



City of Lawrence

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January 10, 2018

Senator Robert Olson, Chair
Senate Standing Committee on Utilities

Submitted by Brandon McGuire, Assistant to the City Manager on behalf of the City of Lawrence, Kansas

The following presentation is submitted at the request of the Senate Standing Committee on Utilities. As requested, the memorandum addresses historical and current information about environmental permitting and management at the former Farmland Industries Nitrogen Fertilizer Site.

Overview

Following Farmland Industries bankruptcy in 2004, the State of Kansas took ownership of the former Farmland Industries Nitrogen Fertilizer Plant (Site). The Site sat vacant and in a dilapidated state at the eastern gateway of the Lawrence community along K-10 highway for nearly a decade prior to the property and environmental management responsibilities being transferred to the City of Lawrence in 2010. The City of Lawrence has since made significant investments to remediate the Site and revitalize it for use as a new industrial and business park. The project has been successful from an environmental standpoint and is beginning to serve as an economic driver for both the City of Lawrence and the State of Kansas. Additional information on Lawrence Venture Park is provided at the end of this presentation.

History of Environmental Permitting at Former Farmland Industries Site

The former Farmland Industries Nitrogen Plant, located at 1608 North 1400 Road, Lawrence, Kansas, began operations in 1954 and produced a variety of nitrogen-based fertilizers. To City staff's knowledge, an NPDES permit has been maintained for this site since 1972. The current permit (*attached*) was issued April 1, 2017 and expires November 30, 2021.

In 1993 Farmland Industries began addressing numerous environmental issues at the facility through a Consent Order issued by the Kansas Department of Health and Environment (KDHE), including the operation of a long-term groundwater recovery system. Farmland Industries ceased operations at the property in 2001 and filed bankruptcy in 2002.



Management under Farmland Industries

The Site has undergone several episodes of environmental investigation since the 1970's. Early investigations focused on groundwater and soil impacts related to the ponds, located in the northern portion of the Site, and storm water runoff from industrial process areas. Preliminary remedial actions in the form of groundwater interception trenches around the northern storm water and wastewater ponds were implemented in the late 1970's. In the 1980's, the Chrome Reduction System (CRS) surface impoundment at the Site was identified as a hazardous waste management unit subject to regulation under the Resource Conservation and Recovery Act (RCRA). This system was taken out of service, and contaminated soil was removed in 1987. This portion of the Site, referred to as the RCRA site, has undergone groundwater cleanup under a KDHE permit since that time.

A RCRA Facility Assessment (RFA) was completed in September 1990 and identified specific areas where waste had been managed and releases of contaminants to the environment may have occurred. Farmland and KDHE entered into a Consent Agreement (Consent Order Case No. 92-E-27) on January 27, 1993, to conduct a Comprehensive Investigation/Corrective Action Study (CI/CAS). This investigation was completed with the submittal of the Comprehensive Investigation report in 1994. In 1997 a Corrective Action Plan (CAP) was approved by KDHE with a request that Farmland Industries install a French Drain system and recovery wells in the northern part of the Site, including reusing/recycling contaminated groundwater in plant processes. The Corrective Action Plan was developed with the understanding that the facility was an operating facility and the goal was to prevent environmental contamination from migrating off the Site. Quarterly groundwater monitoring activities and Performance Evaluation Reports with summaries of the nitrate and ammonia recovery systems have been submitted to KDHE since 1998.

Management under the State of Kansas

In 2004 following approval of Farmland Industries' Plan of Reorganization by the Bankruptcy Court and concurrence from KDHE, the Farmland Industries Kansas Remediation Trust (Trust) was formed and funded with approximately \$7.0 million for the initial remediation fund to address the remaining environmental impairments at the Site. In 2006 the Trust was funded with approximately \$7.8 million for the initial administrative fund to facilitate the property's sale and manage the administrative activities of the Site.

The Trust, through SELS Administrative Services, LLC as Trustee, managed the environmental and administrative functions of the Site. The Trust retained Shaw Environmental and Infrastructure, Inc. (Shaw), to help manage the mandated compliance and cleanup of the Site in cooperation with, and under the supervision of KDHE and the United States Environmental Protection Agency (EPA). The State of Kansas through KDHE as the primary beneficiary for the Trust during this period.

After termination of plant operations in 2001, the groundwater recycle/reuse assumptions were no longer applicable, and KDHE requested that the Trust perform additional investigations and develop a modified remedy. Following Farmland's bankruptcy and establishment of the Farmland Industries Kansas Remediation Trust, an evaluation of the existing conditions was made, and a strategy was developed for advancing the Site toward remediation and redevelopment since the property was no longer used to manufacture fertilizer. A Strategy Document submitted to KDHE in November 2004 became the basis for future site characterization and remedial action work.

In 2005 a comprehensive Site Characterization was conducted in which environmental data was collected to identify the lateral and vertical extent of contaminants identified in the 1990 RCRA Facility Assessment report. Supplemental investigations were conducted in 2006, 2007, and 2008. Following the Site Characterization and completion of several interim remedial measures, KDHE authorized the Trust to proceed with preparation of the Remedial Action Plan. The Remedial Action Plan includes a summary of investigations and remediation-related activity previously carried out at the Site, identifies environmental issues that require further action, evaluates remedial alternatives, identifies priorities, proposes remedial actions, and provides cost estimates to implement the proposed remedies.

The goal for this Site was to remediate the property to a condition that would allow its future use as an industrial/commercial property and would prevent unacceptable human exposure to residual site contamination under that scenario. In November 2009 KDHE and EPA published a plan for selecting a preferred remedial alternative for management and cleanup of contaminated soil and groundwater at the Farmland site. The primary contaminants of concern are nitrate and ammonia. These contaminants are elevated in groundwater, soil, sediments, and surface and storm water.

Management under the City of Lawrence

In 2010 the City of Lawrence acquired the 467-acre property from the State of Kansas and pursued negotiations with KDHE and EPA for clean-up. The City entered a Consent Order as a condition of this property transfer. The City also received the remaining balance of the Farmland Industries Kansas Trust Fund, approximately \$8.5 million at that time, to help fund the City's perpetual remediation responsibilities. The trust funds were insufficient to fully fund the perpetual environmental management activities at the Site.

Under the Consent Order, the City is responsible for the required remediation and the obligations of the Consent Order, including the continued operation and maintenance of all active remediation systems, as well as all reporting requirements of the RCRA and NPDES permits for the Site. The reporting requirements are substantial. The City of Lawrence continues to operate and maintain the active remediation systems, which include groundwater recovery wells, sumps, interceptor trenches, aboveground storage tanks and all other systems needed for hydraulic containment and land application of contaminated ground and surface water. The

City continues to maintain the RCRA permit and monitoring shows the remediation is complete. Additional testing and application for closure of this permit are planned for 2018. The chromium contamination initially detected at the Chromium Reduction System (CRS) unit, has attenuated and is no longer an environmental or health threat. Since the groundwater is no longer reused/recycled in the fertilizer manufacturing process, it continues to be captured onsite and transported via pipeline to agricultural fields as fertilizer-enriched water.

The transfer of the site from the State to the City marked the beginning of demolition, restoration, and improvement by the City after the site had sat vacant in a dilapidated state at the eastern gateway of Lawrence on Kansas Highway 10 (K-10) for a decade. Business development is possible through Environmental Use Control Agreements with the KDHE, allowing for growth while protecting human health and the environment. Photographs of the Site before and after the City's remediation efforts are provided as an attachment to this memorandum.

Temporary and Conditional Additional Discharge

As stated, the remediation program involves collecting nitrogen-laden water and applying it to agricultural land across the Kansas River via a distribution pipeline. Approximately 10 million gallons of water is collected at the site annually. Remediation activities on site in recent years has resulted in the accumulation of approximately 30 million gallons of water contained in storage as of August 2017. This quantity exceeds the on-site storage capacity and the capacity of participating agricultural land to absorb the water and nutrient content.

On September 26, 2017, the City submitted a plan (attached) to KDHE to haul 19 million gallons of surplus water by truck to additional agricultural land and requested KDHE's assistance in identifying alternatives. KDHE determined the trucking plan would pose a greater environmental and safety issues than alternatives. KDHE suggested a one-time, temporary, conditional discharge of the remediation water. This discharge is additional to the daily discharge from the site. KDHE indicated that this does not establish a precedent for disposal of future remediation water from the site, but is preferable to trucking water for agricultural application.

The City received KDHE's letter (attached) authorizing the additional one-time discharge on October 20, 2017, although it is dated October 4, 2017. The letter establishes KDHE's guidelines for the additional discharge operation to ensure negligible impact to the Kansas River. City staff developed an operational plan to ensure compliance with KDHE guidelines for the discharge operation. KDHE accepted the City's operational plan on November 3, 2017 and public notification was provided at the November 7, 2017 City Commission meeting.

The City of Lawrence is reviewing competitive proposals from expert consultants to study the environmental remediation program and former Farmland Site. The study will inform changes to remediation program with the intent of improving effectiveness and sustainability. The City also continues to work on expanding the amount of agricultural land available for land application.

The City looks forward to the State's ongoing technical, and even financial assistance to provide effective environmental management of the Site.

Public Notifications and Ongoing Efforts

City Manager Tom Markus publicly notified the City of Lawrence City Commission of the upcoming additional discharge at the November 7, 2017 Commission Meeting with members of the public and media present. All Lawrence City Commission meetings are televised on the local cable access channel, live-streamed on YouTube and archived for public review on the City's website.

On November 10, 2017, City staff notified WaterOne staff by email that the discharge operation was being initiated and would not impact WaterOne's use of the Kansas River. WaterOne staff did not reply to the City email and City staff was not aware of any concerns of WaterOne personnel. The City initiated the discharge operation for a short period of time that day, stopping to resolve a metering issue. Discharge and monitoring operations were resumed on November 14, 2017. City staff is monitoring the discharge operation for compliance by collecting water samples and analyzing them in the City's laboratory. KDHE is monitoring the discharge for compliance with the guidelines of the authorization and conducting streamflow modeling to ensure a negligible impact to the Kansas River. City staff has maintained communication with WaterOne throughout the operation.

City staff believed that an appropriate level of notification was provided for the situation due to the minimal potential impact to the Kansas River and the fact that KDHE authorized the temporary additional discharge under the existing NPDES permit. Daily discharges have occurred at the permitted outfall for decades – likely since the 1950s – without public notifications. Additionally, public announcements are not made when nitrate/nitrite levels in the river exceed many multiples of the levels resulting from the additional Farmland discharge due to agricultural and other upstream sources.

The City developed a webpage to publicly provide additional information about the temporary authorization. At the request of WaterOne General Manager Michael Armstrong, the City funded the return to service of the USGS water monitor at De Soto, KS and is monitoring and analyzing samples from WaterOne's Kansas River intake. The City is sharing monitoring results with KDHE and WaterOne. The data continues to confirm that the temporary additional discharge has a negligible impact on the use of the Kansas River (see attached graphs 1 and 2).

The City of Lawrence is a steward of the Kansas River watershed. The City partners with other entities along the Kansas River, such as the Kansas River Water Assurance District, Watershed Restoration and Protection Strategy and the United States Geological Survey (USGS) to address water quality issues. The City collaborates with other entities along the Kansas River on an ongoing USGS river water quality study that includes sampling, testing and monitoring stations

upstream and downstream from the Farmland site. WaterOne staff communicates with City of Lawrence staff about operational issues routinely via phone, email and text message.

In the coming months the City will complete the single largest capital project in the City's history, the \$72 million Wakarusa Wastewater Treatment Plant. This plant is equipped with modern technology that will reduce the release of nutrients into the Kansas River, including nitrogen and phosphorus.

Lawrence Venture Park

The improvement to the former Farmland Site since the City took ownership from the State cannot be overemphasized. In its current state, Lawrence Venture Park offers more than 200 acres of development-ready industrial land adjacent to East Hills Business Park (*see attached LVP Brochure*). Lawrence Venture Park is served by new infrastructure, including streets, utilities and fiber optic communications (*see attached LVP Infrastructure Map*). The site is accessible from the Burlington Northern Santa Fe railway, multiple major highways including I-70 and I-35, and airports, including Lawrence Municipal, Forbes Field and Kansas City International. Lawrence VenturePark has been designed as a space for businesses, industry, residents and visitors alike to enjoy. The park's Master Plan calls for a series of trails to be installed throughout the park to provide pedestrian access within the park and to adjacent developments. This will also serve as a recreational amenity for employees working in the park. The planned infrastructure includes sidewalks and bike paths throughout the park, with plans to connect the paths to the city's already-extensive trails and bikeway system.

With a labor force of nearly 600,000 workers within a 45-minute drive, Lawrence Venture Park is strategically positioned as an economic driver for the State of Kansas. Lawrence Venture Park has gained interest from national and international enterprises. Most recently, VanTrust Real Estate is scheduled to begin construction on the first of three new industrial buildings at Lawrence Venture Park. Upon completion, the three buildings will provide more than 500,000 square feet of new industrial space. The City of Lawrence is dedicated to the creation of primary jobs through continued private development at Lawrence Venture Park.

This ends the City of Lawrence's presentation. City staff will stand for questions.

Attachments

1. NPDES Permit – Kansas Water Pollution Control Permit No. I-KS31-PO04, City of Lawrence
2. Photographs of former Farmland Nitrogen Fertilizer Plant Site Before and After City of Lawrence Remediation Investments
3. September 26, 2017 Letter from City of Lawrence to John Mitchell, Director, KDHE, RE: City of Lawrence – Farmland Site
4. October 4, 2017 Letter from Susan Mosier, Secretary, KDHE to Dave Wagner, Director, City of Lawrence RE: Authorization for Temporary Discharge
5. Graph 1, Annual Trend of Nitrogen Load in Kansas River
6. Graph 2, Comparison of Farmland Discharge to Tuttle Creek Discharge
7. Lawrence Venture Park Brochure
8. Lawrence Venture Park Infrastructure Map

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Susan Mosier, MD, Secretary

Department of Health & Environment

Sam Brownback, Governor

March 28, 2017

City Clerk
PO Box 708
Lawrence, KS 66044

RE: Kansas Water Pollution Control
Permit No. I-KS31-PO04
Lawrence, City of

Dear Permittee:

You have fulfilled all the filing requirements for a Kansas Water Pollution Control Permit and Authorization to Discharge under the National Pollutant Discharge Elimination System (NPDES). We are pleased to forward your new permit. While it is permissible to make as many copies as needed for monitoring and reporting purposes, you need to retain the original permit for your files.

We suggest you carefully read the terms and conditions of your permit and understand these terms and conditions are enforceable under both State and Federal law.

Please notice the reporting paragraph on page 2 of your permit, where all reports are due by the 28th day of the schedule noted. Please submit reports to the Kansas Department of Health and Environment, Bureau of Water-TSS, 1000 SW Jackson St., Suite 420, Topeka, Kansas 66612-1367.

Also, please note that if the permit requires routine monitoring and reporting, the table under section A will contain a new term called "EDMR code". This term stands for Electronic Discharge Monitoring Report and is an addition to the permits to allow all permittees, in the future, to report the discharge monitoring report data electronically instead of on paper.

If you have any questions concerning this permit, contact Shelly Shores-Miller at (785)296-2856.

Sincerely,

Jaime Gaggero
Director, Bureau of Water

pc: NE - District
ES- Permit File

Kansas Permit No.: I-KS31-P004
Federal Permit No.: KS0001601

KANSAS WATER POLLUTION CONTROL PERMIT AND
AUTHORIZATION TO DISCHARGE UNDER
THE NATIONAL POLLUTANT DISCHARGE
ELIMINATION SYSTEM

Pursuant to the Provisions of Kansas Statutes Annotated 65-164 and 65-165, the Federal Water Pollution Control Act as amended, (33 U.S.C. 1251 et seq; the "Act"),

Owner: City of Lawrence
Owner's Address: P.O. Box 708
Lawrence, Kansas 66044
Facility Name: Former Farmland Industries - Lawrence
Facility Location: 1608 North 1400 Road
Lawrence, Kansas 66219
NW¼ of Section 4, Township 13S, Range 20E of
Douglas County, Kansas
Outfall 001A1 Location: Latitude 38.95672, Longitude -95.20045
Outfall 001B1 Location: Latitude 38.95402, Longitude -95.19265
Receiving Stream: Kansas River via Unnamed Tributary
River Basin: Kansas River Basin

is authorized to discharge from the wastewater treatment facility described herein, in accordance with effluent limitations and monitoring requirements as set forth herein.

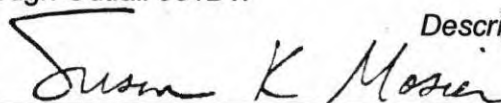
This permit is effective April 1, 2017, supersedes the previously issued Kansas Water Pollution Control permit I-KS31-PO04, and expires November 30, 2021.

FACILITY DESCRIPTION:

This is a former Farmland Industries fully integrated nitrogen fertilizer manufacturing facility. All operations ceased in approximately 2002 and all manufacturing equipment and structures have been removed. The City of Lawrence acquired the property and has platted it as an industrial park. Construction of new City services (water and sewer) is complete. Lot development and new streets accessing the facility are proposed, complete, and/or under various stages of construction.

Stormwater runoff from area south of the plant site including Highway 10, from the former south process areas, and from portions of the former north process areas flow through a central drainage ditch into the former West/East Effluent ponds which have been converted into a new regional stormwater detention pond. The total drainage basin of the Regional Detention Pond is approximately 359 acres. This stormwater is discharged through Outfall 001B1.

Description continued next page



Secretary, Kansas Department of Health and Environment

March 27, 2017
Date

Kansas Permit No.: I-KS31-PO04

FACILITY DESCRIPTION Continued

Final discharge from the facility flows through an outflow weir with a totalizer to an unnamed tributary of the Kansas River at Outfall 001A1. Flow consists of Outfall 001B1 Regional Detention Pond discharge, commingled with stormwater runoff from the northwest portion of the facility plus discharge from four (4) alluvial recovery wells and a small portion of stormwater runoff from the incorporated areas of Lawrence adjacent to the west of the facility.

Stormwater and groundwater that has been impacted by ammonia-nitrogen and nitrate-nitrogen from the former fertilizer manufacturing operations is collected and stored for use as a fertilizer on crop fields. The high nitrogen concentration water is collected from stormwater runoff from impacted portions of the former north process area, from surface seeps and stormwater low flows collected in the Old West Pond Sump, and from interceptor trenches and sumps that collect impacted groundwater around the ponds and around the sandstone hill area.

The high nitrogen concentration water is collected in a non-discharging wastewater system consisting of the Overflow Pond and a two and a half (2.5) million gallon and a five and a half (5.5) million gallon above-ground storage tank (AST), AST 5 and AST 6, respectively. Wastewater from the non-discharging wastewater system is land applied onto farmland north of the Kansas River in accordance with a KDHE approved land application plan for beneficial crop use.

The Rundown Pond was formerly part of the non-discharging wastewater system but has been dewatered and is used along with the East and West Lime Pond for land-filling of site nitrogen contaminated sediment and solids as required.

Additional discharge water with contamination potential that may discharge via Outfall 001A1 or other stormwater discharge locations identified and included in the stormwater pollution prevention plan includes stormwater runoff associated with site demolition, remediation and capping activities at various locations throughout the facility and associated pumped groundwater and surface seeps, and structure and/or construction stormwater dewatering. These discharges will be managed in accordance with area specific Best Management Practices (BMPs) in an approved Stormwater Pollution Prevention (SWP2) Plan for stormwater runoff associated with construction activity.

The Average Daily Flows from the facility outfalls are approximately:

Outfall 001A1 - Final Discharge from the Plant Effluent Weir to unnamed tributary; 0.4 mgd
Monitoring Location 001B1 - Discharge from Regional Detention Pond to Drainage Ditch, 0.3 mgd

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in this permit. The effluent limitations shall become effective on the dates specified herein. Such discharges shall be controlled, limited, and monitored by the permittee as specified. There shall be no discharge of floating solids or visible foam in other than trace amounts.

Monitoring reports shall be submitted monthly on or before the 28th day of the following month. In the event no discharge occurs, written notification is still required.

Kansas Permit No.: I-KS31-PO04

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Continued)

Abbreviations Used:

M = Monitor only

Outfall Number and Effluent Parameter(s) Units	EFFLUENT LIMITATIONS		MONITORING REQUIREMENTS	
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
<u>Outfall 001A1 [EDMR code: EFF001A1] - Final Discharge from Plant Effluent Weir to Unnamed Tributary to the North</u>				
Flow - MGD	M	M	Daily	Flow Totalizer
Total Suspended Solids – mg/l	M	M	Quarterly	Grab
Nitrate (as N) - mg/l	M	M	Weekly	Grab
pH - Standard Units	between the range of 6.0 and 9.0		Monthly	Grab
Ammonia (as N)- mg/l	M	M	Weekly	Grab
Stormwater Monitoring and Management Plan			Annually ⁽²⁾	Report
Closure Status Report			Annually ⁽³⁾	Report
<u>Monitoring Location 001B1(EDMR code: EPW001B1) - Discharge from Regional Detention Pond to the Drainage Ditch</u>				
Flow - MGD	M	M	Daily	Estimate
Total Suspended Solids – mg/l	M	M	Quarterly	Grab
Ammonia (as N) - mg/l	M	M	Monthly	Grab
Nitrate (as N) - mg/l	M	M	Monthly	Grab
pH - Standard Units	between the range of 6.0 and 9.0		Monthly	Grab
<u>Four Alluvial Recovery Wells</u>				
<u>PSW 3B - Monitoring Location RW002AW (EDMR code: RW002AW), and</u>				
<u>PSW 6B - Monitoring Location RW002BW (EDMR code: RW002BW), and</u>				
<u>PSW 7B - Monitoring Location RW002CW (EDMR code: RW002CW), and</u>				
<u>PSW 9 - Monitoring Location RW002DW (EDMR code: RW002DW).</u>				
Nitrate (as N) - mg/l	M ⁽¹⁾	M	Quarterly	Grab
Ammonia (as N) - mg/l	M ⁽¹⁾	M	Quarterly	Grab
<u>Other Remediation Monitoring Wells</u>				
<u>Monitoring Location RW002 (EDMR code: RW002EW)*</u>				
Nitrate (as N) - mg/l	M	M	Quarterly	Grab
Ammonia (as N) - mg/l	M	M	Quarterly	Grab

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Continued)

*Monitoring to begin upon installation of future interceptor wells installed as part of the remediation program listed in consecutive alphabetical order starting with the letter E (i.e. the next well will be labeled with monitoring location RW002EW. Upon installation permittee shall notify KDHE - Bureau of Water of the location on the plant site and the letter assigned.

(1) A monitoring result in excess of the Kansas Surface Water Quality Standard of 10 mg/l of Nitrate (as N) or an exceedance of 2 mg/l of Ammonia (as N) shall be reported immediately upon receipt of results to KDHE BOW and followed up with a written notification within 5 working days, with either an explanation or a plan to determine and address the increase in the groundwater and/or surface water contaminant.

(2) See Supplemental Condition No. 1 and No. 2.

(3) See Supplemental Condition No. 13.

Stormwater Internal Outfalls per approved Stormwater Pollution Prevention (SWP2) Plan

The permittee is authorized to discharge stormwater runoff and other process wastewater from investigative and remedial activities including construction/demolition activities from the above named outfall(s) in accordance with the conditions as specified herein.

Wastewater and Stormwater Runoff Free-From Provisions:

The permittee is authorized to discharge from the above named outfall(s) in accordance with the conditions as specified herein:

The discharge shall not cause a violation of Kansas Surface Water Quality Standards, K.A.R. 28-16-28b through 28-16-28e. The permittee shall not discharge the following:

- a. oil or grease in concentrations which cause any visible film or sheen to form upon the surface of the receiving water;
- b. oil or grease which causes a sludge or emulsion to be deposited beneath the surface of the receiving water, upon submerged substrate, or upon adjoining shorelines;
- c. turbidity or color producing substances causing any change in the natural appearance of the stream or water body;
- d. substances in the wastewater which cause objectionable odors in the vicinity of the receiving water;
- e. floating debris, scum, foam, froth, or other floating material in other than trace amounts; or
- f. materials which create deposits of sludge or fine solids causing aesthetic or environmental concerns downstream of the outfall.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Continued)

The permittee shall periodically inspect the outfall(s) and receiving stream(s) to ensure compliance with the above Water Quality Standards. The permittee shall maintain a log documenting the results of any monitoring or inspections performed and shall provide the log to KDHE staff for review upon request.

Any violation of the above general Water Quality Standards shall be reported within 24 hours of discovery, to either the Kansas Department of Health and Environment, Division of Environment at (785) 296-5517 or the appropriate KDHE District Office followed by a letter, within 5 days of discovery, explaining the cause of the water quality violation, the actions taken to correct the violation, and actions taken to prevent recurrence.

B. STANDARD CONDITIONS

In addition to the specified conditions stated herein, the permittee shall comply with the attached Standard Conditions dated June 20, 2016.

C. SCHEDULE OF COMPLIANCE

None.

D. SUPPLEMENTAL CONDITIONS

1. Stormwater runoff sampling - A sample representing each stormwater internal outfall representing remediation and closure activities shall be monitored in accordance with the approved Stormwater Pollution Prevention Plan (SWP2 Plan) for the effluent parameters, sampling frequency and action/notification levels listed in the approved SWP2 Plan for each identified monitoring point upon the initiation of soil disturbing activities within the area represented by that drainage monitoring point. Stormwater sampling shall also include routine stormwater sampling as authorized in the KDHE BER approved plan(s) as part of the authorized remediation. Permittee shall report the results in the Annual NPDES/Stormwater Monitoring and Management Plan Report. (See Supplemental Condition No. 2).

Sampling shall be performed during each qualified runoff inducing storm event beginning with the first major soil disturbing activity in drainage area of each outfall. A discrete occurrence of rainfall measuring a minimum of 0.5 inches shall be considered a qualifying event for stormwater runoff sampling. Surface water run-off shall be collected within the first 30 minutes (or as soon thereafter as feasible) of the discharge. Upon completion of a stormwater runoff sampling event, seven (7) consecutive dry days must elapse prior to the commencement of a subsequent qualifying event, or if this condition is not met within 14 days, the permittee shall sample the next qualifying event after the 14 days from the previous qualifying event, on the previous basis of no rainfall in the preceding 24 hours. In the absence of a

D. SUPPLEMENTAL CONDITIONS (Continued)

qualifying event, surface water runoff shall be collected at a minimum frequency of once a month. Samples for yearly monitoring parameters shall be obtained from an internal outfall with characteristics of significant soil disturbance relative to the work being performed in that drainage sector/sub-sector. After soil disturbing activities contributing to a drainage sector/sub-sector outfall are complete, if the test results from two consecutive samples do not exceed the stated KDHE accepted action/notification levels established for the sector/sub-sector in the approved SWP2 Plan for all parameters, the permittee may discontinue monitoring for that outfall. If future soil disturbing activities occur place within that drainage sector the above permit monitoring requirements shall resume.

If any parameter measured exceeds the effluent limitations or Action Levels listed in the SWP2 Plan, an investigation shall be conducted of the potential sources of the contamination. Based upon the investigation, the stormwater Best Management Practices (BMPs) shall be modified and implemented to mitigate stormwater contamination. If any parameter measured exceeds the Notification Levels listed in the SWP2 Plan, the exceedance shall be reported within 24 hours of discovery, to either the Kansas Department of Health and Environment, Division of Environment, Bureau of Water at (785) 296-4347, or the KDHE Bureau of Environmental Remediation followed by a letter, within 5 days of discovery, explaining the cause of the notification level exceedance, actions taken to correct the discharge, and actions taken to prevent recurrence.

Sampling conducted during storm events should not be performed during severe weather warnings as determined by the National Weather Service.

2. Annual NPDES/Stormwater Monitoring and Management Plan Report - The permittee shall submit an annual monitoring report summarizing the implementation of the stormwater pollution prevention plan for stormwater runoff associated with demolition, remediation and construction activities, routine stormwater sampling as authorized in the KDHE BER approved plan(s) as part of the authorized remediation, all discharges of water with contamination potential, and annual goals, results and recommendations of the Stormwater Management and Monitoring Program (SMMP). The report shall include a location map and a coordinated list describing each sampling point location, and shall include a summary of the compliance evaluation of the all discharges and best management practices implemented as required in the approved Stormwater Pollution Prevention Plan and in Attachment A. The report shall include a discussion of inspections, sampling performed throughout the year, exceedances of water quality standards, effluent limitations, notification levels or action levels, any changes to BMPs implemented, a summary any additions or deletions of drainage areas or discharges that no longer remain under permit monitoring requirements and goals, results and recommendations from the SMMP. An overall description and assessment of construction activity sediment and erosion control that has been performed over the past year shall be included. The report shall be prepared on a calendar year basis and shall be submitted by March 28th of the following year.

D. SUPPLEMENTAL CONDITIONS (Continued)

Management of Potentially Contaminated Surface Water and Groundwater - Surface water and groundwater with contamination potential at various locations throughout the facility may be disposed of by hauling off-site with KDHE BOW written approval to either an off-site wastewater treatment system, an approved land application site in accordance with an approved plan, by direct discharge with or without treatment in accordance the KDHE BOW written approval, or by other KDHE BOW acceptable disposal methods. These discharges may include pumped groundwater, surface seeps, structure dewatering, remediation decontamination water, construction stormwater dewatering and baseline surface water flows from on-site surface water ponds that may contain contaminated sediment or process solids. Testing parameters shall be submitted for KDHE BOW approval and will typically involve testing of the water source in accordance with the sampling parameters appropriate for the potential contaminants listed in the drainage sector and/or any other parameters that may reasonably be believed to be present in the discharge.

4. This permit shall be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under Sections 301 (b)(2), (C), and (D), 304 (b)(2), and 307 (a)(2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:

- a. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit, or
- b. Controls any pollutant not limited in the permit.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Act then applicable.

5. **Changes in Discharges of Toxic Substances**

The permittee shall notify the Director as soon as it knows or has reason to believe:

- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) One hundred micrograms per liter (100 µg/l);
 - (2) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
 - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application.
- b. That any activity has occurred or will occur which result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit if that discharge will exceed the highest of the following notification levels".

D. SUPPLEMENTAL CONDITIONS (Continued)

- (1) Five hundred micrograms per liter (500 µg/l);
 - (2) One milligram per liter (1 mg/l) for antimony;
 - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application
6. In the event the Environmental Protection Agency amends or promulgates the BPT, BAT, and/or BCT effluent guideline limitations for a specific Point Source Category or any of the subcategories covering your industry, this permit will be revoked and reissued to incorporate the new limitation(s).
7. Toxic Substances - Water Treatment Additives. If the permittee utilizes or changes water treatment additives:
 - a. After the mixing zone provided by Kansas Water Quality Standards, the discharge of water treatment additives shall not be harmful to human, animal or plant life uses in the receiving water.
 - b. The permittee shall keep an ongoing log of the water treatment chemicals used, their potential concentration in the facility discharge, and the associated toxicity data for each chemical. A sample chemical additives evaluation log can be obtained from KDHE.
 - c. The permittee shall provide KDHE, upon request, toxicity tests and/or a chemical additives evaluation log the permittee uses to determine if the requirements in the paragraphs above are being achieved. In the event the data indicate the requirements in the paragraphs above are not achieved, KDHE reserves the right to amend the facility's NPDES permit to specify additional terms and conditions for toxic substances.
8. Wastewater Land Application Requirements: General
 - a. Land application of wastewater is authorized for beneficial use on agricultural farmland. The wastewater is to be land applied as an organic fertilizer or soil amendment for improved crop production. Application rates plus any supplemental fertilization shall not exceed the agronomic rates for the crop being grown in accordance with the KDHE BOW approved land application plan and the requirements of this permit.
 - b. Permittee shall not irrigate crops produced for direct human consumption. Permittee may irrigate crops utilized for feed grains and forage by the livestock industry.
 - c. Permittee shall not irrigate within 30 days prior to the expected harvest of the irrigated crop.
 - d. Land application of wastewater shall not result in off-site runoff. Wastewater shall not be land applied when the soil is saturated or frozen.
 - e. Land application of wastewater shall be conducted in a manner to prevent soil, crop or groundwater contamination.

D. SUPPLEMENTAL CONDITIONS (Continued)

- f. Land application shall not be conducted within 200 feet from any well or stream or 100 feet from the adjacent property. The wastewater shall be distributed evenly over the irrigation site.
- g. Wastewater shall not be applied in such a manner or location as to create nuisance conditions (odors, flies, etc.) at any neighboring residence.
- h. Permittee shall obtain KDHE written approval to apply wastewater onto any land where the groundwater is less than 10 feet from the surface of the application area and onto a site which is subject to flooding more frequently than once in 10 years.

9. Wastewater Land Application Monitoring Requirements:

- a. A representative grab sample shall be taken of the water to be irrigated for any drainage sector specific parameters reasonably believed present, in addition to the following minimum parameters:

pH (standard units)	Total Calcium (mg/l)
Ammonia-Nitrogen - NH_3 (mg/l)	Magnesium (mg/l)
Nitrate-Nitrogen - NO_3 (mg/l)	Total Chloride (mg/l)
Total Phosphorus (mg/l)	Total Sodium (mg/l)
Total Potassium (mg/l)	Total Dissolved Solids (mg/l)
Sodium Adsorption Ratio (SAR) - calculate	

- b. Wastewater Land Application Soil Monitoring Requirements:

Prior to land application of wastewater the following soil samples shall be taken annually (usually following harvest). Samples must be tested at a laboratory skilled in the testing of soil samples for agronomic purposes and interpretation of soil sample test results. Permittee should consult the county extension office for guidance on sampling, testing and suitable laboratories. These laboratories need not be KDHE-certified for these tests. For land application sites greater than 40 acres, the site shall be divided into multiple areas for sampling and analysis. Each soil sample shall represent a maximum land application area of approximately 40 acres.

- (1) At least ten - 6 inch deep core samples shall be taken from each land application site and all cores taken from each site shall be composited into one sample. The top core composite sample shall be analyzed for the following parameters and any other parameters reasonably believed present in the material to be land applied:

- pH (standard units)
- Exchangeable Ammonium as Nitrogen (ppm and lb/acre)
- Nitrate-Nitrogen (ppm and lb/acre)
- Total Kjeldahl Nitrogen (ppm and lb/acre)
- Melich-3 or Bray P-1 Extractable Phosphorus (ppm)
- Extractable Potassium (ppm)
- Extract Electrical Conductivity (mmhos/cm)

D. SUPPLEMENTAL CONDITIONS (Continued)

Exchangeable Sodium as percent of cations (%)
Total Calcium (ppm and lb/ac)
Total Magnesium (ppm and lb/ac)
Sodium Adsorption Ratio (unitless)
Soluble Chloride (ppm)
Total Potassium (ppm and lb/ac)

- (2) From the same core holes, take a second sample (6 inch to 24 inch deep or as deep as you can go but not more than 24 inches) and composite these cores into one sample. The bottom core composite sample shall be analyzed for nitrate nitrogen (ppm and lb/acre).

10. Additional Land Application Requirements:

Phosphorus as "P" using the Bray P-1 or Mehlich 3 analysis method shall be limited to 100 mg/kg in the top 6 inches of soil. In fields where this is exceeded a written agreement shall be provided that no additional supplemental phosphorous shall be added until the field is reduced to below 50 mg/kg phosphorous in the top six inches of soil.

11. Wastewater Land Application Reporting Requirements:

- a. A land application report for the previous calendar year and the land application plan for the upcoming land application season shall be submitted to KDHE by March 28 of each year. The report shall address, as a minimum, the following:
 - (1) Any changes in the land application procedures/rates based on results of the monitoring data.
 - (2) Any additions or deletions of land application sites.
 - (3) Test results on the wastewater and soil at the land application site(s).
 - (4) Records of the quantity of wastewater applied to each land application site, the calculated pounds per acre of the parameters measured under Supplemental Condition No. 2 above applied to the sites; the crops grown on the application sites, and the crop yields. The agronomic rates (lbs Nitrogen/acre) for the crops at the expected yield shall be calculated for the sites. This information shall include the date, application site and the type and quantity of wastewater land applied and any additional fertilizers, manure, or sludges applied to the irrigation sites.
 - (5) A topographical map including the location and boundaries of the land application site, number of acres available for land application, location of any water wells within 500 feet of the land application site. If the land application site is less than 100 feet from the property line or less than 500 feet from any residences, waivers must be obtained from the owners to allow land application on the site.

SUPPLEMENTAL CONDITIONS (Continued)

- (6) The Land Application Plan and Annual Report shall include a certificate of review by either a Certified Crop Advisor or a person, acceptable to KDHE, who is knowledgeable through education and training in crop moisture and nutrient requirements i.e., crop science or agronomy. The

land application review shall address the rate and quantities of irrigation water applied; the application rate of nutrients from the irrigation water, and other nutrient sources including commercial fertilizers; salinity issues; and presence or accumulation of other pollutants of agronomic concern.

The land application review shall be based on the cropping practice that year and the measured land application site soil characteristics. The review and certification shall indicate whether the irrigation water, and any commercial fertilizer added to the sites were applied in conformance with the requirements of this permit, agronomic application rates, and generally accepted agricultural practices. At land application sites where the requirements of this permit were violated, agronomic application rates were exceeded, or generally accepted agricultural practices were not followed, the review certification shall recommend appropriate corrective actions. The review also needs to address the irrigation Land Application Plan for the upcoming calendar year. The permittee shall provide to KDHE the qualifications of the person conducting the annual land application review and certification unless provided in previous land application report submittals.

If no irrigation or wastewater residuals application occurs during a calendar year, no sampling or testing of the wastewater, sludge, or soil for land application is required. The annual report is still required and is to indicate "no land application conducted during the calendar year" on the monitoring report.

12. Construction Stormwater General Permit Provisions - Demolition and remediation activities shall be performed in accordance with the approved Stormwater Pollution Prevention Plan (SWP2 Plan), the BER Corrective Action Decision (CAD), this individual permit and the Kansas Stormwater Runoff from Construction Activities General Permit S-MCST-0701-1. Where conflicts exist between these two permits this individual permit shall govern.
13. Annual Closure Status Report - The permittee shall submit an annual closure status report summarizing the BOW related closure activities from the previous calendar year and projections for future closure activities.

In addition to the decommissioning of non-utilized portions of site wastewater treatment and pollution control systems, the closure status report shall include major industrial pipeline closure activities related to sanitary sewer, storm sewer, AST Supply, and water distribution. All facility water distribution, wastewater collection, and wastewater treatment systems will be closed in accordance with the KDHE approved Restoration Action Plan (RAP) or other subsequent BER approved BER plan and in accordance with Bureau of Water (BOW) approval.

Kansas Permit No.: I-KS31-PO04

SUPPLEMENTAL CONDITIONS (Continued)

Active and inactive wastewater and disposal area systems to be addressed in the annual closure status report include the Krehbiel Pond, the Old West Pond Sump, the West Extension Pond; capping and closure of the West Lime Sludge Pond, the Rundown Pond, the East Lime Sludge Pond; and any changes in operation or use of on-site ponds.

The Annual Closure Status Report shall be prepared on a calendar year basis and shall be submitted by March 28th of the following year.

STANDARD CONDITIONS FOR
KANSAS WATER POLLUTION CONTROL AND
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMITS

1. Representative Sampling and Discharge Monitoring Report Submittals:

- A. Samples and measurements taken as required herein shall be representative of the quality and quantity of the monitored discharge. Test results shall be recorded for the day the samples were taken. If sampling for a parameter was conducted across more than one calendar day, the test results may be recorded for the day sampling was started or ended. All samples shall be taken at the locations designated in this permit, and unless specified, at the outfall/monitoring location(s) before the wastewater joins or is diluted by any other water or substance.
- B. Monitoring results shall be recorded and reported on forms acceptable to the Division and submitted no later than the 28th day of the month following the completed reporting period. Signed and certified copies of other reports, required herein, prepared in accordance with KAR 28-16-59, may be faxed to 785.296.0086, e-mailed as scanned attachments to dmr4kdhe@kdheks.gov, or sent by U.S. mail to:

Kansas Department of Health & Environment
Bureau of Water-Technical Services Section
1000 SW Jackson Street, Suite 420
Topeka, KS 66612-1367

2. Definitions:

- A. Unless otherwise specifically defined in this permit, the following definitions apply:
1. The "Daily Maximum" is the total discharge by weight or average concentration, measurement taken, or value calculated during a 24-hour period. The parameter, pH, is limited as a range between and including the values shown.
 2. The "Weekly Average" is the arithmetic mean of the value of test results from samples collected, measurements taken or values calculated during four monitoring periods in each month consisting of calendar days 1-7, 8-14, 15-21 and 22 through the end of the month.
 3. The "Monthly Average", other than for E. coli bacteria, is the arithmetic mean of the value of test results from samples collected, measurements taken or values calculated during a calendar month. The monthly average is determined by the summation of all calculated values or measured test results divided by the number of calculated values or test results reported for that parameter during the calendar month. The monthly average for E. coli bacteria is the geometric average of the value of the test results from samples collected in a calendar month. The geometric average can be calculated by using a scientific calculator to multiply all the E. coli test results together and then taking the nth root of the product where n is the number of test results. Non-detect values shall be reported using the less than symbol (<) and the minimum detection or reportable value. To calculate average values, non-detects shall be defaulted to zero (or one for geometric averages). Greater than values shall be reported using the greater than symbol (>) and the reported value. To calculate average values, the greater than reported value shall be used in the averaging calculation.
- B. A "grab sample" is an individual sample collected in less than 15 minutes. A "composite sample" is a combination of individual samples in which the volume of each individual sample is proportional to the flow, or the sample frequency is proportioned to the flow rate over the sample period, or the sample frequency is proportional to time.
- C. The terms "Director", "Division", and "Department" refer to the Director, Division of Environment, Kansas Department of Health and Environment, respectively.
- D. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of an in-plant diversion. Severe property damage does not mean economic loss caused by delays in production.
- E. "Bypass" means the intentional diversion of waste streams from any portion of the treatment facility.

3. **Schedule of Compliance:** No later than 14 calendar days following each date identified in the "Schedule of Compliance," the permittee shall submit via mail, e-mail or fax per paragraph 1.B above, either a report of progress or, in the case of specific action being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements, or, if there are no more scheduled requirements, when such noncompliance will be corrected.
4. **Test Procedures:** All analyses required by this permit shall conform to the requirements of 40 CFR Part 136, unless otherwise specified, and shall be conducted in a laboratory accredited by the Department. For each measurement or sample, the permittee shall record the exact place, date, and time of measuring/sampling; the date and time of the analyses, the analytical techniques or methods used, minimum detection or reportable level, and the individual(s) who performed the measuring/sampling and analysis and, the results. If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved procedures, the results shall be included in the Discharge Monitoring Report form required in 1.B. above. Such increased frequencies shall also be indicated.
5. **Change in Discharge:** All discharges authorized herein shall be consistent with the permit requirements. The discharge of any pollutant not authorized by this permit or of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of this permit. Any anticipated facility expansions, production or flow increases, or production or wastewater treatment system modifications which result in a new, different, or increased discharge of pollutants shall be reported to the Division at least one hundred eighty (180) days before such change.
6. **Facilities Operation:** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the requirements of this permit and Kansas and Federal law. Proper operation and maintenance also include adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the requirements of this permit. The permittee shall take all necessary steps to minimize or prevent any adverse impact to human health or the environment resulting from noncompliance with any effluent limits specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge. When necessary to maintain compliance with the permit requirements, the permittee shall halt or reduce those activities under its control which generate wastewater routed to this facility.
7. **Incidents:**

"Collection System Diversion" means the diversion of wastewater from any portion of the collection system.

"In-Plant Diversion" means routing the wastewater around any treatment unit in the treatment facility through which it would normally flow.

"In-Plant Flow Through" means an incident in which the wastewater continues to be routed through the equipment even though full treatment is not being accomplished because of equipment failure for any reason.

"Spill" means any discharge of wastewater, sludge or other materials from the treatment facility other than effluent or as more specifically described by other "Incidents" terms.

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance or anticipated noncompliance with permit effluent limits because of factors beyond the reasonable control of the permittee, as described by 40 C.F.R. 122.41(n).
8. **Diversions not Exceeding Limits:** The permittee may allow any diversion to occur which does not cause effluent limits to be exceeded, but only if it also is for essential maintenance to assure efficient operation. Such diversions are not subject to the Incident Reporting requirements shown below.
9. **Prohibition of an In-Plant Diversion:** Any in-plant diversion from facilities necessary to maintain compliance with this permit is prohibited, except: (a) where the in-plant diversion was unavoidable to prevent loss of life, personal injury, or severe property damage; (b) where there were no feasible alternatives to the in-plant diversion, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime and (c) the permittee submitted a notice as required in the Incident Reporting paragraph below. The Director may approve an anticipated in-plant diversion, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above.

10. **Incident Reporting:** The permittee shall report any unanticipated collection system diversion, in-plant diversion, in-plant flow through occurrences, spill, upset or any violation of a permitted daily maximum limit within 24 hours from the time the permittee became aware of the incident. A written submission shall be provided within 5 days of the time the permittee became aware of the incident. The written submission shall contain a description of the noncompliance and its cause, the period of noncompliance, including exact dates and times; and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. An Incident Report form is available at www.kdheks.gov/water/tech.html.

For an anticipated incident or any planned changes or activities in the permitted facility that may result in noncompliance with the permit requirements, the permittee shall submit written notice, if possible, at least ten days before the date of the event.

For other noncompliance, the above information shall be provided with the next Discharge Monitoring Report.

11. **Removed Substances:** Solids, sludges, filter backwash, or other pollutants removed in the course of treatment of water shall be utilized or disposed of in a manner acceptable to the Division.
12. **Power Failures:** The permittee shall provide an alternative power source sufficient to operate the wastewater control facilities or otherwise control pollution and all discharges upon the loss of the primary source of power to the wastewater control facilities.
13. **Right of Entry:** The permittee shall allow authorized representatives of the Division of Environment or the Environmental Protection Agency upon the presentation of credentials, to enter upon the permittee's premises where an effluent source is located, or in which are located any records required by this permit, and at reasonable times, to have access to and copy any records required by this permit, to inspect any facilities, monitoring equipment or monitoring method required in this permit, and to sample any influents to, discharges from or materials in the wastewater facilities.
14. **Transfer of Ownership:** The permittee shall notify the succeeding owner or controlling person of the existence of this permit by certified letter, a copy of which shall be forwarded to the Division. The succeeding owner shall secure a new permit. This permit is not transferable to any person except after notice and approval by the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary.
15. **Records Retention:** Unless otherwise specified, all records and information resulting from the monitoring activities required by this permit, including all records of analyses and calibration and maintenance of instruments and recordings from continuous monitoring instruments, shall be retained for a minimum of 3 years, or longer if requested by the Division. Biosolids/sludge records and information are required to be kept for a minimum of 5 years, or longer if requested by the Division. Groundwater monitoring data, including background samples results, shall be kept for the life of the facility regardless of ownership.
16. **Availability of Records:** Except for data determined to be confidential under 33 USC Section 1318, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. Effluent data shall not be considered confidential. Knowingly making any false statement on any such report or tampering with equipment to falsify data may result in the imposition of criminal penalties as provided for in 33 USC Section 1319 and KSA 65-170c.
17. **Permit Modifications and Terminations:** As provided by KAR 28-16-62, after notice and opportunity for a hearing, this permit may be modified, suspended or revoked or terminated in whole or in part during its term for cause as provided, but not limited to those set forth in KAR 28-16-62 and KAR 28-16-28b through g. The permittee shall furnish to the Director, within a reasonable amount of time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish upon request, copies of all records required to be kept by this permit. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

18. Toxic Pollutants: Notwithstanding paragraph 17 above, if a toxic effluent standard or prohibition (including any schedule of compliance specified at such effluent standards) is established under 33 USC Section 1317(a) for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be revised or modified in accordance with the toxic effluent standard or prohibition. Nothing in this permit relieves the permittee from complying with federal toxic effluent standards as promulgated pursuant to 33 USC Section 1317.
19. Administrative, Civil and Criminal Liability: The permittee shall comply with all requirements of this permit. Except as authorized in paragraph 9 above, nothing in this permit shall be construed to relieve the permittee from administrative, civil or criminal penalties for noncompliance as provided for in KSA 65-161 et seq., and 33 USC Section 1319.
20. Oil and Hazardous Substance Liability: Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject to under 33 USC Section 1321 or KSA 65-164 et seq. A municipal permittee shall promptly notify the Division by telephone upon discovering crude oil or any petroleum derivative in its sewer system or wastewater treatment facilities.
21. Industrial Users: A municipal permittee shall require any industrial user of the treatment works to comply with 33 USC Section 1317, 1318 and any industrial user of storm sewers to comply with 33 USC Section 1308.
22. Property Rights: The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights nor any infringements of or violation of federal, state or local laws or regulations.
23. Operator Certification: The permittee shall, if required, ensure the wastewater facilities are under the supervision of an operator certified by the Department. If the permittee does not have a certified operator or loses its certified operator, appropriate steps shall be taken to obtain a certified operator as required by KAR 28-16-30 et seq.
24. Severability: The provisions of this permit are severable. If any provision of this permit or any circumstance is held invalid, the application of such provision to other circumstances and the remainder of the permit shall not be affected thereby.
25. Removal from Service: The permittee shall inform the Division at least three months before a pumping station, treatment unit, or any other part of the treatment facility permitted by this permit is to be removed from service and shall make arrangements acceptable to the Division to decommission the facility or part of the facility being removed from service such that the public health and waters of the state are protected.
26. Duty to Reapply: A permit holder wishing to continue any activity regulated by this permit after the expiration date, must apply for a new permit at least 180 days prior to expiration of the permit.

The aerial photograph below represents conditions following the City of Lawrence's remediation efforts at the former Farmland Industries Nitrogen Fertilizer Plant.



The following photographs were taken prior to the City of Lawrence remediation efforts at the former Farmland Industries Nitrogen Fertilizer Plant.















City of Lawrence

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CITY MANAGER

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CITY COMMISSION

MAYOR
LESLIE SODEN

COMMISSIONERS
STUART BOLEY
MATTHEW J. HERBERT
LISA LARSEN
MIKE AMYX

September 26, 2017

Mr. John Mitchell, Director
Kansas Department of Health & Environment
1000 SW Jackson Street, Suite 410
Topeka, KS 66612-1367

RE: CITY OF LAWRENCE - FARMLAND SITE

Dear Mr. Mitchell:

This letter is a formal request for the Kansas Department of Health and Environment to assist the City of Lawrence in finding alternatives to trucking the large volume of nitrogen impacted water currently in storage on site. The total volume of water is approximately 30 million gallons. There is approximately 8 million in the above ground storage tanks and 22 million gallons in the ponds.

The current surplus of nitrogen impacted water is the result of several factors. Two of the most influential factors include a land transfer (selling of property within the land application program) and the construction of the Central Ponds Interceptor Trench and its subsequent collection of ground water.

The construction of the Central Interceptor Trench has resulted in increased volume and nitrogen concentrations. As a result of the higher concentrations the farmers/land owners need a decreased volume of water, which results in a high water volume surplus.

The following table provides a breakdown of the ammonia and nitrate concentrations.

	Ammonia-Nitrogen (mg/L)	Nitrate-Nitrogen (mg/L)
Tank #5	819	1269
Tank #6	668	1156
Overflow Pond	278	594

We are estimating that we have approximately 1660 acres of ground for land application using the existing pivots and supplementing with hose reels. Of the 1660 acres 960



We are committed to providing excellent city services that enhance the quality of life for the Lawrence Community

acres are promised but not yet confirmed. If all commitments are signed and the hose reels option works, we have estimated that we can land apply about 11 million gallons of nitrogen impacted water. The optimal time to begin land application is the beginning of October and continued through the winter as temperatures and weather permits.

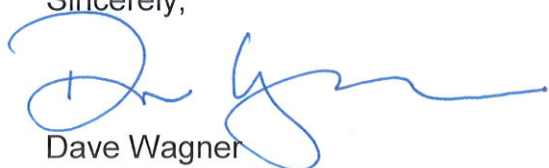
Additional water can be land applied to additional fields by trucked off site. We are calculating that it will take about 148 truckloads for each one million gallons of impacted water transported. This translates into approximately \$39,700 for each one million gallons transported.

In addition to exploring land application option for long term management, the City is also currently drafting an RFP to study long term alternatives such as onsite treatment or underground injection control.

The current volume of water pumped and collected is greater than the storage capacity and the land available for application within the existing irrigation infrastructure, resulting in an unsustainable situation. Adequate time is needed to study and implement a long term solution.

Therefore, the City of Lawrence is requesting guidance from KDHE for short term management options.

Sincerely,



Dave Wagner
Utilities Department Director

cc: Tom Stiles, KDHE



Susan Mosier, MD, Secretary

Department of Health & Environment

Sam Brownback, Governor

October 4, 2017

Mr. Dave Wagner
Public Works Director
City of Lawrence
Lawrence, KS 66054

Dear Mr. Wagner:

The Kansas Department of Health and Environment ("KDHE") has received your September 26, 2017, letter to Mr. John Mitchell requesting guidance for short-term management options for the former Farmland Industries Site in Lawrence.

The City of Lawrence committed to remediate the Farmland Industries site in 2012 and address the nitrate-laden groundwater generated by that remediation. Modifications on remediation practices intercepting contaminated groundwater from the sandstone hill and alluvial deposits of the Kansas River has increased the amount of water stored on-site, awaiting land application, to approximately 30 million gallons. This amount of water and nitrogen exceeds the agronomic needs of the nearby available croplands to which the remediated water would preferably be applied. This imbalance between supply and demand has created a critical situation where the incoming water now exceeds the capacity of the City to store it with the current on-site infrastructure.

In your letter, you stated that the City could optimistically land apply 11 million gallons near the site and would have to haul the remainder via truck to other fields. Your letter stated that it would require 148 truckloads per million gallons hauled, which translates to almost three thousand truckloads. The environmental and safety impact of that many trucks hauling water with elevated concentrations of nitrate along the K-10 corridor should be considered before implementing.

KDHE has reviewed the effluent and flow data from the existing NPDES wastewater permit held by the City for discharges from the Farmland site relative to conditions in the Kansas River and suggested an alternative to hauling the remediation water. Based on this analysis, I am authorizing a one-time, temporary, conditional discharge of this remediation water through the existing outfall identified in the NDPEs wastewater permit held by the City for the Farmland site (Kansas Permit No. I-KS31-PO04).

K.S.A. 65-171d authorizes the Secretary of KDHE to make rules and regulations for the purpose of preventing surface and subsurface water pollution and soil pollution and to control the disposal and discharge of sewage, defined by K.S.A. 65-164. K.S.A. 65-164 empowers the Secretary, upon finding that any of the waters of the state are being polluted in a manner prejudicial to the inhabitants of Kansas, to have the authority to order such pollution to cease within a reasonable time and to dispose of the polluting material in a manner that, in KDHE's judgment, prevents future pollution of such waters. K.A.R. 28-16-27 allows for a facility to make a planned, for-cause discharge of sewage bypassing treatment after notification to and approval from this department.

Supplemental Condition 3 of Kansas Permit No. I-KS31-PO04 addresses management of potentially contaminated surface water and groundwater and indicates disposal of those waters may be by hauling off-site,

land application or direct discharge with or without treatment upon approval from KDHE's Bureau of Water. These discharges may include pumped groundwater, surface seeps, structure dewatering, remediation decontamination water, construction stormwater dewatering and baseline surface water flows from on-site ponds.

Kansas Surface Water Quality Standards, at K.A.R. 28-16-28c(a)(5), allow for temporary discharges of pollution that produce only ephemeral surface water quality degradation not harmful to existing uses. The conditions to be followed in my authorizing the short-term, temporary discharge from the Farmland site will mitigate any water quality degradation. Those conditions include:

1. The discharge of stored remediation water from the Farmland site from outfall 001A1 will be limited to 0.5 million gallons per day, thereby minimizing nitrogen loading into the river.
2. The discharge of stored remediation water from the Farmland site will only be allowed when streamflow in the Kansas River as recorded by the U.S. Geological Survey gaging station 06891000 at LeCompton exceeds 1000 cubic feet per second, thereby providing over three orders of magnitude dilution capacity in the river to receive the Farmland discharge.
3. The discharge of stored remediation water from the Farmland site will occur between now and April 1, 2018 thereby dampening any biological activity that might respond to the input of additional nitrogen into the Kansas River.
4. In addition to the required monitoring established in the permit, weekly sampling of ammonia, nitrite and nitrate will be conducted by the City at the culvert where County Road E 1625 curves to become County Road N 1550, thereby providing assurance that detrimental concentrations and loads of nitrogen are not being discharged into the Kansas River.
5. The City of Lawrence will formulate an implementation plan to manage incoming remediation water in the future and submit that plan to KDHE by February 1, 2018, thereby assuring this situation does not reoccur.

This authorized discharge should create capacity and better position the City to manage the inflow of remedial surface and ground waters in 2018 and beyond. To that end, this authorization does not establish a precedent of disposal of this water in the future but, instead, is seen as a preferred alternative to the intended disposal means of truck hauling. From a multiple resource perspective, a temporary discharge under the conditions outlined above has far less environmental impact than the potential soil and groundwater contamination from excessive land application beyond agronomic rates, damage to planted crops, compaction of land application soils from loaded trucks or the air and soil disturbances and potential spillage from almost three thousand trucks hauling the excess remediation water off-site. The above conditions will minimize any water quality impact to the Kansas River and should protect the existing uses enjoyed on the river.

My expectation in providing this authorization is that the City will capitalize on the resulting opportunity of logistical, financial and resource relief and dedicate itself to planning and implementing strategies to better manage and remove the remaining contaminated waters on the Farmland site from this point on. There will not be any subsequent authorization to discharge in the future.

I wish you well in your ongoing management of this project.

Sincerely,

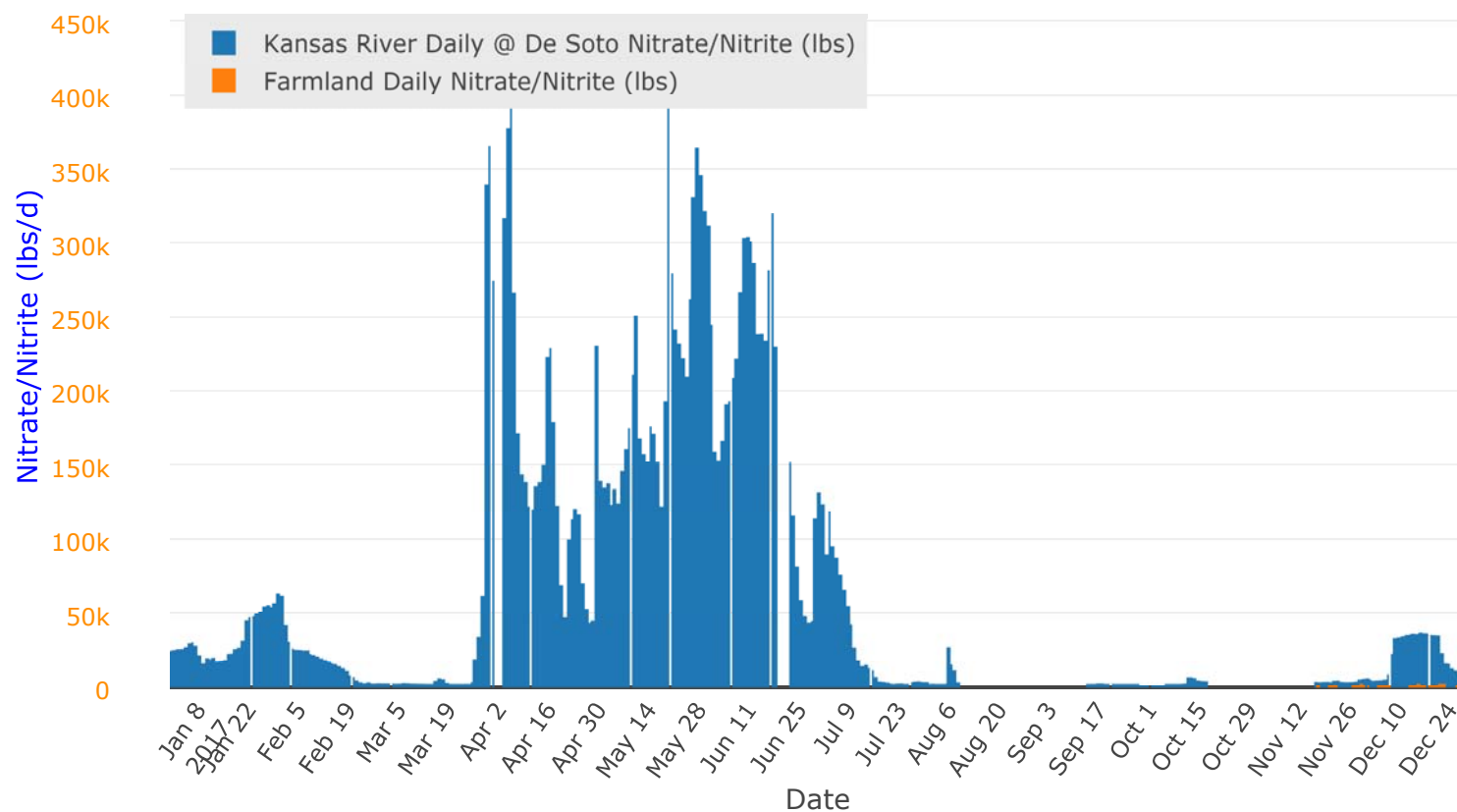
A handwritten signature in black ink, appearing to read "S Mosier". The signature is fluid and cursive, with a small dot at the end.

Susan Mosier, M.D., MBA, FACS

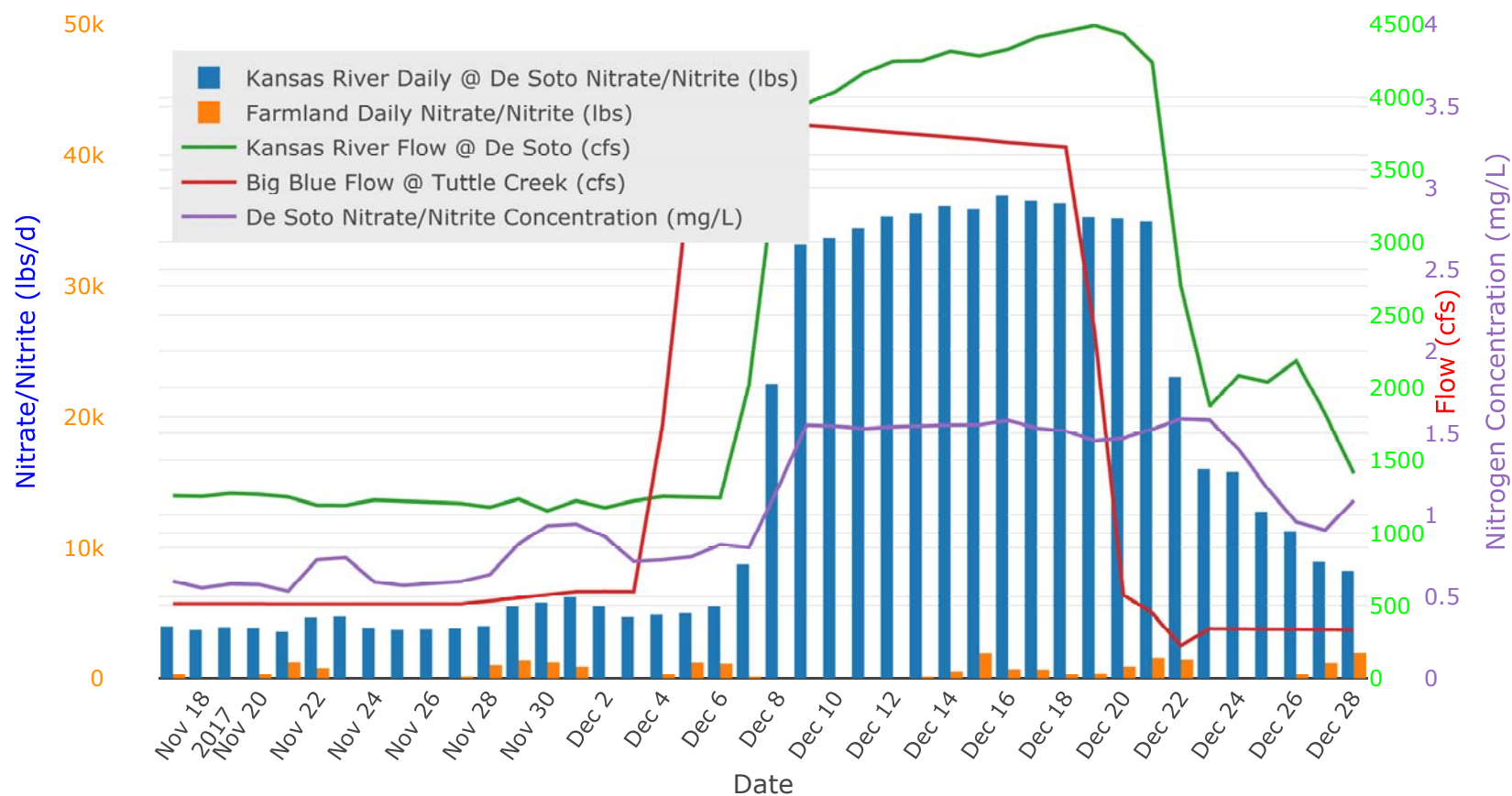
Secretary and State Health Officer

Kansas Department of Health and Environment

Kansas River Daily Nitrate & Nitrite Data (Jan 1 - Dec 28 2017)



Kansas River Daily Nitrate & Nitrite Data (Nov 17th to Dec 28th 2017)



*A new, innovative
business opportunity
awaits you...*



L A W R E N C E
VenturePark



City of Lawrence

Lawrence VenturePark

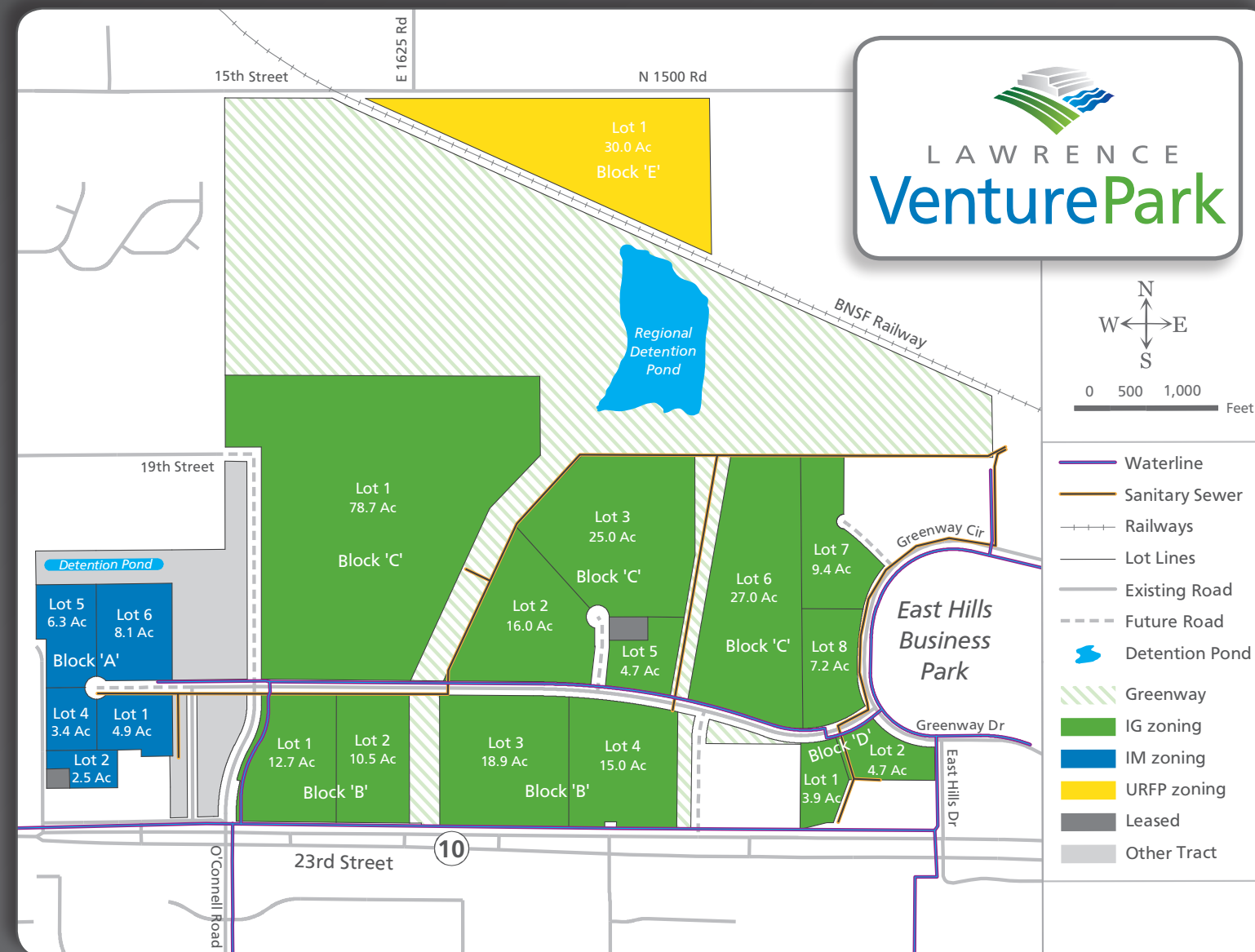
is a new business park located in Lawrence, Kansas. VenturePark is located on more than 200 acres and is adjacent to the existing East Hills Business Park. Lawrence is an exciting and vibrant community with an excellent business climate, exceptional schools, outstanding recreational amenities, a thriving downtown shopping and entertainment environment, and numerous arts and cultural opportunities. Lawrence is consistently named a best college town in national publications and websites and was named a “Best Small Place for Business and Careers” by Forbes in 2013. As home to the University of Kansas and Haskell Indian Nations University, Lawrence’s population is approximately 90,000 and is located 30 minutes west of Kansas City. Lawrence has an excellent regional workforce with 80% of the available labor pool having at least some college experience and 99.4% of the workforce having at least a high school diploma.

TRANSPORTATION ACCESS

Lawrence VenturePark is conveniently located on K-10, a four-lane divided state highway providing direct access to the Kansas City metropolitan area. Lawrence also enjoys three exits on I-70, providing quick access to the Kansas City metro to the east and Topeka to the west. In 2016, the State of Kansas will complete a loop of K-10 that provides a direct connection to I-70 from VenturePark. The completion of K-10 will also provide convenient access to US-59, which connects to I-35.

UTILITIES

VenturePark is development ready. City water and sewer infrastructure is available. The site is also served by shared stormwater facilities that incorporate leading-edge environmental management practices. The site can be readily served by a number of telecommunications providers and city-owned fiber optic cable is directly adjacent to VenturePark. Special assessments will be applied to the lots over a 20-year period to fund infrastructure improvements.



RAIL

VenturePark is directly adjacent to a Burlington Northern Santa Fe (BNSF) main rail line.

INCENTIVES

The City of Lawrence and its economic development partners have a strong interest in creating primary jobs in the community and will be very aggressive in offering a competitive incentive package for a company bringing significant capital investment and quality job creation to the community. Incentives may include free or reduced land, property tax abatement, industrial revenue bond financing, infrastructure, special assessment waivers and job training grants.

SPECIAL FEATURES

Lawrence VenturePark has been designed as a space for businesses, industry, residents and visitors alike to enjoy. The park’s Master Plan calls for a series of trails to be installed throughout the park to provide pedestrian access within the park and to adjacent developments. This will also serve as a recreational amenity for employees working in the park. The planned infrastructure includes sidewalks and bike paths throughout the park, with plans to connect the paths to the city’s already-extensive trails and bikeway system.

REDEVELOPMENT OF THE PARK

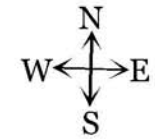
Lawrence VenturePark is located on the site of a former Farmland Industries nitrogen plant facility. The site was acquired by the City of Lawrence in 2010. Since then, the city has made significant investments in the site to provide additional industrial and business park expansion opportunities in the community. The city is engaged in limited environmental remediation of certain portions of the site and will remain responsible for any necessary environmental remediation within the Park.

MORE INFORMATION

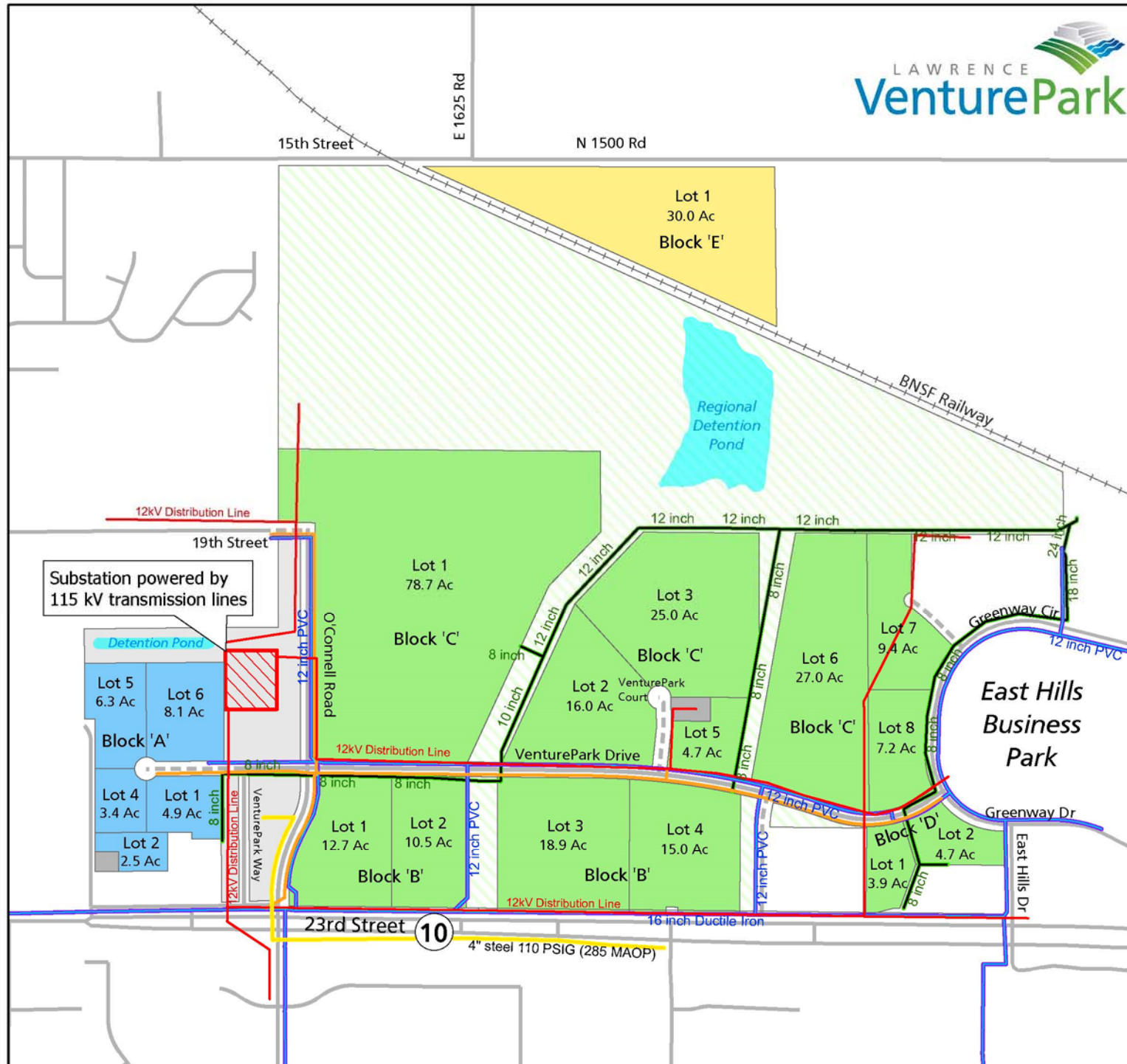
Detailed site information, including downloadable maps, topographic maps, environmental reports, geotechnical reports, and special assessment information is available at:

www.lawrenceks.org/LawrenceVenturePark.

Lawrence VenturePark Infrastructure Map



0 500 1,000
Feet



- Overhead Electric
- Gasline
- Waterline
- Fiber Network
- Sanitary Sewer
- - - Railways
- Lot Lines
- Existing Road
- - - Future Road
- Detention Pond
- Greenway
- IG zoning
- IM zoning
- URFP zoning
- Leased
- Other Tract
- Electric Substation