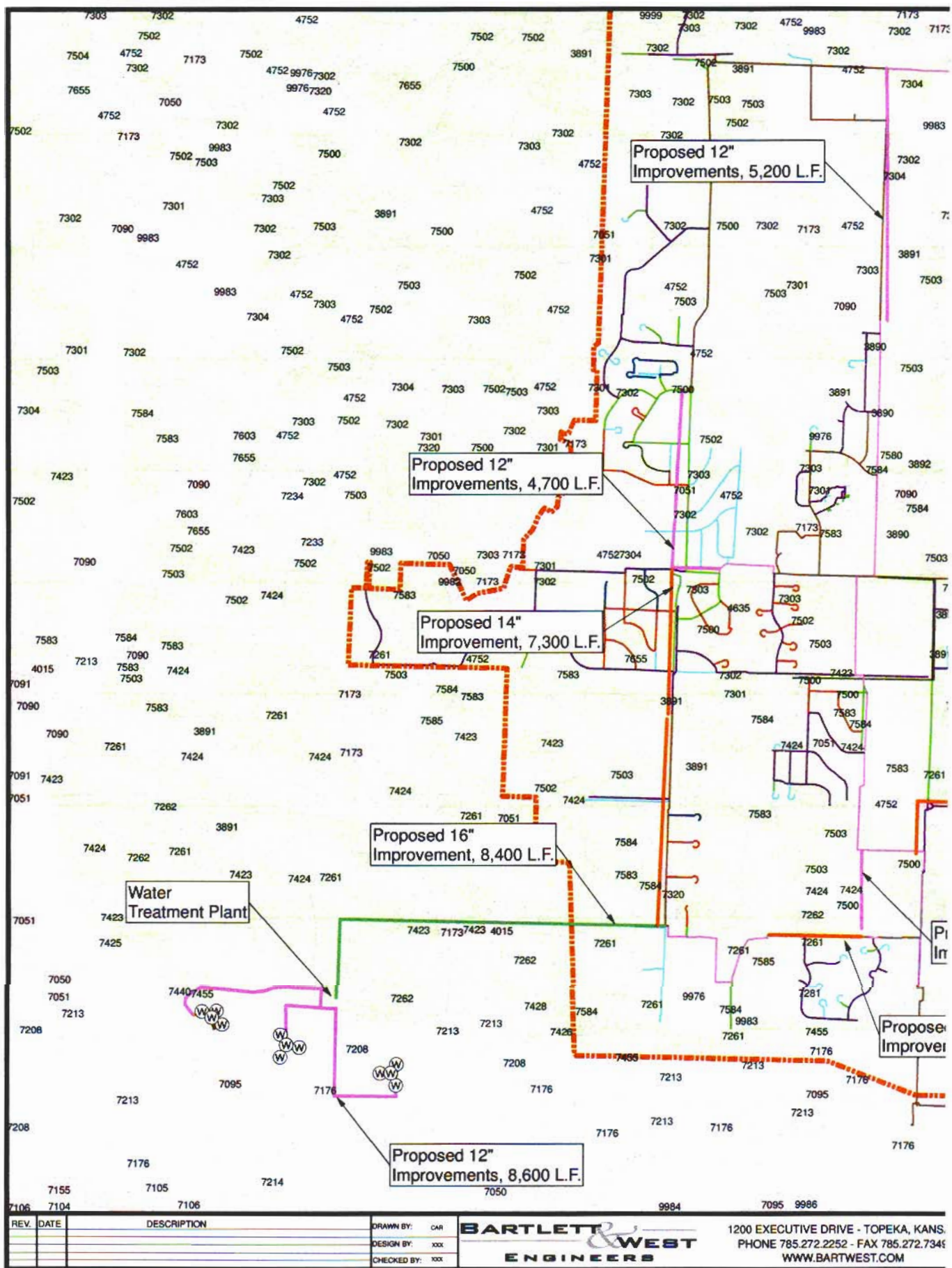
Susan E. Soelter
Customer Services Representative-
Environmental Coordination

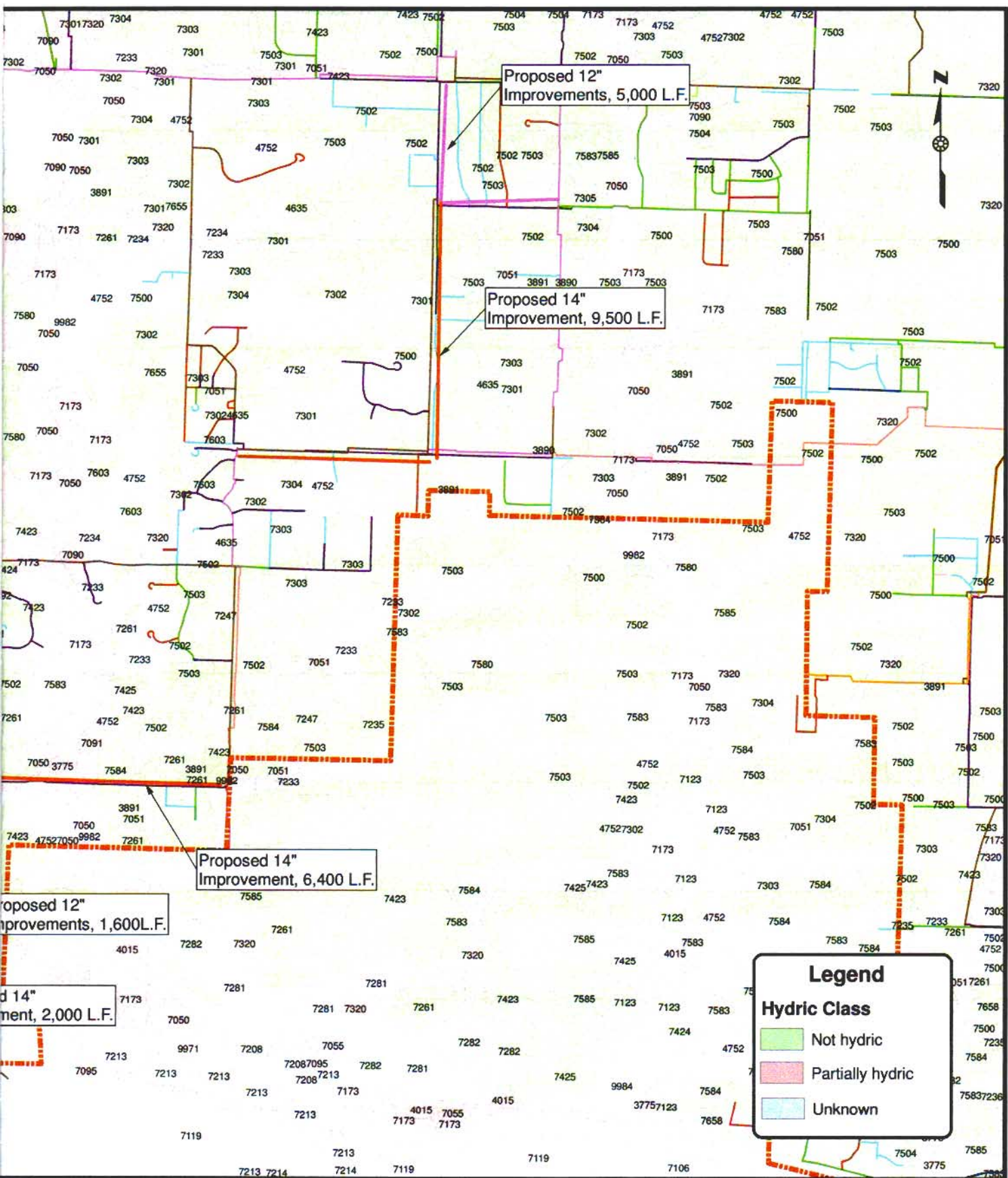
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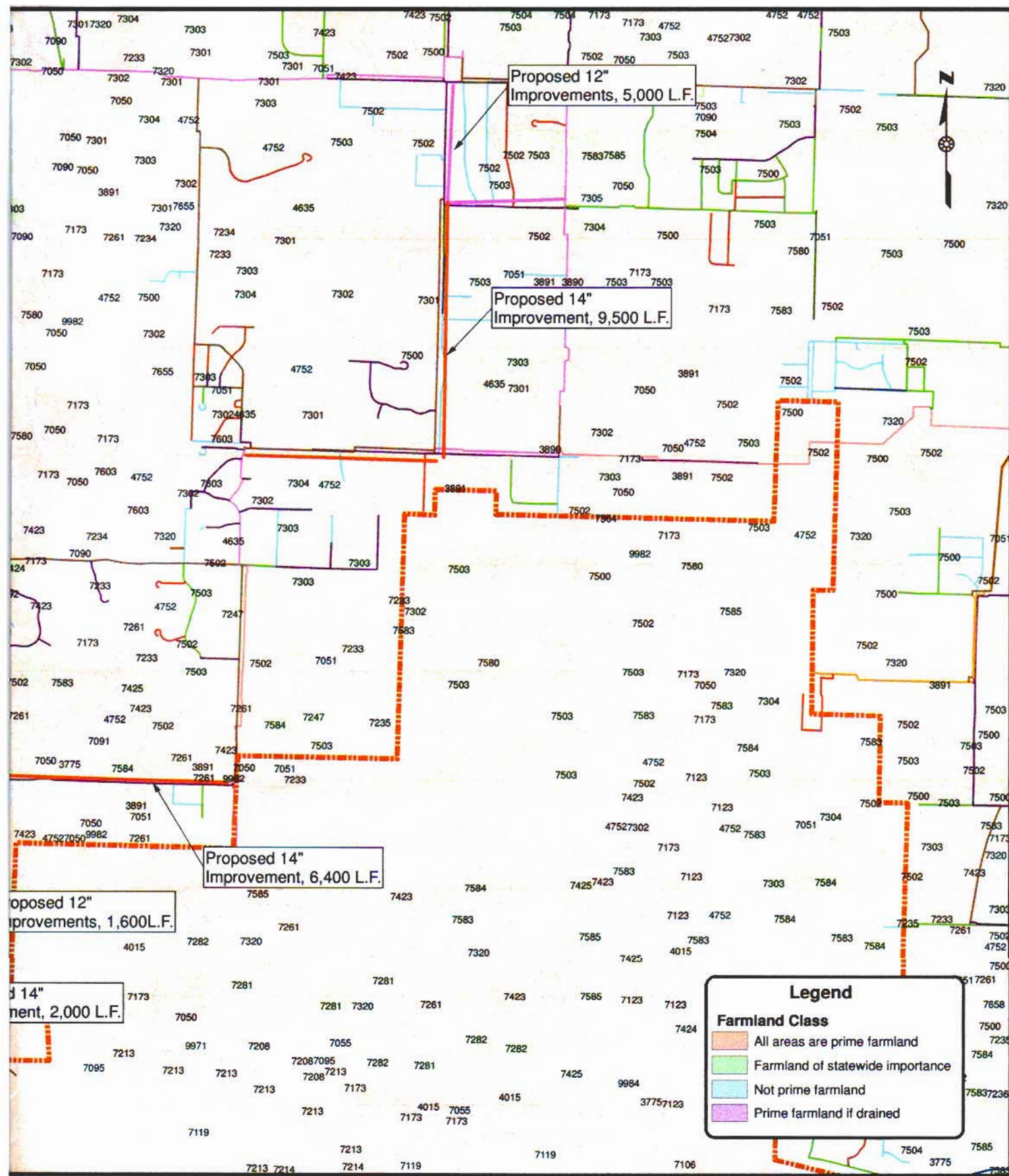
CONSOLIDATED RURAL WATER DISTRICT NO. 4
SHAWNEE COUNTY, KS

HYDRIC MAP

PROJ. NO: 12117.200
SCALE: NONE
DATE: JAN 2007

SHEET NUMBER

1 OF 1



CONSOLIDATED RURAL WATER DISTRICT NO. 4
SHAWNEE COUNTY, KS

FARMLAND MAP

PROJ NO: 12117.200
SCALE: NONE
DATE: JAN 2007

SHEET NUMBER
1 OF 1

SYMBOL	SOIL_TYPE_	FARMLAND_CLASS	HYDRIC_CLASS
3775	Muir silt loam, rarely flooded	All areas are prime farmland	Partially hydric
3890	Ladysmith silty clay loam, 0 to 1 percent slopes	All areas are prime farmland	Not hydric
3891	Ladysmith silty clay loam, 1 to 3 percent slopes	All areas are prime farmland	Not hydric
3892	Ladysmith silty clay loam, 1 to 3 percent slopes, erode	All areas are prime farmland	Not hydric
4015	Chase silt loam, occasionally flooded	All areas are prime farmland	Partially hydric
4052	Ivan silt loam, occasionally flooded	All areas are prime farmland	Not hydric
4053	Ivan silty clay loam, channeled	Farmland of statewide importance	Not hydric
4610	Dwight silty clay loam, 0 to 1 percent slopes	Not prime farmland	Not hydric
4615	Dwight silty clay loam, 1 to 3 percent slopes	Farmland of statewide importance	Not hydric
4635	Dwight-Martin silty clay loams, 1 to 3 percent slopes	Farmland of statewide importance	Not hydric
4671	Irwin silty clay loam, 1 to 3 percent slopes	All areas are prime farmland	Not hydric
4725	Kipson-Sogn complex, 5 to 30 percent slopes	Not prime farmland	Not hydric
4740	Labette silty clay loam, 1 to 3 percent slopes	All areas are prime farmland	Not hydric
4742	Labette silty clay loam, 3 to 7 percent slopes	All areas are prime farmland	Not hydric
4743	Labette silty clay loam, 3 to 7 percent slopes, eroded	Farmland of statewide importance	Not hydric
4752	Sogn-Vinland complex, 3 to 25 percent slopes	Not prime farmland	Unknown
4833	Warrego silty clay loam, 7 to 15 percent slopes	Farmland of statewide importance	Unknown
7006	Bismarckgrove silt loam, occasionally flooded	Not prime farmland	Unknown
7028	Belvue silt loam, occasionally flooded	Not prime farmland	Unknown
7031	Eudora silt loam, occasionally flooded	Not prime farmland	Unknown
7035	Eudora-Bismarckgrove fine sandy loams, overwash, occasi	Not prime farmland	Unknown
7036	Eudora-Bismarckgrove silt loams, occasionally flooded	Not prime farmland	Unknown
7050	Kennebec silt loam, occasionally flooded	Not prime farmland	Unknown
7051	Kennebec silt loam, frequently flooded	All areas are prime farmland	Not hydric
7055	Kimo silty clay loam, occasionally flooded	Not prime farmland	Partially hydric
7058	Stonehouse - Belvue complex, occasionally flooded	Not prime farmland	Partially hydric
7088	Stonehouse sand, occasionally flooded	Not prime farmland	Unknown
7089	Stonehouse-Eudora fine sandy loams, overwash, occasiona	Not prime farmland	Unknown
7090	Wabash silty clay loam, occasionally flooded	Not prime farmland	Not hydric
7091	Wabash silty clay, occasionally flooded	Prime farmland if drained	Partially hydric
7095	Kiro silty clay, depressional, occasionally flooded	Prime farmland if drained	Partially hydric
7099	Zook silty clay loam, occasionally flooded	Prime farmland if drained	Partially hydric
7104	Belvue silt loam, rarely flooded	Not prime farmland	Unknown
7105	Belvue silt loam, escarpment, 2 to 12 percent slopes	Not prime farmland	Unknown
7106	Eudora-Bismarckgrove silt loams, rarely flooded	All areas are prime farmland	Unknown
7107	Bismarckgrove-Kimo complex, rarely flooded	Not prime farmland	Unknown
7109	Bourbonais-Bismarckgrove complex, rarely flooded	Not prime farmland	Unknown

7119	Eudora-Urbanland complex, rarely flooded	Not prime farmland	Unknown
7121	Eudora fine sandy loam, 1 to 3 percent slopes	All areas are prime farmland	Not hydric
7123	Eudora silt loam, rarely flooded	All areas are prime farmland	Not hydric
7124	Eudora soils, 6 to 12 percent slopes, eroded	Farmland of statewide importance	Not hydric
7132	Stonehouse-Eudora complex, rarely flooded	Not prime farmland	Unknown
7150	Haig silty clay loam, 0 to 1 percent slopes	Prime farmland if drained	Partially hydric
7155	Kimo silty clay loam, rarely flooded	All areas are prime farmland	Partially hydric
7170	Reading silt loam, rarely flooded	All areas are prime farmland	Partially hydric
7173	Reading silty clay loam, rarely flooded	All areas are prime farmland	Partially hydric
7176	Rossville silt loam, very rarely flooded	All areas are prime farmland	Unknown
7208	Muscotah silty clay loam, very rarely flooded	All areas are prime farmland	Unknown
7213	Reading silt loam, moderately wet, very rarely flooded	All areas are prime farmland	Unknown
7214	Eudora silt loam, very rarely flooded	All areas are prime farmland	Not hydric
7230	Elmont loam, 3 to 7 percent slopes	All areas are prime farmland	Unknown
7233	Elmont silt loam, 3 to 7 percent slopes	All areas are prime farmland	Unknown
7234	Elmont silt loam, 3 to 7 percent slopes, eroded	All areas are prime farmland	Unknown
7235	Elmont silt loam, 7 to 12 percent slopes	Farmland of statewide importance	Not hydric
7236	Elmont silt loam, 7 to 12 percent slopes, eroded	Not prime farmland	Not hydric
7247	Elmont-Dwight silty clay loams, 3 to 7 percent slopes,	Farmland of statewide importance	Not hydric
7252	Grundy silty clay loam, 1 to 3 percent slopes	All areas are prime farmland	Not hydric
7261	Gymer silt loam, 3 to 7 percent slopes	All areas are prime farmland	Not hydric
7262	Gymer silt loam, 3 to 7 percent slopes, eroded	Farmland of statewide importance	Not hydric
7280	Wabash silty clay, very rarely flooded	Not prime farmland	Unknown
7281	Konawa fine sandy loam, 4 to 8 percent slopes	Farmland of statewide importance	Unknown
7282	Konawa fine sandy loam, 8 to 12 percent slopes	Farmland of statewide importance	Not hydric
7301	Martin silty clay loam, 1 to 3 percent slopes	All areas are prime farmland	Not hydric
7302	Martin silty clay loam, 3 to 7 percent slopes	Farmland of statewide importance	Not hydric
7303	Martin silty clay loam, 3 to 7 percent slopes, eroded	Farmland of statewide importance	Not hydric
7304	Martin silty clay loam, 7 to 12 percent slopes	Farmland of statewide importance	Not hydric
7305	Martin silty clay loam, 7 to 12 percent slopes, eroded	Not prime farmland	Not hydric
7308	Martin soils, 3 to 7 percent slopes, severely eroded	Not prime farmland	Not hydric
7320	Martin-Kennebec complex, 0 to 12 percent slopes	Not prime farmland	Partially hydric
7330	Martin-Vinland silty clay loams, 5 to 10 percent slopes	Farmland of statewide importance	Not hydric
7423	Morrill clay loam, 3 to 7 percent slopes	All areas are prime farmland	Not hydric
7424	Morrill clay loam, 3 to 7 percent slopes, eroded	Farmland of statewide importance	Not hydric
7425	Morrill clay loam, 7 to 12 percent slopes	Farmland of statewide importance	Not hydric
7426	Morrill fine sandy loam, 3 to 7 percent slopes	All areas are prime farmland	Not hydric
7426	Morrill fine sandy loam, 3 to 7 percent slopes	All areas are prime farmland	Not hydric

7427	Morrill fine sandy loam, 3 to 7 percent slopes, eroded	All areas are prime farmland	Not hydric
7428	Morrill fine sandy loam, 7 to 12 percent slopes	Farmland of statewide importance	Not hydric
7429	Morrill gravelly loam, 4 to 20 percent slopes, stony	Not prime farmland	Not hydric
7433	Morrill loam, 3 to 7 percent slopes	All areas are prime farmland	Not hydric
7437	Morrill loam, 7 to 12 percent slopes, very stony	Not prime farmland	Not hydric
7440	Morrill-Gravelly land complex, 4 to 12 percent slopes	Farmland of statewide importance	Unknown
7455	Olmitz loam, 1 to 5 percent slopes	All areas are prime farmland	Not hydric
7460	Oska silty clay loam, 3 to 6 percent slopes	Farmland of statewide importance	Not hydric
7500	Pawnee clay loam, 1 to 3 percent slopes	All areas are prime farmland	Not hydric
7500	Pawnee clay loam, 1 to 3 percent slopes	All areas are prime farmland	Not hydric
7502	Pawnee clay loam, 3 to 7 percent slopes	All areas are prime farmland	Not hydric
7503	Pawnee clay loam, 3 to 7 percent slopes, eroded	Farmland of statewide importance	Not hydric
7504	Pawnee clay loam, 7 to 12 percent slopes	Farmland of statewide importance	Not hydric
7540	Sharpsburg silty clay loam, 1 to 4 percent slopes	All areas are prime farmland	Not hydric
7541	Sharpsburg silty clay loam, 4 to 8 percent slopes	Farmland of statewide importance	Not hydric
7580	Shelby clay loam, 1 to 3 percent slopes	All areas are prime farmland	Not hydric
7583	Shelby clay loam, 3 to 7 percent slopes	Farmland of statewide importance	Not hydric
7584	Shelby clay loam, 3 to 7 percent slopes, eroded	Farmland of statewide importance	Not hydric
7585	Shelby clay loam, 7 to 12 percent slopes	Farmland of statewide importance	Not hydric
7593	Shelby-Pawnee complex, 7 to 12 percent slopes	Farmland of statewide importance	Not hydric
7602	Sibleyville complex, 7 to 12 percent slopes	Not prime farmland	Not hydric
7603	Sibleyville loam, 3 to 7 percent slopes	All areas are prime farmland	Not hydric
7605	Sibleyville loam, 7 to 12 percent slopes	Farmland of statewide importance	Not hydric
7655	Vinland silty clay loam, 4 to 15 percent slopes	Not prime farmland	Not hydric
7657	Vinland-Martin complex, 7 to 15 percent slopes	Not prime farmland	Not hydric
7658	Vinland-Rock outcrop complex, 15 to 45 percent slopes	Not prime farmland	Not hydric
7661	Vinland-Sogn complex, 15 to 45 percent slopes	Not prime farmland	Unknown
7678	Weida silt loam, 5 to 9 percent slopes	Farmland of statewide importance	Not hydric
7683	Wymore silty clay loam, 3 to 6 percent slopes	All areas are prime farmland	Not hydric
8962	Woodson silt loam, 1 to 3 percent slopes	All areas are prime farmland	Not hydric
9971	Arents, earthen dam	Not prime farmland	Unknown
9976	Borrow pits	Not prime farmland	Unknown
9981	Fluvents, channeled, frequently flooded	Not prime farmland	Unknown
9982	Fluvents, frequently flooded	Not prime farmland	Unknown
9983	Gravel pits and quarries	Not prime farmland	Unknown
9984	Made land	Not prime farmland	Unknown
9986	Miscellaneous water	Not prime farmland	Unknown
9995	Sand Pits	Not prime farmland	Unknown

9999

Water

Not prime farmland

Unknown