

Project for USDA Rural Development and KS Dept Commerce and Housing Assistance

Applicant: City of Hiawatha
Project: Phase 1 & 2 Sewer System Improvements

Contact Person: Donna J. Crawford
Address: Governmental Assistance services
905 Joseph Dr.
Lawrence, KS 66049

Sent to the Kansas Geological Survey for environmental review.

Agency Review Comments:

Any short-term adverse impacts during construction of the sewer system improvements should be offset by the long-term benefits of the improvements to the waterwater collection and treatment system.

Recommended Action:

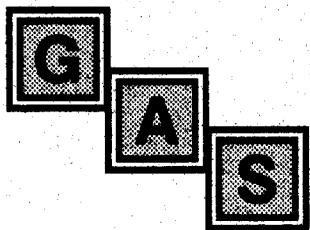
- ☒ Clearance of project should be granted
- ☐ Clearance of project should not be granted
- ☐ Clearance of project should be delayed until the issues or questions have been clarified
- ☐ Clearance of project should not be delayed, but the applicant (in the application) should address or clarify the questions or concerns indicated above
- ☐ Request the opportunity to review final application prior to submission to the federal funding agency.

Donald O. Whittemore
Reviewer's Name

Geohydrology Section, Kansas Geological Survey
Division/Agency

3/10/03
Date

Donald O. Whittemore
Reviewer's Signature



Governmental Assistance Services

905 Joseph Drive

Lawrence, Kansas 66049

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Toll Free 888-832-3335

e-mail: gasdonnaa@aol.com

February 25, 2003

Dr. Lee Allison
Kansas Geological Survey
University of Kansas
1930 Constant Ave. – Campus West
Lawrence, KS 66047

RE: Environmental Review – City of Hiawatha, KS – Phase 1 & 2 Sewer System Improvements

Dear Dr. Allison:

Approximately February 19, 2001 Bartlett & West Engineers submitted the attached information to your department for your environmental comments. Responses were received, however, original response letters cannot be found, only copies.

The Kansas Department of Commerce has advised me that the city's environmental file will be in non-compliance if original letters are not placed in file. Therefore, I am requesting that you respond once again to Phase 1 & Phase 2 of the city's sanitary sewer project.

Also, I will appreciate your response being sent to my office, Governmental Assistance Services, 905 Joseph Dr., Lawrence, KS 66049.

For your information the city has received a 2002 and 2003 grant to complete both phases to be coupled with Rural Development funds.

If you have any questions please call me at 785-832-2141.

Sincerely,

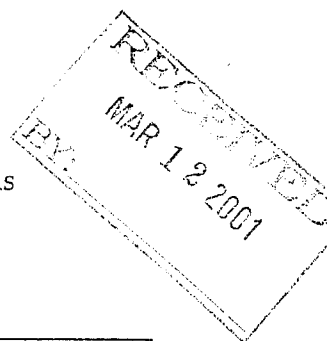
Donna J. Crawford
Project Coordinator

Enc/ Copy of Initial Response
Engineer's Environmental Report
Map of Construction Location

REVIEW AGENCIES/COMMISSIONS:

☐ Agriculture - DWR
☐ Biological Survey, Kansas
☐ Conservation Commission
☐ Corporation Commission
☒ Geological Survey, Kansas

☐ Water Office, Kansas
☐ Wildlife and Parks
☐ Historical Society
☐ Soil Conservation
☐



AGENCY REVIEW COMMENTS (To be completed by review agency and returned to KDHE contact person). Comments:

Any short-term impacts during construction should be offset by the long-term benefits of improved wastewater treatment.

RECOMMENDED ACTION COMMENTS (To be completed by review agency and returned to KDHE contact person). Check one statement:

☒ Clearance of 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 by KDHE.

☐ Clearance of the project should not be delayed, but KDHE should (in the application) address or clarify the questions or concerns indicated above.

Donald W. Whittemore
Reviewer's Name

KS Geological Survey 3/9/01
Div./Agency/Commission Date

Project Title: City of Hiawatha

Contact Person: Susan Soelter

Phone: 785-272-2252

*Bartlett + West Engineers, Inc.
1200 Executive Dr.
Topeka, KS 66615-3850*

Environmental Report

City of Hiawatha In Brown County, Kansas

1.0 Purpose and Need for Project

1.1 Project Description

The City of Hiawatha, with a population of 3,417 is the county seat of Brown County located in the NE corner of Kansas on US Highways 36 and 73. See the attached maps at Tab 6A showing the location of Hiawatha in Brown County, Kansas.

Significant improvements are needed to the City's wastewater treatment facilities in order for the City to comply with changes in the Kansas Surface Water Quality Standards and the City's two national Pollutant Discharge Elimination System Permits. The current wastewater treatment facilities were constructed some 20 years ago. At that time, the North trickling filter was replaced with a fixed film process called a Rotating Biological Contractor (RBC) and a second RBC facility, the South Treatment Facility, was constructed. See Tab 6B for the location of these two facilities. Age is beginning to show on some of the components of the existing facilities which were never designed to produce the effluents now produced.

This project consists of constructing a new treatment facility at the south side of the City of Hiawatha almost adjacent to the existing south treatment facility site. The second phase includes new headworks, pumping station, and force main to eliminate treatment and discharge at the existing north treatment facility.

The Preliminary Engineering Report addresses in detail the evolvement of the Surface Water Quality Standards (SWQS), KDHE's involvement and the impact on Kansas communities, including Hiawatha, to comply with NPDES permits.

1.2 Purpose and Need

When the City's treatment facilities were constructed in the early 1980's, effluent disinfection was not required. It is now a condition for a NPDES permit. In a letter dated February 15, 2000 from the Kansas Department of Health and Environment (See Tab 5C) the City of Hiawatha was required to upgrade or replace the North Plant to meet permit requirements.

The public is aware of this project. The public notice can be found at Tab 6C. No negative responses have been received.

Rural Development fully supports the proposed project. Complying with the Kansas Surface Water Quality Standards and, in the process, benefiting public health is a combined goal of the applicant and Rural Development.

2.0 Alternatives to the Proposed Action

Renovating the two existing treatment facilities has been an alternative considered. Continuing to operate the two existing treatment facility equates to lower initial costs but requires more operation, maintenance and replacement costs than the proposed single facility. A single treatment facility at the south side of the City was the recommended alternative. The original site plan shows the treatment plant to be located on the south side of the railroad tracks. This would have located the site in a floodplain and has since been moved just to the north of that location (See map at Tab 6D) on soils that are not considered hydric.

In order to meet the new permit requirements, the biological treatment process must be changed to a suspended growth activated sludge process which requires a long detention time (18 to 24 hours). Three different types of extended aeration processes were considered which would produce an acceptable effluent quality:

- The SEQUOX High Flow System
- A sequencing Batch Reactor
- An oxidation Ditch and Clarifier System

Each are summarized in the October 2000 Preliminary Engineering Report. The overall process costs are very comparable. Based upon site restriction, site visits and overall operator sensitivity, the SEQUOX process was selected.

The proposed action will enable the City to comply with Kansas Surface Water Quality Standards. Effluent disinfection will benefit public health and reduce or eliminate toxicity to aquatic life. To take no action would eliminate these benefits and the City would be unable to comply or receive NPDES permits from the KDHE.

3.0 Affected Environment/Environmental Consequences/Mitigation

3.1 Land Use/Important Farmland

3.1.1 General Land Use

3.1.1.1 Affected Environment

The 11.42 acre sewer treatment plant site is adjacent to the current south treatment plant and is currently used for pastureland. A map showing the location of the proposed site and the location of the

sewer line construction is included at Tab 6D. From AD-1006 was completed for the site and scored 117 points. See Tab 6E.

Brown County is not zoned. Much of the sewer line traverses the Wymore Silty Clay soil. Other soils crossed are the Grundy Silt Loam, the Kennebec Silt Loam and the Pawnee Clay Loam. The list for prime or important farmland soils is located at Tab 6F as well as soil survey maps from the natural Resource Conservation Service. Of these soils only the Grundy Silt Loam is classified as prime. Indirect conversion is prohibited by a city zoning ordinance prohibiting the City from new connections outside the city limits.

Installation of sewer lines will not change land use. The land will temporarily be disturbed during construction but will return to its original state after construction is complete; therefore the installation of sewer lines will not directly convert important farmland to other than agricultural use.

3.1.1.2 Environmental Consequences

New connections to rural residents is not a part of this project. The 11.42 acre sewer treatment plant site will be converted from pastureland.

3.1.1.3 Mitigation

The area disturbed by line installation will be returned to pre-construction condition.

3.1.2 Formally Classified Lands

3.1.2.1 Affected Environment

According to the Natural Resource Management Guide, no National parks, monuments, natural landmarks, battlefields, historic sites, wild and scenic rivers, wildlife refuges, trails or State parks are located in or near the project site.

No Wilderness Areas, Prime Rangeland or Prime Forest Lands have been identified in Kansas.

3.1.2.2 Environmental Consequences

None

3.1.2.3 Mitigation

None

3.2 Floodplains

3.2.1 Affected Environment

FEMA floodplain maps show the treatment plant site will not be located in a floodplain. See Tab 6G. Form FEMA 81-93, Standard Flood Hazard Determination was completed and can be found at Tab 6H.

3.2.2 Environmental Consequences

None.

3.2.3 Mitigation

None.

3.3 Wetlands

3.3.1 Affected Environment

The Brown County comprehensive hydric soils list can be found at Tab 6I. The treatment plant site is located on Pawnee Clay Loam which is not considered hydric. Sewer line will cross a small area of Grundy Silt Loam and Kennebec Silt Loam, both of which have hydric inclusions.

3.3.2 Environmental Consequences

Executive order 11990, Wetland Protection, restricts conversion of wetlands. Wetland areas will not be converted with the proposed sewer improvement project.

The US Army corps of Engineers is the construction permitting authority for wetlands. If the construction project follows the Corps guidelines for utility crossings of wetlands, then this falls under national permit authority and no permit is required.

Choosing one side of the road over the other would not avoid more possible wetland soils. There are no practical alternatives to avoid these two areas while still accomplishing the project objectives. No direct conversions will occur because this is a buried utility line, and the disturbed area will be restored to pre-existing conditions.

Indirect conversion are impacts which occur when a proposal induces or makes possible related activities which in turn affect the values and functions of the important land resource. This project will not serve any residences or businesses outside the city limits; it is for the city only. No indirect conversion will be encouraged by the development of this project.

The clearing of riparian vegetation will be minimized. This is included in mitigation at Section 3.5.2.

3.3.3 Mitigation

Lines will be covered as soon as possible and backfill firmly repacked.

Fuels and other substances are to be stored out of low-lying areas.

3.4 Cultural Resources

3.4.1 Affected Environment

The Kansas State Historical Society review uncovered no recorded historic resources. According to the SHPO review letter issued February 23, 2001, this project will have no affect on historic properties.

Information has also been sent to federally listed tribes. A copy of these letters can be found behind Tab 5A. No comments were received.

3.4.2 Environmental Consequences

No environmental consequences are known, however if unsuspected archaeological remains are uncovered during construction, SHPO will be notified immediately.

3.4.3 Mitigation

In the event that historic property, artifacts, human burials or human remains are discovered during the construction of the project, SHPO will be informed immediately of the discovery and excavation activities in the area will cease until an assessment has been made by a qualified archaeologist and/or appropriate authorities.

3.5 Biological Resources/Threatened and Endangered Species

3.5.1 Affected Environment

The Kansas Biological Survey offered no objections or concerns. The U.S. Fish and Wildlife Service in their response dated March 13, 2001 advised

that "As long as impacts to native prairie are minimized and mitigated, there should be no significant adverse effects on fish and wildlife resources, including threatened and endangered species".

The Kansas Wildlife and Parks reviewed this proposed project for potential impacts on crucial wildlife habitats, current state-listed threatened and endangered wildlife species, and public recreation areas for which they have some administrative authority. They found this project to have minor impacts to terrestrial or aquatic wildlife or their habitats. Project conditions were suggested to lessen any impacts to wildlife habitat and will be implemented as mitigation measures.

3.5.2 Environmental Consequences

Federal regulations prohibit any commercial activity involving threatened and endangered species or the destruction, malicious damage or removal of these species from Federal land or any other lands in knowing violation of State law or regulation, including State criminal trespass law.

3.5.2 Mitigation

Follow closely existing road rights-of-way.

Minimize the removal of native upland and riparian vegetation.

Avoid impacts to existing wetlands

Restore the substrate to original configuration and composition.

Implement measures to control soil erosion and protect water quality during construction.

Revegetate all disturbed areas with similar native species.

3.6 Water Quality

3.6.1 Affected Environment

No sole source aquifers are located in Kansas.

3.6.2 Environmental Consequences

Clarifying the wastes prior to discharge to the receiving stream depend upon biological processes which can be subject to system upsets due to shock loads, changes in wastewater characteristics and temperature changes. Treatment efficiency is reduced in the colder months due to reduced biological activity as

temperatures lower. During the winter months when sensitive juvenile aquatic life forms are not generally present in receiving waters, the US EPA and the KDHE grant some relief in criteria to be met, a concept called Early Life Stages (ELS) exemption. In the 2/15/2000 KDHE review, (Tab 5C), the Hiawatha North Plant, even when considering the least stringent limits available, remains in substantial non-compliance.

The enforcement of the limitation criteria of fecal coliform has been one provision that has been somewhat lax as the most commonly used disinfectant, chlorine, is toxic to aquatic life. Systems using chlorine were required to dechlorinate and reaerate their effluents. When many major facilities were upgraded to include effluent disinfection, KDHE's stream monitoring network noted significant improvements in compliance with the fecal coliform criteria. Effluent disinfection is now a requirement for a NPDES permit.

The proposed project has the potential to contribute to non-point source pollution by exposing the unprotected soil to erosion. Kansas Department of Health and Environment has determined that projects where the soil disturbance is greater than 1.0 acre at any given time, the city will develop and implement a Stormwater Pollution Prevention plan and obtain a National Pollutant Discharge Elimination System (NPDES) permit prior to construction. Upon completion of the project, disturbed areas, including equipment staging areas, will be stabilized with approved vegetation or other appropriate non-polluting material.

3.6.3 Mitigation

The City of Hiawatha will develop and implement a Stormwater Pollution Prevention Plan and obtain a National Pollutant Discharge Elimination System (NPDES) permit prior to construction.

Upon completion of the project, disturbed areas, including equipment staging areas, shall be stabilized with approved vegetation or other appropriate non-polluting material.

3.7 Coastal Resources

No Coastal Barrier Resources have been identified in Kansas.

3.8 Socio-Economic/Environmental Justice

3.8.1 Socio-Economic Information/Environmental Justice Issues

3.8.1.1 Affected Environment

Residents of the City of Hiawatha will be positively affected by the proposed project. Public health and aquatic life will benefit. Facility maintenance will no longer be a constant problem.

Form 2006-38, Civil Rights Impact Analysis Certification, has been completed and can be found at Tab 6F along with population numbers and diversity statistics.

3.8.1.2 Environmental Consequences

The project will not result in any barriers or reduced access to services. The project will not isolate an area from local facilities or services.

No one will be relocated as a result of this project.

3.8.1.3 Mitigation

None.

3.9 Miscellaneous

Air Quality- During construction there will be emissions from vehicles and other construction equipment or fugitive dust from construction activities. The project will not produce any long-term emissions.

Transportation- The project may cross under roads, highways, railroads, Kansas Turnpike and streams. Temporary changes in the traffic pattern may occur during construction. During construction necessary traffic controls will be used. The project will not change traffic patterns or increase traffic for the area over the long term. The project will not affect airport or airport runway clearance.

Noise- During construction there will be noise from vehicles and other construction equipment. The project will not produce any long-term noise levels.

Solid Waste Management- During construction there will be solid waste generated through construction activities. These materials will be disposed of in approved landfills or by methods approved by the local and state regulations.

Energy Impacts- The project will have minimal effect on existing energy supplies. No shortages of electrical power will be created.

State Environmental Policy Act- None

Intergovernmental Review –Intergovernmental review comments were requested in accordance with Executive Order 12732. Copies of correspondence can be found behind tab 5A. No negative comments were received.

Other Areas- The project will have no adverse impact on vibration, safety, seismic conditions, fire prone location, radiation or underground storage tanks.

3.9.1 Mitigation

None

4 Summary of Mitigation

Rural Development believes that reasonable growth can and should occur. Mitigation measures are designed to protect against the unwarranted impacts on and because of the environment. The impacts should be limited on important land resources.

The area disturbed by line installation will be returned to pre-construction condition.

Lines will be covered as soon as possible and backfill firmly repacked.

Fuels and other substances are to be stored out of low-lying areas.

In the event that historic property, artifacts, human burials or human remains are discovered during the construction of the project, SHPO will be informed immediately of the discovery and excavation activities in the area will cease until an assessments has been made by a qualified archaeologist and/or appropriate authorities.

Follow closely existing road rights-of-way.

Minimize the removal of native upland and riparian vegetation.

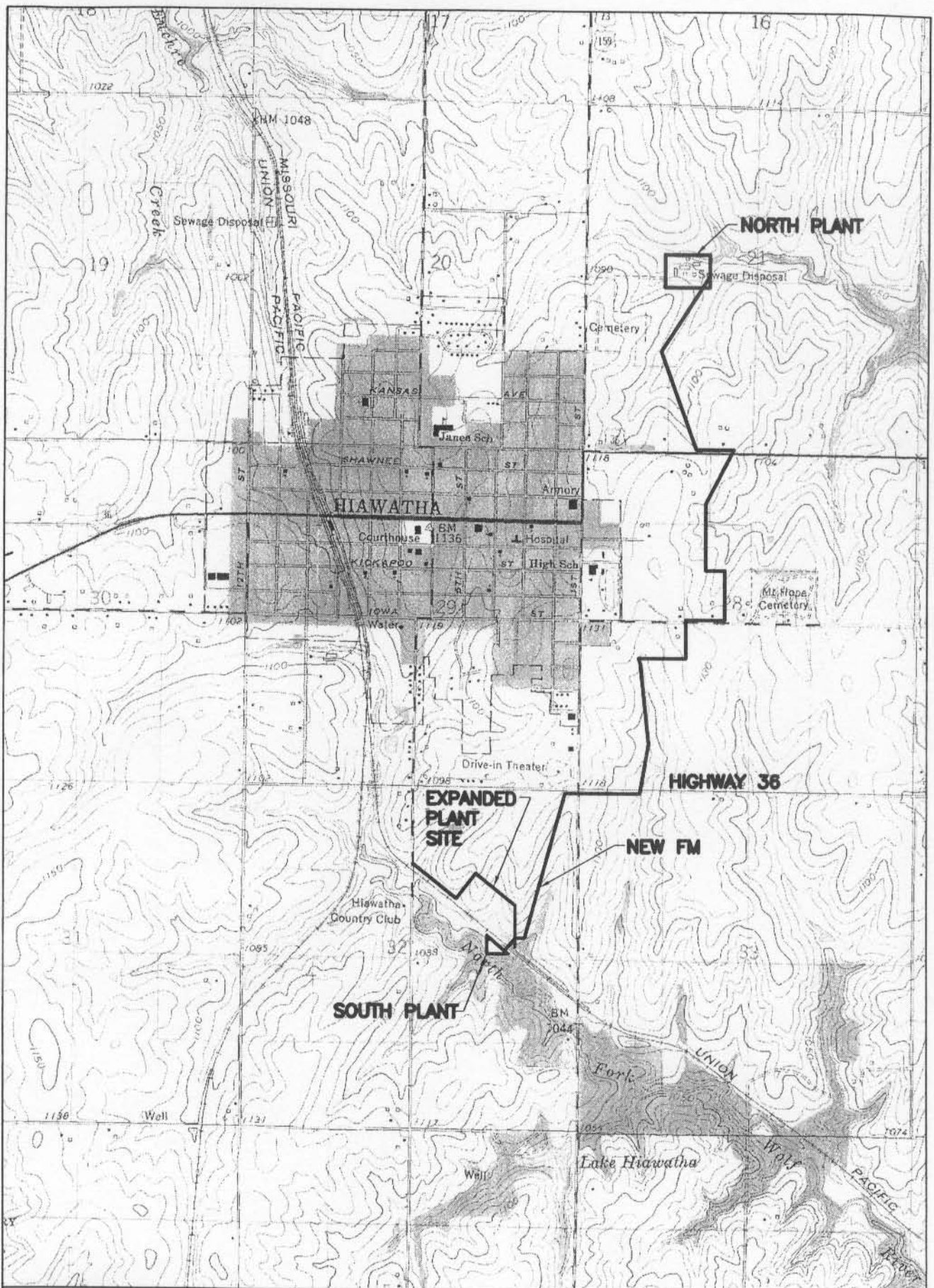
Avoid impacts to existing wetlands.

Restore the substrate to original configuration and composition.

Implement measures to control soil erosion and protect water quality during construction.

Revegetate all disturbed areas with similar native species.

Obtain a NPDES permit from KDHE.



Bartlett & West
Engineers, Inc.

HIWATHA, KANSAS
PROJECT LOCATION MAP