

Soil Erosion, Sediment Control & Stormwater Runoff Plan



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2 STATE OF KANSAS REQUIREMENTS

The State of Kansas Department of Health and Environment (KDHE) administers the Kansas Water Pollution Control and National Pollutant Discharge Elimination System (NPDES) stormwater runoff from construction activities, general permit revised August 1, 2017. The purpose of this general permit is to implement the Federal Water Pollution Control statutes and regulations; to permit the discharge of stormwater runoff from construction site subject to NPDES permit requirements; and to protect the waters of the State from sedimentation and other contaminants. The Kansas KSR1000000 general permit can be referenced in Appendix A.

It is the responsibility of the construction contractor to obtain this state-level permit with a detailed grading plan, by a state licensed Professional Engineer, with the erosion and sediment control Best Management Practices (BMP) features tailor-made for each project. Additionally, a Storm Water Pollution Prevention Plan (SWPPP) must be developed that lays out a chain of command to respond to site inspections, hazard mitigation, storage of construction material, temporary and permanent stabilization, and site-specific design features to ensure the protection of potential downstream waters. There are general industry standards that apply to development projects that are outside site-specific design features that are determined to meet a lot of the intent of the NPDES permit.

As a condition of the CUP, these plans may be provided to Marion County before the start of construction by the general construction contractor and their subcontractors. Expedition has addressed those general industry BMP in the following section per 27-105(16) of the Marion County Zoning Code:

3 MARION COUNTY

Expedition Wind has developed an Erosion and Sediment Control and Storm Water Runoff Plan, for permitting purposes, to address the regulations to preserve agricultural topsoil and prevent the sedimentation of county creeks, streams, or rivers. This plan is meant to give the County guidance on how the wind industry uses BMP to ensure compliance with the state and national level permit as required by the Code of Federal Regulation.

3.1 ARTICLE 27-105(16)

Soil Erosion, Sediment Control & Storm Water Runoff. Applicant shall develop a Soil Erosion, Sediment Control & Storm Water Runoff Plan. The Plan shall address what types of erosion control measures will be used during each phase of the project. Said plan shall identify plans for:

- A. *Grading;*
- B. *Construction and drainage of access roads and turbine pads;*
- C. *Necessary soil information;*
- D. *Design features to maintain downstream water quality;*
- E. *Revegetation to ensure slope stability;*

F. Restoring the site after temporary project activities.

The Soil Erosion, Sediment & Storm Water Runoff Plan shall also include practices regarding:

- 1. Disposal of storage of excavated materials;*
- 2. Protecting exposed soil;*
- 3. Stabilizing restored material and removal of silt fences or barriers when the area is stabilized;*
- 4. Maintenance of erosion controls throughout the life of the project.*

3.2 ARTICLE 27-105(7)

All lubricants and/or hazardous materials to be located on the premises in connection with the WECS facility shall be kept and transported in accordance with all state and federal regulations.

Since Stormwater Pollution Prevention Plans always address spill prevention and the storage of hazardous material that may be transported through the environment by water pathways, this plan also addresses Marion County Article 27-105(7) due to overlapping BMP to address concerns.

4 TEMPORARY EROSION CONTROL

Temporary erosion control BMP are designed to keep site soils from moving from their settled location. This is the most effective way to ensure site soils are not moved by stormwater and runoff pathways into creeks, stream, or rivers where they are further transported. Temporary erosion control includes but is not limited to:

- ▲ Riprap
- ▲ Temporary seeding
- ▲ Hydroseeding
- ▲ Hydromulch
- ▲ Stray mulch
- ▲ Erosion Control Blanket
- ▲ Turf reinforcement mats
- ▲ Berms



Figure 1 Hydroseeding slopes is an effective erosion control BMP.

Construction should be phased appropriately to ensure that soil exposure is limited as much as feasible. Once temporary erosion controls are installed, the construction contractor's delegated SWPPP inspector will follow the schedule for the routine and post rainfall events to ensure that controls are adequate and any required maintenance is done in a timely manner. A log book of inspection will be kept onsite at all times, being made available to the regulating body at any time. Additionally, it is best to avoid channeling water which can make erosion occur faster onsite. If

channeling water is unavoidable, then the focus should be on velocity reduction through rock check dams, rip rap, or other velocity reducing BMP.

5 TEMPORARY SEDIMENT CONTROL

Temporary sediment control BMP are designed to knock suspended sediment particles out of the water column. Sediment control happens when there is a failure in a site's erosion control and a redundant BMP are need to reduce the discharge of potential sediment-laden water offsite. Temporary sediment control includes but is not limited to:

- ▲ Silt Fence
- ▲ Straw Waddle
- ▲ Hay Bales
- ▲ Mulch Log
- ▲ Sediment Trap
- ▲ Filter Bags (dewatering)
- ▲ Rock Check Dams
- ▲ Retention/Detention Ponds



Figure 2 Silt fence should be installed along open soil perimeters.

Once temporary sediment controls are installed, the construction contractor's delegated SWPPP inspector will follow the schedule for routine and post rainfall events to ensure that controls are adequate and any required maintenance is done in a timely manner. A log book of inspection reports will be kept onsite at all times, being made available to the regulating body at any time.

6 INSPECTION AND MAINTENANCE

Once BMP are installed onsite, they must be maintained to ensure they operate effectively and according to the manufacturer specification. These inspections shall be scheduled to place at least once a week and within 24 hours of any precipitation event with accumulation over 0.5 inches. If frozen conditions occur onsite, inspections may cease until the first thaw. Winter condition preparation should take place in fall to ensure that BMP will be in place for the spring thaw.

If during the inspection a BMP is determined to be ineffective, it may need additional or redundant BMP to adequately prevent erosion. If a BMP failure is noted, the inspector will list that failure in their report and assign a corrective action item to take place within a reasonable amount of time. It is a best practice for the construction contractor to have a sub-contractor that specifically deals with erosion control installation and maintenance. However, at a minimum, the general contractor should assign a representative to oversee their stormwater and erosion control program through the construction process.

6.1 INSPECTION REPORT REQUIREMENTS

A standard inspection report should be used so that they are easy to understand for any regulatory inspector and so they can follow the progression of site conditions from preconstruction to post-construction. Photographs are a helpful tool to document compliance with stormwater regulations and should be considered when conducting an inspection. Each inspection report should include:

- Name of the person who conducts the inspection,
- Date and time,
- A checklist of the BMP that are installed,
- The findings of the inspection and whether there are action items,
- Date and time the action item is corrected,
- Weather conditions and the amount of rain, as necessary,
- Recommendations for SWPPP amendments.

The inspection log should be kept onsite at all times, or be made available within 24 hours upon request from a regulatory authority. It is best to keep the inspection log, stormwater pollution prevention plan, erosion & sediment control plan, and the spill prevention control & countermeasure plan in the onsite construction trailer so it can be accessible to emergency services. The construction sign should have the proper permits posted with the contact information of all the people supporting the permitted program. See Appendix F for an example form inspection.

7 WECS CONSTRUCTION

7.1 GRADING

Grading activities are mostly avoided during the construction of wind projects due to the need to preserve the hydrologic features of exposed soil row-crop agriculture land. The exposed soil conditions allow for the direct placement of the sub-base compaction material, caliche, and crushed rock that make up the access roads and turbine pads, helping to facilitate the avoidance of needing any grading equipment. In the event that an access road or turbine pad requires a change in the natural grade contours, silt fence, sediment logs, or other perimeter control BMPs are installed per the manufacturer specification.

7.2 CONSTRUCTION AND DRAINAGE OF ACCESS ROADS AND TURBINE PADS

Roads and pads are constructed at grade as much as feasible, but as typical, a slight pitch away from the roads center line or turbine base will allow water to runoff and prevent ponding over an impervious surface. All access roads will have installed a properly sized culvert as determine by HydroCAD modeling, that measures the maximum 100-year flow to each culvert. Temporary rock checks, sediment logs, or other velocity reduction and filtering BMP can be installed on the upstream or downstream end of the culvert to prevent the flow of contaminated water offsite.

Low impact design techniques will help avoid alteration to the natural hydrologic features of a site to allow for the flow and infiltration of stormwater into the agriculture field, and overall, avoid the channeling of stormwater. In the event the drainage ditches or swales are necessary alongside newly constructed roads, temporary soils stabilization of slopes and channel bottom will be installed until permanent soil stabilization is achieved by planting a grass mix of a native species. Check dams, riprap, or other velocity reduction BMP may be used in areas where channelized flows down a steep grade

7.3 SITE SOIL INFORMATION

A soil survey was run for the general area of the county where the project is proposed using the United State Department of Agriculture Web Soil Survey. A summary of the results is below but the reports can be referenced in Appendix B.

| Soil Name | Hydrologic Group | K(f) | % AOI | Representative Value | | |
|------------------------------|------------------|------|-------|----------------------|--------|--------|
| | | | | % Sand | % Silt | % Clay |
| Wells loam | B | .32 | 3.6 | 38 | 42 | 20 |
| Ladysmith silty clay loam | D | .37 | 2.8 | 7 | 60 | 33 |
| Rosehill silty clay | D | .28 | 1.4 | 5 | 54 | 41 |
| Chase silty clay loam | D | .37 | 0.5 | 4 | 66 | 30 |
| Clime silty clay loam | D | .32 | 15.94 | 8 | 56 | 36 |
| Clime-Sogn complex | D | .32 | 5.4 | 5 | 54 | 41 |
| Dwight silt loam | D | .43 | 0.3 | 7 | 70 | 23 |
| Florence silt loam | C | .37 | 0.9 | 10 | 66 | 24 |
| Irwin silty clay loam | D | .37 | 38.4 | 8 | 59 | 33 |
| Labette silty clay loam | D | .32 | 4.5 | 4 | 61 | 35 |
| Labette-Dwight complex | D | .32 | 1.1 | 4 | 61 | 35 |
| Labette-Sogn silty clay loam | D | .32 | 4.0 | 4 | 61 | 35 |
| Sogn silty clay loam | D | .28 | 4.1 | 10 | 55 | 35 |
| Tully silty clay loam | C | .32 | 5.4 | 5 | 62 | 33 |
| Reading silt loam | C | .37 | 2.2 | 6 | 70 | 24 |
| Osage silty clay | D | .20 | 0.2 | 1 | 41 | 58 |
| Verdigris silt loam | B | .37 | 3.4 | 15 | 62 | 23 |

Figure 3 A summary of the USDA Web Soil Survey shows the characteristics of the soil that has the potential to be onsite.

As shown in the table, 7% of the soils in the area of interest are classified as hydrologic Group B. Soils in this group have moderately low runoff potential when thoroughly wet and infiltration rates are high. Group C soils make up 8.5% of the soils in the area of interest, these soils have moderately high runoff potential when thoroughly wet and infiltration rates are slow. Group D soils make up 54.8% of the area of interest, these soils have a high runoff potential when thoroughly wet and infiltration rates are very slow.

7.4 SITE DESIGN FEATURES FOR RECEIVING WATERS QUALITY

There are many temporary and permanent erosion and sediment control feature that will be used during construction. Additionally, infiltration or retention ponds can be used where areas of impervious surface, greater than one acre, flow to a common point as mean to control sedimentation of downstream waters. These ponds are designed to hold water and let suspended soils and pollutant to fall out of the water column while letting surface water drain through the watershed via natural pathways. These types of ponds could be used temporarily or permanently at the O&M facility or at the laydown yard, as necessary.

The most effective site design feature is to not leave exposed soil open to the elements for extended periods of times. Construction of wind energy facilities happen in rural agricultural areas where soils are typically exposed and not 100% vegetated. Construction of access roads covers soils with an aggregate cover. Conversion of farmland into access roads and turbine pads do not alter the natural hydrology of water drainage enough to cause significant adverse impacts to receiving waters.

Catlin Creek has the potential to be a receiving water body for area runoff. As of the 2018 Section 303(d) listing, Catlin Creek is not considered an impaired water body. Proper implementation of the SWPPP, erosion & sediment control plan, and spill prevention control & countermeasure plan should be sufficient to ensure that Catlin Creek does not receive contaminated water during construction or the operations phase of the project. See Appendix C for more information.

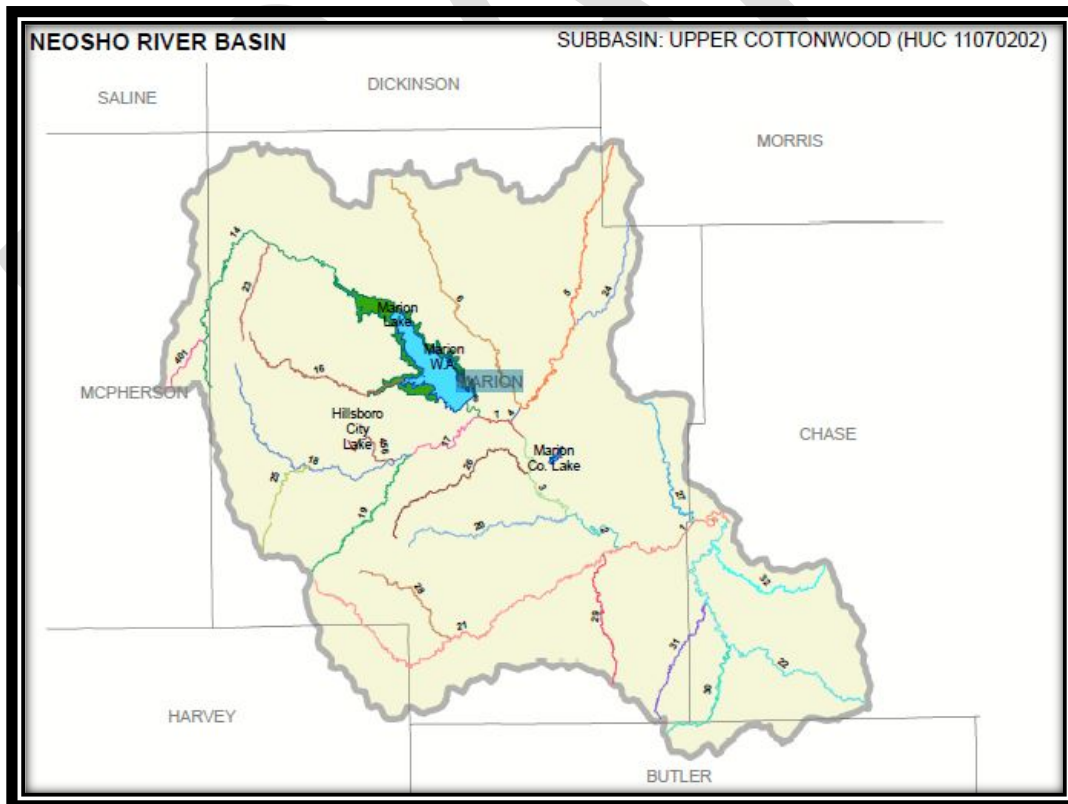


Figure 4 Marion County watershed and drainage of the Neosho River Basin.

7.5 REVEGETATION AND SLOPE STABILIZATION

If vegetation stabilization is needed, the construction contractor will ensure that a seed mix is used in accordance with the Kansas State University Extension Office for the use of a native seed mix devoid of noxious weeds. Temporary erosion control blanket, mulch, geotextile fabric, or other industry BMP may be used if above grade access roads or turbine pads are required for slope stabilization. In almost all cases, an engineered specific ground cover will contain soils converted for project purposes and all other areas are left in an exposed soil row-crop condition for agricultural purposes so farming can continue.

Areas around the collection substation or O&M facility may have a landscape screen to hide features are required by the county. Tall trees, typically coniferous species, can be a visual block of project infrastructure when feasible and financially reasonable.

7.6 SITE RESTORATION

Certain areas where construction activity is anticipated to take place will simply need to be decompacted for the purpose of resuming agricultural activities. Decompaction of agriculture soils is always part of the construction restoration plan for areas not converted for the project purpose and helps ensure hydrologic features for infiltration and runoff rate control resemble preconstruction conditions as much as feasible.

Some areas will be converted to an aggregate cover for access roads, turbine pads, or O&M yard. Other, areas will be revegetated with a native seed species, that seed mix will be an approved Kansas State Extension Office mix as well as the design phase landscape architect, licensed to work in the State of Kansas.

7.7 DISPOSAL AND STORAGE OF EXCAVATED MATERIAL

Stockpiled material from the excavation of turbine foundation is typically backfilled after concrete and rebar installation. In the event that is not the case, perimeter protection will be installed with some form of BMP intended for steep slopes which could include but not limited to hydromulch, tarpaulin, or polyethylene sheeting.

Disposal of excavated material will be the responsibility of the construction contractor but in most cases, excess uncontaminated material can be used elsewhere on site as fill material or soil amendments for other construction activity. Any potentially contaminated material will be transported offsite to a permitted treatment or disposal facility.

7.8 PROTECTING EXPOSED SOILS

Stabilization of disturbed areas will be initiated immediately whenever construction activity is expected to cease for a period that is greater than 14 days. The area shall be protected from erosion by a temporary, permanent, or a combination of both BMP to ensure that satisfaction with KSR100000. These BMP will be completely installed per the manufacturer specification within 14 days after the end of construction.

7.9 SITE RESTORATION

For projects that disturb agricultural land, disturbed areas that are restored to their preconstruction agriculture use are not subject to the site stabilization criteria of the KSR100000. For those areas that don't qualify as agricultural areas and are not converted to project infrastructure, restoration of soil would be consistent with native perennial cover with special attention to not introduce noxious weeds to the area.

The removal of all temporary BMP would also be consistent with site restoration. This means that the contractor will be required to remove silt fence, stray waddle, hay bales, tracking, and all other temporary erosion and sediment control BMP. Permanent erosion and sediment controls could be left in place to ensure that site runoff does not inundate creeks, rivers, and stream with pollutants, per the engineering plans. This may include but is not limited to, retention bonds, riprap, ditch checks, velocity reduction devices.

8 WECS OPERATION

8.1 OPERATIONS AND MAINTENANCE

Once a wind energy conversion system has finished construction and all electrical testing and energization is complete, the farm is considered ready for energy export. This is the start of the operations and maintenance phases of the WECS. Typically, the turbine manufacturer will be contracted for a 10-year full-service agreement in which they provide about 10 wind energy technicians for full-time onsite maintenance of the turbines. The operation and maintenance building will be full-time staging area that is also available to store excess components, lubricants, fuel, waste oil, cleaning solvents, or other necessary products to ensure the performance safety of every wind turbine.

8.2 POTENTIAL HAZARDOUS MATERIAL STORAGE AND USE

During the operations and maintenance of wind energy facilities, there may be limited quantities of hazardous material stored and used on site to be able to perform the necessary standard maintenance of the wind energy turbines. Any waste material meeting the definition of hazardous under title 40 Code of Federal Regulation, subpart 239-282, containing the Resource Conservation and Recovery Act (RCRA) must be generated, stored, transported, and disposed of pursuant to the CFR and State of Kansas requirements. It is of good practice to have a facility-specific SPCC and MSDS filed with the County Department of Emergency Response and Preparedness, to ensure that all inventoried hazardous waste has a specific site location and its containment information for the purpose of responding to any potential emergency on site. This information can be submitted by the O&M provider.

8.3 STORAGE AND LABELING

Pursuant to 29 CFR 1910.1200 Hazard Communication Standards, any hazardous waste that is generated, stored, transported, or disposed of, are required to have the proper label that is clearly

visible on the outside of an approved containment vessel for which the hazardous waste resides. The U.S. Department of Labor, Occupational Health and Safety Administration regulates the generation, storage, transportation, and disposal of all hazardous waste unless further regulated by its equivalent state agency, which has standardized the labeling process.

Hazardous waste placards must accompany all vessels that contain hazardous waste, with its iconic diamond symbol that is split into four categories:

1. *Health Hazard*
2. *Fire Hazard*
3. *Instability*
4. *Specific Hazard*

Each category has a subcategory with an accompanying rating, classification, characteristics, or other identifying feature to easily denote the severity of a contain hazardous waste for emergency response purposes. Although it is not anticipated the large quantities of hazardous material will be generated or stored onsite, this labeling system will be implemented according to and state and federal laws and regulations.

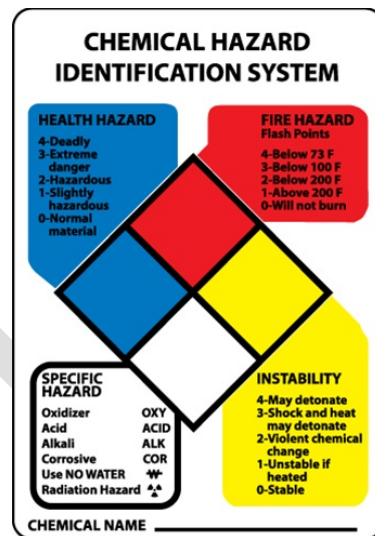


Figure 5 OSHA required labeling for hazardous waste.

8.4 TYPES OF HAZARDOUS WASTE

The U.S. Environmental Protection Agency further lists the different types of hazardous waste by their key characteristic class. Most of the potentially hazardous materials that could be stored onsite would fall into the ignitable, and a small amount as corrosive”

| | |
|-----------------------|-----|
| Ignitable Waste | (I) |
| Corrosive Waste | (C) |
| Reactive Waste | (R) |
| Toxicity Waste | (E) |
| Acute Hazardous Waste | (H) |
| Toxic Waste | (T) |

Figure 6 EPA designated hazardous waste classification.

8.5 POTENTIAL HAZARDOUS MATERIAL ASSOCIATED WITH A WIND FARM

The list of potentially hazardous material that may typically be stored onsite for the reason of operating and maintaining a wind facility and the associated infrastructure, is listed below. At the time of writing this document, there is no certainty as to whether any of the material listed below will actually be used or stored on site, the inventory of the final hazardous Material Safety Data Sheet (MSDS) will be

| <i>Hazardous Material</i> | <i>Reason/Use</i> | <i>Potential Quantities</i> |
|--|---|--|
| <i>Fuel: Diesel</i> | Main engine fuel for most construction equipment and emergency backup power generators. | Less than 1,000 gallons. Stored in Above Ground Tanks (AGT). |
| <i>Fuel: Gasoline</i> | May be used for smaller construction equipment (i.e.) lawnmower, gators, chainsaws. | Less than 10 gallons. Most likely not stored onsite due to the limited number of vehicles and power tools requiring this grade of fuel. |
| <i>Fuel: Propane</i> | Most probable heating-fuel that would control the ambient heat of the O&M facility. | 500-1000 gallons depending on the region and during of cold weather months. Stored in AGT. |
| <i>Lubricating Oil, Grease, Hydraulic Fluids, Gear Oil</i> | Lubricating oil is present in WTG components and diesel engines for backup power generators. | Limited quantities, shipped and stored as needed during the operations phase. |
| | Maintenance of fluid levels in construction equipment. | Typically stored in 55-gallon drums or less. |
| | Hydraulic fluids are used in WTG braking systems, driveshafts, and other mechanical controls. | |
| | Gear oil is needed for yaw motor and drivetrain transmission. | |
| <i>Glycol-based Antifreeze</i> | Present in WTG and backup power generator for engine cooling in a closed-loop reticular system. | Limited quantities, shipped and stored as needed. Typically, 10-20 gallons. |
| <i>Lead-acid Storage Batteries and Electrolyte Solutions</i> | Backup power for WTG for control equipment, lights, and transmitters. May be present in some construction equipment. | Limited quantities of electrolyte solution for batteries. Typically, less than 20 gallons. |
| <i>Other Batteries</i> | May be present is some control or SCADA equipment. | No maintenance of these systems is anticipated to happen onsite. Full |

| | | |
|---------------------------|---|---|
| | | component replacement typically is needed. |
| <i>Paint and Coatings</i> | Used on WTG exterior parts to prevent tower, nacelle, and blade corrosion. | Typically, less than 50 gallons during the construction phase for touch-ups. |
| | | Typically, less than 20 during the O&M phases. |
| <i>Cleaning Solvents</i> | Petroleum-based organic solvents (not RCRA listed one) engine and equipment cleaning. | Limited quantities onsite for construction. |
| | When feasible, water-based cleaners and degreasing solvents are preferred. | Typically, less than 10 gallons. |
| <i>Dielectric Fluids</i> | An electrical insulator, present in electrical transformers, bushings, and other power management components. | Some larger transformers may have up to 500 gallons. |
| | | Typically, not stored onsite due to special manufacturing and fabrication of complex parts. New parts are ordered. |
| <i>Explosives</i> | May be used on shallow bedrock for turbine foundation clearing. | Onsite storage is limited to construction only, for a limited time as blasting would commence and end within several days, depending on how many locations require this excavation technique. |
| <i>Pesticides</i> | Vegetation control around the O&M facility when mowing cannot be performed. | Pesticides are only used to eliminate potential fire hazards as determined by a regulating authority. |

Figure 7 This table represents potentially hazardous wastes that could be onsite but may not represent all potentially hazardous materials.

While many of these items listed may not be used or stored on site during the operations and maintenance phase of the project, many other items are the same types of liquids that are stored in people's homes, garages, barns, automotive shops and pose no significant impacts to human health and the environment when handled appropriately.

9 CONCLUSION

The wind industry has a successful history of safely constructing and operating wind energy facilities across the country providing low-cost and reliable power to the equivalent of 30 million homes. This feat would not be feasible if the industry did not operate in a manner that provided premier safety and transparency to all the stakeholders involved. This has been especially true for projects in the construction and operations phase, which both are heavily regulated by federal, state, and local jurisdictional authorities. While this plan is written to satisfy portions of the Marion County zoning regulations, there will be more in-depth compliance plans written to meet the stricter standards of state and federal permitting authorities. These plans will include a more involved erosion and sediment control plan, stormwater pollution prevention plan, and a spill prevention control and countermeasures plan that will need review and approval by state authorities.

During the construction of Expedition Wind, there will be many temporary sediment and erosion controls installed as required by the grading and erosion and sediment control plans drawn and signed by a Kansas licensed Professional Engineer. Those temporary and permanent BMP will be installed per the manufacturer specification and inspected by a full-time site representative on a routine schedule, with special post precipitation inspections pursuant to KSR1000000 rules and regulations. The necessary maintenance will be done within a timeframe that is compliant with the Kansas Pollution Discharge Elimination System General Permit to ensure the water quality of all downstream receiving waters.

If during the operations and maintenance phase of the project there is the generation of hazardous material onsite, the O&M provider will follow all rules, regulations, and best management practices to ensure that the wind farm operates with an immaculate safety record. Accurate records logs will be onsite in conformance with all Codes of Federal Regulations and Kansas Department of Health and Environment, Bureau of Waste Management. However, it is a low probability that hazardous materials will be stored or used on site, that is not already common house-hold, stored at mechanic shops, or used every day in farming operations.

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11 APPENDIX A

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KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT

BUREAU OF WATER



KANSAS WATER POLLUTION CONTROL

AND

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

STORMWATER RUNOFF FROM CONSTRUCTION ACTIVITIES

GENERAL PERMIT PACKET

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| | |
| August 1, 2017 | 0.0 |
| DATE | REVISION |

Kansas Department of Health and Environment

Bureau of Water, Industrial Programs Section
1000 SW Jackson, Suite 420
Topeka, KS 66612-1367
(785) 296-5545
Email address: kdhe.stormwater@ks.gov

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EXECUTIVE SUMMARY

Purpose of this General NPDES Permit

The purpose of this general permit is to implement the Federal Water Pollution Control statutes and regulations; to permit discharges of stormwater runoff from construction sites subject to National Pollutant Discharge Elimination System (NPDES) permit requirements; and to protect the waters of the State from sediment and other contaminants.

What is Covered

This permit covers the discharge of stormwater runoff from construction activities that may disturb a cumulative total area equal to or greater than one (1.0) acre or from construction activity that is part of a larger common plan of development or sale that may disturb a cumulative total area equal to or greater than one (1.0) acre. Owners or operators of construction activities which discharge stormwater runoff and which may disturb an area equal to or greater than one (1.0) acre or are part of a larger common plan of development must receive authorization to discharge stormwater runoff from construction activities under this NPDES general permit.

Owners or operators of construction activities which disturb less than one acre (<1.0 acre) and which are not part of a larger common plan of development or sale must have authorization to discharge stormwater runoff from construction activities under this NPDES general permit when KDHE believes the water quality impact warrants consideration.

Subdivision developments are considered to be a larger common plan of development or sale regardless of the size, ownership, or number of lots or parcels within the development. Each subdivision requires a permit to discharge stormwater if construction activities during the life of the development may disturb a cumulative total area equal to or greater than one (1.0) acre. New owners of lots or parcels that are less than 1 acre in size and are within an authorized larger common plan of development must either complete a KDHE Individual Lot Certification (ILC) or have similar wording included in the lot purchase contract. The ILC is an agreement between the new owner of the lot or parcel and the permittee to implement the SWP2 Plan and the conditions of the NPDES general permit cooperatively. For lots or parcels that are equal to or greater than one (1.0) acre in size, the new owner must request separate Authorization for coverage under the construction stormwater general permit unless the lots or parcels are for construction of residential homes, in which case the ILC procedure may be utilized.

How to Obtain a Permit

A request for Authorization for coverage under the construction stormwater general permit is made by fully completing and submitting a construction stormwater "Notice of Intent" (NOI) form, the \$60 permit fee, and all needed supporting documents. The NOI form is a request for coverage under the requirements and conditions of the Kansas "Stormwater Runoff from Construction Activities General Permit". The form and the instructions for completing the form are available upon written request from the Kansas Department of Health and Environment or may be downloaded from the [KDHE Stormwater Website \(www.kdheks.gov/stormwater\)](http://www.kdheks.gov/stormwater). The NOI needs to be sent to KDHE at least 60 days before starting construction. KDHE will make every effort to either authorize the construction activities within 60 days or provide comments on application or Stormwater Pollution Prevention Plan deficiencies. Construction site soil disturbing activities may commence only when the owner or operator receives an Authorization for the construction activity from KDHE Bureau of Water.

Authorization for the construction activity will be indicated on the NOI form. Upon authorization of the construction activity and associated stormwater discharges a Kansas permit number and a Federal permit number will be assigned to the construction project and indicated on the NOI form. A signed and dated copy of the Authorization will be provided to the owner or operator.

EXECUTIVE SUMMARY

What the Permit Costs

The permit fee is established by regulation (K.A.R. 28-16-56 et seq. as amended). At the time this information packet was developed, the permit fee for this general permit for stormwater runoff from construction activities was \$60 per year.

What the Permit Requires

The primary requirement of the general permit is for the permittee to develop and implement a Stormwater Pollution Prevention (SWP2) Plan. The SWP2 Plan must contain certain items that are specified in the general permit including the "Best Management Practices" that will be utilized to control erosion and sediment discharges and reduce the potential for contamination of the stormwater runoff associated with construction activities.

When the soil disturbing activities are completed and final stabilization of the site is achieved, the permittee must notify KDHE to terminate the authorization to discharge. To maintain Authorization to discharge stormwater runoff from construction activities the permittee will need to pay an annual permit fee, as specified in K.A.R. 28-16-56 et seq., until final site stabilization is obtained and Authorization is terminated.

The permittee is required to comply with all of the applicable provisions, requirements, conditions, and limits listed in the general permit. This summary is provided for information only and does not describe all of the applicable requirements in the general permit.

Availability of Forms and Information

Copies of all forms, references, and the NPDES general permit can be downloaded from the [KDHE Stormwater Website](http://www.kdheks.gov/stormwater) at <http://www.kdheks.gov/stormwater>.

Copies of all forms, references and the NPDES general permit requirements may also be obtained by writing to:

Kansas Department of Health and Environment
Bureau of Water - Industrial Programs Section
1000 SW Jackson, Suite 420
Topeka, KS 66612 – 1367

or by e-mail to:

kdhe.stormwater@ks.gov

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT

BUREAU OF WATER



KANSAS WATER POLLUTION CONTROL

AND

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

STORMWATER RUNOFF FROM CONSTRUCTION ACTIVITIES

GENERAL PERMIT

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**National Pollutant Discharge Elimination System (NPDES)
Stormwater Runoff from Construction Activities General Permit**

**Permit No. S-MCST-1703-1
Federal Permit No. KSR100000**

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Appendix 1 Definitions & Acronyms

Appendix 2 Forms

- Notice of Intent Form (NOI) for Stormwater Runoff from Construction Activities
- Notice of Intent Instructions for Stormwater Runoff from Construction Activities
- Individual Lot Certification (ILC)
- Notice of Transfer of Owner/Operator form (NOTO)
- Notice of Termination form (NOT)

Please note: *The Department has provided several options for obtaining copies of these forms, but at this time the Department cannot accept electronic submittals (e-mail or fax) of completed forms. Original copies of all forms must be received before permit/exclusion requests can be processed.*

Upon request, KDHE will provide copies of State published information. EPA and/or NTIS contact information will be provided in response to requests for Federal Publications.

Kansas Water Pollution Control General Permit
and Authorization to Discharge

STORMWATER RUNOFF FROM CONSTRUCTION ACTIVITIES

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 "Clean Water Act"); and the Kansas Surface Water Quality Standards (K.A.R. 28-16-28 et seq.); this NPDES general permit provides the requirements and conditions under which the permittee is authorized to discharge stormwater runoff from construction activities.

Coverage is provided and construction Stormwater discharge is authorized when the Kansas Department of Health and Environment (KDHE) issues an Authorization to discharge stormwater runoff from construction activities until the Authorization is revoked/terminated. A signed and dated copy of the Authorization will be provided to the permittee.

Upon Authorization, the Permittee is allowed to discharge stormwater runoff from construction activities described in the Notice of Intent for Stormwater Runoff from Construction Activities and supporting documents in accordance with the requirements and conditions of this NPDES General Permit and the Stormwater Pollution Prevention Plan developed for the identified construction activities.

This NPDES general permit is effective August 1, 2017 through July 31, 2022.

(signed by Secretary Susan Mosier, MD)
Secretary, Kansas Department of Health and Environment

July 14, 2017
Date

AUTHORIZED ACTIVITY DESCRIPTION:

Construction Activities

Construction activities consist of any activity (e.g. clearing, grubbing, excavating, and grading) which disturb a cumulative total of one (1.0) or more acres or when the site is a part of a larger common plan of development or sale which will disturb a cumulative total of one or more acres.

Owners or operators of construction activities which disturb less than one acre (<1.0 acre), and which are not part of larger common plan of development or sale, must have authorization to discharge stormwater runoff from construction activities under this NPDES general permit when KDHE notifies the owner or operator that the water quality impact from discharge of stormwater runoff from construction activity warrants consideration because the proposed construction activities constitute a significant pollution potential.

Permit coverage is not required for routine maintenance (see endnote 7, page 21), for certain demolition and linear projects and for certain project support activities as specified in Part 1.1 of this permit.

Upon issuance of this NPDES General Permit, owners or operators who intend to engage in construction activities as indicated above shall obtain authorization to discharge stormwater runoff under this NPDES general permit prior to commencing construction activities at the project site. To obtain authorization to discharge stormwater runoff, the owner or operator of a construction site needs to submit a Notice of Intent (NOI) for the discharge of stormwater runoff from construction activities at least 60 days prior to removing vegetation or disturbing soil at the site to avoid any unplanned delays in the start of construction. The NOI form is a request for coverage under the requirements and conditions of this NPDES general permit. To obtain authorization, the NOI form and supporting documents shall be submitted in accordance with Part 4 of this NPDES general permit. Upon acceptance of the NOI and supporting documents, KDHE will indicate the authorization for coverage under the NPDES general permit on the first page of the NOI form, assign permit numbers, and indicate the KDHE issuance of the Authorization with the Department Secretary's signature. The owner or operator is then authorized to discharge stormwater runoff from construction activities under the provisions of this NPDES general permit and may commence construction activities at the site described in the NOI and supporting documents in accordance with the terms and conditions expressed in this NPDES general permit and in conformance with the stormwater pollution prevention plan developed for the site.

Owners or operators who received authorization to discharge under the previous Stormwater Runoff from Construction Activities General Permit S-MCST-0312-1, may continue to operate under those permit provisions, conditions, requirements, limits, site specific authorized Best Management Practices (BMPs), and site specific authorized Stormwater Pollution Prevention Plan (SWP2 Plan) until 18 months after permit issuance as provided for in Part 6.1 of this permit.

Rather than submitting an NOI, owners or operators who intend to engage in construction activity that will disturb between one (1) and five (5) acres may request a rainfall erosivity waiver. To receive a waiver, the owner or operator of a construction site shall submit a rainfall erosivity waiver application form at least 60 days prior to removing vegetation or disturbing soil at the site. To be authorized, the small construction activity must have a low predicted rainfall potential that corresponds to a rainfall erosivity factor of less than 5 as calculated by the Revised Universal Soil Loss Equation [RUSLE]. The rainfall erosivity waiver application form is available on the [Kansas Stormwater Website](#) (see endnote 1, page 20). Copies can also be obtained by writing or e-mailing KDHE at the addresses in Part 10.2. Prior to commencing construction, the owner or operator must receive a copy of the authorized rainfall erosivity waiver from KDHE prior to initiation of construction activities at the site.

Any owner or operator who is subject to NPDES permit requirements for stormwater runoff from construction activities and who discharges stormwater runoff from construction activities prior to receiving authorization from KDHE is in violation of both State and Federal laws.

PREFACE

The purpose of this NPDES general permit is to implement the Federal Water Pollution Control statutes and regulations; permit discharges of stormwater runoff from construction sites subject to National Pollutant Discharge Elimination System (NPDES) permit requirements; and to protect waters of the State from sediment and other contaminants.

The issuance of an authorization to discharge under this NPDES general permit allows a project owner or operator, after implementation of the project site stormwater pollution prevention plan, to commence construction site soil disturbing activities that can produce or potentially produce a discharge of contaminated stormwater runoff to surface waters of the State of Kansas. In the absence of information demonstrating otherwise, KDHE expects that compliance with provisions and conditions in this permit will result in the discharge of stormwater being controlled as necessary to meet applicable Kansas surface water quality standards.

This NPDES general permit does not authorize the placement of fill materials in a flood plain, the obstruction of stream flow, directing stormwater runoff across private property, increasing stormwater runoff flow, changing the channel of a defined drainage course, etc. This NPDES general permit is intended to address only the quality of the stormwater runoff and to minimize off-site migration of sediments or other pollutants.

KDHE administers a number of regulatory programs that may preclude the initiation of construction activities until such time as a specific permit is issued or authorization is granted. This NPDES general permit authorization solely addresses NPDES stormwater discharge requirements for construction activities. It is the obligation of the permittee to ensure compliance with all other KDHE, State, Federal and local statutory and regulatory requirements.

Owners or operators seeking coverage under this NPDES general permit which have the potential to impact threatened or endangered species or historical sites can obtain information regarding regulatory requirements or special conditions which may be applicable to the activities covered by this permit from the Kansas Department of Wildlife, Parks, and Tourism (KDWP&T) or the Kansas Historical Society (KSHS) respectively (See NOI instructions for contact information).

Other appropriate agencies should be contacted to determine the need for additional permits, authorizations, or requirements, if any. In particular the applicant should contact the local municipal separate storm sewer system

(MS4) agency (see endnote 2, page 20). Other agencies the applicant should contact include the United States Army Corps of Engineers; Kansas Department of Agriculture, Division of Water Resources; and any other local governments or agencies that are not listed herein that may have jurisdiction.

Authorization to Discharge under this NPDES general permit does not constitute approval of the project under the provisions of the Kansas Water Projects Environmental Coordination Act, and does not relieve the permittee of the responsibility to comply with the requirements of other Agencies prior to commencement of construction activities.

Part 1. WHO MUST OBTAIN AUTHORIZATION TO DISCHARGE

Owners or operators of construction activities which may disturb one (1.0) or more acres of soil or are part of a larger common plan of development or sale which may disturb a cumulative total of one (1.0) or more acres of soil must obtain authorization to discharge stormwater runoff from construction activities.

Owners or operators of construction activities which disturb less than one acre (<1.0 acre) of soil, and are not part of larger common plan of development or sale, must have authorization to discharge stormwater runoff from construction activities under this NPDES general permit when KDHE believes the water quality impact warrants consideration or KDHE determines the construction activities constitute a significant pollution potential (i.e., sites that will disturb contaminated soils, contaminated groundwater, or sites adjacent to sensitive waters).

Soil disturbing activities where contaminated soils or contaminated groundwater may be present on the site are reviewed by KDHE on a case-by-case basis and may require coverage under this NPDES general permit or an individual permit even if less than one acre (< 1.0 acre) of soil is disturbed. For sites where contaminated soil or groundwater is present, contact KDHE Bureau of Water - Industrial Programs Section at (785) 296-5549 for a determination on the need for coverage under this NPDES general permit.

Platted subdivision projects must obtain coverage for all areas of the subdivision site. Subdivision projects that have roads and/or utilities constructed under separate contract (e.g., city assessment district) may need to have two concurrent discharge authorization requests (NOIs) for coverage under the NPDES general permit submitted. The owner (developer) of the subdivision project must maintain coverage for the individual lot construction sites. Owners that have control over the construction activities

of the entire subdivision site, including roads and utilities, need only submit one discharge authorization request (NOI) for coverage under the NPDES general permit.

Soil disturbing activities in response to a public emergency (e.g., tornado, earth quake, flood, ice storm, rail or highway incidents) where the related work requires immediate soil disturbance to avoid imminent endangerment to the public health or the environment is allowed without formal submittal and authorization by KDHE if the owner or operator implements soil erosion and sediment control as soon as possible after the emergency conditions have been resolved and a Notice of Intent application form for coverage under this permit is submitted within 30 days after the start of emergency soil disturbing activities showing the areas disturbed and the soil and erosion controls provided.

1.1 Activities that Do Not Require Permit Coverage –

Construction activities do not include the following types of projects:

- a. routine maintenance that disturbs less than 5 acres (see endnote 7, page 21);
- b. structural demolition activities, including filling of basements, removal of debris and removal and replacement of pavement (even when exposing erodible soils or subsoils), which do not involve soil excavation, grading, clearing, grubbing or other soil disturbing construction activities;
- c. the linear opening of soil in a single line of two (2) feet or less in width utilizing soil plow trenching equipment that immediately closes the opening as part of the plow equipment's normal operation by filling the opening with removed soil or by the closure of the sidewalls to their original configuration after passage of the plow; however, areas disturbed by soil plow operations that open a width of more than one (1) foot must immediately be seeded with an appropriate variety of vegetative cover or stabilized with mulch or a similarly effective soil stabilizing BMP after passage of the plow equipment.

Soil disturbing activities associated with construction support activities, such as concrete batch plants, asphalt plants, soil disposal sites and borrow sites at or immediately adjacent to the supported project site are considered part of the common plan of development for the project and will need coverage under this permit through separate authorization if the support activity is not included in the supported project's stormwater pollution prevention plan. Asphalt and concrete batch plants might also need to obtain a separate water pollution control permit for wastewater generated by these facilities.

Support activities such as concrete batch plants, asphalt plants and areas of offsite soil borrow and soil disposal/fill activities may be treated as stand-alone construction projects which are not considered part of the supported project's common plan of development if runoff from the support activity site is not anticipated to significantly impact the same surface waters and stream segments that receive runoff from the supported project site.

Part 2. WHAT THIS PERMIT COVERS

Coverage under this NPDES general permit authorizes the discharge of stormwater runoff from construction activities for sites where the discharge point is located in Kansas and for discharges and construction activities that are conducted in accordance with the provisions and requirements of this permit and in accordance with the site specific stormwater pollution prevention plan from the date of Authorization until the site conditions meet the closure requirements specified in Part 9 of this permit and a Notice of Termination (NOT) is received by KDHE or the permit is revoked/terminated or placed on inactive status for cause by KDHE.

Proposed new or existing unpermitted construction stormwater dischargers, in regard to antidegradation, are eligible for authorization under this general permit to discharge to a Tier 1, 2, or 2½ Water only if the discharge will not lower the water quality of the applicable water. In the absence of information demonstrating otherwise, KDHE expects that development, installation, operation, appropriate maintenance of site specific BMPs and the SWP2 Plan as well as compliance with the provisions, conditions, requirements, and limits of this general permit will result in discharges that will not lower the water quality of the receiving surface water.

Proposed new or existing unpermitted construction stormwater dischargers that will discharge directly into Tier 3 waters (Outstanding National Resource Waters) are, in regard to antidegradation, considered temporary discharges and eligible for authorization under this general permit to discharge stormwater from construction activities but only if the discharge will not lower the water quality of the receiving water, all enhanced (significantly better and more reliable) levels of controls and best management practices are evaluated and implemented to minimize off-site migration of sediments or other pollutants. In the absence of information demonstrating otherwise, KDHE expects that development, installation, operation, appropriate maintenance of enhanced site specific BMPs and the SWP2 Plan as well as compliance with the provisions, conditions, requirements, and limits of this general permit will result in discharges that will not

lower the water quality of the receiving surface water and provide the highest protection reasonably available.

This NPDES general permit also authorizes the following non-stormwater discharges from construction sites during the life of the project:

1. Flushing water hydrants and potable water lines provided appropriate sediment and erosion controls are implemented;
2. Water used for rinsing streets or structures that does not contain cleansers, detergents, solvents or additives;
3. Irrigation to establish vegetation;
4. Discharges of uncontaminated non-turbid groundwater provided that appropriate sediment and erosion controls are implemented;
5. Discharges from emergency fire-fighting activities;
6. Water used to control dust;
7. Uncontaminated air conditioning or compressor condensate;
8. Foundation or footing drains where flows are not contaminated with process materials such as solvents or contaminated groundwater;
9. Uncontaminated construction dewatering wastewaters that have been treated by an appropriate control such as bag filters or equivalent technology. Wastewaters that have been treated by an appropriate control but still contain trace amounts of sediment are not considered contaminated; and
10. Discharges of stormwater listed above, or authorized non-stormwater commingled with a discharge authorized by a different NPDES permit and/or a discharge that does not require NPDES permit authorization.

Part 3. WHAT THIS PERMIT OR THE RAINFALL EROSIVITY WAIVER DOES NOT COVER

This NPDES general permit does **not** authorize or address:

1. A discharge of stormwater runoff from construction activities which violates the provisions of this NPDES general permit;

2. Construction activities on sites within Kansas which are located on Indian Country lands, (see endnote 3, page 20);
3. Construction activities which may discharge stormwater runoff one-half stream mile or less from a Critical Water Quality Management Area; an Exceptional State Water; a Special Aquatic Life Use Water; or to an Outstanding National Resource Water unless KDHE specifically grants coverage by this NPDES general permit (see endnote 4, page 20).
4. Construction activities that result in the discharge of stormwater runoff which violates the Kansas Surface Water Quality Standards;
5. Construction activities that result in the discharge of stormwater runoff which violates the applicable requirements of a Municipal Separate Storm Sewer program or local stormwater pollution prevention program;
6. Construction activities that may adversely affect threatened or endangered species as listed in K.A.R. 115-15-1 et seq. unless the KDWP&T has been specifically consulted with;
7. Construction activities that may affect any identified archeological sites or historic sites listed or eligible for listing on the National Register of Historic Places unless the KSHS has been specifically consulted with;
8. Projects that are exempt under the Oil & Gas Exemption (see definition). However, if coverage under the NPDES general permit is requested, an Authorization will be issued and permit requirements will be enforced. However, dewatering discharges (e.g., well point or groundwater dewatering wells) and trench dewatering from groundwater infiltration are not exempt activities under the Oil and Gas Exemption and require KDHE approval, permitting, or authorization under the NPDES general permit. KDHE will review discharges based on management by appropriate controls, discharge quality and quantity, and proposed location of the discharge to determine the need for approval or permitting requirements on a case-by-case basis. Acceptable discharges of uncontaminated groundwater dewatering shall meet Kansas Surface Water Quality Standards, control sediment by employing bag filters or equivalent technology, and prevent down gradient scouring and soil erosion.

9. Agricultural construction activities are generally exempt unless construction of a drainage structure will drain an area that exceeds the definition of a stream as defined by the Kansas Department of Agriculture under K.A.R. 5-45-1(t), or the construction is for a livestock pen or feature related to concentrated animal feeding operations or a structure such as a garage, barn, shed, stall, storage building, residence or office;
10. The discharge of stormwater from sites where construction activities resulting in the disturbance of one or more acres or are a part of a common plan of development or sale which may disturb a cumulative total of one or more acres where a discharge is directed to an "impaired water" where the impairment is for total suspended solids, nitrogen, or phosphorous or a waterbody for which KDHE has developed, and EPA has approved, a Total Maximum Daily Load (TMDL) for total suspended solids, nitrogen, or phosphorous. Authorization for coverage under this general permit will only be granted if the stormwater discharge will not cause or contribute to a violation of surface water quality standards and the permittee implements, operates, and maintains appropriate BMPs, erosion and sediment control measures, and complies with all provisions of this NPDES general permit. In the absence of information demonstrating otherwise, KDHE expects that compliance with the provisions, conditions, and limits in this general permit will result in stormwater discharges being controlled, as necessary, to meet applicable water quality standards and satisfy current provisions in Kansas developed and EPA approved TMDLs directed at total suspended solids and indirectly address releases associated with nitrogen and phosphorus. Per the Kansas TMDLs addressing total suspended solids, KDHE reviews of erosion and sediment control Plans, BMPs, and the SWP2 Plans will concentrate on trying to protect and maintain buffers and vegetative filter strips along and immediately adjacent to streams and lakes and to minimize construction impacts on streams. In accordance with the provisions of the TMDLs, KDHE will also concentrate on trying to identify projects operating without an NPDES permit or projects which do not employ effective erosion and sediment control techniques. KDHE may impose additional water-quality based limitations on a site-specific basis or require coverage under an NPDES individual permit if information in the NOI and associated materials, required reports, site inspections conducted by KDHE or EPA, or from other sources indicate that stormwater discharges from the site are not controlled as necessary to meet applicable water quality

standards or the provisions of a specific TMDL for the waterbody receiving the discharge.

11. Discharges of water mixed with non-stormwater discharges, unless they are listed as allowable non-stormwater discharges in Part 2 above or are determined by KDHE as not requiring authorization;
12. Discharges of fill or dredged materials regulated by part 401 or 404 of the Clean Water Act unless permits under 401 or 404 so stipulate;
13. Stormwater discharges associated with construction activities that have been covered under an individual permit or a different NPDES general permit, unless authorized by KDHE Bureau of Water;
14. Stormwater and/or allowable non-stormwater discharges associated with construction activities that are discharged to a combined sewer system; and
15. The modification of stormwater drainage (the routing of flows or the change in quantity of flow) onto or across private property.

This NPDES general permit does not relieve the permit holder of the obligation to obtain other approvals, permits, licenses, or documents of sanction that may be required by other federal, state, or local government agencies.

This NPDES general permit also does not authorize any other discharge of sewage, pollutants or wastewater to waters of the State including for example:

- a. Hazardous substances or oil from an on-site spill or improper handling and disposal practices;
- b. Wash and/or rinse waters from concrete mixing equipment including ready mix concrete trucks;
- c. Wastewater generated from wet air pollution control equipment including asphalt plants, or the containment of asphalt plant scrubber water in lined ponds;
- d. Contaminated groundwater (see definitions);
- e. Wastewater from washout and clean out of stucco, paint, form release oils, curing compounds and other construction materials;
- f. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance;
- g. Soaps or solvents used in vehicle or equipment washing; or

- h. Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, unless managed by appropriate controls.

KDHE reserves the right to deny coverage under this NPDES general permit to applicants for stormwater runoff from construction or earth disturbing activities at sites which have contaminated soils which will be disturbed by the construction activity or have contaminated groundwater which could be discharged by the construction activity.

3.1 Individual Permits Required Due to Denial or Non-Compliance -

If the NOI for coverage under this NPDES general permit is denied by KDHE, then the applicant is not eligible for coverage under this NPDES general permit and shall apply for an individual NPDES permit.

The permittee shall apply for an individual NPDES permit at least 180 days prior to commencing construction activities. Construction activities as defined in this permit shall not commence until the individual NPDES permit is issued.

Part 4. HOW TO APPLY

The owner or operator of a construction site needing to discharge stormwater runoff from construction activities shall submit a complete request for coverage under this NPDES general permit to obtain authorization and receive Authorization under this NPDES general permit from KDHE prior to removing vegetation or disturbing soil at the site.

A complete request for Authorization to discharge stormwater runoff from construction activities under this NPDES general permit must be submitted or the request will not be processed. A complete request for Authorization includes:

- An NOI form (construction stormwater) with all information provided and an original authorized signature;
- A check for the first year of the annual permit fee made payable to "KDHE". Per K.A.R. 28-16-56 et seq., as amended, the current annual permit fee for this NPDES general permit is \$60;
- An area map delineating the boundary of the construction site and the general topographic features of the area at least one mile beyond the construction site boundary and indicating the location

of all streams and other surface water bodies within one mile of the site boundary that receive runoff from the construction site;

- A summary of the sequence of major soil disturbing activities including installation of the corresponding stormwater management and pollution control features;
- A detailed site plan covering the entire scope of the project construction activities showing the existing contours, proposed contours, erosion and sediment control features, and locations where stormwater runoff leaves the construction site;
- A narrative summary of the erosion and sediment control(s) and other best management practices that will be utilized to eliminate or minimize contamination of stormwater runoff from the construction activities;
- Design calculations for any proposed sedimentation basin, if applicable; and
- Copies of letters or e-mails documenting coordination with appropriate local, state or federal agencies.

KDHE recommends the NOI and supporting documentation be submitted at least 60 days prior to start of construction activities to avoid unplanned delays in the start of construction. Submittal of a Notice of Intent (NOI) to discharge Stormwater Runoff from Construction Activities and all supporting documentation indicated above, even 60 days after submittal, does not provide automatic coverage under the NPDES general permit. Coverage under this NPDES general permit begins when KDHE authorizes the discharge of stormwater runoff from construction activities identified in the NOI and supporting documentation.

An NOI form can be downloaded from the [KDHE Stormwater Website](#) (see endnote 1, page 20) or obtained from KDHE at the address given in Part 10.2 of this NPDES general permit.

If the construction activities will be conducted within the boundaries of a Municipal Separate Storm Sewer System (MS4), the permittee shall submit a copy of the KDHE Authorization and all supporting documentation to the operator of the local MS4 and obtain any permits or approvals that may be required under the local Stormwater Management Program. A list of NPDES permitted MS4 operators which are required to develop a Stormwater Management Program is available on the [KDHE Stormwater Website](#) (endnote 2, page 20) or upon written request to KDHE Bureau of Water - Municipal Programs Section.

Upon KDHE's Authorization to discharge stormwater runoff from construction activities for the site indicated on the NOI and supporting documents, the owner or operator and, if appropriate, the company, corporation, partnership, or government entity they represent becomes the permittee under this NPDES general permit.

Part 5. STARTING CONSTRUCTION ACTIVITY

The owner or operator who has applied for coverage under this NPDES general permit shall not initiate construction activities and discharge or have the potential to discharge stormwater runoff from construction activities described in the NOI until receiving Authorization from KDHE for the discharge.

When the owner or operator receives KDHE's Authorization to discharge stormwater from construction activities, the owner or operator may commence construction activities at the site described in the NOI and supporting documentation under the provisions of this NPDES general permit and in accordance with the construction site stormwater pollution prevention Plan (SWP2 Plan).

A copy of the KDHE Authorized NOI and the project specific SWP2 Plan including the erosion and sediment control plan for the specific project shall be readily available at the construction site.

Part 6. CONTINUING COVERAGE - ANNUAL PERMIT FEE AND RENEWAL REQUIREMENTS

The permit holder shall pay an annual permit fee as specified in K.A.R. 28-16-56 et seq. as amended as long as stormwater discharges from the facility continue to meet the definition of stormwater discharges from construction activities. Make the check payable to "KDHE".

An annual invoice for the annual fee will be sent to the designated billing contact listed in the NOI. Payment of the annual permit fee is required to maintain continued coverage under this NPDES general permit until such time as a request for a transfer of ownership is received and accepted by KDHE or until the site is stabilized and a Notice of Termination (NOT) is received by KDHE or the permit is revoked/terminated.

KDHE reserves the right to revoke/terminate coverage under this NPDES general permit to applicants for stormwater runoff from construction or soil disturbing activities where annual payment for continuing coverage has not been received or reasonable application of best management practices or pollution controls have not been

implemented or maintained following notification by KDHE staff.

Authorization under this general permit will be placed on inactive status by KDHE without further notice for any of the following reasons:

- a) Failure to pay the annual permit fee after the mailing of the annual invoice and with no payment received for 3 months after the date of the invoice;
- b) Failure to provide KDHE with a valid current mailing address which results in an invoice or other KDHE correspondence being returned by the post office without a forwarding address.

Projects that have been inactivated will no longer have permit coverage under this general permit.

Projects for which a Notice of Intent has been submitted but not Authorized and for which a response to a KDHE request for additional documentation has not been received within one year of NOI submittal will be administratively closed.

Owners or operators of projects that have been placed on Inactive Status, administratively closed or denied Authorization and who want to obtain coverage under this general permit must submit a complete new request for Authorization in accordance with Part 4 of this permit.

6.1 Continuing Coverage Authorization under Previous Permit –

The permittee is not required to submit a new NOI for continuing coverage under the successor NPDES general permit unless modifications, changes or discoveries are made which may affect coverage under the successor NPDES general permit or the information in the current NOI is inaccurate, needs to be updated, or KDHE requests the submission of a new NOI.

Owners or operators of constructions activities that received KDHE authorization for coverage under the previous Kansas Water Pollution Control and National Pollutant Discharge Elimination System General Permit (General Permit No. S-MCST-0312-1) prior to the effective date of this permit may continue to operate under those permit provisions, conditions, requirements, limits, site specific authorized Best Management Practices (BMPs), and site specific authorized Stormwater Pollution Prevention Plan (SWP2 Plan) for a period of 18 months after issuance of this permit. If by 18 months after the effective date of this permit all construction activities authorized by General Permit No. S-MCST-0312-1 have not been completed, the construction site stabilized, a

Notice of Termination (NOT) completed and submitted in conformance with the permit requirements and the Notice of Termination received by KDHE, then prior to the end of this 18-month period the permittee shall modify or amend the current SWP2 Plan in conformance with all permit provisions, conditions, requirements, and limits as established in this permit. The permittee shall also implement the modified or amended SWP2 Plan prior to the end of this 18-month period and shall install, modify and continue maintaining all BMPs as specified in the modified or amended SWP2 Plan. The intent of this 18-month transition period is to enable permittees that received authorization for construction activities under the previous general permit (S-MCST-0312-1) time to either complete construction activities and terminate permit coverage or retain the services of a licensed professional engineer, geologist, architect, landscape architect, or a Certified Professional in Erosion and Sediment Control (per Part 7.1 of this permit) to modify the SWP2 Plan and implement revised BMPs in conformance with all provisions, conditions, requirements, and limits of this permit, which includes EPA's Construction and Development Effluent Guideline Standards (40 CFR 450) in effect at the time this permit was issued.

6.2 Request for an Individual NPDES Permit –

On and after the effective date of this NPDES general permit, the permit holder must comply with the terms and conditions of this permit and continue paying the annual permit fee; or request an individual NPDES permit within 90 days after the publication of this permit. The facility will continue coverage under the previous NPDES general stormwater permit (General Permit No. S-MCST-0312-1) and comply with the provisions of the previous NPDES general permit until the individual NPDES permit is issued. If coverage under an individual permit is denied the owner or operator may continue to operate under General Permit S-MCST-0312-1 for 18 months after denial of the application for an individual permit and shall modify or amend the SWP2 Plan, implement the modified or amended SWP2 Plan and install appropriate BMPs in conformance with this permit within 18 months after said denial.

6.3 Continuing Coverage Authorization after Permit Expiration –

This NPDES general permit will expire five (5) years from issuance. Should KDHE fail to issue a new NPDES general permit with an effective date on or before the expiration date of this permit, the conditions of this NPDES general permit continue in force until the effective date of a new NPDES general permit.

If the permittee wishes to continue construction activities regulated by this NPDES general permit after the expiration date of this permit, the permittee must continue

to pay the annual fee, and continue to comply with the terms and conditions of this NPDES general permit until the effective date of the successor NPDES general permit.

A permittee who has a valid authorization to discharge stormwater runoff from construction activities under the conditions of this NPDES general permit will continue to be covered until the effective date of the new NPDES general permit and shall comply with the conditions of this NPDES general permit until the effective date of the successor NPDES general permit. Upon the effective date of the successor NPDES general permit, the permittee shall continue to comply with the terms and conditions of the successor NPDES general permit or obtain coverage for construction stormwater discharges under alternative provisions of this permit.

Part 7. STORMWATER POLLUTION PREVENTION PLAN REQUIREMENTS AND GUIDELINES

Before initiating construction activities the permittee shall develop a Stormwater Pollution Prevention Plan (SWP2 Plan) which is specific to the construction activities which are to be employed at the site authorized by this NPDES general permit to discharge stormwater runoff. The permittee shall fully implement the provisions of the SWP2 Plan required under this part as a condition of this NPDES general permit throughout the term of the construction project.

The purpose of the SWP2 Plan is to ensure the design, implementation, management, and maintenance of "Best Management Practices" (BMPs) in order to eliminate or minimize erosion, sediment; and other pollutants in stormwater runoff from construction activities; comply with the Kansas Surface Water Quality Standards; and ensure compliance with the terms and conditions of this NPDES general permit.

The permittee shall select, install, utilize, operate, and maintain effective BMPs in accordance with best professional judgment, generally accepted and scientifically defensible guidance, and the concepts and methods described in Environmental Protection Agency (EPA) document number EPA 832-R-92-005, entitled *Stormwater Management for Construction Activities - Developing Pollution Prevention Plans and Best Management Practices*, published in September, 1992 and EPA document number EPA 833-R-06-004 entitled *Developing your Stormwater Pollution Prevention Plan, A Guide for Construction Sites* published in May, 2007 (see endnote 5, page 20). The permittee is not limited to the BMPs provided in the EPA guidance manuals. Other pollution or erosion controls must utilize practices with similar effectiveness, and the permittee should develop

BMPs with the goal of site specific effectiveness in mind.

7.1 General SWP2 Plan Requirements -

Stormwater Pollution Prevention (SWP2) Plans shall be developed and prepared under the supervision of a licensed Kansas professional engineer, geologist, architect, or landscape architect or a Certified Professional in Erosion and Sediment Control (see endnote 6, page 20). Please note: It is unlawful for a person to perform any assignment involving a specific technical profession unless licensed or specifically exempted by the Kansas Board of Technical Professions, and is qualified by education and expertise in that profession to perform such work.

The permittee shall ensure the BMPs and/or pollution controls are properly installed and maintained at the locations and relative timeframes specified in the SWP2 Plan. Margin or border BMPs, such as a buffer area or vegetation strips, to control stormwater runoff where it leaves the site boundary, shall be installed or marked for preservation before general site clearing is started. Stormwater runoff from disturbed areas which leave the site shall pass through an appropriate sediment control, such as a sedimentation basin, sediment trap, or silt fence prior to leaving the construction site.

7.2 Contents of SWP2 Plan

7.2.1 Site Description –

The permittee's SWP2 Plan shall include all of the information provided in the NOI. The SWP2 Plan shall expand upon the NOI information in order to make the SWP2 Plan a working document which contractors and site construction workers can use to guide the installation and maintenance of BMPs and pollution controls.

7.2.2 Description of Best Management Practices -

The permittee's SWP2 Plan shall include a description of the BMPs and/or pollution controls they will use at the site. The SWP2 Plan shall provide the following general information for each BMP and/or pollution control which will be used one or more times at the site:

- a physical description of the BMP and/or pollution control;
- the site and physical conditions which must be met for effective use of the BMP and/or pollution control;
- the BMP and/or pollution control installation/construction procedures, including typical drawings; and
- operation and maintenance procedures for the BMP and/or pollution control.

The SWP2 Plan shall provide the following information for each specific instance where a BMP and/or pollution control is to be installed:

- where, in relation to other site features, the BMP and/or pollution control is to be located;
- when, in relation to each phase of construction, the BMP and/or pollution control will be installed; and
- what site conditions must be met before removal of the BMP and/or pollution control, if it is not permanent.

7.2.3 Detailed SWP2 Plan Requirements -

The SWP2 Plan must provide BMPs and/or pollution controls that, at a minimum, are designed, installed, and maintained to:

- (1) Control stormwater volume and velocity within the site to minimize soil erosion in order to minimize pollutant discharges.
- (2) Control stormwater discharges, including both peak flow rates and total stormwater volume, to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points;
- (3) Minimize the amount of soil exposed during construction activity;
- (4) Minimize the disturbance of steep slopes (slopes of forty (40) percent or greater, see definitions);
- (5) Minimize sediment discharges from the site. The design, installation and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting stormwater runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site;
- (6) Provide and maintain natural buffers around waters of the United States, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce pollutant discharges, unless infeasible;
- (7) Minimize soil compaction. Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted;
- (8) Unless infeasible, preserve topsoil. Preserving topsoil is not required where the intended function of a specific area of the site dictates that the topsoil be disturbed or removed;

(9) Minimize discharges from stream crossings by immediately stabilizing the areas from bank to bank and providing appropriate controls to minimize any stream scour and providing down gradient sediment control from bore pit stockpiles;

(10) Control discharges from sediment or soil stockpiles;

(11) Minimize the generation of dust through the application of water or other dust suppression techniques;

(12) Minimize off-site tracking of soils by utilizing wheel washing facilities or an appropriately designed construction entrance and exit. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge. Off-site track out shall be cleaned up at the end of each work day. Sites with contaminated soils must provide wheel washing and tanks for holding of the wash water, if feasible, or other equivalent practices if the vehicles can track the contaminated soil from the site;

(13) Provide structures to divert significant flows of stormwater from off-site drainage, if feasible;

(14) Reduce erosion of concentrated flows of stormwater in channelized drainage through the use of velocity dissipation devices, (e.g., check dams, riprap, and wattles), installation of channel liners (e.g., riprap, geotextiles, and erosion control blankets), or the combined use of both methods of erosion control; and

(15) Provide storm drain inlet protection (such as rock bags) for inlets down gradient of disturbed project areas that are not fully stabilized or where construction activity will soon be started.

7.2.4 Steep Slope Stabilization Requirements -

When construction activities on steep slopes (slopes of forty (40) percent or greater, see definitions) cannot be avoided, the SWPP Plan must require the contractor to immediately initiate placement of appropriate erosion control BMPs in any exposed steep slope areas where construction activities have permanently or temporarily ceased, and will not resume for a period exceeding 7 calendar days. For vegetative cover areas, in addition to seeding, watering, mulching, and any other required activities related to the planting and establishment of vegetation, other appropriate erosion control practices such as geotextiles or erosion control mats shall be utilized. Diversion of concentrated or channelized stormwater flows around steep slopes or slope drains shall be utilized where feasible.

7.2.5 Temporary and Permanent Non-Structural BMPs

Examples of non-structural BMPs which the permittee should consider specifying in the SWP2 Plan include: temporary seeding, final seeding, mulching, geotextiles, sod stabilization, protection of existing vegetation for use as buffer strips (especially along drainage courses), protection of trees, preserving existing stream channels as overflow areas when channel shortening is allowed, soil stabilizing emulsions and tackifiers, mulch tackifiers, preservation of mature vegetation, stabilized site entrances/exits, wheel brushing or washing, clean-up of soils on roadways, dust control and other appropriate BMPs.

The permittee's SWP2 Plan shall require existing vegetation to be preserved where practical, and the time period for soil areas to be without vegetative cover is to be minimized to the extent practical.

Clearing and grubbing within 50 feet of a defined drainage course shall be avoided, if feasible.

Where changes to defined drainage courses are to occur as part of the project, clearing and grubbing within 50 feet of the defined drainage course shall be delayed until all materials and equipment necessary to complete the drainage change are on site.

Changes to defined drainage courses shall be completed as quickly as possible once the work has been initiated. The area impacted by the construction of the drainage course change is to be re-vegetated or stabilized to minimize the length of time the area is exposed.

Stabilization of disturbed areas must, at a minimum, be initiated immediately whenever any clearing, grading, excavating, or other soil disturbing activities have permanently ceased on any portion of the site, or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days. The disturbed areas shall be protected from erosion by stabilizing the area with mulch or other similarly effective soil stabilizing BMPs. Initial stabilization activities must be completed within 14 days after soil disturbing activities cease.

Stabilization of disturbed areas is not required if the intended function of a specific area of the site necessitates that it remain disturbed. Such areas include stockpiles of soil materials intended for a use that prohibits introduction of vegetation, mulch or other foreign materials into the soil, areas reserved for landscaping, including sod application, that prohibits the introduction of vegetation, mulch or other foreign materials prior to placement of final landscaping features, dirt tracks, courts and other amenities designed or otherwise intended to remain unstabilized, and disturbed floors and banks

below the anticipated pool elevation of ponds and basins. Appropriate sediment control measures shall be provided below all such areas where the intended function necessitates that the area remain disturbed.

Disturbed areas that exhibit ice, frozen soil conditions, or have a consistent snow cover extending across 70 percent or more of the area are considered to be temporarily stabilized until thawing occurs across the affected area. Stabilization of such iced, frozen or snow covered areas must be completed within 14 days following the first subsequent inspection required under Part 7.2.10 of this permit that finds the affected area thawed and no longer stabilized due to ice, frozen soil conditions or snow cover.

7.2.6 Temporary and Permanent Structural BMPs -

Examples of structural BMPs which the permittee should consider specifying in the SWP2 Plan include: diverting flows from undisturbed areas away from disturbed areas, silt (filter fabric or straw bale) fences, earthen diversion dikes, drainage swales, sediment traps, rock check dams, subsurface drains (to gather or transport water for surface discharge elsewhere), pipe slope drains (to carry concentrated flow down a slope face), level spreaders (to distribute concentrated flow into sheet flow), storm drain inlet protection and outlet protection, reinforced soil retaining systems, gabions, temporary or permanent sediment basins, and other appropriate BMPs.

7.2.7 Sedimentation Basins -

The permittee's SWP2 Plan shall require a sedimentation basin, where feasible, for each drainage area with 10 or more acres disturbed at one time.

The sediment basin needs to be designed and maintained to provide at least 3,600 cubic feet of storage per acre drained. Where use of a sediment basin of this size is impractical, the SWP2 Plan shall evaluate and specify other similarly effective BMPs to be employed to minimize erosion and control sediment. Where large areas of undisturbed or stabilized areas can drain into the sediment basin or in certain areas of Western Kansas, alternative design detention volumes can be used. See the definition of Sediment Basin Design Criteria for additional clarification and alternatives for sizing and volume requirements.

Outlet structures must be designed and constructed to withdraw water from the surface, unless infeasible. If infeasible, the reason it is infeasible shall be provided as a part of the NOI and SWPP Plan submittal to KDHE.

The permittee's SWP2 Plan shall require that the sediment basin be cleaned to ensure adequate detention is available. No more than 20 percent of the required

sediment basin capacity shall be taken up with sediment. The basin shall be maintained until less than 10 acres of area needing final stabilization within the drainage basin remains. If a sedimentation basin is removed, other appropriate and effective BMP's and/or pollution controls shall be provided, as needed.

The 3,600 cubic feet of storage area per acre drained criteria does not apply to flows from areas where such flows are diverted around both the disturbed area and the sediment basin.

The permittee's SWP2 Plan shall require both temporary and permanent sedimentation basins to have a stabilized emergency spillway to minimize the potential for erosion of the emergency spillway or sediment basin embankment.

7.2.8 Permanent Stormwater Controls -

If applicable, the permittee's SWP2 Plan shall include a description of the measures that will be installed during construction to control pollutants in stormwater runoff that will occur after construction activities have been completed. These would include drainage channels or systems; outlet control devices, detention basins, oil water separators, catch basins, etc. This NPDES general permit does not require the permittee or his contractors to operate or maintain these measures beyond the date of the Notice of Termination unless otherwise notified by KDHE.

7.2.9 Additional Site Management BMPs -

The permittee's SWP2 Plan shall address other BMPs, as required by site activities, to minimize or eliminate contamination of stormwater runoff. At a minimum, such measures must be designed, installed, implemented and maintained to:

- (1) Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be free of detergents, soaps, or solvents and must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;
- (2) Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials present on the site to precipitation and to stormwater except where the exposure to precipitation and to stormwater will not result in a discharge of pollutants, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use);

(3) Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures;

(4) Require the contractor to provide solid and hazardous waste management including: providing trash containers and regular site clean-up for proper disposal of solid waste such as scrap building material, product/material shipping waste, food containers, and cups; and providing containers and proper disposal for waste paints, solvents, and cleaning compounds;

(5) Require portable toilets for proper disposal of sanitary sewage;

(6) Require storing construction materials away from drainage courses and low areas;

(7) Require containment berms and drip pans at fuel and liquid storage tanks and containers;

(8) Provide procedures to eliminate or minimize the potential to discharge environmental contaminants from contaminated soil or groundwater; and

(9) Provide procedures and practices to eliminate the potential to discharge wash and/or rinse waters from concrete mixing equipment including ready mix concrete trucks.

7.2.10 Site Inspections by Permittee –

The permittee shall ensure the entire construction site including but not limited to disturbed areas, BMPs, waste and construction storage areas, drainage areas, locations where stormwater can flow from the construction site, and temporarily stabilized areas is inspected on a regular schedule and, with the exception of Saturdays, Sundays, established Federal Holidays and the day after Thanksgiving, by the end of the next day following a rain event which results in a rainfall total of 0.5 inches or greater.

Rainfall totals used to establish when a construction site inspection is required shall be determined from local weather station reports of daily rainfall totals such as the 1200 GMT end-of-day totals available through the National Weather Service and their cooperative observers or from regularly scheduled on-site rain gauge monitoring performed and recorded each work day by project personnel. A site inspection is required whenever a rainfall total of 0.5 inches or greater is observed based on a single monitoring event; or based on the cumulative total of two consecutive monitoring events when the rainfall total of the first monitoring event is less than 0.5 inches.

The permittee shall, upon initiation of construction activities, determine an initial routine inspection monitoring period based on the start date of construction activities and a routine monitoring frequency of either 14 days or a different monitoring frequency established in the SWP2 Plan that does not exceed 14 days. Subsequent routine inspection monitoring periods shall be established based on the chosen routine monitoring frequency and the initial inspection monitoring period determined at the start of construction, without regard to the dates of routine or rain event inspections that are conducted. At a minimum, a single routine or rain event site inspection shall be conducted within each routine inspection monitoring period.

For disturbed areas that have not been finally stabilized all installed BMPs and other pollution control measures shall be inspected for proper installation, operation and maintenance. Locations where stormwater runoff leaves the site shall be inspected for evidence of erosion or sediment deposition. Once a portion of the project area meets the final stabilization criteria specified in Part 9 of this permit, then no further inspection of that final stabilized portion is required provided that the area is identified in the SWP2 Plan as having obtained final stabilization; however, the permittee shall remain responsible to correct any conditions within such areas that are identified as contributing to the discharge of sediment or other pollutants from the project site.

A report of each regularly scheduled inspection and required rain event inspection shall be documented. The inspection report is to include the following minimum information: inspector's name, date of inspection, observations relative to the effectiveness of the BMPs, actions taken or necessary to correct deficiencies, listing of areas where construction operations have permanently or temporarily stopped, and observations of stormwater discharge locations with respect to the effectiveness of the upgradient BMPs. The inspection report shall be completed within 24 hours of the inspection excluding Saturdays, Sundays and previously specified holidays and shall be signed by the person performing the inspection.

Any deficiencies in the operation or maintenance, effectiveness, adequacy or coverage extent of all installed BMPs, temporary stabilization measures and other pollution control measures identified during the inspection shall be noted in the inspection report and corrected within seven calendar days of the inspection unless infeasible. The permittee shall promptly notify the site contractors responsible for operation and maintenance of BMPs of deficiencies. When correction of any noted deficiency within seven calendar days is infeasible, the inspection report shall document the reason why such

correction is infeasible and provide a specific timeframe for completing all needed maintenance and repairs of installed control measures and installation or modification of all control measures and management practices identified as missing, ineffective or inadequate as soon as feasible.

If weather or site conditions render access to any portion of the site to be unsafe or infeasible for inspection activities, the inspection report shall document the reason why access is unsafe or infeasible. Weather and site conditions shall then be monitored and recorded daily excluding Saturdays, Sundays and referenced holidays until access for inspection activities is determined to be safe and feasible. Inspection of the affected area shall then be performed by the end of the next day after determining that access is safe and feasible, again excluding Saturdays, Sundays and referenced holidays.

Disturbed project areas that are temporarily stabilized due to ice, frozen soil conditions or consistent snow cover extending across 70 percent or more of the area shall be noted on the inspection report. For such areas, the observation of disturbed soils, sediment and erosion control BMPs, drainage areas and locations where stormwater can flow from the construction site is not required during site inspections while one or more of the listed conditions are present. The thawing of these areas shall be noted during the first subsequent inspection when iced, frozen or snow covered conditions are no longer present.

For inactive project sites where soil disturbing construction activities have permanently ceased and final stabilization activities have been completed and documented as such in the SWP2 Plan but vegetative density does not meet the final stabilization criteria specified in Part 9 of this permit, inspections in response to rain events are not required; however, at a minimum, a single routine inspection shall still be conducted at the inactive project site within each established routine inspection monitoring period.

The permittee shall maintain the site inspection reports on-site or at the records storage location identified in the NOI. The permittee shall provide a copy of the site inspection reports to KDHE or EPA upon request.

7.3 Modifications and Amendments to SWP2 Plan -

The permittee shall modify or amend the SWP2 Plan as appropriate during the term of the construction activity until the site is stabilized. The permittee, an authorized representative, and/or the contractor(s) responsible for installation, operation, and maintenance of the BMPs shall keep a current copy of the SWP2 Plan on the project site.

7.3.1 Modification of Control Measures and Management Practices –

Modifications to the SWP2 Plan shall be made to better control the site erosion and sediment discharges based on field conditions or site phasing that was not considered during SWP2 Plan development. The permittee shall indicate the changes on the erosion and sediment control plan sheets, maintain a log showing dates of all SWP2 Plan modifications, a brief description of the SWP2 Plan modifications, and the name and title of the person authorizing the modification. Changes to the SWP2 Plan that are not an amendment (see below) are considered modifications and do not need to be submitted to KDHE. Modification of site erosion and sediment controls based on field conditions or site phasing do not require preparation or approval by a professional; however, modifications that involve the relocation or reconfiguration of any sedimentation basin or corresponding outlet structure required under Part 7.2.7 of this permit shall be prepared under the supervision of a licensed or certified professional as specified in Part 7.1 of this permit.

7.3.2 Amendment of the SWP2 Plan –

The SWP2 Plan shall be amended:

- when a change in the project scope increases the amount of soil disturbed by more than 1.0 acre;
- when stormwater will discharge into a surface water not originally receiving stormwater from the permitted site construction activities; and
- when determined as significant by KDHE upon notification of any discovery of contaminated soil or groundwater, potential historic or archeological sites, or threatened or endangered species during the construction that was not identified and addressed in the SWP2 Plan.

For projects requiring an amendment the permittee will need to submit a letter explaining the changes, a modified erosion and sediment control plan, and a new NOI form indicating the new acreage with the originally issued State and Federal permit numbers. Soil disturbing activities shall not occur on the added or discovered areas until Authorization from KDHE is provided. Amendments need to be submitted at least 60 days prior to implementing the proposed changes at the site. Authorization for the revised project will be indicated in similar fashion as the initially authorized NOI and a copy of the newly authorized NOI will be provided to the permittee. Amendments to SWP2 Plans shall be prepared under the supervision of a Licensed Kansas professional engineer, geologist, architect, or landscape architect or a Certified Professional in Erosion and Sediment Control.

The permittee shall modify or amend the SWP2 Plan, at a minimum, whenever:

- there is a change in design, operation, or maintenance of BMPs, pollution controls, or pollution prevention measures;
- there is a change in the design or scope of the construction project which could significantly affect the quality of the stormwater runoff or the use of designated BMPs or pollution controls;
- the construction site inspections indicate deficiencies in the SWP2 Plan or any BMP;
- KDHE or EPA notifies the permittee of deficiencies in the SWP2 Plan, BMP's, and/or pollution controls;
- the SWP2 Plan is determined to be ineffective in significantly minimizing or controlling erosion and sedimentation (e.g. there is evidence, such as excessive site erosion, excessive sediment leaving the site, or excessive sediment deposits in drainage channels, streams, or lakes);
- KDHE determines violations of Surface Water Quality Standards may occur or have occurred; or
- KDHE determines the activities at the site constitute a significant pollution potential which the current SWP2 Plan does not adequately address.

The permittee shall provide a copy of the most current SWP2 Plan to KDHE or EPA upon request.

7.4 Contractor Notification -

The permittee shall notify each contractor or entity (including utility crews, and city employees or their agents) that will perform work at the site of the existence of the SWP2 Plan and what action or precautions shall be taken while on-site to minimize the potential for erosion and the potential for damaging any BMP or pollution control. However, the permittee is ultimately responsible for ensuring compliance with this permit.

The permittee shall provide contractors who are responsible for installation, operation, or maintenance of any BMP a copy of or access to the SWP2 Plan.

Part 8. TRANSFER OF OWNERSHIP

8.1 Transfer of Entire Permitted Area -

Coverage under and the requirements of this NPDES general permit are transferable but transfer is not automatic and must be accepted by KDHE. The permit

may be transferred only to a party that meets the definition of "Owner", "Owner or operator", or "owner/operator" for the entire authorized project scope. The current permittee and the new permittee shall complete a Notice of Transfer of Owner/Operator (NOTO) form, bearing original signatures, and submit to KDHE at the address given in Part 10.2 of this NPDES general permit. If the original permittee is unavailable or unwilling to sign the NOTO (normally due to bankruptcy) the NOTO shall be filled out as much as possible and a cover letter explaining the situation submitted with the NOTO by the new owner.

Transfers shall be requested at least two weeks in advance of transfer of ownership or operational control to ensure KDHE has accepted the transfer and/or provisions that needed to be addressed by the two parties covering continued responsibility by the original permittee until such time as KDHE formally accepts the permit transfer.

8.2 Partial Permitted Area Transfer of One (1.0) or More Acres -

If ownership or operational control of a contiguous area, one (1.0) or more acres in size, within the overall project or subdivision area is sold or otherwise transferred by the permittee to a new owner, then a new complete request for Authorization for the area being sold or otherwise transferred shall be submitted in accordance with Part 4 of this NPDES general permit. This procedure is required for all projects including residential, commercial and industrial subdivisions. Lots for construction of residential homes of greater than one (1.0) acre can utilize procedures under this section or under Part 8.3. Previous clearances issued for the original permitted project area (e.g., Kansas Historical Society, Kansas Department of Wildlife, Parks and Tourism, United States Army Corps of Engineers) may be referenced.

8.3 Partial Permitted Area Transfer of Less than One (1.0) Acre or a Residential Home Lot -

Both the permittee and the new owner or operator including a contractor, who obtains ownership of a lot or contiguous portion of an overall permitted area that is less than one (1.0) acre in size shall jointly complete an Individual Lot Certification (ILC) form for each lot, lots or portions sold or otherwise transferred, or shall incorporate requirements into the contract for sale that are equivalent to those specified on the ILC form. The ILC or equivalent statements in the contract for sale do not constitute a transfer of the Authorization to discharge. The agreement is between the new owner or operator of the lot or portion and the permittee to implement the SWP2 Plan and the conditions of the general NPDES permit cooperatively, however, the original permittee maintains responsibility for discharges from the project site.

The permittee shall maintain the ILC form or a copy of the

contract for sale covering the same requirements either on-site or at the Records Address location identified in Section I of the NOI. The permittee shall provide ILC forms or copies of contracts for sale to KDHE, EPA, or any other government agency upon request.

Part 9. PROJECT COMPLETION

The permittee shall notify KDHE of the project completion by submitting a Notice of Termination (NOT). The permittee shall sign the NOT and mail it to KDHE at the address given in Part 10.2 of this NPDES general permit.

When the soil disturbing activities are complete and final stabilization of all disturbed areas has been achieved, the permittee can terminate coverage under this NPDES general permit by submitting the NOT. The project is considered to be stabilized when perennial vegetation, pavement, buildings, or structures using man-made materials cover all areas which have been disturbed. Vegetation must have a density of at least 70 percent of the density of undisturbed areas at or near the site.

For projects disturbing agricultural land, disturbed areas that are restored to their preconstruction agricultural use are not subject to the above stabilization criteria. Areas that are not being returned to preconstruction agricultural use, must meet the conditions for final stabilization in this Part.

For subdivision development projects, termination of coverage may be requested after three years, provided the entire subdivision is stabilized and the rate of home construction disturbs less than one (1.0) acre per year (approximately 5 lots) or less than one (1.0) acre of land remains to be developed (approximately 5 lots).

The permittee may also terminate coverage under this NPDES general permit prior to completion of the project construction activities provided that duplicate authorization for coverage under this general permit or KDHE authorized successor permits has been issued and is in effect for all remaining construction activities including all areas disturbed by previous construction activities that have not obtained final stabilization.

Part 10. GENERAL REQUIREMENTS OF THIS PERMIT

10.1 Records -

The permittee shall maintain all records required by this NPDES general permit for a period of three (3) years following the date on the NOT. All records shall be kept on-site or in a readily available location identified in the NOI until final stabilization has been completed. Electronic versions of the required records are acceptable but must show or otherwise document all relevant

signatures and be readily available for copying and contractor access as per Part 7.4 and agency review as per Part 10.4 of this general permit. After final stabilization has been completed, records may be maintained at the permittee's main office.

Records shall be readily available during normal business hours.

Records which shall be maintained by the permittee include, but are not limited to:

- the NOI indicating the Authorization by KDHE to discharge stormwater runoff from the construction activities and supporting documentation used to apply for authorization under this NPDES general permit;
- the SWP2 Plan for the construction site named in the Authorization to discharge stormwater runoff, and any amendments to the SWP2 Plan;
- all site inspection records;
- any clearance letters, from KDWP&T, KSHS, COE, or any other agency providing clearance;
- Individual Lot Certification (ILC) forms or portions of the contract for land sale with equivalent wording; and
- a copy of the Notice of Termination submitted to KDHE.

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.

10.2 Contact Address -

All notifications, forms, reports, or other correspondence which must be submitted to KDHE as required by this NPDES general permit shall be sent to:

Kansas Department of Health and Environment
Bureau of Water, Industrial Programs Section
1000 SW Jackson, Suite 420
Topeka, KS 66612 – 1367

Applicants can download copies of all forms, references, or the NPDES general permit from the [KDHE Stormwater](#)

[Website](#) at:

<http://www.kdheks.gov/stormwater/index.html>

or can be requested by e-mail to KDHE at:

kdhe.stormwater@ks.gov

10.3 Duty to Comply -

The permittee shall comply with all conditions of this NPDES general permit. Any noncompliance with this NPDES general permit constitutes a violation of the CWA, K.S.A. 65-164 and 65-165, and/or K.A.R. 28-16-28 et seq. Noncompliance may result in enforcement action; revocation/termination of this authorization; or amendment of this authorization.

It shall not be a defense for a permittee in an enforcement action to contend that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of the NPDES general permit.

After implementation of the stormwater pollution prevention plan, if stormwater discharges adversely affect water quality, or cause violations of any other provision of this NPDES general permit, the permittee shall modify and implement the stormwater pollution prevention plan to address the non-compliance.

Failure to comply with the requirements of the NPDES general permit may subject the permittee to enforcement actions including revocation/termination of the authorization to discharge under this NPDES general permit, a requirement to discontinue the permitted activity, fines and/or possible imprisonment.

Projects which have received authorization under this Permit that are placed on Inactive Status will no longer have permit coverage under this Permit. KDHE will place previously permitted facilities on Inactive Status for failure to pay the annual permit fee without further notice if payment is not received within 3 months of the date of the invoice (see Part 6).

10.4 Duty to Provide Information and Site Access -

The permittee shall furnish to KDHE; the EPA; or any local agency having jurisdiction for any aspect of the project, any information which is requested to determine compliance with this NPDES general permit.

When the permittee becomes aware they failed to submit any relevant facts or submitted incorrect information to KDHE, they shall promptly submit such facts or information to KDHE at the address given in Part 10.2.

The permittee shall allow the Director or an authorized representative of KDHE, the EPA, or, local agency having jurisdiction over the project, upon the presentation of proper credentials and other documents as may be required by law, to:

- enter upon the site where a regulated construction project or activity is located or conducted or where records must be kept under the conditions of this NPDES general permit;
- obtain samples of any discharge to waters of the State;
- have access to and copy at reasonable times, any records which must be kept under the conditions of this NPDES general permit; and
- inspect the construction site and any facilities or equipment (including monitoring equipment, stormwater controls, and BMPs).

10.5 Signatory Requirements -

The Notice of Intent (NOI), the Notice of Termination (NOT), and the Notice of Transfer of Owner/Operator (NOTO) shall be signed by the owner, operator, or designee. All forms, reports, or other correspondence which must be submitted to KDHE as required by this NPDES general permit shall be signed by the permittee or a duly authorized representative.

10.6 Chemical and Sewage Spills -

In case of a spill emergency call:

U.S. EPA National Response Center:

(24 hours a day) (800) 424-8802

Kansas Division of Emergency Management: (KDEM)

(24 hours a day) (785) 291-3333
Website: www.ksready.gov

KDHE Spill Report Hotline:

(24 hours a day) (785) 296-1679

10.7 Hazardous Substance and Oil Spill Reporting -

The permittee or authorized representative is required to notify the U.S. EPA National Response Center (800-424-8802) in accordance with the requirements of 40 CFR 117 and 40 CFR 302 as soon as the discharge of any hazardous substance or oil in excess of the reportable quantity has been discovered. A reportable quantity of oil is the quantity which causes a "film or sheen upon or discoloration of the surface of the water or adjoining shorelines or causes a sludge or emulsion to be deposited

beneath the surface of the water or upon adjoining shorelines." Reportable quantities for hazardous substances are listed in the cited CFRs.

The permittee is also required to notify the Local Emergency Planning Agency and the [Kansas Division of Emergency Management](#) (KDEM) at the phone numbers and/or website listed above in permit paragraph 10.6.

Nothing in this permit shall be construed to preclude the initiation 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.

10.8 Sewage, Wastes, Materials, and Substances Spill Reporting -

Any discharge or escape of sewage, substances, materials, or wastes, as set forth in K.S.A. 65-171d, which are, or threaten to contaminate or alter any of the properties of the waters of the State or pollute soil in a detrimental, harmful, or injurious manner or create a nuisance, shall immediately be reported to the Kansas Department of Health and Environment at (785) 296-1679. The report shall be made by the permittee, or the owner of the spilled materials, or their respective authorized representative.

In the case of discharges under conditions other than those allowed in a valid NPDES permit, the report shall be made by the permittee or an authorized representative. The report shall be made by telephone to [KDHE](#) at 785-296-1679 in accordance with K.A.R. 28-48-1 et seq.

Nothing in this NPDES general permit shall be construed to preclude KDHE's institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under the CWA (33 U.S.C. Section 1321); the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); K.S.A. 65-161 et seq.; or under state or federal statutes or regulations governing oil or hazardous substances or wastes.

10.9 Requiring a Different NPDES Permit -

The Director may require the permittee to apply for and obtain an individual permit or different general permit if:

- the permittee is not in compliance with the conditions of this NPDES general permit;
- the discharge no longer qualifies for this NPDES general permit due to changed site conditions or regulations; or
- information becomes available which indicates water

quality standards have been, or may be violated.

The permittee will be notified in writing of the need to apply for an individual permit or a different NPDES general permit. When an individual permit or different general permit is issued to the authorized permittee, this NPDES general permit is automatically revoked/terminated upon the effective date of the individual or different general permit, whichever the case may be.

10.10 Electronic Data Monitoring Report -

EPA has promulgated a final rule requiring regulated entities to report discharge monitoring report (DMR) data electronically by December 21, 2016. Also, K.A.R. 28-16-63 requires permittees to report NPDES data in a form required by KDHE. KDHE has developed electronic reporting tools to assist permittees in complying with the EPA electronic reporting rule and K.A.R. 28-16-63. Unless a waiver has been approved by KDHE, permittees are required to submit reports electronically when these tools are made available to them by KDHE. By December 21, 2020, the permittee must submit electronically compliance data, reports, and permit applications by a KDHE approved electronic reporting tool.

Part 11. STANDARD CONDITIONS

In addition to the conditions specified in this NPDES general permit, the permittee shall comply with the following Standard Conditions.

11.1 Proper Operation and Maintenance -

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 NPDES general permit, Kansas law, and Federal law. Proper operation and maintenance also includes adequate laboratory controls, if applicable, 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. Pollution control systems, erosion control measures or best management practices which require maintenance shall be maintained, repaired or replaced in a timely manner to avoid discharging stormwater runoff laden with pollutants or sediment which adversely impacts water quality.

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 requirements specified in this permit, including any monitoring as necessary to determine the nature and

impact of the stormwater discharge. When necessary to maintain compliance with the permit requirements, the permittee shall halt or reduce those activities under its control.

When necessary to achieve compliance with the terms and conditions of this NPDES general permit, the permittee shall install, operate and maintain backup systems or auxiliary facilities to supplement the erosion control measures and best management practices proposed in the NOI.

11.2 Severability -

The provisions of this NPDES general permit are severable. If any provision of this NPDES general permit or any circumstance is held invalid, the application of such provision to other circumstances and the remainder of the NPDES general permit shall not be affected thereby.

11.3 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 or revocation and reissuance, or a notification of termination, planned changes or anticipated noncompliance does not stay any permit condition.

11.4 Change in Discharge -

All discharges authorized herein shall be consistent with the requirements and conditions of this NPDES general permit.

The SWP2 Plan shall be amended or modified to reflect significant changes to the project and/or the stormwater discharges in accordance with the applicable requirements of Part 7.3 of this NPDES general permit.

11.5 Discovery During Construction -

In the event contaminated soil, groundwater contamination, or contamination from hazardous substances are discovered at the site during construction activities, the permittee shall report the discovery to KDHE verbally within 24 hours to (785) 296-5549, and within 5 business days in writing at the stated address in

Part 10.2 of this NPDES general permit. Until site evaluations have been completed and instruction has been provided by KDHE, construction activities in the contaminated area shall cease and additional provisions shall be provided to immediately mitigate discharges from the contaminated area.

Any discovery during construction activities of threatened or endangered species on the site or in the downstream receiving waters, or of a historical or archeological site, that were not previously identified or addressed in the SWP2 Plan needs to be reported to the KDWP&T or KSHS and KDHE - Bureau of Water. Until site evaluations have been completed and instruction has been provided by the appropriate agencies, construction activities in the affected area shall cease.

If soil contamination, hazardous substances, threatened or endangered species, or historical or archeological sites are discovered during construction activities, the SWP2 Plan shall be modified or amended to reflect this new information in accordance with the requirements and conditions of Part 7.3 of this NPDES general permit.

11.6 Removed Substances -

Solids, sludge, sediment, filter backwash, or other pollutants removed in the course of treatment or control of stormwater runoff shall be properly managed, utilized, and/or disposed of in accordance with applicable statutes and regulations to prevent pollution of surface water, groundwater, or soil.

11.7 Civil, Criminal, and Administrative Liability -

Kansas law provides for civil and criminal punishment including fines and imprisonment for violations of this NPDES general permit. The permittee shall comply with all requirements of this NPDES general permit. Except as authorized in paragraph 11.10 below, 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.

11.8 Property Rights -

The issuance of this NPDES general 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, nor any invasion of personal rights, nor any infringement or violation of Federal, State or local laws or regulations. This NPDES general permit in no way reduces or eliminates the permittee's responsibilities to landowners whose property may be traversed by stormwater runoff from the project site either before, during, or after construction of the planned project. It is the permittee's responsibility to obtain any necessary approvals from any affected property owner.

11.9 Duty to Mitigate –

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this NPDES general permit which has a reasonable likelihood of adversely affecting human health or the environment.

11.10 Bypass –

Any diversion or bypass of facilities necessary to maintain compliance with this NPDES general permit is prohibited except where necessary to prevent loss of human life, personal injury, or severe property damage, and where no feasible alternative to the bypass exists.

Any bypass which occurs during construction activities which may affect a threatened or endangered species, or a historical or archeological site, on site or in the receiving water body, shall be reported to KDHE verbally within 24 hours to (785) 296-5549, and within 5 business days in writing at the stated address in Part 10.2 of this NPDES general permit.

If a bypass occurs during construction activities, the SWP2 Plan shall be modified or amended to prevent future occurrences in accordance with the requirements and conditions of this NPDES general permit.

ENDNOTES

1. The NPDES general permit, application forms, guidance material, the rainfall erosivity waiver application, and reference material is available on the KDHE Stormwater Website at www.kdheks.gov/stormwater. The website also provides links to EPA guidance documents and the instructions for the rainfall erosivity calculation, Fact Sheet 3.1 - Storm Water Phase II Final Rule Construction Rainfall Erosivity Waiver

Material available on the KDHE Stormwater Website www.kdheks.gov/stormwater includes the NPDES general Permit, Notice of Intent, Notice of Termination, Notice of Transfer of Owner/Operator, Individual Lot Certification, and the Definitions and Acronyms in Adobe Acrobat Reader format (pdf).

Reference material available on the KDHE Stormwater Website at www.kdheks.gov/stormwater includes the Fact Sheet, Rainfall Erosivity Waiver Application, a list of Exceptional State Waters, Special Aquatic Life Use Waters and Outstanding National Resource Waters, and a link to the current Kansas Surface Water Register and maps.

2. The owner or operator must determine whether discharging stormwater runoff from construction activities on the site is subject to any local applicable requirements. To determine the local requirements applicable to each construction project, the owner or operator must contact the local Municipal Separate Storm Sewer System (MS4) operator. A list of MS4 operators who have or may be required to have a local stormwater pollution prevention program is available on the KDHE Stormwater Website at www.kdheks.gov. This list is provided and maintained for information only and will not necessarily include all MS4 operators with a local program.

3. If the applicant is uncertain if the project is located on Indian Country land, please contact the Bureau of Indian Affairs Southern Plains Regional Office - Natural Resources Department at (405) 247-6673 and the EPA Region VII Tribal Program at (913) 551-7969 or (913) 551-7374. EPA is the permitting authority on Indian Country land. To request authorization to discharge stormwater runoff from construction activities conducted on Indian Country land the applicant must contact EPA.

4. To determine if your project is located near one of these areas find the stream segment(s) or lake(s) which receive(s) the stormwater runoff on the Kansas Surface Water Register Maps, then check the designated uses of the stream segment(s) or lake(s) in the Kansas Surface Water Register. Applicants can download a copy of the Surface Water Register from the KDHE Stormwater Website at www.kdheks.gov/stormwater. At the time of this general NPDES permit issuance there were no Critical Water Quality Management Areas established. The stormwater website at: www.kdheks.gov/stormwater includes the most current list should an area be established.

5. The referenced guidance documents are available on-line at: <http://nepis.epa.gov/>. Links to the referenced guidance are also available at the KDHE website: <http://kdheks.gov/stormwater>.

6. Certification as a professional in erosion and sediment control is available through CPESC, Inc. CPESC information can be obtained through the internet at www.cpesc.org, or by calling (828) 655-1600. For other additional educational opportunities and information, contact the International Erosion Control Association at www.ieca.org or by calling (800) 455-4322.

7. Routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the facility that disturbs less than 5 acres is not considered to be construction activity, and therefore is not subject to construction stormwater permitting requirements.

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KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT

BUREAU OF WATER



KANSAS WATER POLLUTION CONTROL

AND

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

STORMWATER RUNOFF FROM CONSTRUCTION ACTIVITIES

GENERAL PERMIT

APPENDIX 1

DEFINITIONS & ACRONYMS

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Stormwater Runoff from Construction Activities General Permit

Definitions and Acronyms

These definitions pertain to the Kansas Water Pollution Control General Permit and Authorization to Discharge STORMWATER RUNOFF FROM CONSTRUCTION ACTIVITIES under the National Pollutant Discharge Elimination System. Persons subject to the NPDES general permit for Stormwater Runoff From Construction Activities should make themselves familiar with this list of definitions.

"Antidegradation" means the regulatory actions and measures taken to prevent or minimize the lowering of water quality in surface waters of the state, including those streams, lakes, and wetlands in which existing water quality exceeds the level required for maintenance and protection of existing uses.

"Authorization" means written authorization from KDHE to discharge stormwater runoff from construction activities. Upon acceptance and approval of the Construction Stormwater Notice of Intent (NOI) and required supporting documentation, KDHE will indicate the authorization and date on the front page of the NOI form by the Secretary of KDHE's signature on the form, and assign State and Federal Authorization numbers. Upon receipt of this Authorization, the permittee is authorized to discharge stormwater runoff from construction activities from the construction site identified in the NOI and supporting documents.

"Best Management Practices" ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

"Borrow Sites" means areas where materials are excavated for use as fill.

"Buffer" means for the purposes of this permit, an area of natural vegetation surrounding streams, rivers, lakes, wetlands, or other waters of the U.S. within which construction activities are restricted.

"Bypass" means any diversion of contaminated stormwater runoff away from BMPs.

"Combined Sewer System" means sewers that are designed to collect rainwater runoff, domestic sewage, and industrial wastewater in the same pipe.

"Commencing Construction" means starting to remove vegetation or disturb the soil located at the site.

"Construction Activity" means any construction practices or work including, but not limited to, clearing, grubbing, grading, and excavation which disturbs one (1.0) acre or more; or which is part of a larger common plan of development or sale which disturbs a cumulative total area of one (1.0) acre or more during the life of the project.

"Construction and Development Effluent Guidelines" as published in 40 CFR § 450 is the regulation requiring effluent limitations guidelines (ELG's) and new source performance standards (NSPS) for controlling the discharge of pollutants from construction sites.

"Construction Site" means the land or water area where construction activities will occur and where stormwater controls will be installed and maintained. The construction site includes construction support activities, which may be located at a different part of the property where the primary construction activity will take place, or on a different piece of property altogether. The construction site is often a smaller subset of the lot or parcel within which the project is taking place.

"Construction Support Activities" means the various construction-related activities that occur alongside the construction activity, and can include activities associated with concrete or asphalt batch plants, equipment staging yards, materials storage areas, excavated material disposal areas, and borrow areas.

"Contaminated Groundwater" means groundwater where an actual or potential environmental or public health threat may be deemed to exist as a result of physical, chemical, biological, or radiological substances, or a combination of these substances, has been released into subsurface waters of the state and results in a concentration or amount of a substance in excess of the numerical criteria designated for aquatic life protection, agricultural use, or public

Stormwater Runoff from Construction Activities General Permit

Definitions and Acronyms

health protection as provided in the Kansas Surface Water Quality Standards: Table of Numeric Criteria or have groundwater concentration levels exceeding the most current version of the KDHE "Risk-based Standards for Kansas (RSK)" manual, Tier 2 for Residential Scenarios - Soil to Groundwater Pathways, or if above RSK levels, the concentrations are not significantly different than area natural background concentrations (RSK Tier 1 evaluation). The manual can be downloaded from the following webpage: www.kdheks.gov/remedial/rsk_manual_page.htm.

"Contaminated Soil" are soils that have soil concentration levels exceeding the lowest concentration of those included in the most current version of the KDHE "Risk-based Standards for Kansas (RSK)" manual, Tier 2 for Residential Scenarios or if above the RSK levels, the concentrations are not significantly different than area natural background concentrations (RSK Tier 1 evaluation). The manual can be downloaded from the following webpage: www.kdheks.gov/remedial/rsk_manual_page.htm.

"Control Measure" refers to any stormwater control, BMP, or other method (including narrative effluent limitations) used to prevent or reduce the discharge of pollutants to waters of the United States.

"Critical Water Quality Management Area" means a watershed, or a portion of a watershed, in which application of minimum state or national wastewater and water quality management practices and procedures cannot be reasonably expected to result in attainment of water quality goals, attainment of water quality standards, protection of resources of the state, prevention of excessive sediment deposition in stream beds, lakes or reservoirs, or prevention of destruction of fishery habitat; or an area in which additional treatment and control of pollutants can result in additional cost effective benefits.

"CWA" means the Clean Water Act or the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq., as amended on February 4, 1987.

"Defined Drainage" means any water course which has a well-defined bed and banks and a drainage area above the point in question exceeding 160 acres or a greater acreage designated by the Chief Engineer, Kansas Department of Agriculture. The stream need not flow continuously and may flow only briefly after a rain in the watershed.

"Department" means the Kansas Department of Health and Environment.

"Dewatering" means the act of draining or pumping accumulated stormwater and/or groundwater from excavations, building foundations, vaults, trenches, etc.

"Director" means the Director of the Division of Environment, of the Kansas Department of Health and Environment.

"Discharge Monitoring Requirement" means a requirement to observe or evaluate a discharge and note the conditions observed.

"Discharge of Stormwater Associated with Construction Activity" as used in this permit, a discharge of pollutants in stormwater from areas where land-disturbing activities (e.g., clearing, grading, or excavation), construction materials or equipment storage or maintenance (e.g., fill piles, borrow area, concrete truck chute washdown, fueling), or other industrial stormwater directly related to the construction process (e.g., concrete or asphalt batch plants), are located.

"Discharge Point" means for the purposes of this permit, the location where collected and concentrated stormwater flows are discharged from the construction site.

"Drainage Courses or Drainage Swales" means an open linear depression, whether constructed or natural, that functions for the collection and drainage of surface water.

"Duly Authorized Representative" means somebody who speaks, acts or votes on behalf of others. For the purposes of this stormwater general permit, the duly authorized representative either 1) has operational control over

Stormwater Runoff from Construction Activities General Permit
Definitions and Acronyms

the facility; or 2) has the day-to-day operational control of those activities at the facility necessary to ensure compliance.

"Effluent Limitation" means any restriction established by the Director on quantities, rates, and concentrations of chemical, physical, biological and other constituents which are discharged from point sources.

"Effluent Limitations Guideline" (ELG) - defined in 40 CFR § 122.2 as a regulation published by the EPA Administrator under section 304(b) of CWA to adopt or revise effluent limitations.

"Entrance and Exit Points" means any points of entry to and exit from the construction site to be used by vehicles and equipment during construction activities.

"EPA" means the U.S. Environmental Protection Agency.

"Exceptional State Waters" means any of the surface waters or surface water segments that are of remarkable quality or of significant recreational or ecological value, are listed in the surface water register, as defined in K.A.R. 28-16-28b, and are afforded the level of water quality protection under the anti-degradation provisions of K.A.R. 28-16-28c(a) and the mixing zone provisions of K.A.R. 28-16-28c(b).

"Final Stabilization" means all soil disturbing activities at the site have been completed and a uniform perennial vegetative cover with a density of 70% of the cover which is typical for undisturbed areas, unpaved areas, or areas not covered by permanent structures, in the geographic location of the construction site, has been established, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed. Certain exceptions to this exists for final stabilization of individual lots or completion of construction activities within a larger common plan of development.

"Hazardous Substance" means elements and compounds designated as a hazardous substance pursuant to Section 311(b)(2)(A) of the CWA at 40 CFR 116.4.

"ILC" means the Individual Lot Certification which is to be completed by the permittee and the purchaser of an individual lot or parcel of the overall tract subject to the general NPDES permit for Stormwater Runoff from Construction Activity.

"Impaired Water" "Water Quality Limited Segment" means a surface water that has been identified by KDHE pursuant to Section 303(d) of the Clean Water Act as not meeting applicable Kansas Surface Water Quality Standards. Impaired waters include both waters with approved or established TMDLs, and those for which a TMDL has not yet been approved or established. (Note: To view the Section 303(d) list and TMDLs go to <http://www.kdheks.gov/tmdl/index.htm>)

"Indian Country Land" means (1) All land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and including rights-of-way running throughout the reservation; (2) All dependent Indian communities within the borders of the United States whether within the original or subsequently acquired territory thereof, and whether within or without the limits of the State; and (3) All Indian allotments, the Indian titles to which have not been extinguished, including rights of way running through the same.

"Infeasible" means not technologically possible, or not economically practicable and achievable in light of best industry practices.

"Install" or "Installation" means when used in connection with stormwater controls, to connect or set in position stormwater controls to make them operational.

"KDHE" means the Kansas Department of Health and Environment.

Stormwater Runoff from Construction Activities General Permit

Definitions and Acronyms

"Material Handling and Staging Area" means a temporary area on the construction site used for receiving, processing, storing materials to prevent the material from being spilled or coming into contact with runoff.

"Material Washout Area" means a temporary containment area used for the washing of applicators and containers of paint, concrete, and other materials.

"Minimize" means to reduce and/or eliminate to the extent achievable using stormwater controls (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

"Municipal Separate Storm Sewer System (MS4)" means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that are owned or operated by a state, city, town, borough, county, parish, district association, or other public body which is designed or used for collecting or conveying stormwater.

"National Pollutant Discharge Elimination System" means the national system for the issuance of permits under 42 U.S.C. Section 1342 and includes any state or interstate program which has been approved by the administrator, in whole or in part, pursuant to 42 U.S.C. Section 1342.

"NOI" means the Notice of Intent form which is to be used to apply for authorization to discharge under this general permit [A copy of the NOI form is provided as part of the general permit.].

"Non-Stormwater Discharges" means discharges that do not originate from storm events. They can include, but are not limited to, discharges of process water, air conditioner condensate, noncontact cooling water, vehicle wash water, sanitary wastes, concrete washout water, paint wash water, irrigation water, or pipe testing water.

"NOT" means the Notice of Termination form which is to be completed by the permittee once the project is completed and the site is stabilized. [A copy of the NOT form is provided as part of the general permit.]

"NOTO" means the Notice of Transfer of Ownership form which is to be completed by the permittee and the new site owner or operator when sale of the entire permitted tract occurs. [A copy of the NOTO form is provided as part of the general permit.]

"Oil and Gas Exemption" means changes to the Federal Clean Water Act (CWA) which exempt oil and gas exploration, production, processing, or treatment operations, and transmission facilities from National Pollutant Discharge Elimination System (NPDES) stormwater permitting requirements associated with stormwater runoff from construction activities. (see 40 CFR 122.26 (c) (1) (iii) for exclusions to the CWA exemption.)

"Operational" for the purpose of this permit, stormwater controls are made "operational" when they have been installed and implemented, are functioning as designed, and are properly maintained.

"Outfall" see "Discharge Point".

"Outstanding National Resource Water" (ONRW) means any of the surface waters or surface water segments of extraordinary recreational or ecological significance identified in the Kansas Surface Water Register and afforded the highest level of water quality protection under the antidegradation provisions of K.A.R. 28-16-28c(a) and the mixing zone provisions of K.A.R. 28-16-28c(b).

"Owner", "Owner or operator", or "owner/operator" means the party or parties that either individually or taken together who are the responsible party liable under the Clean Water Act and meet the following criteria: they have operational control over the site specifications; and, they have the day-to-day operational control of those activities at the site necessary to ensure compliance. For a typical commercial construction site, KDHE herein defines the owner or general contractor to be the "owner or operator". For a typical residential development (subdivision), KDHE herein defines the owner or an authorized representative to be the "owner or operator". Each owner or

Stormwater Runoff from Construction Activities General Permit

Definitions and Acronyms

operator who individually does not engage in construction activity of greater than one (1.0) acre must apply when the construction activity is part of a larger common plan of development.

"Permit" means an authorization, license, or equivalent control document issued by the Director to implement the requirements of K.A.R. 28-16-57. Permit includes a 'general permit' (K.A.R. 28-16-150). Permit does not include any document which has not yet been subject to final agency action, such as a "draft permit" or "proposed permit."

"Permittee" means the individual, company, corporation, institution, municipality, township, county, federal agency, owner, operator, or legally constituted sewer district which is authorized by a Kansas Water Pollution Control permit to discharge to the waters of the State and which has operational control of the permitted discharge by specifying activities at the site.

"Point Source" means any discernible, confined, and discrete conveyance, including, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or floating craft from which pollutants are or may be discharged. This term may include structures or site conditions that act to collect and convey stormwater runoff from roadways, urban areas, or industrial sites. This term shall not include agriculture stormwater discharges or return flows from irrigated agricultural land.

"Rainfall Erosivity Waiver" means a waiver of the applicable requirements of the general NPDES permit for Stormwater Runoff from Construction Activities. Owners or operators of construction activities between one and five acres which are eligible for coverage under the general NPDES permit for Stormwater Runoff from Construction Activities may receive a waiver from KDHE provided the value of the rainfall erosivity factor ("R" in the Revised Universal Soil Loss Equation) is less than five (5) during the period of construction activity.

"Run-on" means sources of stormwater that drain from land located upslope or upstream from the regulated site in question.

"Sediment Basin Design Criteria" are requirements for sedimentation structures to be designed to provide a detention volume at least 3,600 cubic feet of storage per acre of total area draining into the sediment basin. KDHE may approve alternate storage volumes if a significant portion of undisturbed area drains to the sediment basin or for areas in Western Kansas where the 2 year, 30 minute rain event is less than 1.3 inches. Runoff calculations based on a detention volume from a 2 year, 30 minute rainfall event with a minimum runoff coefficient of 0.77 for disturbed acreage and appropriate runoff coefficients for undisturbed acreage must be provided to document and justify the revised storage volume requirement.

Sediment basins must be designed to provide the required storage volume below the elevation of the overflow weir, spillway or riser top that allows mass volume of discharge. Designs shall include outlet structures that withdraw water from the surface, unless infeasible.

"Severe Property Damage" means substantial physical damage to property or substantial and permanent loss of natural resources which would be reasonably expected to occur in the absence of a bypass.

"Significant Materials" includes, but is not limited to: raw materials, fuels, materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical the facility is required to report pursuant to EPCRA Section 313; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with storm water discharges.

"Significant Pollution Potential" means the discharge or potential discharge of one or more pollutants that does or has the potential to degrade water quality, violate a water quality standard, or impair a designated use of a classified water. KDHE, in making a determination as to whether a discharge has a significant pollution potential will consider the size and location of the discharge, the quantity and nature of the discharge, and other relevant factors. Examples of a significant pollution potential would include, but not be limited to, contaminated soils or groundwater within the construction site, uncovered salt or salt/sand storage piles; spilled or leaking toxic or hazardous waste; spilled or leaking fuel, oils, grease, solvents; etc.

Stormwater Runoff from Construction Activities General Permit

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"Soil Exposed" means for the purposes of this permit, soils that have been disturbed due to the commencement of construction activities.

"Special Aquatic Life Use waters" means surface waters which contain combinations of habitat types and indigenous biota not found commonly in the state, or surface waters which contain representative populations of threatened or endangered species.

"Stabilization" means the use of vegetative and/or non-vegetative cover to prevent erosion and sediment loss in areas exposed through the construction process.

"Steep Slope" means any slope occurring on the construction site that is 2.5 horizontal to 1 vertical or greater (approximately 40 percent).

"Storm Sewer" means a system of pipes (separate from sanitary sewers) that carries stormwater runoff from buildings and land surfaces.

"Stormwater" means stormwater runoff induced by atmospheric precipitation, including snow melt runoff, and surface runoff and drainage.

"Stormwater Control" See "Control Measure"

"Stormwater Pollution Prevention Plan (SWP2 Plan)" means a site-specific, written document and construction plans that: (1) identifies potential sources of stormwater pollution at the construction site; (2) describes stormwater control measures to reduce or eliminate pollutants in stormwater discharges from the construction site; and (3) identifies procedures the operator will implement to comply with the terms and conditions of this general permit.

"Stormwater Runoff from Construction Activities" means stormwater runoff from areas where construction activities are located. Construction activities include clearing, grading and excavating that result in land disturbance of equal to or greater than one (1.0) acre of total land area. Construction activity also includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than one (1.0) acre. Construction activities do not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the facility. (See 40 CFR 122.26(b)(14 -15) for further clarification.)

"Stormwater Runoff from Industrial Activities" means the discharge from any conveyance which is used for collecting and conveying stormwater and which is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the Kansas Water Pollution Control program.

For the categories of industries identified in this definition, the term includes, but is not limited to, stormwater discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process wastewaters (as defined at 40 CFR 401); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials; and intermediate and finished products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to stormwater.

For the purposes of this paragraph, material handling activities include storage, loading and unloading, transportation or conveyance of any raw material, intermediate product, final product, by-product or waste product. The term excludes areas located on the plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded area is not mixed with stormwater drained from the above described areas.

Stormwater Runoff from Construction Activities General Permit

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Industrial facilities (including industrial facilities which are Federally, State or municipally owned or operated and meet the description of the facilities listed in this paragraph (i)-(xi) of this definition) include those facilities designated under 40 CFR 122.26(a)(1)(v).

The following categories of facilities are considered to be engaging in industrial activity for the purpose of this general permit/definition:

Category (i) - Facilities subject to storm water effluent limitations guideline, new source performance standards, or toxic pollutant effluent standards under 40 CFR subchapter N. Limits and/or standards for this category are subject to change and new limits and standards may be adopted. To verify applicability, see 40 CFR subchapter N.

Stormwater Effluent Guidelines

For a discharge to be covered under stormwater effluent guidelines, the facility must have a stormwater discharge subject to stormwater effluent guidelines. At the time of permit issuance, facilities that have stormwater effluent limitations guidelines for at least one of their subcategories include the following:

40 CFR Subchapter N

Part 411 Cement manufacturing
Part 412 Concentrated Animal Feeding Operations (CAFOs)
Part 418 Fertilizer manufacturing
Part 419 Petroleum refining
Part 420 Iron & steel manufacturing
Part 422 Phosphate manufacturing
Part 423 Steam electric power generating
Part 434 Coal mining
Part 436 Mineral mining & processing
Part 440 Ore mining & dressing
Part 442 Transportation equipment cleaning
Part 443 Paving and roofing materials
Part 445 Landfills

A facility that falls into one of these Parts should examine the effluent guideline to determine if it is categorized in one of the subcategories that have stormwater effluent guidelines. If a facility is classified in one of those subcategories, that facility is subject to the standards listed in the CFR for that category, and as such is required to submit an NOI for any stormwater discharge subject to the stormwater effluent guideline.

Toxic Pollutant Effluent Standards

Facilities subject to toxic pollutant effluent standards refers to the standards established pursuant to CWA section 307(a)(2) and codified at 40 CFR Part 129. Part 129 applies only to manufacturers of six pesticide products which are defined as toxic pollutants. Please note that the phrase “facilities subject to toxic pollutant effluent standards” does not refer to those industries subject to effluent limitation guidelines for toxics under 40 CFR sub-chapter N.

Manufacturers of the following pesticides are subject to regulation under these provisions:

(a) Aldrin/Dieldrin, (b) DDT, (c) Endrin, (d) Toxaphen (e) Benzidine, and (f) Polychlorinated Biphenyls (PCBs):

Stormwater Runoff from Construction Activities General Permit

Definitions and Acronyms

(a) Aldrin/Dieldrin---Aldrin means the compound aldrin as identified by the chemical name, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-1,4-endo-5,8-exo-dimethanonaphthalene; "Dieldrin" means the compound the dieldrin as identified by the chemical name 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4-endo-5,8-exo-dimethanonaphthalene.

(b) DDT---DDT means the compounds DDT, DDD, and DDE as identified by the chemical names:(DDT)-1,1,1-trichloro-2,2-bis(p-chlorophenyl) ethane and some o,p '-isomers; (DDD) or (TDE)-1,1-dichloro-2,2-bis(p-chlorophenyl) ethane and some o,p '-isomers; (DDE)-1,1-dichloro-2,2-bis(p-chlorophenyl) ethylene.

(c) Endrin---Endrin means the compound endrin as identified by the chemical name 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4-endo-5,8-endodimethanonaphthalene.

(d) Toxaphene---Toxaphene means a material consisting of technical grade chlorinated camphene having the approximate formula of $C_{10}H_{10}Cl_8$ and normally containing 67--69 percent chlorine by weight.

(e) Benzidine---Benzidine means the compound benzidine and its salts as identified by the chemical name 4,4 '-diaminobiphenyl.

(f) Polychlorinated Biphenyls (PCBs) polychlorinated biphenyls (PCBs) means a mixture of compounds composed of the biphenyl molecule which has been chlorinated to varying degrees.

New Source Performance Standards (NSPS)

For a stormwater discharge associated with industrial activity to be covered under NSPS, the facility must have an activity subject to the NSPS. The new source varies based on the publication date of a particular effluent guideline. Most effluent guidelines listed in 40 CFR Subchapter N contain NSPS.

The following categories of 40 CFR Subchapter N do not have new source performance standards. All other categories have at least one subcategory with new source performance standards.

Part 454 Gum and wood chemicals manufacturing
Part 459 Photographic
Part 460 Hospital

Category (ii) - Facilities classified as Standard Industrial Classifications 24 (except 2434), 26 (except 265 and 267), 28 (except 283), 29, 311, 32 (except 323), 33, 3441, 373;

Category (iii) - Facilities classified as SIC codes 10-14 including active or inactive mining operations (except for areas of coal mining operations no longer meeting the definition of a reclamation area under 40 CFR 434.11(1) because the performance bond issued to the facility by the appropriate SMCR authority has been released, or areas of non-coal mining operations which have been released from applicable State or Federal reclamation requirements after December 17, 1990), and oil and gas exploration, production, processing, or treatment operations, or transmission facilities that discharge storm water contaminated by contact with or that has come into contact with, any overburden, raw material, intermediate products, finished products, byproducts or waste products located on the site of such operations (inactive mining operations are mining sites that are not being actively mined, but which have an identifiable owner/ operator; inactive mining sites do not include sites where mining claims are being maintained prior to disturbances associated with the extraction,

Stormwater Runoff from Construction Activities General Permit

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beneficiation, or processing of mined materials, nor sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim).

A facility with an existing or new discharge composed entirely of stormwater from oil or gas exploration, production, processing, or treatment operations or transmission facility is not required to submit a request for authorization under this general permit unless the facility:

(A) Has a discharge of stormwater composed entirely of flows which are from conveyances or systems of conveyances (including but not limited to pipes, conduits, ditches, and channels) used for collecting and conveying collection runoff and which are contaminated by contact with, or come into contact with, any overburden, raw material, intermediate products, finished products, byproducts, or waste products on the site of such operations; or

(B) Has had a discharge of stormwater resulting in the discharge of a reportable quantity for which notification is or was required pursuant to 40 CFR 110.6, 40 CFR 117.21 or 40 CFR 302.6 at anytime since November 16, 1987; or

(C) Causes or contributes to a violation of a water quality standard.

Category (iv) - Hazardous Waste Hazardous waste treatment, storage, or disposal facilities including those that are operating under interim status or a permit under Subtitle C of RCRA.

Category (v) - Landfills, land application sites, and open dumps that receive or have received any industrial waste (waste that is received from any of the facilities described under categories (i) - (xi)) including those that are subject to regulations under Subtitle D of RCRA.

Category (vi) - Recycling of materials, including metal scrap yards, battery reclaimers, salvage yards, and automobile junkyards, including but limited to those classified as SIC 5015 (used motor vehicle parts) and SIC 5093 (scrap and waste materials).

Category (vii) - Steam electric power generating facilities, including coal handling sites.

Category (viii) - Transportation facilities classified by the SIC codes 40, 41, 42 (except 4221-4225), 43, 44, 45, and 5171 listed below which have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations. Only those portions of the facility that are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, airport deicing operations, or which are otherwise identified under categories (i)-(vii) or (ix)-(xi) of this definition are associated with industrial activity, and need permit coverage. Based on a potential for being a significant contributor of pollutants, KDHE has determined Aerial Spray Operations at Airports are subject to coverage for stormwater runoff associated with industrial activity.

Category (ix) - Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are located within the confines of the facility, with a design flow of 1.0 mgd or more, or required to have an approved pretreatment program under 40 CFR 403. Not included are farm lands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility, or areas that are in compliance with section 405 of the Clean Water Act.

Category (x) - Construction activity is not covered under this definition. The construction "operator" of both large and small construction activities must apply for coverage under an individual permit or the General Stormwater Permit for Construction Activity requirements.

Stormwater Runoff from Construction Activities General Permit
Definitions and Acronyms

Category (xi) - Facilities under Standard Industrial Classifications 20, 21, 22, 23, 2434, 25, 265, 267, 27, 283, 285, 30, 31 (except 311), 323, 34 (except 3441), 35, 36, 37 (except 373), 38, 39, and 4221-25.

"Surface water" means all of the following:

- (1) streams, including rivers, creeks, brooks, sloughs, draws, arroyos, canals, springs, seeps and cavern streams, and any alluvial aquifers associated with these surface waters;
- (2) lakes, including oxbow lakes and other natural lakes and man-made reservoirs, lakes and ponds; and
- (3) wetlands, including water bodies meeting the technical definition for jurisdictional wetlands given in the "corps of engineers wetlands delineation manual," as published in January 1987, which is hereby adopted by reference.

"Surface Waters of the State" means all surface waters occurring within the borders of the state of Kansas or forming a part of the border between Kansas and one of the adjoining states.

"Temporary Stabilization" means a condition where exposed soils or disturbed areas are provided a temporary vegetative and/or non-vegetative protective cover to prevent erosion and sediment loss. Temporary stabilization may include temporary seeding, geotextiles, mulches, and other techniques to reduce or eliminate erosion until either final stabilization can be achieved or until further construction activities take place to re-disturb this area.

"Tier 1 Water" means, in regard to antidegradation, a level of protection that provides a "floor" which protects water quality and existing designated uses. Water quality must be preserved to protect and maintain those existing uses. Activities that would lower water quality below levels necessary to maintain existing designated uses are prohibited.

"Tier 2 Water" means, in regard to antidegradation, high quality waters where water quality exceeds the criteria associated with the assigned designated uses. Limited water quality degradation is allowed in high quality water where the degradation is necessary to accommodate important social or economic development, but only if designated uses are still maintained and the highest statutory and regulatory requirements for all point sources of pollution and all cost effective and reasonable best management practices for nonpoint sources of pollution are achieved.

"Tier 2½ Water" means in regard to antidegradation, means a water classified as an Exceptional State Water (see definition of "Exceptional State Waters" in Appendix 1).

"Tier 3 Water" means, in regard to antidegradation, any waters designated as an Outstanding National Resource Water (ONRW) (see definition of Outstanding National Resource Water in Appendix 1).

"Total Maximum Daily Load (TMDL)" is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL includes wasteload allocations (WLAs) for point source discharges; load allocations (LAs) for nonpoint sources and/or natural background, and must include a margin of safety and account for seasonal variations. (Note: To view TMDLs go to <http://www.kdheks.gov/tmdl/index.htm>.)

"Uncontaminated Groundwater" means water removed from excavation or pumped from an aquifer for dewatering purposes. The water is considered uncontaminated if there is no groundwater contamination within 1,000 feet of the discharge. Suspended solids and turbidity are not sources of contamination for the purposes of this definition but the excavation dewatering discharge must be treated as necessary to remove suspended solids and turbidity to prevent any violation of water quality standards.

Stormwater Runoff from Construction Activities General Permit

Definitions and Acronyms

"Urbanized Area" means a land area comprising one or more places; central place(s); and the adjacent densely settled surrounding area; or urban fringe; that together have a residential population of at least 50,000 and an overall population density of at least 1,000 people per square mile.

List of Acronyms

BMPS - Best Management Practices
C & D - Construction & Development
CERCLA - Comprehensive Environmental Response, Compensation and Liability Act
CFR - Code of Federal Regulations
CGP – Construction General Permit
CWA - Clean Water Act
CWQMA - Critical Water Quality Management Area
EPA - U.S. Environmental Protection Agency
ESW - Exceptional State Water
ILC - Individual Lot Certification
K.A.R. - Kansas Administrative Regulations
KDHE - Kansas Department of Health and Environment
KDWPT - Kansas Department of Wildlife, Parks and Tourism
K.S.A. - Kansas Statutes Annotated
KSHPO - Kansas State Historic Preservation Office
KSHS – Kansas Historical Society
MS4 - Municipal Separate Storm Sewer System
NOI - Notice of Intent
NOT - Notice of Termination
NOTO - Notice of Transfer of Ownership
NPDES - National Pollutant Discharge Elimination System
NRDC - Natural Resources Defense Council
NTIS - National Technical Information Service
ONRW - Outstanding National Resource Water
RCRA - Resource Conservation and Recovery Act
SALU - Special Aquatic Life Use
SHPO - State Historic Preservation Officer
SMCRA - Surface Mining Control and Reclamation Act
SPCC - Spill Prevention Control Countermeasures
SWP2 Plan or SWPPP - Stormwater Pollution Prevention Plan
U.A. - Urbanized Areas
U.S.C. - United States Code

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KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT

BUREAU OF WATER



KANSAS WATER POLLUTION CONTROL

AND

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

STORMWATER RUNOFF FROM CONSTRUCTION ACTIVITIES

GENERAL PERMIT

APPENDIX 2

FORMS

Notice of Intent Form (NOI) for Stormwater Runoff from Construction Activities
Notice of Intent Instructions for Stormwater Runoff from Construction Activities
Individual Lot Certification Form (ILC)
Notice of Transfer of Owner/Operator Form (NOTO)
Notice of Termination Form (NOT)

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NOTICE OF INTENT (NOI)

For Authorization to Discharge Stormwater Runoff from Construction Activities
In accordance with the Kansas Water Pollution Control General Permit
Under the National Pollutant Discharge Elimination System (NPDES)

Submission of this Notice of Intent constitutes notice that the party identified in Section I of this form requests authorization for coverage under the Kansas Water Pollution Control general permit, or KDHE issued successor permits, issued for stormwater runoff from construction activities in the State of Kansas. Becoming a permittee obligates the discharger to comply with the terms and conditions of the general permit. **Completion of this NOI does not provide automatic coverage under the general permit. Coverage is provided and discharge permitted when the Kansas Department of Health and Environment (KDHE) authorizes the discharge of stormwater runoff from the construction activities identified on the NOI and supporting documentation. A signed and dated copy of the first page of the NOI indicating the Authorization will be provided to the owner or operator, or all three pages for Conditional Authorizations.** Upon authorization of the construction activity discharge, a Kansas permit number and a Federal permit number will be assigned to the construction project. **A complete request for Authorization for coverage under the general permit must be submitted or the request will not be processed (see listing on Page 3 of this NOI).** KDHE will notify owners or operators whose Notice of Intent (NOI) and supporting documentation for Authorization of stormwater runoff associated with construction activities are incomplete, deficient, or denied.

Please Print or Type.

I. OWNER OR OPERATOR ADDRESS, BILLING, CONTACT & RECORDS LOCATION INFORMATION

| | |
|--|--|
| A. Owner or Operator's Name: _____ Company Name: _____ Owner or Operator's Phone: _____ Mailing Address: _____ City: _____ State: ____ Zip: _____ E-mail Address (optional): _____ | C. Contact Name: _____ Company Name: _____ Contact Phone: _____ Mailing Address: _____ City: _____ State: ____ Zip: _____ E-mail Address (optional): _____ |
| B. Billing Contact Name: _____ Billing Contact Phone: _____ Billing Address (if different): _____ City: _____ State: ____ Zip: _____ E-mail Address (optional): _____ | D. Address where records will be kept (if not on-site): Records Address: _____ City: _____ State: ____ Zip: _____ |

II. SITE INFORMATION, Type of Request: ☐ New Permit Authorization ☐ Modification of Existing Permit Authorization

| | |
|---|--|
| A. Project Name: _____ Site Address: _____ City: _____ State: ____ Zip: _____ (Nearest City to Project) County: _____ | B. LEGAL SITE DESCRIPTION: _____ QTR of _____ QTR of _____ QTR Section: _____ Township: _____ South; Range: _____ <input type="checkbox"/> E <input type="checkbox"/> W Latitude: _____, Longitude: _____ Deg. Min. Sec. Deg. Min. Sec. |
|---|--|

For Official Use Only:

| | | |
|---|--------------|--|
| Received | Amount Paid: | Reviewer Authorized: <input type="checkbox"/> Y; <input type="checkbox"/> N Is Authorization Conditional? <input type="checkbox"/> Y; <input type="checkbox"/> N (if yes, see page 3 of NOI for conditions) |
| | Date: | |
| | Initials: | |
| | Check No.: | |
| Authorized by: _____ Secretary, Kansas Department of Health and Environment Date _____ | | |
| KS Permit No.: _____ Federal Permit No.: _____ | | |

Send completed 3 page NOI form **with original signature** and all appropriate submittals (see page 3 of NOI) to:

Kansas Department of Health and Environment
Bureau of Water, Industrial Programs Section
1000 SW Jackson, Suite 420
Topeka, KS 66612-1367

Note: A copy of the permit can be obtained at: www.kdheks.gov/stormwater or by submitting a written request to KDHE.

KDHE Contact Information:
Phone: (785) 296-5545
E-mail: kdhe.stormwater@ks.gov

C. EXISTING CONDITIONS/USES

- 1) Is any part of the project located on Indian Country land? ☐ Y; ☐ N
If yes: Contact EPA regarding discharging stormwater runoff from industrial activities on Indian Country land.
- 2) If stormwater runoff drains to or through a Municipal Separate Storm Sewer System (MS4): MS4 Name: _____
- 3) Name of the first receiving water, stream, or lake: _____, River Basin: _____
- 4) Are contaminated soils present on the site or is there groundwater contamination located within the site boundary? ☐ Y; ☐ N
If yes: On separate paper describe in detail the locations and concentrations of the contaminants.
- 5) Are there any contaminated soils that will be disturbed or any contaminated groundwater that will be pumped by the proposed construction activity? ☐ Y; ☐ N
If yes: On separate paper describe the special procedures and erosion and sediment control measures to be implemented to eliminate or minimize the potential to discharge the soil and/or groundwater contaminants.
- 6) Are there any surface water intakes for public drinking water supplies located within ½ mile of the site discharge points? ☐ Y; ☐ N
- 7) Are there any known historical or archeological sites present within the site boundary or any historic structures located within 1000 feet of the project site? ☐ Y; ☐ N
Note: Include documentation of project-specific coordination with the Kansas Historical Society in making this determination.
- 8) Is any threatened or endangered species habitat located within the site boundary or in the receiving water body? ☐ Y; ☐ N
Note: Include documentation of project-specific coordination with the Kansas Department of Wildlife, Parks & Tourism in making this determination.
- 9) Will the project impact the line or grade of a stream or does it include dredge or fill of a potential jurisdictional water body or wetlands? ☐ Y; ☐ N
If yes: Include documentation of project-specific coordination with the US Army Corps of Engineers and/or the Kansas Department of Agriculture, Division of Water Resources in making this determination.
- 10) Are any Critical Water Quality Management Areas, Special Aquatic Life Use Waters, or Outstanding National Resource Waters located within ½ mile of the facility boundary? ☐ Y; ☐ N
If yes: List the names of all such areas and waters: _____

D. PROJECT DESCRIPTION

- 1) Project Description: _____

- 2) Does this NOI include all proposed soil disturbing activities associated with the entire common plan of development? ☐ Y; ☐ N
If no: Explain what development areas of the site are not included in this NOI and provide contact information, if available, for the party or parties that own or have operational control of these areas:

- 3) Anticipated project Start Date: _____, and Completion Date: _____
- 4) Estimated total area to be disturbed: _____ Acres Total area of the site: _____ Acres
- 5) Do you plan to disturb ten or more acres that are within a common drainage area? ☐ Y; ☐ N
If yes: Will a sedimentation basin be installed in that drainage area? (Attach design calculations for each sedimentation basin.) ☐ Y; ☐ N
If a sediment basin is not feasible, on a separate sheet describe similarly effective erosion and sediment control measures to be implemented in lieu of a sedimentation basin.

E. Maps

Include an area map showing the outline of the construction site and the topographic features of the area at least one mile beyond the project site.

F. EROSION CONTROL PLAN AND BEST MANAGEMENT PRACTICES

- 1) Provide a summary of the sequence of major soil disturbing activities including installation of the corresponding stormwater management and pollution control features.
- 2) Provide one or more site plans covering the anticipated soil disturbing activities showing the limits of disturbance, the existing and proposed elevation contours, the types and locations of erosion/sediment control measures and stormwater management/pollution control features during each phase of construction and the locations where stormwater runoff leaves the construction site.

- 3) Provide a description of the best management practices to be utilized to control erosion and the discharge of sediment and other pollutants in stormwater runoff throughout construction and the design calculations for each sediment basin including total drainage area and storage capacity below the elevation of the mass volume flow outlet device.
- 4) Provide the name and License or Certification Number of the engineer, geologist, architect, landscape architect, or Certified Professional in Erosion and Sediment Control (CPESC) under which the construction stormwater pollution prevention plan has been developed.

Name_____
License or Certification Number_____
Profession or Field (Engineer, Architect, etc.)**III. ANNUAL FEE**

Enclose a check for the first year of the annual permit fee specified in K.A.R. 28-16-56 et seq. as amended. Make the check payable to "KDHE". Per K.A.R. 28-16-56, as amended, the current annual permit fee for this general permit is \$60. An invoice for the annual permit fee will be sent to the contact person requesting a permit until such time as the permittee submits a Notice of Termination (NOT).

Failure to pay the annual fee will result in termination of the construction stormwater discharge Authorization.

IV. OWNER OR OPERATOR CERTIFICATIONS

I, the undersigned, certify that a Stormwater Pollution Prevention Plan (SWP2 Plan) will be or has been developed for the construction site described in this NOI and supporting documentation. I further certify that the plan will be implemented at the time construction begins, and, as required by the NPDES general permit for Stormwater Runoff from Construction Activity, will revise the SWP2 plan if necessary.

I understand that continued coverage under the NPDES general permit for Stormwater Runoff from Construction Activities is contingent upon maintaining eligibility as provided for in the requirements and conditions of the general permit, and paying the annual fee.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Signature (owner or operator)_____
Date_____
Name and Official Title (Please print or type. **Form with original signature must be sent to KDHE.**)**Conditions of Authorization - For Official Use Only:**

When indicated, Conditions of Authorization are as follows:

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A complete request for Authorization for coverage under the general permit must be submitted or the request will not be processed. A complete request for Authorization includes:

- An NOI form (construction stormwater) with an **original authorized signature**;
- The annual permit fee for the first year; (\$60.)
- An area map showing the outline of the construction site and the general topographic features of the area at least one mile beyond the project site boundary;
- Sequence of major soil disturbing activities including installation of stormwater management and pollution control features;
- A detailed site plan/plans showing the limits of disturbance, existing and proposed contours, erosion and sediment control features, locations where stormwater runoff leaves the construction site;
- A narrative summary of the additional erosion and sediment control and other best management practices that will be utilized to prevent or reduce contamination of stormwater runoff from the construction activities;
- Total drainage area, storage capacity and design calculations for each sedimentation basin; and
- Copies of letters or e-mails documenting coordination with appropriate local, state or federal agencies.

Notice of Intent (NOI) Instructions

For Authorization to Discharge Stormwater Runoff from Construction Activities
In accordance with the Kansas Water Pollution Control General Permit
Under the National Pollutant Discharge Elimination System

Who Must File an NOI

Owners or operators of construction activities which may disturb one or more acres or are part of a larger common plan of development or sale which may disturb a cumulative total of one or more acres must obtain authorization to discharge stormwater runoff from construction activities.

Owners or operators of construction activities which disturb less than one acre (<1.0 acre), and which are not part of larger common plan of development or sale, must have authorization to discharge stormwater runoff from construction activities under this general NPDES permit when KDHE believes the water quality impact warrants consideration or KDHE determines the construction activities constitute a significant pollution potential.

Construction activities associated with oil & gas exploration, production or transmission, the construction activities may be exempt under the Oil & Gas Exemption (see permit). However, if Authorization under the general permit is requested for these activities, a permit will be issued and enforced.

The owner or operator of a site that may have a discharge of stormwater runoff from construction activities must submit an **original signed NOI** and all required supporting documentation to obtain coverage under a Kansas Water Pollution Control general permit.

This general permit addresses water quality, not quantity or stormwater routing.

Where To Send an NOI Form

Send the NOI form and all required supporting documentation to the following address:

Kansas Department of Health and Environment
Bureau of Water, Industrial Programs Section
1000 SW Jackson, Suite 420
Topeka, KS 66612 - 1367

The general NPDES permit, the NOI, copies of other relevant forms, reference material and guidance is available from the KDHE Stormwater Website: www.kdheks.gov/stormwater

A hard copy of the NOI form, the general NPDES permit, the general permit information packet, or other reference material or guidance may also be obtained by sending a written request to KDHE at the above address.

For additional information, contact KDHE at (785) 296-5545 or by e-mail at: kdhe.stormwater@ks.gov

When to Send an NOI Form

Submit an NOI no later than 60 days prior to the start of construction activities, i.e., soil disturbing activities.

Owners or operators are encouraged to submit an NOI as soon as possible to avoid delaying construction. Discharge under the general permit for Stormwater Runoff from Construction Activities is not Authorized until KDHE indicates the date of Authorization on the

NOI form, assigns the Authorization permit numbers and issues the Authorization with the Secretary of KDHE's signature. KDHE anticipates authorizing most construction stormwater discharges within 60 days following receipt. However, delays may occur from incomplete submittals, inadequate erosion and sediment control plans, or KDHE office workload.

If coverage under the NPDES general permit is denied, an application for an individual Kansas Water Pollution Control permit will be required to obtain discharge Authorization. Individual permits require a minimum of 90 days for processing upon receipt of the individual Kansas Water Pollution Control permit application.

Section I:

A. OWNER OR OPERATOR INFORMATION

Identify the owner(s) or operator(s) that either individually or taken together have operational control over the site construction activities; and which have the day-to-day operational control of those activities at the site necessary to ensure compliance. Do not use a colloquial name.

For a typical commercial construction site, the owner or general contractor is the owner or operator. (See the definition.) For a typical residential development (subdivision), the owner or an authorized representative is the owner or operator.

Give the legal name of the company, firm, public organization, or any other entity that owns the site described in the NOI, or if the activity will be on a right of way, leased property, or easement, give the name responsible for the construction activities.

B. BILLING INFORMATION

Provide the billing contact name and telephone number and provide the billing address if different than the owner or operator mailing address.

C. CONTACT INFORMATION

Enter the name and telephone number of the person to contact regarding the indicated construction activities. The owner or operator and contact person need not be the same.

D. RECORDS LOCATION

Records regarding the permit must be kept at the project site or at a readily available location. If the records will not be located on the project site, provide the address where the records will be located.

Section II SITE INFORMATION:

Indicate if the NOI is a request for Authorization of a new construction project or a request for modification of an existing Authorization.

A. LOCATION

Enter the project's official or legal name and physical location. Include the street address if known, indicate the city(nearest city to the project site), state, ZIP code and the county(s) where construction will occur.

B. LEGAL SITE DESCRIPTION

Indicate the section, township, and range (to the nearest quarter/quarter section; 40 acres) of the center of the site. Provide the Latitude and Longitude of the approximate center of the site of soil disturbance. A conversion program link is provided on the stormwater webpage at www.kdheks.gov/stormwater.

C. EXISTING CONDITIONS/USES

1) Indicate whether the site is located on Indian Country land. If the entire construction disturbance is located on Indian Country land, the owner or operator cannot be covered by KDHE under this NPDES general permit.

EPA is the permitting authority on Indian Country land. To request authorization to discharge stormwater runoff from construction activities on Indian Country land, the applicant must contact EPA.

For information on permitting and location of Indian Country land, contact the Bureau of Indian Affairs at (405) 247-6673 or the EPA Region VII Tribal Program at (913) 551-7969 or (913) 551-7374.

2) If the stormwater runoff from construction activities flows into a municipal separate storm sewer system (MS4), enter the name of the operator of the MS4 (e.g., municipality name, county name, or the name of the responsible public body).

3) Indicate the river basin in which the project is located and provide the name of the first receiving water, stream, or lake. This may be obtained from the Kansas Surface Water Register, a United States Geological Survey (U.S.G.S.) topographic map or KDOT general highway map for the county where the project or discharge point is located.

The Kansas Surface Water Register, can be downloaded from the KDHE Stormwater Website: www.kdheks.gov/stormwater

4) Indicate if there are any contaminated soils present on the site or if there is groundwater contamination located within 1000 feet of the site. If so, on separate paper describe in detail the locations and concentrations of the contaminants.

5) Indicate if any contaminated soils will be disturbed or any contaminated groundwater will be pumped by the proposed construction activity. If so, on separate paper describe the special procedures and erosion and sediment control measures that will be implemented to eliminate or minimize the potential to discharge the soil and/or groundwater contaminants.

Items 6 through 10 (Potential Related Impacts of Project Activities):

Indicate if there are any surface water intakes for public drinking water supplies within ½ mile of any site discharge point, and if there are known historic or archeological sites present within the site boundary or any historic structures located within 1000 feet of the project site. The Kansas Historical Society maintains a list of recorded sites or may recommend the project be surveyed for such sites by a professional archeologist. Include documentation of coordination with KSHS with the NOI.

The KSHS may be contacted at:

Kansas Historical Society (KSHS)
6425 SW 6th Avenue
Topeka, KS 66615 - 1099
(785) 272-8681, extension 240
e-mail: cultural_resources@kshs.org
website info: www.kshs.org/p/section-106-consultation/15543

Indicate whether any threatened or endangered species are known or are likely to be present within the site boundary or within the receiving water body. Through Kansas Administrative Regulations (K.A.R.) 115-15-1 et seq. the Kansas Department of Wildlife, Parks and Tourism (KDWP), maintains a listing of threatened or endangered species and their critical habitats.

If threatened or endangered species are likely to be present at the site or within the receiving water body, then list the species and describe the location in relation to the site location. Contact the KDWP's Environmental Services Section for assistance and include documentation of coordination with KDWP with the NOI.

KDWP may be contacted at:

Kansas Department of Wildlife, Parks and Tourism (KDWP)
Environmental Services Section
512 SE 25th Avenue
Pratt, KS 67124-8174
(620) 672-5911
e-mail: ess@ksoutdoors.com
website info:
www.kdwp.state.ks.us/news/Services/Environmental-reviews

Indicate if there are any Critical Water Quality Management Areas (CWQMA) established in accordance with K.A.R. 28-16-70. (At the time of this general NPDES permit issuance there were no CWQMA established. The stormwater website at: www.kdheks.gov/stormwater includes the most current list should an area be established.); Exceptional State Waters (ESW); Special Aquatic Life Use Waters (SALU), or Outstanding National Resource Waters (ONRW), as listed in the Kansas Surface Water Register which are within ½ mile of the proposed construction project. A listing of these water bodies is maintained by KDHE in the Kansas Surface Water Register and is available on the stormwater website at www.kdheks.gov/stormwater.

Indicate if the project will impact the line or grade of a stream or if it will include dredge or fill of a potential jurisdictional water body or wetlands. If yes, include documentation of project site coordination with the U.S. Army Corps of Engineers (USACE) and The Kansas Dept. of Agriculture, Division of Water Resources (DWR).

The USACE may be contacted at:

| | |
|---|---|
| Kansas (all except KC Metro): | Kansas City Metro Area: * |
| U.S. Army Corps of Engineers Kansas State Regulatory Office 2710 NE Shady Creek Access Rd. El Dorado, KS 67042 (316) 322-8247 (316) 322-8259 (FAX) | U.S. Army Corps of Engineers Kansas City District 635 Federal Bldg. Rm 402 Kansas City, MO 64106 (816) 389-3990 (816) 389-2032 (FAX) |

* Brown, Doniphan, Atchison, Jefferson, Leavenworth, Wyandotte, Douglas, Johnson, and Miami counties

The DWR water structures section may be contacted at:

Division of Water Resources

Kansas Department of Agriculture
Division of Water Resources - Topeka Field Office
6531 SE Forbes Ave., Suite B (mailing address)
Topeka, KS 66619
785-296-5733
785-296-8298 (FAX)
E-mail: KDA.TOPEKAFO@ks.gov

D. PROJECT DESCRIPTION

Briefly describe the nature of the construction activity.

Indicate whether the entire soil disturbance within the common plan of development is included in this Notice of Intent (NOI) for coverage under the General Permit for Stormwater Runoff from Construction Activity and are included in the SWP2 Plan developed for the project site.

If not, describe the soil disturbing activities within the common plan of development that are not covered by the NOI form. Provide contact information, if available, for owners or operators of the other areas that are not covered by this NOI. Attach additional pages if needed.

Enter the project start date and the estimated completion date for the entire development plan. For phased construction projects with planned intervals of non-activity, do not show the end of a phase as a completion date. If the owner or operator submits a Notice of Termination (NOT) when a construction phase ends, the owner or operator of the construction site must submit a new NOI when construction resumes.

Estimate the area to be disturbed. Include access roads to be constructed, and adjacent or on-site material borrow areas and excess material storage areas, lot grading, and building construction areas.

Total area of the site includes area where soil will be disturbed and areas left undisturbed.

Where a common drainage area of ten or more acres is disturbed a sedimentation basin is required, if feasible. Attach design calculations including total drainage area and storage capacity at the spillway/weir/riser top elevation for each proposed sediment basin.

If a sediment basin is not feasible, indicate why a sediment basin is not feasible and attach a description of a proposed alternative. Proposed alternatives must control erosion and sediment movement as effectively as a sedimentation basin.

E. Maps

Provide a general topographic map or maps of the area extending at least to one mile beyond the property boundaries of the site which clearly shows:

- The construction site, access roads, and the area(s) where soil will be disturbed;
- Existing area contour elevations;
- The location of each existing and proposed discharge point;
- Rivers, waterways, and drainage ditches, and the flow direction;
- Surface water intakes for public water supplies; and
- The map scale and a meridian arrow pointing north.

A 7½-minute series map as published by the U.S.G.S. (or a photocopy of the pertinent portions) or an equivalent scaled topographic map may be submitted. Maps for the State of Kansas may be obtained from the U.S.G.S. Office or Kansas Geological Survey Office listed below.

USGS National Center
12201 Sunrise Valley Drive
Reston, VA 20192, USA
Phone: 703-648-5953
www.usgs.gov/pubprod/maps.html

Kansas Geological Survey
1930 Constant Ave.
Lawrence, KS 66047-3726
Phone: 785-864-3965
KGS maps: www.kgs.ku.edu/Datasale/Maps/index.html

F. Erosion Control Plan And Best Management Practices

Describe the sequence of major soil disturbing activities including the installation of the associated stormwater management and pollution control features.

Provide detailed site plan(s) showing the limits of disturbance, the existing and proposed elevation contours, the types and locations of erosion/sediment control measures and stormwater management/pollution control features during each phase of construction and the locations where stormwater runoff leaves the construction site.

Briefly describe the controls and measures that will be implemented to control pollutants in stormwater runoff. Include a description of the BMPs (e.g., good housekeeping, limiting soil disturbance, inspection practices, temporary mulching, spill prevention, etc.) and sediment and erosion control measures (silt fences, wattles, sediment basins, etc.).

Describe the controls and measures that will be constructed as part of the project and left in place in order to control pollutants from the intended site use after construction is finished. Describe the local requirement, if any, for the permanent stormwater management feature.

Provide the name and license or certification number of the engineer, geologist, architect, landscape architect, or certified erosion and sediment control specialist under which the construction stormwater pollution prevention plan has been developed.

Section III Annual Fee:

Enclose a check for the first year of the annual permit fee specified in K.A.R. 28-16-56 et seq. as amended. Make the check payable to “KDHE”. Per K.A.R. 28-16-56, as amended, the current annual permit fee for this general permit is \$60. An annual bill will be sent to the contact person requesting a permit fee until such time as the permit holder submits a Notice of Termination (NOT).

Failure to pay the annual fee will result in termination of the construction stormwater discharge Authorization.

Section IV Owner or Operator Certifications

The owner or operator should read and ensure they understand the statements of this section before signing the NOI form. The NOI form must be signed by the project owner or operator. **The NOI with an original signature shall be submitted to KDHE.**

The Notice of Intent (NOI), the Notice of Termination (NOT), and the Notice of Transfer of Ownership (NOTO) must be signed by the permittee. All forms, reports, or other correspondence which must be submitted to KDHE as required by this general permit shall be signed and certified by the permittee or an authorized representative.

The Notice of Intent, all SWP2 plans, inspection reports and other information either submitted to KDHE, submitted to the operator of a municipal separate storm sewer system (MS4), or required to be maintained by the permittee under this general permit, shall be signed and certified by the permittee or an authorized representative.



INDIVIDUAL LOT CERTIFICATION

For authorization to Discharge Stormwater Runoff from Construction Activities
In Accordance with Kansas Water Pollution Control General Permit No. S-MCST-1703-1
Under the National Pollutant Discharge Elimination System

The permittee shall maintain this form on-site, or in a readily available location. The permittee shall provide Individual Lot Certification forms or a copy of the contract for land sale having the equivalent wording to KDHE or EPA upon request.

TO BE COMPLETED BY THE NEW LOT OWNER

I certify that I have been informed of my responsibility to provide, or require contractors to provide, appropriate best management practices to minimize sediment discharges and reduce the potential for contamination of stormwater discharges during construction activities on each of the lots or parcels listed below. I have reviewed the terms and conditions of the Kansas Stormwater Runoff from Construction Activities General Permit S-MCST-1703-1 which authorizes the permit holder to discharge stormwater runoff from construction activities, and the subdivision specific Stormwater Pollution Prevention (SWP2) Plan prepared by the permit holder. In the event KDHE notifies the undersigned of water quality violations or permit violations due to conditions at any lot listed below and I am unable or unwilling to take action within 30 days to further reduce erosion or control sediment, then I agree to allow the permit holder to have reasonable access to the site to implement erosion and sediment control measures. I understand this certification is an agreement between the parties named herein to cooperatively implement the SWP2 plan and the conditions of the NPDES general permit.

Subdivision / Project: _____

Legal Description of the Transferred Parcel(s) and/or Lot No.(s): _____

New Owner's Signature: _____ Date: _____

Name (typed or printed) : _____

If the New Owner is a Corporation and not an Individual

Company Name: _____ Phone: _____

Company Address: _____

TO BE COMPLETED BY PERMIT HOLDER

As the permittee for the overall tract wherein the above listed parcel(s) and/or lot(s) are located, I certify that I have informed the lot purchaser of their responsibility to minimize sediment discharges and reduce the potential for contamination of stormwater discharges during construction activities. I have also provided a copy or allowed the new lot owner to review the Kansas Stormwater Runoff from Construction Activities General Permit S-MCST-1703-1 and the subdivision specific Stormwater Pollution Prevention (SWP2) Plan. I understand this certification does not constitute a transfer of the permit. I also understand this certification is an agreement between the parties named herein to cooperatively implement the SWP2 plan and the conditions of the NPDES general permit.

Name of Project: _____

Address: _____ City: _____ County: _____ State: KS Zip Code: _____

Kansas Permit No. _____ Federal Permit No. _____

Company Name: _____ Phone: _____

Company Address: _____

Permittee Signature: _____ Date: _____

Permittee Name: _____



NOTICE OF TRANSFER OF OWNER/OPERATOR

For Authorization to Discharge Stormwater Runoff from Construction Activity
In accordance with Kansas Water Pollution Control General Permit No. S-MCST-1703-1
Under the National Pollutant Discharge Elimination System

Use this form only when stormwater discharge and control responsibility for the entire permitted area will be transferred to a new owner/operator. The new owner/operator is required to meet the definition of "Owner", "Owner or operator", or "owner/operator" for the entire authorized project scope. Partial permitted area transfers and individual lots need to utilize procedures in paragraphs 8.2 and 8.3 of the NPDES general permit. Submission of the Notice of Transfer of Owner/Operator (NOTO) constitutes notice that the new permittee, or an authorized representative, requests authorization for coverage under the Kansas Water Pollution Control general permit, or KDHE issued successor permits, issued for discharge of Stormwater Runoff from Construction Activities in the State of Kansas. **Completion of this NOTO does not provide automatic coverage under the general permit to the new permittee. Coverage is provided and discharge permitted when the Kansas Department of Health and Environment (KDHE) accepts the transfer.** TO CONTINUE COVERAGE, THE NEW PERMITTEE MUST ASSUME THE RESPONSIBILITY TO PAY THE ANNUAL PERMIT FEE AND CONTINUE TO IMPLEMENT THE STORMWATER POLLUTION PREVENTION PLAN DEVELOPED FOR THE PERMITTED AREA.

Submission of this NOTO to KDHE does not relinquish the current permittee's authorization to discharge stormwater runoff from construction activity at the site described herein. Completion of this NOTO does not automatically relieve the current permittee of any civil, criminal and/or administrative penalties. To be considered complete, the NOTO must be signed by the current permittee or a duly authorized representative of the current permittee, and must include the permit number assigned to the construction site. KDHE will notify any new permittee whose NOTO is incomplete, deficient or denied.

TO BE COMPLETED BY THE NEW PERMITTEE:

I hereby accept transfer of the NPDES general permit, which was issued to: _____

I have reviewed the terms and conditions of the general permit and the Stormwater Pollution Prevention plan and accept full responsibility, coverage, and liability. This transfer will be effective when KDHE accepts the transfer.

The NEW permittee is:

Owner or Operator's Name: _____ Contact Name: _____

Company Name: _____ Company Name: _____

Owner or Operator's Phone: _____ Contact Phone: _____

Mailing Address: _____ Mailing Address: _____

City: _____ State: ____ Zip Code: _____ City: _____ State: ____ Zip Code: _____

E-mail Address (optional): _____ E-mail Address (optional): _____

I certify that I have personally examined and am familiar with the information described herein.

New Permittee's Signature: _____ Date: _____

Name (type or print): _____ Title: _____

TO BE COMPLETED BY THE CURRENT PERMITTEE:

As previous permittee, I hereby agree to the transfer of the permit and all responsibilities thereof. I understand that the transfer of permit responsibilities is effective when KDHE accepts the transfer.

Name of Project: _____

Address: _____ City: _____ County: _____ State: KS Zip Code: _____

Kansas Permit No.: S- Federal Permit No.: KSR

Permittee Signature: _____ Date: _____

Permittee Name: _____ Title: _____ Phone Number: _____

Submit the NOTO with original signatures within 14 days of the transfer to:

Kansas Department of Health and Environment
Bureau of Water, Industrial Programs Section
1000 SW Jackson, Suite 420
Topeka, KS 66612 – 1367

For official use only:

Accepted: ☐ Y; ☐ N

Reviewer _____ Date _____



NOTICE OF TERMINATION

To Relinquish the Authorization to Discharge Stormwater Runoff from Construction Activities at the Construction Site Described Herein

Submission of this Notice of Termination (NOT) constitutes notice that the party identified below relinquishes authorization for coverage under the Kansas Stormwater Runoff from Construction Activities general permit, or KDHE authorized successor permits, issued for discharge of stormwater runoff for the construction activity at the site named herein. Completion of this NOT does not automatically relieve the former permittee of any civil, criminal and/or administrative penalties.

To be considered complete, the NOT must be signed by the current permittee or a duly authorized representative of the current permittee, and must include the permit number assigned to the construction activity. KDHE will notify any permittee whose NOT is incomplete or deficient.

Please Print or Type:

Name of Project: _____

City: _____ County: _____ State: KS

Kansas Permit No. _____ Federal Permit No. _____

Company Name: _____ Phone: _____

This Notice of Termination is being submitted because: **(check one)**

- ☐ The construction project or larger common plan of development is finished and final site stabilization has been completed (pavement, buildings, structures, or perennial vegetation having a density of at least 70% of undisturbed areas at the site cover all areas which have been disturbed - See Part 9 of the NPDES general permit S-MCST-1703-1).
- ☐ This project is a house development subdivision project that has had a construction stormwater discharge Authorization for at least 3 years, the vacant lots are all stabilized, and the rate of home construction within the development disturbs less than one (1.0) acre (approximately 5 lots) per year or less than one (1.0) acre of land (approximately 5 lots) remain available for development (see Part 9 of the NPDES general permit S-MCST-1703-1).
- ☐ The construction project or larger common plan of development is not finished; however, duplicate authorization for permit coverage* under NPDES general permit S-MCST-1703-1 or KDHE authorized successor permits has been issued and is in effect for all remaining construction activities and all areas disturbed by previous construction activities that have not obtained final stabilization.

* The duplicate Kansas Permit Number is: _____

- ☐ The project was cancelled prior to initiating construction activities. The project construction will not be actively pursued under the current authorization for coverage. It is understood that should the project be revived in the future, a new complete application packet with first year annual permit fee will need to be submitted.

I certify under penalty of law that all soil disturbances associated with the construction activity at the construction site named herein meet one of the four criteria indicated above in accordance with Part 9 of the NPDES general permit S-MCST-1703-1. I understand that by submitting this Notice of Termination, I am no longer authorized under the NPDES general permit S-MCST-1703-1 to discharge stormwater associated with construction activity at this construction site. I understand that discharging pollutants in stormwater associated with construction activity to waters of the State is unlawful under K.S.A. 65-164 and 65-165 and the Clean Water Act without authorization by a valid Kansas Water Pollution Control Permit. I understand that by submitting this Notice of Termination, I am not released from liability for any violations of the NPDES general permit S-MCST-1703-1, K.S.A. 65-164 and 65-165, the Kansas Surface Water Quality Standards (K.A.R. 28-16-28 et seq.), or the Clean Water Act. *I also hereby certify that I am authorized to sign this Notice of Termination as a representative of the permittee named herein.*

Signature: _____ Date: _____

Name and Official Title: _____
(Please print or type)

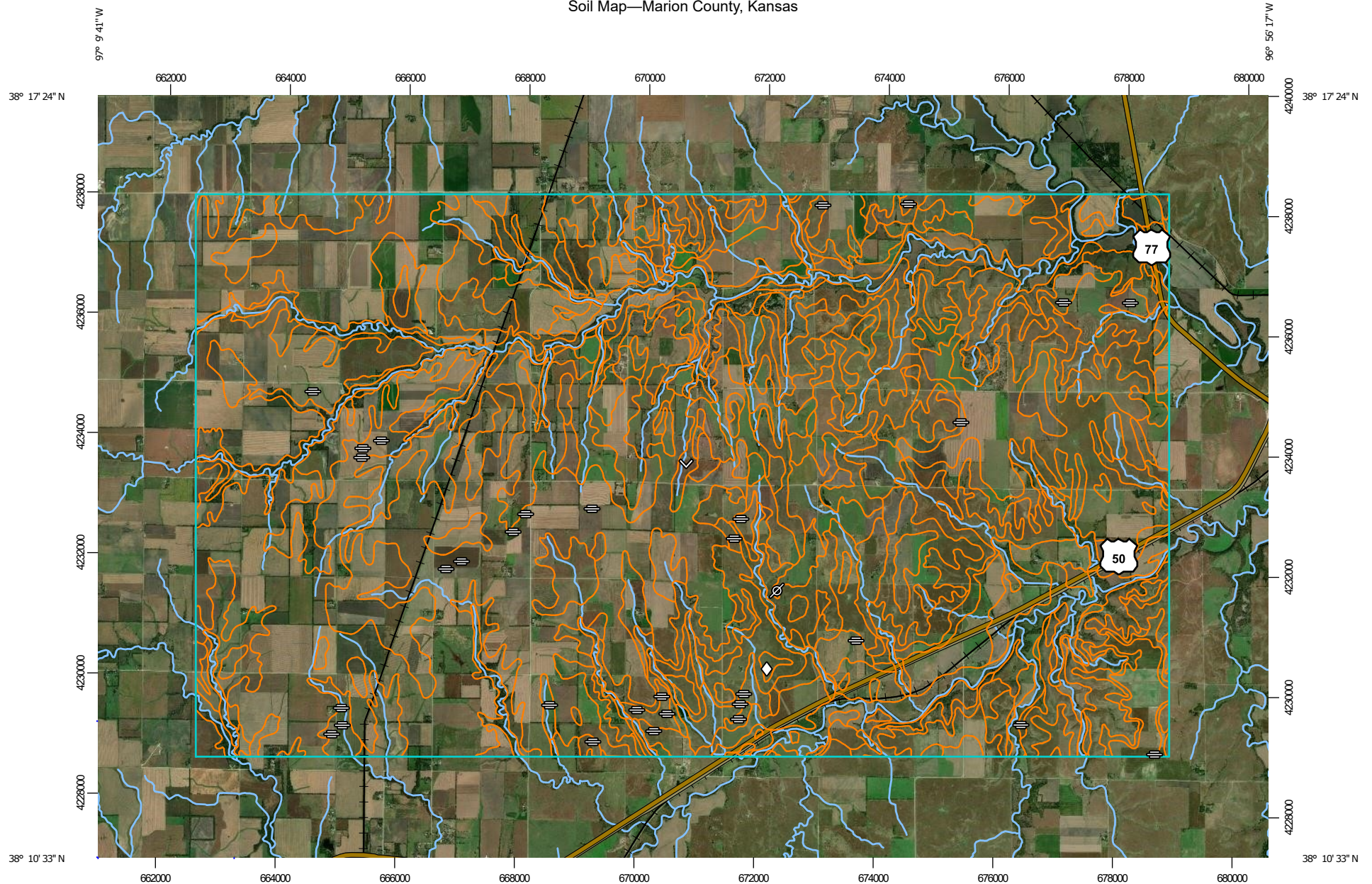
Submit the NOT with original signature to:

Kansas Department of Health and Environment
Bureau of Water, Industrial Programs Section
1000 SW Jackson, Suite 420
Topeka, KS 66612 - 1367

10 APPENDIX B

DRAFT

Soil Map—Marion County, Kansas



Map Scale: 1:89,400 if printed on A landscape (11" x 8.5") sheet.

0 1000 2000 4000 6000 Meters

0 4000 8000 16000 24000 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

4/16/2019
Page 1 of 4

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Marion County, Kansas

Survey Area Data: Version 15, Sep 12, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 25, 2013—Nov 7, 2017

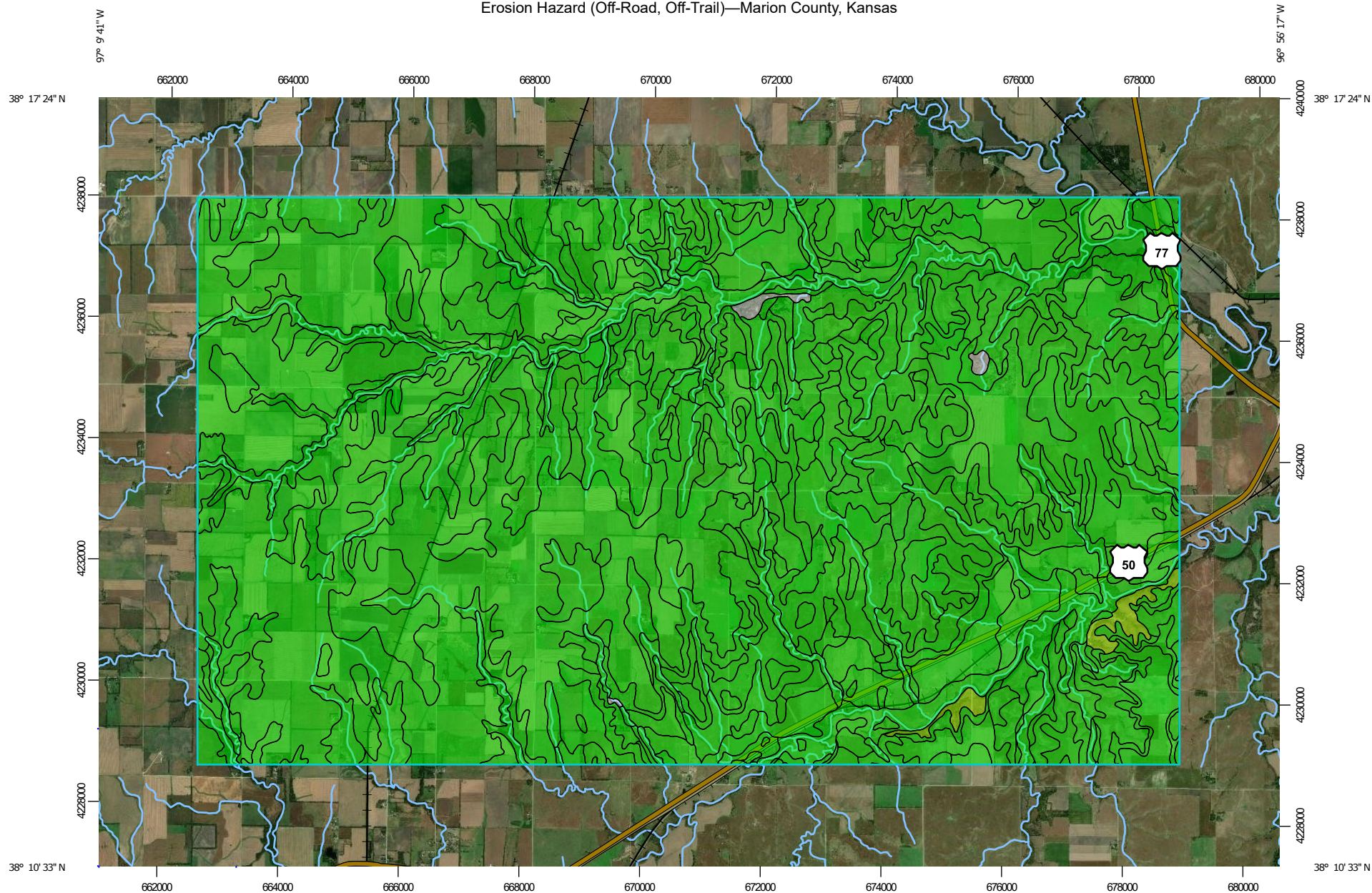
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|-----------------|---|--------------|----------------|
| 3490 | Wells clay loam, 3 to 7 percent slopes, eroded | 12.4 | 0.0% |
| 3491 | Wells loam, 1 to 3 percent slopes | 1,329.0 | 3.5% |
| 3492 | Wells loam, 3 to 7 percent slopes | 54.1 | 0.1% |
| 3890 | Ladysmith silty clay loam, 0 to 1 percent slopes | 1,038.8 | 2.8% |
| 3911 | Rosehill silty clay, 1 to 3 percent slopes | 546.4 | 1.4% |
| 4020 | Chase silty clay loam, occasionally flooded | 178.7 | 0.5% |
| 4540 | Clime silty clay loam, 1 to 3 percent slopes | 5,963.5 | 15.8% |
| 4555 | Clime silty clay loam, 3 to 7 percent slopes | 303.9 | 0.8% |
| 4580 | Clime stony silty clay loam, 15 to 30 percent slopes | 207.8 | 0.6% |
| 4590 | Clime-Sogn complex, 3 to 20 percent slopes | 2,039.7 | 5.4% |
| 4600 | Dwight silt loam, 0 to 1 percent slopes | 116.3 | 0.3% |
| 4650 | Florence silt loam, 2 to 15 percent slopes | 349.8 | 0.9% |
| 4671 | Irwin silty clay loam, 1 to 3 percent slopes | 14,367.6 | 38.1% |
| 4673 | Irwin silty clay loam, 3 to 7 percent slopes | 124.1 | 0.3% |
| 4740 | Labette silty clay loam, 1 to 3 percent slopes | 1,715.2 | 4.5% |
| 4744 | Labette-Dwight complex, 0 to 3 percent slopes | 411.1 | 1.1% |
| 4746 | Labette-Sogn silty clay loam, 0 to 8 percent slopes | 1,528.5 | 4.0% |
| 4750 | Sogn silty clay loam, 0 to 10 percent slopes | 1,563.9 | 4.1% |
| 4783 | Tully silty clay loam, 3 to 7 percent slopes | 2,022.0 | 5.4% |
| 7170 | Reading silt loam, rarely flooded | 813.6 | 2.2% |
| 8203 | Osage silty clay, occasionally flooded | 67.3 | 0.2% |
| 8300 | Verdigris silt loam, channeled, 0 to 2 percent slopes, frequently flooded | 1,290.4 | 3.4% |

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|------------------------------------|--|-----------------|----------------|
| 8302 | Verdigris silt loam, 0 to 1 percent slopes, occasionally flooded | 1,617.7 | 4.3% |
| 9983 | Gravel pits and quarries | 73.5 | 0.2% |
| 9999 | Water | 5.1 | 0.0% |
| Totals for Area of Interest | | 37,740.6 | 100.0% |

Erosion Hazard (Off-Road, Off-Trail)—Marion County, Kansas



Map Scale: 1:89,400 if printed on A landscape (11" x 8.5") sheet.

0 1000 2000 4000 6000 Meters

0 4000 8000 16000 24000 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84




**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

4/16/2019
Page 1 of 7






MAP LEGEND

Area of Interest (AOI)






 Area of Interest (AOI)

Soils






Soil Rating Polygons

 Very severe
 Severe
 Moderate
 Slight
 Not rated or not available


Soil Rating Lines

 Very severe
 Severe
 Moderate
 Slight
 Not rated or not available

Soil Rating Points





 Very severe
 Severe
 Moderate
 Slight
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways

 US Routes
 Major Roads
 Local Roads
Background
 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Marion County, Kansas
 Survey Area Data: Version 15, Sep 12, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 25, 2013—Nov 7, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Erosion Hazard (Off-Road, Off-Trail)

| Map unit symbol | Map unit name | Rating | Component name (percent) | Rating reasons (numeric values) | Acres in AOI | Percent of AOI |
|-----------------|--|--------|-----------------------------------|---------------------------------|--------------|----------------|
| 3490 | Wells clay loam, 3 to 7 percent slopes, eroded | Slight | Wells, eroded (90%) | | 12.4 | 0.0% |
| | | | Irwin (5%) | | | |
| | | | Lancaster (5%) | | | |
| | | | Aquolls, occasionally ponded (0%) | | | |
| 3491 | Wells loam, 1 to 3 percent slopes | Slight | Wells (85%) | | 1,329.0 | 3.5% |
| | | | Crete (7%) | | | |
| | | | Lancaster (5%) | | | |
| | | | Ortello (3%) | | | |
| | | | Aquolls, occasionally ponded (0%) | | | |
| 3492 | Wells loam, 3 to 7 percent slopes | Slight | Wells (85%) | | 54.1 | 0.1% |
| | | | Lancaster (5%) | | | |
| | | | Edalgo (4%) | | | |
| | | | Hedville (2%) | | | |
| | | | Crete (2%) | | | |
| | | | Hobbs, occasionally flooded (2%) | | | |
| | | | Aquolls, occasionally ponded (0%) | | | |
| 3890 | Ladysmith silty clay loam, 0 to 1 percent slopes | Slight | Ladysmith (90%) | | 1,038.8 | 2.8% |
| | | | Dwight (5%) | | | |
| | | | Irwin (5%) | | | |
| | | | Aquolls (0%) | | | |
| 3911 | Rosehill silty clay, 1 to 3 percent slopes | Slight | Rosehill (90%) | | 546.4 | 1.4% |
| | | | Irwin (5%) | | | |
| | | | Goessel (5%) | | | |
| | | | Aquolls, occasionally ponded (0%) | | | |
| 4020 | Chase silty clay loam, occasionally flooded | Slight | Chase, occasionally flooded (85%) | | 178.7 | 0.5% |

| Map unit symbol | Map unit name | Rating | Component name (percent) | Rating reasons (numeric values) | Acres in AOI | Percent of AOI |
|-----------------|--|----------|-----------------------------------|---------------------------------|--------------|----------------|
| | | | Osage, ponded (5%) | | | |
| | | | Reading, rarely flooded (5%) | | | |
| | | | Ivan, occasionally flooded (5%) | | | |
| 4540 | Clime silty clay loam, 1 to 3 percent slopes | Slight | Clime (90%) | | 5,963.5 | 15.8% |
| | | | Irwin (10%) | | | |
| | | | Aquolls, occasionally ponded (0%) | | | |
| 4555 | Clime silty clay loam, 3 to 7 percent slopes | Slight | Clime (85%) | | 303.9 | 0.8% |
| | | | Irwin (8%) | | | |
| | | | Martin (3%) | | | |
| | | | Sogn (2%) | | | |
| | | | Kipson (2%) | | | |
| | | | Aquolls, occasionally ponded (0%) | | | |
| 4580 | Clime stony silty clay loam, 15 to 30 percent slopes | Moderate | Clime, stony (85%) | Slope/erodibility (0.50) | 207.8 | 0.6% |
| 4590 | Clime-Sogn complex, 3 to 20 percent slopes | Slight | Clime (60%) | | 2,039.7 | 5.4% |
| | | | Sogn (25%) | | | |
| | | | Martin (5%) | | | |
| | | | Labette (5%) | | | |
| | | | Aquolls (0%) | | | |
| 4600 | Dwight silt loam, 0 to 1 percent slopes | Slight | Dwight (90%) | | 116.3 | 0.3% |
| | | | Irwin (5%) | | | |
| | | | Labette (5%) | | | |
| | | | Aquolls (0%) | | | |
| 4650 | Florence silt loam, 2 to 15 percent slopes | Slight | Florence (85%) | | 349.8 | 0.9% |
| | | | Tully (5%) | | | |
| | | | Labette (5%) | | | |
| | | | Dwight (3%) | | | |
| | | | Aquolls, occasionally ponded (0%) | | | |
| 4671 | Irwin silty clay loam, 1 to 3 percent slopes | Slight | Irwin (85%) | | 14,367.6 | 38.1% |
| | | | Goessel (5%) | | | |

| Map unit symbol | Map unit name | Rating | Component name (percent) | Rating reasons (numeric values) | Acres in AOI | Percent of AOI |
|-----------------|---|--------|-----------------------------------|---------------------------------|--------------|----------------|
| | | | Labette (5%) | | | |
| | | | Dwight (5%) | | | |
| | | | Aquolls (0%) | | | |
| 4673 | Irwin silty clay loam, 3 to 7 percent slopes | Slight | Irwin (90%) | | 124.1 | 0.3% |
| | | | Clime (10%) | | | |
| | | | Aquolls (0%) | | | |
| 4740 | Labette silty clay loam, 1 to 3 percent slopes | Slight | Labette (85%) | | 1,715.2 | 4.5% |
| | | | Sogn (10%) | | | |
| | | | Dwight (3%) | | | |
| | | | Irwin (2%) | | | |
| | | | Aquolls (0%) | | | |
| 4744 | Labette-Dwight complex, 0 to 3 percent slopes | Slight | Labette (55%) | | 411.1 | 1.1% |
| | | | Dwight (35%) | | | |
| | | | Irwin (5%) | | | |
| | | | Sogn (3%) | | | |
| | | | Aquolls (0%) | | | |
| 4746 | Labette-Sogn silty clay loam, 0 to 8 percent slopes | Slight | Labette (50%) | | 1,528.5 | 4.0% |
| | | | Sogn (40%) | | | |
| | | | Florence (3%) | | | |
| | | | Dwight (2%) | | | |
| | | | Aquolls (0%) | | | |
| 4750 | Sogn silty clay loam, 0 to 10 percent slopes | Slight | Sogn (90%) | | 1,563.9 | 4.1% |
| | | | Labette (5%) | | | |
| | | | Clime (5%) | | | |
| | | | Aquolls, occasionally ponded (0%) | | | |
| 4783 | Tully silty clay loam, 3 to 7 percent slopes | Slight | Tully (80%) | | 2,022.0 | 5.4% |
| | | | Clime (5%) | | | |
| | | | Reading (4%) | | | |
| | | | Labette (3%) | | | |
| | | | Sogn (2%) | | | |
| | | | Florence (2%) | | | |
| | | | Martin (2%) | | | |
| | | | Irwin (2%) | | | |
| | | | Aquolls, occasionally ponded (0%) | | | |

| Map unit symbol | Map unit name | Rating | Component name (percent) | Rating reasons (numeric values) | Acres in AOI | Percent of AOI |
|------------------------------------|---|-----------|---------------------------------------|---------------------------------|-----------------|----------------|
| 7170 | Reading silt loam, rarely flooded | Slight | Reading, rarely flooded (90%) | | 813.6 | 2.2% |
| | | | Chase, rarely flooded (5%) | | | |
| | | | Ivan, occasionally flooded (3%) | | | |
| | | | Martin (2%) | | | |
| | | | Osage, occasionally flooded (0%) | | | |
| 8203 | Osage silty clay, occasionally flooded | Slight | Osage (90%) | | 67.3 | 0.2% |
| | | | Solomon (5%) | | | |
| | | | Chase (5%) | | | |
| 8300 | Verdigris silt loam, channeled, 0 to 2 percent slopes, frequently flooded | Slight | Verdigris, channeled (90%) | | 1,290.4 | 3.4% |
| | | | Chase, rarely flooded (10%) | | | |
| | | | Osage, ponded (0%) | | | |
| 8302 | Verdigris silt loam, 0 to 1 percent slopes, occasionally flooded | Slight | Verdigris, occasionally flooded (90%) | | 1,617.7 | 4.3% |
| | | | Chase, rarely flooded (5%) | | | |
| | | | Brewer, rarely flooded (5%) | | | |
| | | | Osage, ponded (0%) | | | |
| 9983 | Gravel pits and quarries | Not rated | Pits, gravel (100%) | | 73.5 | 0.2% |
| 9999 | Water | Not rated | Water (100%) | | 5.1 | 0.0% |
| Totals for Area of Interest | | | | | 37,740.6 | 100.0% |

| Rating | Acres in AOI | Percent of AOI |
|------------------------------------|-----------------|----------------|
| Slight | 37,454.2 | 99.2% |
| Moderate | 207.8 | 0.6% |
| Null or Not Rated | 78.6 | 0.2% |
| Totals for Area of Interest | 37,740.6 | 100.0% |

Description

The ratings in this interpretation indicate the hazard of soil loss from off-road and off-trail areas after disturbance activities that expose the soil surface. The ratings are based on slope and soil erosion factor K. The soil loss is caused by sheet or rill erosion in off-road or off-trail areas where 50 to 75 percent of the surface has been exposed by logging, grazing, mining, or other kinds of disturbance.

The ratings are both verbal and numerical. The hazard is described as "slight," "moderate," "severe," or "very severe." A rating of "slight" indicates that erosion is unlikely under ordinary climatic conditions; "moderate" indicates that some erosion is likely and that erosion-control measures may be needed; "severe" indicates that erosion is very likely and that erosion-control measures, including revegetation of bare areas, are advised; and "very severe" indicates that significant erosion is expected, loss of soil productivity and off-site damage are likely, and erosion-control measures are costly and generally impractical.

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the specified aspect of forestland management (1.00) and the point at which the soil feature is not a limitation (0.00).

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

RUSLE2 Related Attributes

This report summarizes those soil attributes used by the Revised Universal Soil Loss Equation Version 2 (RUSLE2) for the map units in the selected area. The report includes the map unit symbol, the component name, and the percent of the component in the map unit. Soil property data for each map unit component include the hydrologic soil group, erosion factors Kf for the surface horizon, erosion factor T, and the representative percentage of sand, silt, and clay in the mineral surface horizon. Missing surface data may indicate the presence of an organic surface layer. .

Report—RUSLE2 Related Attributes

Soil properties and interpretations for erosion runoff calculations. The surface mineral horizon properties are displayed. Organic surface horizons are not displayed.

| RUSLE2 Related Attributes—Marion County, Kansas | | | | | | | | |
|---|------------------|-------------------|------------------|-----|----------|----------------------|--------|--------|
| Map symbol and soil name | Pct. of map unit | Slope length (ft) | Hydrologic group | Kf | T factor | Representative value | | |
| | | | | | | % Sand | % Silt | % Clay |
| 3490—Wells clay loam, 3 to 7 percent slopes, eroded | | | | | | | | |
| Wells, eroded | 90 | 161 | B | .28 | 5 | 38.0 | 33.0 | 29.0 |
| 3491—Wells loam, 1 to 3 percent slopes | | | | | | | | |
| Wells | 85 | 298 | B | .32 | 5 | 38.0 | 42.0 | 20.0 |
| 3492—Wells loam, 3 to 7 percent slopes | | | | | | | | |
| Wells | 85 | 161 | B | .32 | 5 | 38.0 | 42.0 | 20.0 |
| 3890—Ladysmith silty clay loam, 0 to 1 percent slopes | | | | | | | | |
| Ladysmith | 90 | 200 | D | .37 | 5 | 7.0 | 60.0 | 33.0 |
| 3911—Rosehill silty clay, 1 to 3 percent slopes | | | | | | | | |
| Rosehill | 90 | 298 | D | .28 | 3 | 5.0 | 54.0 | 41.0 |
| 4020—Chase silty clay loam, occasionally flooded | | | | | | | | |
| Chase, occasionally flooded | 85 | 200 | D | .37 | 5 | 4.0 | 66.0 | 30.0 |
| 4540—Clime silty clay loam, 1 to 3 percent slopes | | | | | | | | |
| Clime | 90 | 298 | D | .32 | 3 | 8.0 | 56.0 | 36.0 |
| 4555—Clime silty clay loam, 3 to 7 percent slopes | | | | | | | | |
| Clime | 85 | 161 | D | .32 | 3 | 8.0 | 56.0 | 36.0 |

| RUSLE2 Related Attributes--Marion County, Kansas | | | | | | | | |
|---|------------------|-------------------|------------------|-----|----------|----------------------|--------|--------|
| Map symbol and soil name | Pct. of map unit | Slope length (ft) | Hydrologic group | Kf | T factor | Representative value | | |
| | | | | | | % Sand | % Silt | % Clay |
| 4580—Clime stony silty clay loam, 15 to 30 percent slopes | | | | | | | | |
| Clime, stony | 85 | 49 | D | .32 | 3 | 8.0 | 56.0 | 36.0 |
| 4590—Clime-Sogn complex, 3 to 20 percent slopes | | | | | | | | |
| Clime | 60 | 89 | D | .24 | 3 | 5.0 | 54.0 | 41.0 |
| Sogn | 25 | 125 | D | .37 | 1 | 9.0 | 60.0 | 31.0 |
| 4600—Dwight silt loam, 0 to 1 percent slopes | | | | | | | | |
| Dwight | 90 | 200 | D | .43 | 2 | 7.0 | 70.0 | 23.0 |
| 4650—Florence silt loam, 2 to 15 percent slopes | | | | | | | | |
| Florence | 85 | 125 | C | .37 | 3 | 10.0 | 66.0 | 24.0 |
| 4671—Irwin silty clay loam, 1 to 3 percent slopes | | | | | | | | |
| Irwin | 85 | 298 | D | .37 | 5 | 8.0 | 59.0 | 33.0 |
| 4673—Irwin silty clay loam, 3 to 7 percent slopes | | | | | | | | |
| Irwin | 90 | 161 | D | .37 | 5 | 8.0 | 59.0 | 33.0 |
| 4740—Labette silty clay loam, 1 to 3 percent slopes | | | | | | | | |
| Labette | 85 | 298 | D | .32 | 2 | 4.0 | 61.0 | 35.0 |
| 4744—Labette-Dwight complex, 0 to 3 percent slopes | | | | | | | | |
| Labette | 55 | 298 | D | .32 | 2 | 4.0 | 61.0 | 35.0 |
| Dwight | 35 | 298 | D | .43 | 2 | 7.0 | 70.0 | 23.0 |
| 4746—Labette-Sogn silty clay loam, 0 to 8 percent slopes | | | | | | | | |
| Labette | 50 | 161 | D | .32 | 2 | 4.0 | 61.0 | 35.0 |
| Sogn | 40 | 141 | D | .37 | 1 | 9.0 | 60.0 | 31.0 |
| 4750—Sogn silty clay loam, 0 to 10 percent slopes | | | | | | | | |
| Sogn | 90 | 161 | D | .28 | 1 | 10.0 | 55.0 | 35.0 |
| 4783—Tully silty clay loam, 3 to 7 percent slopes | | | | | | | | |
| Tully | 80 | 161 | C | .32 | 5 | 5.0 | 62.0 | 33.0 |
| 7170—Reading silt loam, rarely flooded | | | | | | | | |
| Reading, rarely flooded | 90 | 200 | C | .37 | 5 | 6.0 | 70.0 | 24.0 |

| RUSLE2 Related Attributes--Marion County, Kansas | | | | | | | | |
|--|------------------|-------------------|------------------|-----|----------|----------------------|--------|--------|
| Map symbol and soil name | Pct. of map unit | Slope length (ft) | Hydrologic group | Kf | T factor | Representative value | | |
| | | | | | | % Sand | % Silt | % Clay |
| 8203—Osage silty clay, occasionally flooded | | | | | | | | |
| Osage | 90 | 397 | D | .20 | 5 | 1.0 | 41.0 | 58.0 |
| 8300—Verdigris silt loam, channeled, 0 to 2 percent slopes, frequently flooded | | | | | | | | |
| Verdigris, channeled | 90 | 200 | B | .37 | 5 | 15.0 | 62.0 | 23.0 |
| 8302—Verdigris silt loam, 0 to 1 percent slopes, occasionally flooded | | | | | | | | |
| Verdigris, occasionally flooded | 90 | 200 | B | .37 | 5 | 15.0 | 62.0 | 23.0 |

Data Source Information

Soil Survey Area: Marion County, Kansas

Survey Area Data: Version 15, Sep 12, 2018

11 APPENDIX C

DRAFT

2018 303(d) List of All Impaired & Potentially Impaired Waters



Bureau of Water

Watershed Planning, Monitoring, and Assessment Section

April 13, 2018

This list is organized alphabetically by:

Major River Basin

- Subbasin (HUC 12)
 - Category
 - Impairment
 - Stream/Lake

Explanation of Column Headers

Cat.: Reporting category for the listed water:

Cat. 2: Water was previously listed as impaired but now has water quality sufficient to support its designated uses.

Cat. 3: There is insufficient available data and/or information to make a use support designation.

Cat. 4a: A Total Maximum Daily Load (TMDL) has been developed for the waterbody/combination.

Cat 4b: Alternative to TMDLs – NPDES permits are addressing the impairment or an atrazine impairment is being addressed utilizing a watershed plan.

Cat 5: Available data and/or information indicate that at least one designated use is not being supported or is threatened, and a TMDL is needed.

Stream/Lake: Registered stream where sampling station is located or a Registered Lake.

Impaired Use: The designated use under assessment: Aquatic Life, Recreation, Water Supply, or Food Procurement.

Impairment: The pollutant impairing the designated use of the stream.

Station: Unique identifier indicating KDHE stream chemistry (SC) monitoring station or KDHE lake monitoring (LM) station where data for assessment is collected.

Counties: Counties where the stream watershed or lake is located.

Body Type:

Watershed: Impairment applies to the stream watershed monitored at the SC station indicated.

Lake: Impairment applies to a lake waterbody as monitored at the LM station indicated.

Facility: Impairment has been linked to a NPDES discharging facility.

Priority:

Years 2017-2020: TMDL is scheduled for development for the year indicated.

Years 2022-2023: TMDL not yet scheduled for development but may be addressed during TMDL development planning during 2022-2023.

High-Medium-Low: Indicates TMDL implementation priority.

Blank: Applies to Category 3 waters and implies more data is needed before assigning priority.

2018 303(d) List of All Impaired/Potentially Impaired Waters

Cimarron River Basin

11040002

Upper Cimarron

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|--------------------------------------|--------------|------------------|----------|----------|-----------|----------|
| 5 | Point of Rocks Lake (Moss Lake West) | Aquatic Life | Eutrophication | LM060501 | MT | Lake | 2023 |
| 5 | Point of Rocks Lake (Moss Lake West) | Water Supply | Fluoride | LM060501 | MT | Lake | 2023 |
| 5 | Point of Rocks Lake (Moss Lake West) | Water Supply | Sulfate | LM060501 | MT | Lake | 2023 |
| 3 | Point of Rocks Lake (Moss Lake West) | Aquatic Life | Dissolved Oxygen | LM060501 | MT | Lake | |

11040006

Upper Cimarron-Liberal

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|--------------------------------------|--------------|------------------|---------|----------------|-----------|----------|
| 5 | Cimarron River Near Forgan, Oklahoma | Aquatic Life | Dissolved Oxygen | SC222 | ME, MT, SV, SW | Watershed | 2023 |
| 5 | Cimarron River Near Forgan, Oklahoma | Aquatic Life | Selenium | SC222 | ME, MT, SV, SW | Watershed | 2023 |
| 5 | Cimarron River Near Forgan, Oklahoma | Aquatic Life | Total Phosphorus | SC222 | ME, MT, SV, SW | Watershed | 2023 |
| 4a | Cimarron River Near Forgan, Oklahoma | Water Supply | Chloride | SC222 | ME, MT, SV, SW | Watershed | Low |
| 4a | Cimarron River Near Forgan, Oklahoma | Aquatic Life | pH | SC222 | ME, MT, SV, SW | Watershed | Low |

11040007

Crooked Creek

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|------------------------------|--------------|------------------|----------|------------|-----------|----------|
| 5 | Crooked Creek Near Englewood | Aquatic Life | Dissolved Oxygen | SC600 | GY, HS, ME | Watershed | 2023 |
| 5 | Crooked Creek Near Englewood | Water Supply | Fluoride | SC600 | GY, HS, ME | Watershed | 2023 |
| 5 | Lake Meade State Park | Water Supply | Fluoride | LM010601 | ME | Lake | 2023 |
| 4a | Lake Meade State Park | Recreation | Aquatic Plants | LM010601 | ME | Lake | High |
| 4a | Crooked Creek Near Englewood | Water Supply | Chloride | SC600 | GY, HS, ME | Watershed | Low |
| 4a | Lake Meade State Park | Aquatic Life | Dissolved Oxygen | LM010601 | ME | Lake | High |
| 4a | Lake Meade State Park | Aquatic Life | Eutrophication | LM010601 | ME | Lake | High |
| 4a | Lake Meade State Park | Aquatic Life | pH | LM010601 | ME | Lake | High |
| 3 | Crooked Creek Near Englewood | Recreation | E. coli | SC600 | GY, HS, ME | Watershed | |

11040008
Upper Cimarron-Bluff

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|----------------------------------|--------------|------------------|----------|----------|-----------|----------|
| 5 | Bluff Creek Near Protection | Water Supply | Chloride | SC593 | CA, CM | Watershed | 2023 |
| 5 | Big Sandy Creek Near Ashland | Aquatic Life | Dissolved Oxygen | SC738 | ME, CA | Watershed | 2023 |
| 5 | Day Creek Near Sitka | Aquatic Life | Dissolved Oxygen | SC701 | CA, CM | Watershed | 2023 |
| 5 | Clark Co. SFL | Aquatic Life | Eutrophication | LM010101 | CA | Lake | 2023 |
| 5 | Big Sandy Creek Near Ashland | Water Supply | Fluoride | SC738 | ME, CA | Watershed | 2023 |
| 5 | St. Jacobs Well (Big Basin W.A.) | Water Supply | Fluoride | LM060001 | CA | Lake | 2023 |
| 4a | Big Sandy Creek Near Ashland | Water Supply | Chloride | SC738 | ME, CA | Watershed | Low |
| 4a | Cimarron River Near Protection | Water Supply | Chloride | SC592 | ME, CA | Watershed | Low |
| 4a | Day Creek Near Sitka | Water Supply | Chloride | SC701 | CA, CM | Watershed | Low |
| 4a | Cavalry Creek Near Protection | Recreation | E. coli | SC624 | KW, CM | Watershed | Medium |
| 4a | Lake Coldwater | Aquatic Life | Eutrophication | LM042601 | CM | Lake | Low |
| 4a | St. Jacobs Well (Big Basin W.A.) | Aquatic Life | Eutrophication | LM060001 | CA | Lake | High |
| 4a | Big Sandy Creek Near Ashland | Water Supply | Sulfate | SC738 | ME, CA | Watershed | Low |

Kansas Lower Republican River Basin

10250016
Middle Republican

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|---------------------------------------|--------------|------------------------|----------|----------|-----------|----------|
| 5 | White Rock Creek Near Burr Oak | Water Supply | Arsenic | SC508 | JW, SM | Watershed | 2023 |
| 5 | Republican River Near Hardy, Nebraska | Aquatic Life | Biology | SC231 | JW, SM | Watershed | 2023 |
| 5 | Republican River Near Hardy, Nebraska | Water Supply | Gross Alpha | SC231 | JW, SM | Watershed | 2023 |
| 5 | Republican River Near Hardy, Nebraska | Aquatic Life | Total Phosphorus | SC231 | JW, SM | Watershed | 2023 |
| 5 | White Rock Creek Near Burr Oak | Aquatic Life | Total Phosphorus | SC508 | JW, SM | Watershed | 2023 |
| 5 | White Rock Creek Near Burr Oak | Aquatic Life | Total Suspended Solids | SC508 | JW, SM | Watershed | 2023 |
| 4a | Republican River Near Hardy, Nebraska | Recreation | E. coli | SC231 | JW, SM | Watershed | Low |
| 4a | White Rock Creek Near Burr Oak | Recreation | E. coli | SC508 | JW, SM | Watershed | Low |
| 4a | Lovewell Lake | Aquatic Life | Eutrophication | LM015001 | JW | Lake | Low |
| 4a | Republican River Near Hardy, Nebraska | Aquatic Life | Eutrophication | SC231 | JW, SM | Lake | High |

10250016

Middle Republican

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|--------------------------------|--------------|------------|----------|----------|-----------|----------|
| 4a | Lovewell Lake | Aquatic Life | pH | LM015001 | JW | Lake | Low |
| 4a | White Rock Creek Near Burr Oak | Aquatic Life | Selenium | SC508 | JW, SM | Watershed | Low |
| 4a | White Rock Creek Near Burr Oak | Water Supply | Sulfate | SC508 | JW, SM | Watershed | Low |

10250017

Lower Republican

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-----------------------------------|--------------|------------------------|---------|----------------|-----------|----------|
| 5 | Buffalo Creek Near Concordia | Water Supply | Arsenic | SC509 | JW, CD | Watershed | 2023 |
| 5 | Wolf Creek Near Concordia | Water Supply | Arsenic | SC707 | CD | Watershed | 2023 |
| 5 | Republican River Near Clay Center | Aquatic Life | Biology | SC503 | CY | Watershed | 2022 |
| 5 | Republican River Near Rice | Aquatic Life | Biology | SC510 | JW, RP, CD | Watershed | 2023 |
| 5 | Salt Creek Near Hollis | Water Supply | Chloride | SC650 | RP | Watershed | 2023 |
| 5 | Elm Creek Near Ames | Aquatic Life | Copper | SC709 | CD | Watershed | 2023 |
| 5 | Mulberry Creek Near Clifton | Aquatic Life | Copper | SC710 | CD, CY | Watershed | 2023 |
| 5 | Peats Creek Near Clifton | Aquatic Life | Copper | SC649 | WS | Watershed | 2023 |
| 5 | Wolf Creek Near Concordia | Aquatic Life | Dissolved Oxygen | SC707 | CD | Watershed | 2022 |
| 5 | Buffalo Creek Near Concordia | Aquatic Life | Selenium | SC509 | JW, CD | Watershed | 2023 |
| 5 | Buffalo Creek Near Concordia | Water Supply | Sulfate | SC509 | JW, CD | Watershed | 2023 |
| 5 | Five Creek Near Clay Center | Water Supply | Sulfate | SC711 | CD, CY | Watershed | 2023 |
| 5 | Buffalo Creek Near Concordia | Aquatic Life | Total Phosphorus | SC509 | JW, CD | Watershed | 2019 |
| 5 | Elm Creek Near Ames | Aquatic Life | Total Phosphorus | SC709 | CD | Watershed | 2019 |
| 5 | Mulberry Creek Near Clifton | Aquatic Life | Total Phosphorus | SC710 | CD, CY | Watershed | 2019 |
| 5 | Peats Creek Near Clifton | Aquatic Life | Total Phosphorus | SC649 | WS | Watershed | 2019 |
| 5 | Republican River Near Clay Center | Aquatic Life | Total Phosphorus | SC503 | CY | Watershed | 2019 |
| 5 | Republican River Near Clay Center | Aquatic Life | Total Phosphorus | SC504 | RP, WS, CD, CY | Watershed | 2019 |
| 5 | Republican River Near Rice | Aquatic Life | Total Phosphorus | SC510 | JW, RP, CD | Watershed | 2019 |
| 5 | Salt Creek Near Hollis | Aquatic Life | Total Phosphorus | SC650 | RP | Watershed | 2019 |
| 5 | Wolf Creek Near Concordia | Aquatic Life | Total Phosphorus | SC707 | CD | Watershed | 2019 |
| 5 | Buffalo Creek Near Concordia | Aquatic Life | Total Suspended Solids | SC509 | JW, CD | Watershed | 2023 |
| 5 | Republican River Near Clay Center | Aquatic Life | Total Suspended Solids | SC504 | RP, WS, CD, CY | Watershed | 2023 |
| 5 | Republican River Near Clay Center | Aquatic Life | Total Suspended Solids | SC503 | CY | Watershed | 2023 |

10250017
Lower Republican

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-----------------------------------|--------------|------------------------|----------|----------------|-----------|----------|
| 5 | Salt Creek Near Hollis | Aquatic Life | Total Suspended Solids | SC650 | RP | Watershed | 2023 |
| 4a | Milford Lake | Aquatic Life | Dissolved Oxygen | LM019001 | CY, RL, GE | Lake | High |
| 4a | Rimrock Park Lake | Aquatic Life | Dissolved Oxygen | LM070501 | GE | Lake | Medium |
| 4a | Salt Creek Near Hollis | Aquatic Life | Dissolved Oxygen | SC650 | RP | Watershed | High |
| 4a | Republican River Near Clay Center | Recreation | E. coli | SC503 | CY | Watershed | Medium |
| 4a | Republican River Near Clay Center | Recreation | E. coli | SC504 | RP, WS, CD, CY | Watershed | Medium |
| 4a | Republican River Near Rice | Recreation | E. coli | SC510 | JW, RP, CD | Watershed | Medium |
| 4a | Salt Creek Near Hollis | Recreation | E. coli | SC650 | RP | Watershed | High |
| 4a | Belleville City Lake | Aquatic Life | Eutrophication | LM060701 | RP | Lake | Low |
| 4a | Buffalo Creek Near Concordia | Aquatic Life | Eutrophication | SC509 | JW, CD | Lake | High |
| 4a | Elm Creek Near Ames | Aquatic Life | Eutrophication | SC709 | CD | Lake | High |
| 4a | Five Creek Near Clay Center | Aquatic Life | Eutrophication | SC711 | CD, CY | Lake | High |
| 4a | Jamestown W.A. | Aquatic Life | Eutrophication | LM052801 | CD | Lake | Low |
| 4a | Milford Lake | Aquatic Life | Eutrophication | LM019001 | CY, RL, GE | Lake | High |
| 4a | Mulberry Creek Near Clifton | Aquatic Life | Eutrophication | SC710 | CD, CY | Lake | High |
| 4a | Peats Creek Near Clifton | Aquatic Life | Eutrophication | SC649 | WS | Lake | High |
| 4a | Republican River Near Clay Center | Aquatic Life | Eutrophication | SC503 | CY | Lake | High |
| 4a | Republican River Near Clay Center | Aquatic Life | Eutrophication | SC504 | RP, WS, CD, CY | Lake | High |
| 4a | Republican River Near Rice | Aquatic Life | Eutrophication | SC510 | JW, RP, CD | Lake | High |
| 4a | Rimrock Park Lake | Aquatic Life | Eutrophication | LM070501 | GE | Lake | Medium |
| 4a | Salt Creek Near Hollis | Aquatic Life | Eutrophication | SC650 | RP | Lake | High |
| 4a | Wolf Creek Near Concordia | Aquatic Life | Eutrophication | SC707 | CD | Lake | High |
| 4a | Buffalo Creek Near Concordia | Recreation | Fecal Coli | SC509 | JW, CD | Watershed | Low |
| 4a | Jamestown W.A. | Recreation | Fecal Coli | LM052801 | CD | Lake | Low |
| 4a | Jamestown W.A. | Aquatic Life | pH | LM052801 | CD | Lake | Low |
| 4a | Jamestown W.A. | Water Supply | Siltation | LM052801 | CD | Lake | Low |
| 3 | Jamestown W.A. | Water Supply | Arsenic | LM052801 | CD | Lake | |
| 3 | Elm Creek Near Ames | Recreation | E. coli | SC709 | CD | Watershed | |
| 3 | Wolf Creek Near Concordia | Recreation | E. coli | SC707 | CD | Watershed | |

10270101 Upper Kansas

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|------------------------------|--------------|------------------------|----------|----------|-----------|----------|
| 5 | Kansas River Near Ogden | Aquatic Life | Total Suspended Solids | SC518 | RL, GE | Watershed | 2023 |
| 4a | Wildcat Creek Near Manhattan | Aquatic Life | Dissolved Oxygen | SC652 | RL | Watershed | High |
| 4a | Kansas River Near Ogden | Recreation | E. coli | SC518 | RL, GE | Watershed | Medium |
| 4a | Wildcat Creek Near Manhattan | Recreation | E. coli | SC652 | RL | Watershed | High |
| 4a | Ogden City Lake | Aquatic Life | Eutrophication | LM011701 | RL | Lake | Low |
| 4a | Kansas River Near Ogden | Water Supply | Sulfate | SC518 | RL, GE | Watershed | Low |
| 4a | Kansas River Near Ogden | Aquatic Life | Total Phosphorus | SC518 | RL, GE | Watershed | High |
| 3 | Sevenmile Creek Near Ogden | Aquatic Life | Biology | SC759 | RL | Watershed | |

10270102 Middle Kansas

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|----------------------------------|--------------|------------------------|----------|------------|-----------|----------|
| 5 | Lost Creek Near Belvue | Water Supply | Arsenic | SC755 | PT | Watershed | 2023 |
| 5 | Soldier Creek Near Delia | Aquatic Life | Atrazine | SC101 | NM, JA | Watershed | 2023 |
| 5 | Soldier Creek Near Topeka | Aquatic Life | Atrazine | SC239 | JA, SN | Watershed | 2023 |
| 5 | Vermillion Creek Near Louisville | Aquatic Life | Atrazine | SC520 | PT, SN, WB | Watershed | 2023 |
| 5 | Halfday Creek | Aquatic Life | Biology | SB376 | SN, JA | Watershed | 2023 |
| 5 | Kansas River At Wamego | Aquatic Life | Biology | SC260 | RI, PT, WB | Watershed | 2022 |
| 5 | Kansas River At Willard | Aquatic Life | Biology | SC259 | PT, SN, WB | Watershed | 2022 |
| 5 | Mission Creek Near Valencia | Aquatic Life | Biology | SC648 | SN, WB | Watershed | 2023 |
| 5 | Vermillion Creek Near Louisville | Aquatic Life | Biology | SC520 | PT, SN, WB | Watershed | 2023 |
| 5 | Pottawatomie Co. SFL #1 | Aquatic Life | Dissolved Oxygen | LM012901 | PT | Lake | 2022 |
| 5 | Mission Creek Near Valencia | Recreation | E. coli | SC648 | SN, WB | Watershed | 2023 |
| 5 | Muddy Creek Near Grantville | Recreation | E. coli | SC639 | JA, JF, SN | Watershed | 2023 |
| 5 | Soldier Creek Near Topeka | Recreation | E. coli | SC239 | JA, SN | Watershed | 2023 |
| 5 | Pottawatomie Co. SFL #1 | Aquatic Life | Eutrophication | LM012901 | PT | Lake | 2022 |
| 5 | Topeka Public Golf Course Lake | Aquatic Life | Eutrophication | LM050101 | SN | Lake | 2023 |
| 5 | Lost Creek Near Belvue | Aquatic Life | Selenium | SC755 | PT | Watershed | 2023 |
| 5 | Kansas River At Wamego | Aquatic Life | Total Suspended Solids | SC260 | RI, PT, WB | Watershed | 2023 |
| 5 | Kansas River At Willard | Aquatic Life | Total Suspended Solids | SC259 | PT, SN, WB | Watershed | 2023 |

10270102
Middle Kansas

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|----------------------------------|------------------|------------------------|----------|------------|-----------|----------|
| 5 | Soldier Creek Near Delia | Aquatic Life | Total Suspended Solids | SC101 | NM, JA | Watershed | 2023 |
| 4a | Warren Park Lake | Recreation | Aquatic Plants | LM062001 | SN | Lake | Low |
| 4a | Soldier Creek Near Circleville | Aquatic Life | Biology | SC299 | JA, NM | Watershed | High |
| 4a | Soldier Creek Near Delia | Aquatic Life | Biology | SC101 | NM, JA | Watershed | High |
| 4a | Cross Creek Near Rossville | Recreation | E. coli | SC551 | JA, PT | Watershed | High |
| 4a | Kansas River At Willard | Recreation | E. coli | SC259 | PT, SN, WB | Watershed | High |
| 4a | Rock Creek Near Louisville | Recreation | E. coli | SC645 | PT | Watershed | High |
| 4a | Shunganunga Creek Near Topeka | Recreation | E. coli | SC238 | SN | Watershed | High |
| 4a | Vermillion Creek Near Louisville | Recreation | E. coli | SC520 | PT, SN, WB | Watershed | High |
| 4a | Vermillion Creek Near Onaga | Recreation | E. coli | SC681 | NM, PT | Watershed | High |
| 4a | Central Park Lake | Aquatic Life | Eutrophication | LM060901 | SN | Lake | Low |
| 4a | Gage Park Lake | Aquatic Life | Eutrophication | LM061101 | SN | Lake | Low |
| 4a | Lake Shawnee | Aquatic Life | Eutrophication | LM012201 | SN | Lake | High |
| 4a | Myer's Lake | Aquatic Life | Eutrophication | LM075201 | SN | Lake | Low |
| 4a | Wamego City Lake | Aquatic Life | Eutrophication | LM062101 | PT | Lake | Low |
| 4a | Warren Park Lake | Aquatic Life | Eutrophication | LM062001 | SN | Lake | Low |
| 4a | Kansas River At Topeka | Recreation | Fecal Coli | SC258 | PT, SN, WB | Watershed | Medium |
| 4a | Kansas River At Wamego | Recreation | Fecal Coli | SC260 | RI, PT, WB | Watershed | Medium |
| 4a | Kansas River At Wamego | Aquatic Life | Total Phosphorus | SC260 | RI, PT, WB | Watershed | High |
| 4a | Kansas River At Willard | Aquatic Life | Total Phosphorus | SC259 | PT, SN, WB | Watershed | High |
| 4a | Shunganunga Creek Near Topeka | Aquatic Life | Total Phosphorus | SC238 | SN | Watershed | High |
| 3 | Deep Creek | Aquatic Life | Biology | SB410 | RL | Watershed | |
| 3 | Deep Creek Near Manhattan | Aquatic Life | Biology | SC647 | RL | Watershed | |
| 3 | Illinois Creek Near Alma | Aquatic Life | Biology | SC726 | WB | Watershed | |
| 3 | West Branch Mill Creek Near Alma | Aquatic Life | Biology | SC506 | GE, WB | Watershed | |
| 3 | Shunganunga Creek Near Topeka | Aquatic Life | Diazinon | SC238 | SN | Watershed | |
| 3 | Alma City Lake | Aquatic Life | Eutrophication | LM050001 | WB | Lake | |
| 3 | Dornwood Park Lake | Aquatic Life | Eutrophication | LM062301 | SN | Lake | |
| 3 | Pillsbury Crossing W.A. | Food Procurement | Mercury | LM020301 | RL | Lake | |
| 3 | Wamego City Lake | Food Procurement | Mercury | LM062101 | PT | Lake | |
| 3 | Myer's Lake | Aquatic Life | pH | LM075201 | SN | Lake | |

10270103

Delaware

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|----------------------------------|--------------|------------------|----------|----------------|-----------|----------|
| 5 | Delaware River at Hwy 36 | Aquatic Life | Biology | SB352 | BR, NM | Watershed | 2023 |
| 5 | Delaware River Near Half Mound | Aquatic Life | Biology | SC554 | NM, BR, JA, AT | Watershed | 2022 |
| 5 | Atchison Co. Park Lake | Aquatic Life | Eutrophication | LM060601 | AT | Lake | 2023 |
| 5 | Banner Creek Lake | Aquatic Life | Eutrophication | LM032001 | JA | Lake | 2023 |
| 5 | Elkhorn Lake | Aquatic Life | Eutrophication | LM061001 | JA | Lake | 2023 |
| 5 | Nebo SFL | Aquatic Life | Eutrophication | LM061501 | JA | Lake | 2023 |
| 5 | Prairie Lake | Aquatic Life | Eutrophication | LM061901 | JA | Lake | 2022 |
| 5 | Atchison Co. Park Lake | Water Supply | Siltation | LM060601 | AT | Lake | 2023 |
| 5 | Delaware River Near Half Mound | Aquatic Life | Total Phosphorus | SC554 | NM, BR, JA, AT | Watershed | 2019 |
| 5 | Elk Creek Near Larkinburg | Aquatic Life | Total Phosphorus | SC604 | JA, PT | Watershed | 2019 |
| 5 | Grasshopper Creek Near Muscotah | Aquatic Life | Total Phosphorus | SC603 | BR, AT | Watershed | 2019 |
| 4a | Grasshopper Creek Near Muscotah | Aquatic Life | Atrazine | SC603 | BR, AT | Watershed | Low |
| 4a | Mission Lake | Aquatic Life | Atrazine | LM013601 | BR | Lake | High |
| 4a | Perry W.A. Wetland | Aquatic Life | Dissolved Oxygen | LM029041 | JF | Lake | Low |
| 4a | Delaware River Near Half Mound | Recreation | E. coli | SC554 | NM, BR, JA, AT | Watershed | High |
| 4a | Elk Creek Near Larkinburg | Recreation | E. coli | SC604 | JA, PT | Watershed | High |
| 4a | Grasshopper Creek Near Muscotah | Recreation | E. coli | SC603 | BR, AT | Watershed | High |
| 4a | Straight Creek Near Larkinburg | Recreation | E. coli | SC686 | NM, JA | Watershed | High |
| 4a | Little Lake | Aquatic Life | Eutrophication | LM062601 | BR | Lake | Low |
| 4a | Mission Lake | Aquatic Life | Eutrophication | LM013601 | BR | Lake | High |
| 4a | Perry Lake | Aquatic Life | Eutrophication | LM029001 | JA, JF | Lake | High |
| 4a | Perry W.A. Wetland | Aquatic Life | Eutrophication | LM029041 | JF | Lake | High |
| 4a | Sabetha Watershed Lake (Niehues) | Aquatic Life | Eutrophication | LM075101 | NM | Lake | Low |
| 4a | Mission Lake | Water Supply | Siltation | LM013601 | BR | Lake | High |
| 3 | Rock Creek Near Rock | Recreation | E. coli | SC684 | JA, JF | Watershed | |
| 3 | Lake Jayhawk | Aquatic Life | Eutrophication | LM039701 | JF | Lake | |

10270104

Lower Kansas

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|---------------------------|--------------|------------|------------|----------|-----------|----------|
| 5 | Turkey Creek | Aquatic Life | Ammonia | NPDES55492 | JO | Facility | 2022 |
| 5 | Captain Creek Near Eudora | Aquatic Life | Atrazine | SC638 | DG, JO | Watershed | 2023 |

10270104
Lower Kansas

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-------------------------------------|------------------|------------------------|----------|------------|-----------|----------|
| 5 | Crooked Creek Near Winchester | Aquatic Life | Atrazine | SC683 | JF | Watershed | 2023 |
| 5 | Kansas River At Kansas City, Kansas | Aquatic Life | Atrazine | SC203 | LV, WY, JO | Watershed | 2023 |
| 5 | Kill Creek At Desoto | Aquatic Life | Atrazine | SC253 | JO | Watershed | 2023 |
| 5 | Stranger Creek Near Easton | Aquatic Life | Atrazine | SC602 | AT, JF, LV | Watershed | 2023 |
| 5 | Stranger Creek Near Linwood | Aquatic Life | Atrazine | SC501 | LV | Watershed | 2023 |
| 5 | Stranger Creek Near Easton | Aquatic Life | Biology | SC602 | AT, JF, LV | Watershed | 2023 |
| 5 | Stranger Creek Near Linwood | Aquatic Life | Biology | SC501 | LV | Watershed | 2023 |
| 5 | Wakarusa River Near Eudora | Aquatic Life | Biology | SC500 | DG | Watershed | 2023 |
| 5 | Antioch Park Lake | Aquatic Life | Eutrophication | LM067701 | JO | Lake | 2023 |
| 5 | Baker Wetlands | Aquatic Life | Eutrophication | LM014401 | DG | Wetland | 2022 |
| 5 | Carbondale West Lake | Aquatic Life | Eutrophication | LM060801 | OS | Lake | 2022 |
| 5 | Douglas Co. SFL | Aquatic Life | Eutrophication | LM011301 | DG | Lake | 2022 |
| 5 | Lake Quivera | Aquatic Life | Eutrophication | LM022701 | JO | Lake | 2023 |
| 5 | Leavenworth Co. SFL | Aquatic Life | Eutrophication | LM012301 | LV | Lake | 2022 |
| 5 | Lenexa Lake | Aquatic Life | Eutrophication | LM022601 | JO | Lake | 2022 |
| 5 | Mahaffie Farmstead Lake | Aquatic Life | Eutrophication | LM020401 | JO | Lake | 2023 |
| 5 | Overbrook Lake | Aquatic Life | Eutrophication | LM020501 | OS | Lake | 2023 |
| 5 | Rose's Lake | Aquatic Life | Eutrophication | LM062501 | JO | Lake | 2022 |
| 5 | Strowbridge Reservoir | Aquatic Life | Eutrophication | LM051201 | OS | Lake | 2022 |
| 5 | Baker Wetlands | Aquatic Life | Lead | LM014401 | DG | Wetland | 2023 |
| 5 | Kansas River At Eudora | Food Procurement | PCB | SC255 | JF, LV, DG | Watershed | 2023 |
| 5 | Baker Wetlands | Aquatic Life | pH | LM014401 | DG | Wetland | 2022 |
| 5 | Crooked Creek Near Winchester | Aquatic Life | Total Phosphorus | SC683 | JF | Watershed | 2017 |
| 5 | Stranger Creek Near Easton | Aquatic Life | Total Phosphorus | SC602 | AT, JF, LV | Watershed | 2017 |
| 5 | Kansas River At Desoto | Aquatic Life | Total Suspended Solids | SC254 | LV, JO | Watershed | 2023 |
| 5 | Kansas River At Eudora | Aquatic Life | Total Suspended Solids | SC255 | JF, LV, DG | Watershed | 2023 |
| 5 | Kansas River At Kansas City, Kansas | Aquatic Life | Total Suspended Solids | SC203 | LV, WY, JO | Watershed | 2023 |
| 5 | Kansas River At Lecompton | Aquatic Life | Total Suspended Solids | SC257 | JF, SN, DG | Watershed | 2023 |
| 5 | Stranger Creek Near Easton | Aquatic Life | Total Suspended Solids | SC602 | AT, JF, LV | Watershed | 2023 |
| 5 | Wakarusa River Near Eudora | Aquatic Life | Total Suspended Solids | SC500 | DG | Watershed | 2023 |

10270104
Lower Kansas

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-------------------------------------|------------------|------------------|----------|------------|-----------|----------|
| 4a | Lakeview Estates Lake | Recreation | Aquatic Plants | LM075301 | SN | Lake | Low |
| 4a | Crooked Creek Near Winchester | Aquatic Life | Biology | SC683 | JF | Watershed | Low |
| 4a | Kansas River At Desoto | Aquatic Life | Biology | SC254 | LV, JO | Watershed | Medium |
| 4a | Kansas River At Eudora | Aquatic Life | Biology | SC255 | JF, LV, DG | Watershed | Medium |
| 4a | Kansas River At Kansas City, Kansas | Aquatic Life | Biology | SC203 | LV, WY, JO | Watershed | Medium |
| 4a | Kansas River At Lecompton | Aquatic Life | Biology | SC257 | JF, SN, DG | Watershed | Medium |
| 4a | Mill Creek Near Shawnee | Aquatic Life | Biology | SC251 | JO | Watershed | High |
| 4a | Wakarusa River Near Topeka | Aquatic Life | Biology | SC109 | SN, OS | Watershed | High |
| 4a | Kansas River At Desoto | Aquatic Life | Biology/Sediment | SC254 | LV, JO | Watershed | Medium |
| 4a | Kansas River At Kansas City, Kansas | Aquatic Life | Biology/Sediment | SC203 | LV, WY, JO | Watershed | Medium |
| 4a | Mill Creek Near Shawnee | Aquatic Life | Biology/Sediment | SC251 | JO | Watershed | Medium |
| 4a | Wakarusa River Near Topeka | Aquatic Life | Biology/Sediment | SC109 | SN, OS | Watershed | High |
| 4a | Antioch Park Lake | Food Procurement | Chlordane | LM067701 | JO | Lake | Low |
| 4a | Mill Creek Near Shawnee | Water Supply | Chloride | SC251 | JO | Watershed | Low |
| 4a | Stranger Creek Near Easton | Aquatic Life | Copper | SC602 | AT, JF, LV | Watershed | Low |
| 4a | Baker Wetlands | Aquatic Life | Dissolved Oxygen | LM014401 | DG | Wetland | High |
| 4a | Gardner City Lake | Aquatic Life | Dissolved Oxygen | LM040401 | JO | Lake | High |
| 4a | Mary's Lake | Aquatic Life | Dissolved Oxygen | LM061401 | DG | Lake | Medium |
| 4a | Sunflower Park Lake | Aquatic Life | Dissolved Oxygen | LM073601 | JO | Lake | Medium |
| 4a | Washington Creek Near Lawrence | Aquatic Life | Dissolved Oxygen | SC678 | DG | Watershed | High |
| 4a | Cedar Creek Near Cedar Junction | Recreation | E. coli | SC252 | JO | Watershed | High |
| 4a | Coal Creek Near Sibleyville | Recreation | E. coli | SC679 | DG | Watershed | Medium |
| 4a | Kansas River At Desoto | Recreation | E. coli | SC254 | LV, JO | Watershed | High |
| 4a | Kansas River At Eudora | Recreation | E. coli | SC255 | JF, LV, DG | Watershed | High |
| 4a | Kansas River At Kansas City, Kansas | Recreation | E. coli | SC203 | LV, WY, JO | Watershed | High |
| 4a | Kansas River At Lecompton | Recreation | E. coli | SC257 | JF, SN, DG | Watershed | High |
| 4a | Kill Creek At Desoto | Recreation | E. coli | SC253 | JO | Watershed | High |
| 4a | Mill Creek Near Shawnee | Recreation | E. coli | SC251 | JO | Watershed | High |
| 4a | Stranger Creek Near Easton | Recreation | E. coli | SC602 | AT, JF, LV | Watershed | High |
| 4a | Stranger Creek Near Linwood | Recreation | E. coli | SC501 | LV | Watershed | High |
| 4a | Wakarusa River Near Eudora | Recreation | E. coli | SC500 | DG | Watershed | High |

10270104
Lower Kansas

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-------------------------------------|--------------|------------------|----------|------------|-----------|----------|
| 4a | Wakarusa River Near Topeka | Recreation | E. coli | SC109 | SN, OS | Watershed | High |
| 4a | Cedar Lake | Aquatic Life | Eutrophication | LM061601 | JO | Lake | High |
| 4a | Clinton Lake | Aquatic Life | Eutrophication | LM030001 | SN, DG, OS | Lake | High |
| 4a | Frisco Lake | Aquatic Life | Eutrophication | LM065201 | JO | Lake | Low |
| 4a | Gardner City Lake | Aquatic Life | Eutrophication | LM040401 | JO | Lake | High |
| 4a | Lakeview Estates Lake | Aquatic Life | Eutrophication | LM075301 | SN | Lake | Low |
| 4a | Lone Star Lake | Aquatic Life | Eutrophication | LM011401 | DG | Lake | Low |
| 4a | Mary's Lake | Aquatic Life | Eutrophication | LM061401 | DG | Lake | Medium |
| 4a | New Olathe Lake | Aquatic Life | Eutrophication | LM061301 | JO | Lake | High |
| 4a | Olathe Waterworks Lakes | Aquatic Life | Eutrophication | LM062201 | JO | Lake | Low |
| 4a | Pierson Park Lake | Aquatic Life | Eutrophication | LM061801 | WY | Lake | Low |
| 4a | Potter's Lake | Aquatic Life | Eutrophication | LM073401 | DG | Lake | Low |
| 4a | Sunflower Park Lake | Aquatic Life | Eutrophication | LM073601 | JO | Lake | Medium |
| 4a | Buck Creek Near Williamstown | Recreation | Fecal Coli | SC677 | JF | Watershed | Medium |
| 4a | Nine Mile Creek Near Linwood | Recreation | Fecal Coli | SC680 | JF, LV, DG | Watershed | High |
| 4a | Nine Mile Creek Near Linwood | Aquatic Life | Lead | SC680 | JF, LV, DG | Watershed | Low |
| 4a | Stranger Creek Near Easton | Aquatic Life | Lead | SC602 | AT, JF, LV | Watershed | Low |
| 4a | Stranger Creek Near Linwood | Aquatic Life | Lead | SC501 | LV | Watershed | Low |
| 4a | Cedar Creek Near Cedar Junction | Water Supply | Nitrate | SC252 | JO | Watershed | High |
| 4a | Mary's Lake | Aquatic Life | pH | LM061401 | DG | Lake | Medium |
| 4a | Cedar Creek Near Cedar Junction | Aquatic Life | Total Phosphorus | SC252 | JO | Watershed | High |
| 4a | Kansas River At Desoto | Aquatic Life | Total Phosphorus | SC254 | LV, JO | Watershed | High |
| 4a | Kansas River At Eudora | Aquatic Life | Total Phosphorus | SC255 | JF, LV, DG | Watershed | High |
| 4a | Kansas River At Kansas City, Kansas | Aquatic Life | Total Phosphorus | SC203 | LV, WY, JO | Watershed | High |
| 4a | Kansas River At Lecompton | Aquatic Life | Total Phosphorus | SC257 | JF, SN, DG | Watershed | High |
| 4a | Kill Creek At Desoto | Aquatic Life | Total Phosphorus | SC253 | JO | Watershed | High |
| 4a | Mill Creek Near Shawnee | Aquatic Life | Total Phosphorus | SC251 | JO | Watershed | High |
| 4a | Wakarusa River Near Eudora | Aquatic Life | Total Phosphorus | SC500 | DG | Watershed | High |
| 3 | Mill Creek Near Shawnee | Aquatic Life | Diazinon | SC251 | JO | Watershed | |
| 3 | Captain Creek Near Eudora | Recreation | E. coli | SC638 | DG, JO | Watershed | |
| 3 | Crooked Creek Near Winchester | Recreation | E. coli | SC683 | JF | Watershed | |

10270205

Lower Big Blue

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|---|--------------|------------------------|----------|------------|-----------|----------|
| 5 | Big Blue River Near Oketo | Water Supply | Arsenic | SC233 | MS | Watershed | 2023 |
| 5 | Big Blue River Near Oketo | Aquatic Life | Biology | SC233 | MS | Watershed | 2022 |
| 5 | Black Vermillion River Near Frankfort | Aquatic Life | Biology | SC505 | MS,NM | Watershed | 2022 |
| 5 | Horseshoe Creek | Aquatic Life | Biology | SB475 | MS | Watershed | 2022 |
| 5 | North Fork Black Vermillion River Near Vliets | Aquatic Life | Biology | SC128 | MS, NM | Watershed | 2022 |
| 5 | Spring Creek | Aquatic Life | Biology | SB476 | MS | Watershed | 2022 |
| 5 | Big Blue River Near Blue Rapids | Aquatic Life | Copper | SC240 | MS | Watershed | 2023 |
| 5 | Big Blue River Near Blue Rapids | Aquatic Life | pH | SC240 | MS | Watershed | 2022 |
| 5 | Big Blue River Near Oketo | Aquatic Life | pH | SC233 | MS | Watershed | 2022 |
| 5 | Fancy Creek Near Randolph | Water Supply | Sulfate | SC502 | WS, CY, RL | Watershed | 2023 |
| 5 | Horseshoe Creek Near Marysville | Water Supply | Sulfate | SC717 | MR, CS | Watershed | 2023 |
| 5 | Big Blue River Near Blue Rapids | Aquatic Life | Total Phosphorus | SC240 | MS | Watershed | 2019 |
| 5 | Big Blue River Near Oketo | Aquatic Life | Total Phosphorus | SC233 | MS | Watershed | 2019 |
| 5 | Black Vermillion River Near Frankfort | Aquatic Life | Total Phosphorus | SC505 | MS,NM | Watershed | 2019 |
| 5 | Horseshoe Creek Near Marysville | Aquatic Life | Total Phosphorus | SC717 | MR, CS | Watershed | 2019 |
| 5 | North Elm Creek Near Oketo | Aquatic Life | Total Phosphorus | SC731 | MS, NM | Watershed | 2019 |
| 5 | Robidoux Creek near Frankfort | Aquatic Life | Total Phosphorus | SC754 | MS | Watershed | 2019 |
| 5 | Big Blue River Near Blue Rapids | Aquatic Life | Total Suspended Solids | SC240 | MS | Watershed | 2023 |
| 5 | Big Blue River Near Oketo | Aquatic Life | Total Suspended Solids | SC233 | MS | Watershed | 2023 |
| 5 | Black Vermillion River Near Frankfort | Aquatic Life | Total Suspended Solids | SC505 | MS,NM | Watershed | 2023 |
| 4a | Tuttle Creek Lake | Aquatic Life | Alachlor | LM021001 | MS, RL, PT | Lake | High |
| 4a | Centralia Lake | Recreation | Aquatic Plants | LM073701 | NM | Lake | Medium |
| 4a | Big Blue River Near Blue Rapids | Aquatic Life | Atrazine | SC240 | MS | Watershed | High |
| 4a | Big Blue River Near Oketo | Aquatic Life | Atrazine | SC233 | MS | Watershed | High |
| 4a | Black Vermillion River Near Frankfort | Aquatic Life | Atrazine | SC505 | MS,NM | Watershed | High |
| 4a | Fancy Creek Near Randolph | Aquatic Life | Atrazine | SC502 | WS, CY, RL | Watershed | High |
| 4a | Horseshoe Creek Near Marysville | Aquatic Life | Atrazine | SC717 | MR, CS | Watershed | High |
| 4a | North Elm Creek Near Oketo | Aquatic Life | Atrazine | SC731 | MS, NM | Watershed | High |

10270205
Lower Big Blue

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|---------------------------------------|------------------|----------------|----------|------------|-----------|----------|
| 4a | Tuttle Creek Lake | Aquatic Life | Atrazine | LM021001 | MS, RL, PT | Lake | High |
| 4a | Big Blue River Near Blue Rapids | Recreation | E. coli | SC240 | MS | Watershed | High |
| 4a | Big Blue River Near Oketo | Recreation | E. coli | SC233 | MS | Watershed | High |
| 4a | Black Vermillion River Near Frankfort | Recreation | E. coli | SC505 | MS,NM | Watershed | High |
| 4a | Fancy Creek Near Randolph | Recreation | E. coli | SC502 | WS, CY, RL | Watershed | Medium |
| 4a | Horseshoe Creek Near Marysville | Recreation | E. coli | SC717 | MR, CS | Watershed | High |
| 4a | Centralia Lake | Aquatic Life | Eutrophication | LM073701 | NM | Lake | Medium |
| 4a | Tuttle Creek Lake | Aquatic Life | Eutrophication | LM021001 | MS, RL, PT | Lake | High |
| 4a | Centralia Lake | Aquatic Life | pH | LM073701 | NM | Lake | Medium |
| 4a | Tuttle Creek Lake | Water Supply | Siltation | LM021001 | MS, RL, PT | Lake | High |
| 3 | Centralia Lake | Water Supply | Arsenic | LM073701 | NM | Lake | |
| 3 | Rocky Ford W.A. | Food Procurement | Mercury | LM020601 | RL | Lake | |

10270207
Lower Little Blue

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-----------------------------------|--------------|------------------------|----------|----------|-----------|----------|
| 5 | Rose Creek Near Narka | Water Supply | Arsenic | SC712 | RP | Watershed | 2023 |
| 5 | Little Blue River Near Hollenberg | Aquatic Life | Biology | SC232 | RP, WS | Watershed | 2022 |
| 5 | Little Blue River Near Hollenberg | Aquatic Life | Copper | SC232 | RP, WS | Watershed | 2023 |
| 5 | Washington Co. SFL | Aquatic Life | Eutrophication | LM010901 | WS | Lake | 2023 |
| 5 | Washington W.A. | Aquatic Life | Lead | LM010941 | WS | Lake | 2023 |
| 5 | Little Blue River Near Hollenberg | Aquatic Life | pH | SC232 | RP, WS | Watershed | 2022 |
| 5 | Little Blue River Near Hollenberg | Aquatic Life | Total Phosphorus | SC232 | RP, WS | Watershed | 2019 |
| 5 | Little Blue River Near Waterville | Aquatic Life | Total Phosphorus | SC741 | WS, MS | Watershed | 2019 |
| 5 | Mill Creek Near Hanover | Aquatic Life | Total Phosphorus | SC507 | RP, WS | Watershed | 2023 |
| 5 | Rose Creek Near Narka | Aquatic Life | Total Phosphorus | SC712 | RP | Watershed | 2019 |
| 5 | Little Blue River Near Hollenberg | Aquatic Life | Total Suspended Solids | SC232 | RP, WS | Watershed | 2023 |
| 5 | Little Blue River Near Waterville | Aquatic Life | Total Suspended Solids | SC741 | WS, MS | Watershed | 2023 |
| 5 | Mill Creek Near Hanover | Aquatic Life | Total Suspended Solids | SC507 | RP, WS | Watershed | 2023 |
| 4a | Washington Co. SFL | Recreation | Aquatic Plants | LM010901 | WS | Lake | Low |
| 4a | Little Blue River Near Hollenberg | Aquatic Life | Atrazine | SC232 | RP, WS | Watershed | High |

10270207
Lower Little Blue

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-----------------------------------|--------------|------------------|----------|----------|-----------|----------|
| 4a | Little Blue River Near Waterville | Aquatic Life | Atrazine | SC741 | WS, MS | Watershed | High |
| 4a | Mill Creek Near Hanover | Aquatic Life | Atrazine | SC507 | RP, WS | Watershed | High |
| 4a | Rose Creek Near Narka | Aquatic Life | Atrazine | SC712 | RP | Watershed | High |
| 4a | Washington Co. SFL | Aquatic Life | Dissolved Oxygen | LM010901 | WS | Lake | Low |
| 4a | Little Blue River Near Hollenberg | Recreation | E. coli | SC232 | RP, WS | Watershed | High |
| 4a | Little Blue River Near Waterville | Recreation | E. coli | SC741 | WS, MS | Watershed | High |
| 4a | Mill Creek Near Hanover | Recreation | E. coli | SC507 | RP, WS | Watershed | High |
| 4a | Lake Idlewild | Aquatic Life | Eutrophication | LM061201 | MS | Lake | Low |
| 4a | Washington W.A. | Aquatic Life | Eutrophication | LM010941 | WS | Lake | Low |
| 4a | Washington W.A. | Water Supply | Siltation | LM010941 | WS | Lake | Low |
| 3 | Washington W.A. | Aquatic Life | Dissolved Oxygen | LM010941 | WS | Lake | |
| 3 | Rose Creek Near Narka | Recreation | E. coli | SC712 | RP | Watershed | |

Lower Arkansas River Basin

11030009
Rattlesnake

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-------------------------------|--------------|----------------|----------|------------|-----------|----------|
| 4a | Quivira Big Salt Marsh | Water Supply | Chloride | LM050601 | SF | Lake | Low |
| 4a | Quivira Little Salt Marsh | Water Supply | Chloride | LM050201 | SF | Lake | Low |
| 4a | Rattlesnake Creek Near Hudson | Water Supply | Chloride | SC660 | SF, ED, KW | Watershed | |
| 4a | Quivira Big Salt Marsh | Aquatic Life | Eutrophication | LM050601 | SF | Lake | High |
| 4a | Quivira Little Salt Marsh | Aquatic Life | Eutrophication | LM050201 | SF | Lake | High |
| 4a | Quivira Big Salt Marsh | Aquatic Life | pH | LM050601 | SF | Lake | High |
| 4a | Quivira Little Salt Marsh | Aquatic Life | pH | LM050201 | SF | Lake | High |
| 4a | Quivira Big Salt Marsh | Water Supply | Siltation | LM050601 | SF | Lake | High |
| 4a | Quivira Little Salt Marsh | Water Supply | Siltation | LM050201 | SF | Lake | High |
| 3 | Kiowa Co. SFL | Aquatic Life | Eutrophication | LM042801 | KW | Lake | |

11030010
Gar-Peace

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|--------------------------------|--------------|------------|---------|----------|-----------|----------|
| 5 | Salt Creek Near Hutchinson | Recreation | E. coli | SC659 | RN | Watershed | 2023 |
| 5 | Arkansas River Near Hutchinson | Aquatic Life | Selenium | SC523 | RC, RN | Watershed | 2023 |
| 5 | Arkansas River Near Yoder | Aquatic Life | Selenium | SC524 | RN | Watershed | 2023 |

11030010**Gar-Peace**

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|--------------------------------|--------------|------------------|----------|------------|-----------|----------|
| 5 | Arkansas River Near Yoder | Aquatic Life | Total Phosphorus | SC524 | RN | Watershed | 2017 |
| 4a | Arkansas River Near Hutchinson | Aquatic Life | Biology | SC523 | RC, RN | Watershed | Medium |
| 4a | Arkansas River Near Maize | Aquatic Life | Biology | SC536 | RN, SG | Watershed | Medium |
| 4a | Arkansas River Near Yoder | Aquatic Life | Biology | SC524 | RN | Watershed | Medium |
| 4a | Arkansas River Near Hutchinson | Water Supply | Chloride | SC523 | RC, RN | Watershed | Medium |
| 4a | Arkansas River Near Maize | Water Supply | Chloride | SC536 | RN, SG | Watershed | Medium |
| 4a | Arkansas River Near Yoder | Water Supply | Chloride | SC524 | RN | Watershed | Medium |
| 4a | Peace Creek Near Sterling | Water Supply | Chloride | SC658 | SF, RN, PR | Watershed | Low |
| 4a | Salt Creek Near Hutchinson | Water Supply | Chloride | SC659 | RN | Watershed | Medium |
| 4a | Peace Creek Near Sterling | Recreation | E. coli | SC658 | SF, RN, PR | Watershed | Medium |
| 4a | Carey Park Lake | Aquatic Life | Eutrophication | LM063001 | RN | Lake | Low |
| 4a | Peace Creek Near Sterling | Aquatic Life | pH | SC658 | SF, RN, PR | Watershed | Medium |
| 4a | Salt Creek Near Hutchinson | Aquatic Life | pH | SC659 | RN | Watershed | Medium |

11030011**Cow Creek**

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-----------------------------|------------------|------------------------|----------|------------|-----------|----------|
| 5 | Cow Creek Near Lyons | Water Supply | Arsenic | SC657 | EW, BT, RC | Watershed | 2023 |
| 5 | Cow Creek Near Willowbrook | Water Supply | Arsenic | SC522 | RC, RN | Watershed | 2023 |
| 5 | Barton Lake | Aquatic Life | Eutrophication | LM072701 | BT | Lake | 2023 |
| 5 | Sterling City Lake | Aquatic Life | Eutrophication | LM064801 | RC | Lake | 2023 |
| 5 | Cow Creek Near Hutchinson | Food Procurement | PCB | SC287 | RN | Watershed | 2023 |
| 5 | Cow Creek Near Hutchinson | Aquatic Life | Selenium | SC287 | RN | Watershed | 2023 |
| 5 | Cow Creek Near Willowbrook | Aquatic Life | Selenium | SC522 | RC, RN | Watershed | 2023 |
| 5 | Cheyenne Bottoms | Water Supply | Siltation | LM050401 | BT | Lake | 2023 |
| 5 | Cow Creek Near Lyons | Aquatic Life | Total Phosphorus | SC657 | EW, BT, RC | Watershed | 2023 |
| 5 | Cow Creek Near Willowbrook | Aquatic Life | Total Phosphorus | SC522 | RC, RN | Watershed | 2023 |
| 5 | Little Cow Creek Near Lyons | Aquatic Life | Total Phosphorus | SC656 | EW, RC | Watershed | 2023 |
| 5 | Cow Creek Near Lyons | Aquatic Life | Total Suspended Solids | SC657 | EW, BT, RC | Watershed | 2023 |
| 5 | Cow Creek Near Willowbrook | Aquatic Life | Total Suspended Solids | SC522 | RC, RN | Watershed | 2023 |
| 4a | Cow Creek Near Hutchinson | Aquatic Life | Biology | SC287 | RN | Watershed | Medium |
| 4a | Cow Creek Near Hutchinson | Water Supply | Chloride | SC287 | RN | Watershed | Medium |
| 4a | Cow Creek Near Lyons | Water Supply | Chloride | SC657 | EW, BT, RC | Watershed | Medium |

11030011 Cow Creek

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-----------------------------|--------------|------------------|----------|------------|-----------|----------|
| 4a | Cow Creek Near Willowbrook | Water Supply | Chloride | SC522 | RC, RN | Watershed | Medium |
| 4a | Little Cow Creek Near Lyons | Water Supply | Chloride | SC656 | EW, RC | Watershed | Medium |
| 4a | Cheyenne Bottoms | Aquatic Life | Dissolved Oxygen | LM050401 | BT | Lake | High |
| 4a | Little Cow Creek Near Lyons | Aquatic Life | Dissolved Oxygen | SC656 | EW, RC | Watershed | High |
| 4a | Cow Creek Near Hutchinson | Recreation | E. coli | SC287 | RN | Watershed | High |
| 4a | Cow Creek Near Willowbrook | Recreation | E. coli | SC522 | RC, RN | Watershed | High |
| 4a | Little Cow Creek Near Lyons | Recreation | E. coli | SC656 | EW, RC | Watershed | High |
| 4a | Cheyenne Bottoms | Aquatic Life | Eutrophication | LM050401 | BT | Lake | High |
| 4a | Cow Creek Near Lyons | Recreation | Fecal Coli | SC657 | EW, BT, RC | Watershed | High |
| 4a | Little Cow Creek Near Lyons | Water Supply | Nitrate | SC656 | EW, RC | Watershed | High |
| 3 | Cow Creek Near Willowbrook | Aquatic Life | Atrazine | SC522 | RC, RN | Watershed | |
| 3 | Little Cow Creek Near Lyons | Aquatic Life | Diazinon | SC656 | EW, RC | Watershed | |

11030012 Little Arkansas

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|--|--------------|------------------|----------|------------|-----------|----------|
| 5 | Black Kettle Creek Near Halstead | Water Supply | Arsenic | SC705 | MP, HV | Watershed | 2023 |
| 5 | Emma Creek Near Sedgwick | Water Supply | Arsenic | SC534 | MP, MN, HV | Watershed | 2023 |
| 5 | Little Arkansas River At Alta Mills | Water Supply | Arsenic | SC246 | MP, RC, RN | Watershed | 2023 |
| 5 | Turkey Creek Near Alta Mills | Water Supply | Arsenic | SC533 | MP, RC, RN | Watershed | 2023 |
| 5 | Black Kettle Creek Near Halstead | Aquatic Life | Atrazine | SC705 | MP, HV | Watershed | 2023 |
| 5 | Kisiwa Creek Near Halstead | Aquatic Life | Atrazine | SC703 | HV, RN | Watershed | 2023 |
| 5 | Little Arkansas River At Alta Mills | Aquatic Life | Atrazine | SC246 | MP, RC, RN | Watershed | 2023 |
| 5 | Little Arkansas River At Valley Center | Aquatic Life | Atrazine | SC282 | HV, SG | Watershed | 2023 |
| 5 | Little Arkansas River At Wichita | Aquatic Life | Atrazine | SC728 | SG, SU | Watershed | 2023 |
| 5 | Black Kettle Creek Near Halstead | Aquatic Life | Copper | SC705 | MP, HV | Watershed | 2023 |
| 5 | Black Kettle Creek Near Halstead | Aquatic Life | Dissolved Oxygen | SC705 | MP, HV | Watershed | 2022 |
| 5 | Emma Creek Near Sedgwick | Aquatic Life | Dissolved Oxygen | SC534 | MP, MN, HV | Watershed | 2022 |
| 5 | Kisiwa Creek Near Halstead | Aquatic Life | Dissolved Oxygen | SC703 | HV, RN | Watershed | 2022 |
| 5 | Buhler City Lake | Aquatic Life | Eutrophication | LM050701 | RN | Lake | 2023 |
| 5 | McPherson Wetlands | Aquatic Life | Eutrophication | LM014701 | MP | Wetland | 2023 |

11030012
Little Arkansas

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|--|------------------|------------------|---------|------------|-----------|----------|
| 5 | Little Arkansas River At Wichita | Food Procurement | Mercury | SC728 | SG, SU | Watershed | 2023 |
| 5 | Little Arkansas River At Wichita | Food Procurement | PCB | SC728 | SG, SU | Watershed | 2023 |
| 5 | Little Arkansas River At Alta Mills | Aquatic Life | Selenium | SC246 | MP, RC, RN | Watershed | 2023 |
| 5 | Turkey Creek Near Alta Mills | Aquatic Life | Selenium | SC533 | MP, RC, RN | Watershed | 2023 |
| 5 | Black Kettle Creek Near Halstead | Aquatic Life | Total Phosphorus | SC705 | MP, HV | Watershed | 2020 |
| 5 | Emma Creek Near Sedgwick | Aquatic Life | Total Phosphorus | SC534 | MP, MN, HV | Watershed | 2020 |
| 5 | Kisiwa Creek Near Halstead | Aquatic Life | Total Phosphorus | SC703 | HV, RN | Watershed | 2020 |
| 5 | Little Arkansas River At Alta Mills | Aquatic Life | Total Phosphorus | SC246 | MP, RC, RN | Watershed | 2020 |
| 5 | Little Arkansas River At Valley Center | Aquatic Life | Total Phosphorus | SC282 | HV, SG | Watershed | 2020 |
| 5 | Little Arkansas River At Wichita | Aquatic Life | Total Phosphorus | SC728 | SG, SU | Watershed | 2017 |
| 4b | Emma Creek Near Sedgwick | Aquatic Life | Atrazine | SC534 | MP, MN, HV | Watershed | Low |
| 4b | Sand Creek Near Sedgwick | Aquatic Life | Atrazine | SC535 | MN, HV | Watershed | Low |
| 4b | Turkey Creek Near Alta Mills | Aquatic Life | Atrazine | SC533 | MP, RC, RN | Watershed | Low |
| 4a | Black Kettle Creek Near Halstead | Aquatic Life | Biology | SC705 | MP, HV | Watershed | High |
| 4a | Emma Creek Near Sedgwick | Aquatic Life | Biology | SC534 | MP, MN, HV | Watershed | High |
| 4a | Kisiwa Creek Near Halstead | Aquatic Life | Biology | SC703 | HV, RN | Watershed | High |
| 4a | Little Arkansas River At Alta Mills | Aquatic Life | Biology | SC246 | MP, RC, RN | Watershed | High |
| 4a | Little Arkansas River At Valley Center | Aquatic Life | Biology | SC282 | HV, SG | Watershed | High |
| 4a | Little Arkansas River At Wichita | Aquatic Life | Biology | SC728 | SG, SU | Watershed | High |
| 4a | Sand Creek Near Sedgwick | Aquatic Life | Biology | SC535 | MN, HV | Watershed | High |
| 4a | Turkey Creek Near Alta Mills | Aquatic Life | Biology | SC533 | MP, RC, RN | Watershed | High |
| 4a | Black Kettle Creek Near Halstead | Aquatic Life | Biology/Sediment | SC705 | MP, HV | Watershed | High |
| 4a | Emma Creek Near Sedgwick | Aquatic Life | Biology/Sediment | SC534 | MP, MN, HV | Watershed | High |
| 4a | Kisiwa Creek Near Halstead | Aquatic Life | Biology/Sediment | SC703 | HV, RN | Watershed | High |
| 4a | Little Arkansas River At Alta Mills | Aquatic Life | Biology/Sediment | SC246 | MP, RC, RN | Watershed | High |
| 4a | Little Arkansas River At Valley Center | Aquatic Life | Biology/Sediment | SC282 | HV, SG | Watershed | High |
| 4a | Little Arkansas River At Wichita | Aquatic Life | Biology/Sediment | SC728 | SG, SU | Watershed | High |
| 4a | Sand Creek Near Sedgwick | Aquatic Life | Biology/Sediment | SC535 | MN, HV | Watershed | High |

11030012
Little Arkansas

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|--|--------------|------------------------|----------|------------|-----------|----------|
| 4a | Turkey Creek Near Alta Mills | Aquatic Life | Biology/Sediment | SC533 | MP, RC, RN | Watershed | High |
| 4a | Little Arkansas River At Alta Mills | Water Supply | Chloride | SC246 | MP, RC, RN | Watershed | Medium |
| 4a | Turkey Creek Near Alta Mills | Water Supply | Chloride | SC533 | MP, RC, RN | Watershed | Medium |
| 4a | Mingenback Lake | Aquatic Life | Dissolved Oxygen | LM064701 | MP | Lake | Medium |
| 4a | Sand Creek Near Sedgwick | Aquatic Life | Dissolved Oxygen | SC535 | MN, HV | Watershed | Medium |
| 4a | Turkey Creek Near Alta Mills | Aquatic Life | Dissolved Oxygen | SC533 | MP, RC, RN | Watershed | High |
| 4a | Emma Creek Near Sedgwick | Recreation | E. coli | SC534 | MP, MN, HV | Watershed | High |
| 4a | Little Arkansas River At Alta Mills | Recreation | E. coli | SC246 | MP, RC, RN | Watershed | High |
| 4a | Little Arkansas River At Valley Center | Recreation | E. coli | SC282 | HV, SG | Watershed | High |
| 4a | Little Arkansas River At Wichita | Recreation | E. coli | SC728 | SG, SU | Watershed | High |
| 4a | Sand Creek Near Sedgwick | Recreation | E. coli | SC535 | MN, HV | Watershed | High |
| 4a | Turkey Creek Near Alta Mills | Recreation | E. coli | SC533 | MP, RC, RN | Watershed | High |
| 4a | Dillon Park Lakes | Aquatic Life | Eutrophication | LM063101 | RN | Lake | Medium |
| 4a | Harvey Co. Camp Hawk Lake | Aquatic Life | Eutrophication | LM063401 | HV | Lake | Low |
| 4a | Harvey Co. West Park Lake | Aquatic Life | Eutrophication | LM049001 | HV | Lake | Low |
| 4a | Mingenback Lake | Aquatic Life | Eutrophication | LM064701 | MP | Lake | Medium |
| 4a | Newton City Park Lake | Aquatic Life | Eutrophication | LM064201 | HV | Lake | High |
| 4a | Sand Creek Near Sedgwick | Water Supply | Nitrate | SC535 | MN, HV | Watershed | High |
| 4a | Dillon Park Lakes | Aquatic Life | pH | LM063101 | RN | Lake | Medium |
| 4a | Harvey Co. Camp Hawk Lake | Water Supply | Siltation | LM063401 | HV | Lake | Low |
| 4a | Sand Creek Near Sedgwick | Aquatic Life | Total Phosphorus | SC535 | MN, HV | Watershed | High |
| 4a | Turkey Creek Near Alta Mills | Aquatic Life | Total Phosphorus | SC533 | MP, RC, RN | Watershed | High |
| 4a | Black Kettle Creek Near Halstead | Aquatic Life | Total Suspended Solids | SC705 | MP, HV | Watershed | High |
| 4a | Kisiwa Creek Near Halstead | Aquatic Life | Total Suspended Solids | SC703 | HV, RN | Watershed | High |
| 4a | Little Arkansas River At Alta Mills | Aquatic Life | Total Suspended Solids | SC246 | MP, RC, RN | Watershed | High |
| 4a | Little Arkansas River At Valley Center | Aquatic Life | Total Suspended Solids | SC282 | HV, SG | Watershed | High |
| 4a | Little Arkansas River At Wichita | Aquatic Life | Total Suspended Solids | SC728 | SG, SU | Watershed | High |
| 4a | Turkey Creek Near Alta Mills | Aquatic Life | Total Suspended Solids | SC533 | MP, RC, RN | Watershed | High |

11030012

Little Arkansas

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|---------------------------|--------------|------------------|----------|----------|-----------|----------|
| 3 | Inman Lake | Aquatic Life | Copper | LM050301 | MP | Lake | |
| 3 | Harvey Co. West Park Lake | Aquatic Life | Dissolved Oxygen | LM049001 | HV | Lake | |
| 3 | Inman Lake | Aquatic Life | Lead | LM050301 | MP | Lake | |
| 3 | Inman Lake | Water Supply | Siltation | LM050301 | MP | Lake | |
| 3 | Mingenback Lake | Water Supply | Siltation | LM064701 | MP | Lake | |

11030013

Middle Arkansas-Slate

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|---|------------------|------------------|----------|------------|-----------|----------|
| 5 | Slate Creek Near Wellington | Water Supply | Arsenic | SC528 | SU | Watershed | 2023 |
| 5 | Arkansas River Near Arkansas City | Aquatic Life | Atrazine | SC218 | SU, CL | Watershed | 2023 |
| 5 | Cowskin Creek At Wichita | Aquatic Life | Atrazine | SC730 | SG, SU | Watershed | 2023 |
| 5 | Slate Creek Near Wellington | Aquatic Life | Atrazine | SC528 | SU | Watershed | 2023 |
| 5 | Slate Creek Near Wellington | Aquatic Life | Biology | SC528 | SU | Watershed | 2023 |
| 5 | Cowskin Creek Near Belle Plaine | Recreation | E. coli | SC702 | SG, SU | Watershed | 2023 |
| 5 | Chisholm Creek Park Lake | Aquatic Life | Eutrophication | LM064601 | SG | Lake | 2023 |
| 5 | Colwich City Lake | Aquatic Life | Eutrophication | LM017501 | SG | Lake | 2023 |
| 5 | Eagle Lake (Belaire Lake) | Aquatic Life | Eutrophication | LM022101 | SG | Lake | 2023 |
| 5 | Emery Park Lake | Aquatic Life | Eutrophication | LM063201 | SG | Lake | 2023 |
| 5 | Hargis Lake | Aquatic Life | Eutrophication | LM039901 | SU | Lake | 2023 |
| 5 | Harrison Park Lake | Aquatic Life | Eutrophication | LM022301 | SG | Lake | 2023 |
| 5 | Moss Lake | Aquatic Life | Eutrophication | LM064101 | SG | Lake | 2023 |
| 5 | Riggs Park Lake | Aquatic Life | Eutrophication | LM022401 | SG | Lake | 2023 |
| 5 | Arkansas River At Derby | Water Supply | Nitrate | SC281 | SG | Watershed | 2017 |
| 5 | Arkansas River At Derby | Food Procurement | PCB | SC281 | SG | Watershed | 2023 |
| 5 | Arkansas River At Oxford | Aquatic Life | pH | SC527 | SG, SU, CL | Watershed | 2022 |
| 5 | Arkansas River Near Arkansas City | Aquatic Life | pH | SC218 | SU, CL | Watershed | 2022 |
| 5 | Arkansas River At Derby | Aquatic Life | Total Phosphorus | SC281 | SG | Watershed | 2017 |
| 5 | Arkansas River At Oxford | Aquatic Life | Total Phosphorus | SC527 | SG, SU, CL | Watershed | 2017 |
| 5 | Arkansas River At Wichita | Aquatic Life | Total Phosphorus | SC729 | SG, SU | Watershed | 2017 |
| 5 | Arkansas River Near Arkansas City | Aquatic Life | Total Phosphorus | SC218 | SU, CL | Watershed | 2017 |
| 5 | Cowskin Creek At Wichita | Aquatic Life | Total Phosphorus | SC730 | SG, SU | Watershed | 2020 |
| 5 | Cowskin Creek In Wichita-Valley Center Floodway | Aquatic Life | Total Phosphorus | SC288 | SG | Watershed | 2020 |

11030013
Middle Arkansas-Slate

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|---|--------------|------------------------|----------|------------|-----------|----------|
| 5 | Cowskin Creek Near Belle Plaine | Aquatic Life | Total Phosphorus | SC702 | SG, SU | Watershed | 2020 |
| 5 | Slate Creek Near Wellington | Aquatic Life | Total Phosphorus | SC528 | SU | Watershed | 2020 |
| 5 | Arkansas River At Oxford | Aquatic Life | Total Suspended Solids | SC527 | SG, SU, CL | Watershed | 2023 |
| 5 | Arkansas River Near Arkansas City | Aquatic Life | Total Suspended Solids | SC218 | SU, CL | Watershed | 2023 |
| 5 | Cowskin Creek Near Belle Plaine | Aquatic Life | Total Suspended Solids | SC702 | SG, SU | Watershed | 2023 |
| 5 | Slate Creek Near Wellington | Aquatic Life | Total Suspended Solids | SC528 | SU | Watershed | 2023 |
| 4a | Arkansas River At Derby | Aquatic Life | Biology | SC281 | SG | Watershed | Medium |
| 4a | Arkansas River At Wichita | Aquatic Life | Biology | SC729 | SG, SU | Watershed | Low |
| 4a | Arkansas River Near Arkansas City | Aquatic Life | Biology | SC218 | SU, CL | Watershed | Medium |
| 4a | Cowskin Creek At Wichita | Aquatic Life | Biology | SC730 | SG, SU | Watershed | High |
| 4a | Cowskin Creek In Wichita-Valley Center Floodway | Aquatic Life | Biology | SC288 | SG | Watershed | High |
| 4a | Arkansas River At Derby | Water Supply | Chloride | SC281 | SG | Watershed | Medium |
| 4a | Arkansas River At Oxford | Water Supply | Chloride | SC527 | SG, SU, CL | Watershed | Medium |
| 4a | Arkansas River At Wichita | Water Supply | Chloride | SC729 | SG, SU | Watershed | Medium |
| 4a | Arkansas River Near Arkansas City | Water Supply | Chloride | SC218 | SU, CL | Watershed | Medium |
| 4a | Slate Creek W.A. | Water Supply | Chloride | LM014201 | SU | Lake | Medium |
| 4a | Arkansas River At Derby | Recreation | E. coli | SC281 | SG | Watershed | High |
| 4a | Arkansas River At Oxford | Recreation | E. coli | SC527 | SG, SU, CL | Watershed | High |
| 4a | Arkansas River At Wichita | Recreation | E. coli | SC729 | SG, SU | Watershed | High |
| 4a | Cowskin Creek At Wichita | Recreation | E. coli | SC730 | SG, SU | Watershed | High |
| 4a | Cowskin Creek In Wichita-Valley Center Floodway | Recreation | E. coli | SC288 | SG | Watershed | High |
| 4a | Slate Creek Near Wellington | Recreation | E. coli | SC528 | SU | Watershed | High |
| 4a | Cadillac Lake (Pracht Wetland) | Aquatic Life | Eutrophication | LM054101 | SG | Lake | Low |
| 4a | Horseshoe Lake | Aquatic Life | Eutrophication | LM063501 | SG | Lake | Low |
| 4a | Kid's Lake | Aquatic Life | Eutrophication | LM063601 | SG | Lake | Low |
| 4a | Slate Creek W.A. | Aquatic Life | Eutrophication | LM014201 | SU | Lake | Medium |
| 4a | Watson Park Lake | Aquatic Life | Eutrophication | LM064401 | SG | Lake | Low |
| 4a | Slate Creek W.A. | Aquatic Life | pH | LM014201 | SU | Lake | Medium |
| 4a | Slate Creek W.A. | Water Supply | Siltation | LM014201 | SU | Lake | Medium |
| 4a | Slate Creek Near Wellington | Water Supply | Sulfate | SC528 | SU | Watershed | Low |
| 4a | Slate Creek W.A. | Water Supply | Sulfate | LM014201 | SU | Lake | Low |

11030013 Middle Arkansas-Slate

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-----------------------------------|--------------|----------------|----------|----------|-----------|----------|
| 3 | Arkansas River Near Arkansas City | Recreation | E. coli | SC218 | SU, CL | Watershed | |
| 3 | Vic's Lake | Aquatic Life | Eutrophication | LM064301 | SG | Lake | |
| 3 | Windmill Lake | Aquatic Life | Eutrophication | LM064501 | SG | Lake | |

11030014 North Fork Ninnescah

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|---|--------------|----------------|----------|------------|-----------|----------|
| 4a | Cheney Lake | Aquatic Life | Eutrophication | LM017001 | RN | Lake | High |
| 4a | North Fork Ninnescah River Near Castleton | Aquatic Life | pH | SC525 | SF, RN, PR | Watershed | Low |
| 4a | Cheney Lake | Water Supply | Siltation | LM017001 | RN | Lake | High |
| 3 | Cheney Lake | Aquatic Life | pH | LM017001 | RN | Lake | |

11030015 South Fork Ninnescah

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|---|--------------|------------------|----------|----------|-----------|----------|
| 5 | Texas Lake W.A. | Aquatic Life | Dissolved Oxygen | LM053001 | PR | Lake | 2023 |
| 5 | Kingman Co. SFL | Aquatic Life | Eutrophication | LM010401 | KM | Lake | 2023 |
| 5 | Pratt Co. Lake | Aquatic Life | pH | LM064001 | PR | Lake | 2023 |
| 5 | South Fork Ninnescah River Near Murdock | Aquatic Life | Temperature | SC036 | PR, KM | Watershed | 2023 |
| 4a | Kingman Co. SFL | Recreation | Aquatic Plants | LM010401 | KM | Lake | Medium |
| 4a | South Fork Ninnescah River Near Murdock | Water Supply | Chloride | SC036 | PR, KM | Watershed | Medium |
| 4a | Kingman Co. SFL | Aquatic Life | Dissolved Oxygen | LM010401 | KM | Lake | Medium |
| 4a | Pratt Co. Lake | Aquatic Life | Eutrophication | LM064001 | PR | Lake | High |
| 4a | Kingman Co. SFL | Aquatic Life | pH | LM010401 | KM | Lake | Medium |
| 3 | Lemon Park Lake | Aquatic Life | Eutrophication | LM063901 | PR | Lake | |

11030016 Ninnescah

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-----------------------------------|--------------|------------------|----------|------------|-----------|----------|
| 4a | Ninnescah River Near Belle Plaine | Water Supply | Chloride | SC280 | SG, KM, SU | Watershed | Medium |
| 4a | Lake Afton | Aquatic Life | Eutrophication | LM049201 | SG | Lake | High |
| 3 | Ninnescah River Near Belle Plaine | Aquatic Life | Biology/Sediment | SC280 | SG, KM, SU | Watershed | |
| 3 | Ninnescah River Near Belle Plaine | Recreation | E. coli | SC280 | SG, KM, SU | Watershed | |

11060001**Kaw Lake**

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|------------------------------|--------------|----------------|----------|----------|-----------|----------|
| 5 | Cowley Co. SFL | Aquatic Life | Eutrophication | LM013401 | CL | Lake | 2023 |
| 3 | Grouse Creek Near Cambridge | Aquatic Life | Biology | SC761 | CL | Watershed | |
| 3 | Grouse Creek Near Silverdale | Aquatic Life | Biology | SC531 | CL | Watershed | |
| 3 | Beaver Creek Near Maple City | Recreation | E. coli | SC664 | CL | Watershed | |
| 3 | Grouse Creek Near Silverdale | Recreation | E. coli | SC531 | CL | Watershed | |

11060002**Upper Salt Fork Arkansas**

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|--|--------------|-------------|---------|------------|-----------|----------|
| 5 | Salt Fork Arkansas River Near Hardtner | Aquatic Life | Temperature | SC591 | BA, CM | Watershed | 2023 |
| 4a | Salt Fork Arkansas River Near Hardtner | Water Supply | Chloride | SC591 | BA, CM | Watershed | Low |
| 4a | Mule Creek Near Aetna | Recreation | Fecal Coli | SC622 | KW, BA, CM | Watershed | Medium |

11060003**Medicine Lodge**

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|--|--------------|------------------|----------|------------|-----------|----------|
| 5 | Barber Co. SFL | Water Supply | Sulfate | LM013101 | BA | Lake | 2023 |
| 4a | Barber Co. SFL | Aquatic Life | Dissolved Oxygen | LM013101 | BA | Lake | Low |
| 4a | Medicine Lodge River Near Belvidere | Recreation | Fecal Coli | SC588 | KW | Watershed | High |
| 4a | Medicine Lodge River Near Medicine Lodge | Recreation | Fecal Coli | SC589 | PR, KW, BA | Watershed | High |
| 4a | Medicine Lodge River Near Medicine Lodge | Water Supply | Sulfate | SC589 | PR, KW, BA | Watershed | Low |
| 3 | Elm Creek Near Medicine Lodge | Recreation | E. coli | SC590 | PR, BA | Watershed | |

11060004**Lower Salt Fork Arkansas**

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-------------------------|--------------|-------------|---------|----------|-----------|----------|
| 5 | Sandy Creek Near Ruella | Aquatic Life | Temperature | SC619 | HP | Watershed | 2023 |

11060005**Chikaskia**

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|---------------------------|--------------|------------------|----------|----------|-----------|----------|
| 5 | Bluff Creek Near Caldwell | Water Supply | Arsenic | SC530 | HP | Watershed | 2023 |
| 5 | Fall Creek Near Caldwell | Water Supply | Arsenic | SC662 | SU | Watershed | 2023 |
| 5 | Isabel W.A. | Aquatic Life | Copper | LM014301 | PR | Lake | 2023 |
| 5 | Isabel W.A. | Aquatic Life | Dissolved Oxygen | LM014301 | PR | Lake | 2023 |

11060005**Chikaskia**

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|------------------------------|--------------|------------------|----------|----------|-----------|----------|
| 5 | Bluff Creek Near Bluff City | Aquatic Life | Total Phosphorus | SC618 | HP | Watershed | 2023 |
| 5 | Shoofly Creek Near Hunnewell | Aquatic Life | Total Phosphorus | SC663 | SU | Watershed | 2023 |
| 4a | Anthony City Lake | Aquatic Life | Dissolved Oxygen | LM048801 | HP | Lake | High |
| 4a | Bluff Creek Near Bluff City | Recreation | E. coli | SC618 | HP | Watershed | High |
| 4a | Bluff Creek Near Caldwell | Recreation | E. coli | SC530 | HP | Watershed | High |
| 4a | Chikaskia River Near Corbin | Recreation | E. coli | SC529 | SU | Watershed | High |
| 4a | Anthony City Lake | Aquatic Life | Eutrophication | LM048801 | HP | Lake | High |
| 4a | Isabel W.A. | Aquatic Life | Eutrophication | LM014301 | PR | Lake | Low |
| 4a | Fall Creek Near Caldwell | Recreation | Fecal Coli | SC662 | SU | Watershed | High |
| 4a | Anthony City Lake | Aquatic Life | pH | LM048801 | HP | Lake | High |
| 4a | Isabel W.A. | Aquatic Life | pH | LM014301 | PR | Lake | Low |
| 4a | Bluff Creek Near Bluff City | Aquatic Life | Selenium | SC618 | HP | Watershed | Medium |
| 4a | Wellington Lake | Aquatic Life | Selenium | LM042201 | SU | Lake | Low |
| 4a | Anthony City Lake | Water Supply | Siltation | LM048801 | HP | Lake | High |
| 4a | Wellington Lake | Water Supply | Siltation | LM042201 | SU | Lake | Medium |
| 3 | Shoofly Creek Near Hunnewell | Recreation | E. coli | SC663 | SU | Watershed | |

Marais des Cygnes River Basin**10290101****Upper Marais Des Cygnes**

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|------------------------------------|--------------|------------------|------------|------------|-----------|----------|
| 5 | 110 Mile Creek Near Scranton | Aquatic Life | Atrazine | SC633 | OS, FR | Watershed | 2023 |
| 5 | Dragoon Creek Near Burlingame | Aquatic Life | Atrazine | SC577 | WB, OS | Watershed | 2023 |
| 5 | Switzler Creek Near Burlingame | Aquatic Life | Atrazine | SC687 | OS | Watershed | 2023 |
| 5 | Pottawatomie Creek Near Osawatomie | Aquatic Life | Biology | SC556 | FR, AN | Watershed | 2022 |
| 5 | Appanoose Creek Near Richter | Aquatic Life | Dissolved Oxygen | SC692 | DG, OS, FR | Watershed | 2022 |
| 5 | Richmond City Lake | Aquatic Life | Dissolved Oxygen | LM046801 | FR | Lake | 2022 |
| 5 | Salt Creek | Recreation | E. coli | NPDES24821 | OS | Facility | 2023 |
| 5 | Salt Creek Near Lyndon | Recreation | E. coli | SC578 | OS, FR | Watershed | 2023 |
| 5 | Garnett North Lake | Aquatic Life | Eutrophication | LM040601 | AN | Lake | 2022 |
| 5 | Osawatomie City Lake | Aquatic Life | Eutrophication | LM066201 | MI | Lake | 2023 |
| 5 | Richmond City Lake | Aquatic Life | Eutrophication | LM046801 | FR | Lake | 2022 |

10290101
Upper Marais Des Cygnes

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|---|--------------|------------------|----------|------------|-----------|----------|
| 5 | Appanoose Creek Near Richter | Aquatic Life | Lead | SC692 | DG, OS, FR | Watershed | 2023 |
| 5 | Westphalia Lake | Water Supply | Siltation | LM066901 | AN | Lake | 2023 |
| 4a | Spring Creek Park Lake | Recreation | Aquatic Plants | LM066801 | DG | Lake | Low |
| 4a | Salt Creek Near Lyndon | Aquatic Life | Atrazine | SC578 | OS, FR | Watershed | Low |
| 4a | 110 Mile Creek Near Scranton | Aquatic Life | Dissolved Oxygen | SC633 | OS, FR | Watershed | High |
| 4a | One Hundred Forty Two Mile Creek Near Reading | Aquatic Life | Dissolved Oxygen | SC579 | LY | Watershed | High |
| 4a | Ottawa Creek Near Ottawa | Aquatic Life | Dissolved Oxygen | SC616 | DG, FR | Watershed | High |
| 4a | Pottawatomie Creek Near Osawatomie | Aquatic Life | Dissolved Oxygen | SC556 | FR, AN | Watershed | High |
| 4a | Salt Creek Near Lyndon | Aquatic Life | Dissolved Oxygen | SC578 | OS, FR | Watershed | Low |
| 4a | Switzler Creek Near Burlingame | Aquatic Life | Dissolved Oxygen | SC687 | OS | Watershed | High |
| 4a | Marais Des Cygnes River Near Ottawa | Recreation | E. coli | SC270 | DG, FR | Watershed | High |
| 4a | Marais Des Cygnes River Near Reading | Recreation | E. coli | SC742 | WB, LY | Watershed | High |
| 4a | Cedar Creek Lake | Aquatic Life | Eutrophication | LM040701 | AN | Lake | High |
| 4a | Crystal Lake | Aquatic Life | Eutrophication | LM064901 | AN | Lake | Medium |
| 4a | Lebo City Park Lake | Aquatic Life | Eutrophication | LM065601 | CF | Lake | Low |
| 4a | Osage City Reservoir | Aquatic Life | Eutrophication | LM066101 | OS | Lake | Low |
| 4a | Pomona Lake | Aquatic Life | Eutrophication | LM028001 | OS | Lake | High |
| 4a | Spring Creek Park Lake | Aquatic Life | Eutrophication | LM066801 | DG | Lake | Low |
| 4a | One Hundred Forty Two Mile Creek Near Reading | Recreation | Fecal Coli | SC579 | LY | Watershed | High |
| 4a | Cedar Creek Lake | Water Supply | Siltation | LM040701 | AN | Lake | High |
| 4a | Pomona Lake | Water Supply | Siltation | LM028001 | OS | Lake | High |
| 3 | Lebo City Lake | Aquatic Life | Copper | LM041201 | CF | Lake | |
| 3 | Dragoon Creek Near Burlingame | Recreation | E. coli | SC577 | WB, OS | Watershed | |
| 3 | Marais Des Cygnes River Near Quenemo | Recreation | E. coli | SC720 | OS, CF | Watershed | |
| 3 | Marais Des Cygnes River Near Richter | Recreation | E. coli | SC555 | OS, FR | Watershed | |
| 3 | Ottawa Creek Near Ottawa | Recreation | E. coli | SC616 | DG, FR | Watershed | |
| 3 | Pottawatomie Creek Near Osawatomie | Recreation | E. coli | SC556 | FR, AN | Watershed | |

Priority

10290102
Lower Marais Des Cygnes

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-------------------------------------|--------------|------------------|----------|----------|-----------|----------|
| 5 | Marais Des Cygnes W.A. | Water Supply | Arsenic | LM053201 | LN | Lake | 2023 |
| 5 | Marais Des Cygnes River Near Henson | Aquatic Life | Atrazine | SC743 | FR, MI | Watershed | 2023 |
| 5 | Bull Creek Near Henson | Recreation | E. coli | SC557 | MI | Watershed | 2023 |
| 5 | Critzer Lake | Aquatic Life | Eutrophication | LM051301 | LN | Lake | 2023 |
| 5 | Miola Lake | Aquatic Life | Eutrophication | LM051001 | MI | Lake | 2023 |
| 5 | Pleasanton Lake #1 | Aquatic Life | Eutrophication | LM066401 | LN | Lake | 2023 |
| 5 | Pleasanton Lake #2 | Aquatic Life | Eutrophication | LM066501 | LN | Lake | 2023 |
| 5 | Spring Hill City Lake | Aquatic Life | Eutrophication | LM073501 | JO | Lake | 2023 |
| 4a | Mound City Lake | Recreation | Aquatic Plants | LM051401 | LN | Lake | Medium |
| 4a | Edgerton City Lake | Aquatic Life | Atrazine | LM065001 | JO | Lake | Medium |
| 4a | Big Sugar Creek Near Trading Post | Aquatic Life | Dissolved Oxygen | SC558 | AN, LN | Watershed | Medium |
| 4a | Marais Des Cygnes W.A. | Aquatic Life | Dissolved Oxygen | LM053201 | LN | Lake | High |
| 4a | Middle Creek Near New Lancaster | Aquatic Life | Dissolved Oxygen | SC697 | MI | Watershed | High |
| 4a | Mound City Lake | Aquatic Life | Dissolved Oxygen | LM051401 | LN | Lake | Medium |
| 4a | Edgerton City Lake | Aquatic Life | Eutrophication | LM065001 | JO | Lake | Medium |
| 4a | Hillsdale Lake | Aquatic Life | Eutrophication | LM035001 | JO, MI | Lake | High |
| 4a | Louisburg SFL | Aquatic Life | Eutrophication | LM043801 | MI | Lake | High |
| 4a | Marais Des Cygnes W.A. | Aquatic Life | Eutrophication | LM053201 | LN | Lake | High |
| 4a | Miami Co. SFL | Aquatic Life | Eutrophication | LM043601 | MI | Lake | Medium |
| 4a | Mound City Lake | Aquatic Life | Eutrophication | LM051401 | LN | Lake | Medium |
| 4a | Pleasanton Reservoir | Aquatic Life | Eutrophication | LM044201 | LN | Lake | High |
| 4a | Marais Des Cygnes W.A. | Aquatic Life | pH | LM053201 | LN | Lake | High |
| 4a | Miami Co. SFL | Aquatic Life | pH | LM043601 | MI | Lake | Medium |
| 4a | Mound City Lake | Aquatic Life | pH | LM051401 | LN | Lake | Medium |
| 4a | Marais Des Cygnes W.A. | Water Supply | Siltation | LM053201 | LN | Lake | High |
| 3 | Marais Des Cygnes W.A. | Aquatic Life | Atrazine | LM053201 | LN | Lake | |
| 3 | Marais Des Cygnes Near Trading Post | Aquatic Life | Biology | SC745 | LN | Watershed | |
| 3 | Big Sugar Creek Near Trading Post | Recreation | E. coli | SC558 | AN, LN | Watershed | |
| 3 | Marais Des Cygnes Near Trading Post | Recreation | E. coli | SC206 | MI, LN | Watershed | |
| 3 | Marais Des Cygnes Near Trading Post | Recreation | E. coli | SC745 | LN | Watershed | |
| 3 | Middle Creek Near New Lancaster | Recreation | E. coli | SC697 | MI | Watershed | |

10290102

Lower Marais Des Cygnes

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-----------------|--------------|----------------|----------|----------|-----------|----------|
| 3 | La Cygne Lake | Aquatic Life | Eutrophication | LM044002 | MI, LN | Lake | |
| 3 | Paola City Lake | Aquatic Life | Eutrophication | LM073201 | MI | Lake | |

10290103

Little Osage

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|--------------------------------|--------------|------------------|----------|----------------|-----------|----------|
| 5 | Little Osage River Near Fulton | Aquatic Life | Biology | SC207 | AN, LN, AL, BB | Watershed | 2023 |
| 5 | Little Osage River Near Fulton | Aquatic Life | Dissolved Oxygen | SC207 | AN, LN, AL, BB | Watershed | 2023 |
| 4a | Little Osage River Near Fulton | Recreation | E. coli | SC207 | AN, LN, AL, BB | Watershed | Medium |
| 4a | Prescott City Lake | Aquatic Life | Eutrophication | LM066601 | LN | Lake | Low |

10290104

Marmaton

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|--------------------------------|--------------|------------------|----------|----------|-----------|----------|
| 5 | Marmaton River | Aquatic Life | Biology | SB324 | BB | Watershed | 2023 |
| 5 | Rock Creek Lake | Aquatic Life | Dissolved Oxygen | LM045201 | BB | Lake | 2023 |
| 5 | Marmaton River Near Fort Scott | Recreation | E. coli | SC208 | BB | Watershed | 2023 |
| 5 | Gunn Park East Lake | Aquatic Life | Eutrophication | LM065401 | BB | Lake | 2023 |
| 5 | Gunn Park West Lake | Aquatic Life | Eutrophication | LM065501 | BB | Lake | 2023 |
| 5 | Drywood Creek Near Garland | Aquatic Life | Selenium | SC617 | BB, CR | Watershed | 2023 |
| 5 | Drywood Creek Near Garland | Water Supply | Sulfate | SC617 | BB, CR | Watershed | 2023 |
| 4a | Marmaton River Near Fort Scott | Aquatic Life | Biology | SC208 | BB | Watershed | High |
| 4a | Bourbon Co. SFL | Aquatic Life | Dissolved Oxygen | LM013301 | BB | Lake | Medium |
| 4a | Drywood Creek Near Garland | Aquatic Life | Dissolved Oxygen | SC617 | BB, CR | Watershed | Low |
| 4a | Marmaton River Near Fort Scott | Aquatic Life | Dissolved Oxygen | SC208 | BB | Watershed | High |
| 4a | Marmaton River Near Fort Scott | Aquatic Life | Dissolved Oxygen | SC559 | AL, BB | Watershed | High |
| 4a | Bourbon Co. SFL | Aquatic Life | Eutrophication | LM013301 | BB | Lake | Medium |
| 4a | Bronson City Lake | Aquatic Life | Eutrophication | LM046201 | BB | Lake | Medium |
| 4a | Elm Creek Lake | Aquatic Life | Eutrophication | LM044801 | BB | Lake | Low |
| 4a | Lake Crawford State Park #2 | Aquatic Life | Eutrophication | LM011101 | CR | Lake | High |
| 4a | Rock Creek Lake | Aquatic Life | Eutrophication | LM045201 | BB | Lake | High |
| 4a | Bourbon Co. SFL | Aquatic Life | pH | LM013301 | BB | Lake | Medium |

10290104
Marmaton

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|--------------------------------|--------------|------------|---------|----------|-----------|----------|
| 3 | Marmaton River Near Fort Scott | Aquatic Life | Biology | SC559 | AL, BB | Watershed | |
| 3 | Drywood Creek Near Garland | Recreation | E. coli | SC617 | BB, CR | Watershed | |

Missouri River Basin

10240005
Tarkio-Wolf

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|--------------------------|--------------|------------------|----------|----------|-----------|----------|
| 5 | Wolf River Near Sparks | Aquatic Life | Atrazine | SC201 | BR, DP | Watershed | 2023 |
| 4a | Brown Co. SFL | Recreation | Aquatic Plants | LM010301 | BR | Lake | Medium |
| 4a | Troy Fair Lake | Recreation | Aquatic Plants | LM073801 | DP | Lake | Low |
| 4a | Hiawatha City Lake | Aquatic Life | Atrazine | LM011601 | BR | Lake | Medium |
| 4a | Wolf River Near Sparks | Aquatic Life | Biology | SC201 | BR, DP | Watershed | High |
| 4a | Brown Co. SFL | Aquatic Life | Dissolved Oxygen | LM010301 | BR | Lake | Medium |
| 4a | Wolf River Near Sparks | Recreation | E. coli | SC201 | BR, DP | Watershed | High |
| 4a | Brown Co. SFL | Aquatic Life | Eutrophication | LM010301 | BR | Lake | Medium |
| 4a | Hiawatha City Lake | Aquatic Life | Eutrophication | LM011601 | BR | Lake | Medium |
| 4a | Troy Fair Lake | Aquatic Life | Eutrophication | LM073801 | DP | Lake | Low |
| 4a | Brown Co. SFL | Aquatic Life | pH | LM010301 | BR | Lake | Medium |
| 3 | Mosquito Creek Near Troy | Recreation | E. coli | SC722 | DP | Watershed | |

10240007
South Fork Big Nemaha

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-------------------------------------|--------------|------------------|----------|----------|-----------|----------|
| 5 | South Fork Nemaha River Near Bern | Water Supply | Arsenic | SC234 | NM, JA | Watershed | 2023 |
| 5 | Sabetha City Lake | Aquatic Life | Atrazine | LM011501 | NM | Lake | 2023 |
| 5 | South Fork Nemaha River Near Bern | Aquatic Life | Atrazine | SC234 | NM, JA | Watershed | 2023 |
| 5 | South Fork Nemaha River Near Seneca | Recreation | E. coli | SC682 | NM, PT | Watershed | 2023 |
| 5 | Pole Creek Near St. Benedict | Aquatic Life | Total Phosphorus | SC756 | NM | Watershed | 2023 |
| 5 | South Fork Nemaha River Near Bern | Aquatic Life | Total Phosphorus | SC234 | NM, JA | Watershed | 2023 |
| 5 | Turkey Creek Near Bern | Aquatic Life | Total Phosphorus | SC601 | MS, NM | Watershed | 2023 |
| 4a | Pole Creek Near St. Benedict | Aquatic Life | Atrazine | SC756 | NM | Watershed | Medium |
| 4a | Turkey Creek Near Bern | Aquatic Life | Atrazine | SC601 | MS, NM | Watershed | Medium |
| 4a | South Fork Nemaha River Near Bern | Aquatic Life | Biology | SC234 | NM, JA | Watershed | High |

10240007

South Fork Big Nemaha

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-------------------------------------|--------------|------------------------|----------|----------|-----------|----------|
| 4a | South Fork Nemaha River Near Bern | Recreation | E. coli | SC234 | NM, JA | Watershed | High |
| 4a | Sabetha City Lake | Aquatic Life | Eutrophication | LM011501 | NM | Lake | Low |
| 4a | Turkey Creek Near Bern | Recreation | Fecal Coli | SC601 | MS, NM | Watershed | Low |
| 4a | South Fork Nemaha River Near Seneca | Aquatic Life | Selenium | SC682 | NM, PT | Watershed | Low |
| 3 | South Fork Nemaha River Near Seneca | Aquatic Life | Atrazine | SC682 | NM, PT | Watershed | |
| 3 | Nemaha Co. SFL/W.A. | Aquatic Life | Eutrophication | LM010801 | NM | Lake | |
| 3 | Pole Creek Near St. Benedict | Aquatic Life | Total Suspended Solids | SC756 | NM | Watershed | |

10240008

Big Nemaha

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|---------------------------|--------------|------------------------|----------|----------|-----------|----------|
| 5 | Pony Creek Near Reserve | Aquatic Life | Atrazine | SC291 | NM, BR | Watershed | 2023 |
| 5 | Roys Creek Near Reserve | Aquatic Life | Atrazine | SC552 | BR, DP | Watershed | 2023 |
| 5 | Walnut Creek Near Reserve | Aquatic Life | Atrazine | SC292 | BR, DP | Watershed | 2023 |
| 5 | Walnut Creek Near Reserve | Aquatic Life | Total Phosphorus | SC292 | BR, DP | Watershed | 2023 |
| 5 | Walnut Creek Near Reserve | Aquatic Life | Total Suspended Solids | SC292 | BR, DP | Watershed | 2023 |
| 4a | Pony Creek Lake | Aquatic Life | Eutrophication | LM073001 | BR | Lake | High |
| 4a | Walnut Creek Near Reserve | Recreation | Fecal Coli | SC292 | BR, DP | Watershed | High |
| 3 | Pony Creek Near Reserve | Recreation | E. coli | SC291 | NM, BR | Watershed | |
| 3 | Roys Creek Near Reserve | Water Supply | Nitrate | SC552 | BR, DP | Watershed | |

10240011

Independence-Sugar

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-----------------------------------|--------------|------------------|----------|----------|-----------|----------|
| 5 | Atchison Co. SFL | Aquatic Life | Atrazine | LM012601 | AT | Lake | 2023 |
| 5 | Lake Warnock (Atchison City Lake) | Aquatic Life | Eutrophication | LM039801 | AT | Lake | 2023 |
| 5 | Merrit Lake | Aquatic Life | Eutrophication | LM020801 | LV | Lake | 2023 |
| 5 | Smith Lake | Aquatic Life | Eutrophication | LM020701 | LV | Lake | 2023 |
| 4a | Atchison Co. SFL | Recreation | Aquatic Plants | LM012601 | AT | Lake | Low |
| 4a | Atchison Co. SFL | Aquatic Life | Dissolved Oxygen | LM012601 | AT | Lake | Low |
| 4a | Atchison Co. SFL | Aquatic Life | Eutrophication | LM012601 | AT | Lake | Medium |
| 4a | Big Eleven Lake | Aquatic Life | Eutrophication | LM067101 | WY | Lake | Low |
| 4a | Jerry's Lake | Aquatic Life | Eutrophication | LM067801 | LV | Lake | Low |
| 4a | Lansing City Lake | Aquatic Life | Eutrophication | LM067201 | LV | Lake | Low |

10240011
Independence-Sugar

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|----------------------------------|--------------|----------------|----------|----------|-----------|----------|
| 4a | Wyandotte Co. Lake | Aquatic Life | Eutrophication | LM042401 | WY | Lake | High |
| 4a | Atchison Co. SFL | Aquatic Life | pH | LM012601 | AT | Lake | Medium |
| 4a | Lansing City Lake | Aquatic Life | pH | LM067201 | LV | Lake | Low |
| 4a | Atchison Co. SFL | Water Supply | Siltation | LM012601 | AT | Lake | High |
| 3 | Lansing City Lake | Aquatic Life | Copper | LM067201 | LV | Lake | |
| 3 | Independence Creek Near Atchison | Recreation | E. coli | SC553 | DP, AT | Watershed | |

10300101
Lower Missouri-Crooked

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|---------------------------|------------------|------------------|----------|----------|-----------|----------|
| 5 | Indian Creek Near Leawood | Aquatic Life | Biology | SC204 | JO | Watershed | 2023 |
| 5 | Indian Creek Near Leawood | Water Supply | Chloride | SC204 | JO | Watershed | 2023 |
| 5 | Heritage Park Lake | Aquatic Life | Eutrophication | LM062401 | JO | Lake | 2023 |
| 5 | Blue River Near Stanley | Food Procurement | Mercury | SC205 | JO | Watershed | 2023 |
| 5 | Indian Creek Near Leawood | Aquatic Life | Total Phosphorus | SC204 | JO | Watershed | 2023 |
| 4a | Blue River Near Stanley | Aquatic Life | Biology | SC205 | JO | Watershed | Medium |
| 4a | Blue River Near Stanley | Recreation | E. coli | SC205 | JO | Watershed | Medium |
| 4a | Indian Creek Near Leawood | Recreation | E. coli | SC204 | JO | Watershed | Medium |
| 4a | South Lake Park | Aquatic Life | Eutrophication | LM067501 | JO | Lake | Low |
| 4a | Indian Creek Near Leawood | Water Supply | Nitrate | SC204 | JO | Watershed | High |
| 3 | Blue River Near Stanley | Aquatic Life | Diazinon | SC205 | JO | Watershed | |
| 3 | Indian Creek Near Leawood | Aquatic Life | Diazinon | SC204 | JO | Watershed | |
| 3 | Stohl Park Lake | Aquatic Life | Lead | LM062801 | JO | Lake | |

Neosho River Basin

11070201
Neosho Headwaters

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|----------------------------------|--------------|------------------|----------|------------|-----------|----------|
| 5 | Eagle Creek Near Olpe | Aquatic Life | Atrazine | SC634 | LY | Watershed | 2023 |
| 5 | Munkers Creek Near Council Grove | Aquatic Life | Dissolved Oxygen | SC631 | WB, MR, LY | Watershed | 2022 |
| 5 | Flint Hills N.W.R. | Water Supply | Siltation | LM072401 | CF | Lake | 2023 |
| 4a | Neosho River Near Parkerville | Aquatic Life | Copper | SC637 | MR | Watershed | Low |
| 4a | Allen Creek Near Emporia | Aquatic Life | Dissolved Oxygen | SC628 | LY | Watershed | Medium |
| 4a | Eagle Creek Near Olpe | Aquatic Life | Dissolved Oxygen | SC634 | LY | Watershed | High |
| 4a | Council Grove Lake | Aquatic Life | Eutrophication | LM022001 | MR | Lake | High |

11070201 Neosho Headwaters

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|------------------------------------|--------------|------------------|----------|----------|-----------|----------|
| 4a | John Redmond Lake | Aquatic Life | Eutrophication | LM026001 | LY, CF | Lake | Medium |
| 4a | Jones Park Lake | Aquatic Life | Eutrophication | LM068701 | LY | Lake | Low |
| 4a | Lake Kahola | Aquatic Life | Eutrophication | LM043401 | MR | Lake | Medium |
| 4a | Olpe City Lake | Aquatic Life | Eutrophication | LM041001 | LY | Lake | High |
| 4a | Neosho River At Parkerville | Recreation | Fecal Coli | SC675 | MR | Watershed | Medium |
| 4a | Council Grove Lake | Water Supply | Siltation | LM022001 | MR | Lake | High |
| 4a | John Redmond Lake | Water Supply | Siltation | LM026001 | LY, CF | Lake | Medium |
| 4a | Olpe City Lake | Water Supply | Siltation | LM041001 | LY | Lake | High |
| 4a | Neosho River At Neosho Rapids | Aquatic Life | Total Phosphorus | SC273 | LY | Watershed | High |
| 4a | Neosho River Near Parkerville | Aquatic Life | Total Phosphorus | SC637 | MR | Watershed | High |
| 3 | Four Mile Creek Near Council Grove | Aquatic Life | Biology | SC630 | MR | Watershed | |
| 3 | John Redmond Lake | Aquatic Life | Dissolved Oxygen | LM026001 | LY, CF | Lake | |
| 3 | Neosho River At Neosho Rapids | Recreation | E. coli | SC273 | LY | Watershed | |
| 3 | Neosho River Near Americus | Recreation | E. coli | SC581 | MR, LY | Watershed | |

11070202 Upper Cottonwood

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|------------------------------------|--------------|------------------|----------|------------|-----------|----------|
| 5 | Mud Creek Near Marion | Aquatic Life | Atrazine | SC691 | MN | Watershed | 2023 |
| 5 | South Cottonwood River Near Canada | Aquatic Life | Atrazine | SC635 | MN, CS | Watershed | 2023 |
| 5 | Hillsboro City Lake | Aquatic Life | Eutrophication | LM020901 | MN | Lake | 2023 |
| 5 | Mud Creek Near Marion | Water Supply | Sulfate | SC691 | MN | Watershed | 2023 |
| 5 | North Cottonwood River Near Durham | Water Supply | Sulfate | SC636 | MP, MN, HV | Watershed | 2023 |
| 5 | South Cottonwood River Near Canada | Aquatic Life | Total Phosphorus | SC635 | MN, CS | Watershed | 2023 |
| 4a | French Creek Near Hillsboro | Aquatic Life | Dissolved Oxygen | SC676 | MN | Watershed | Medium |
| 4a | Marion Co. Lake | Aquatic Life | Dissolved Oxygen | LM012101 | MN | Lake | Medium |
| 4a | Mud Creek Near Marion | Recreation | E. coli | SC691 | MN | Watershed | High |
| 4a | Marion Co. Lake | Aquatic Life | Eutrophication | LM012101 | MN | Lake | Medium |
| 4a | Marion Lake | Aquatic Life | Eutrophication | LM020001 | MN | Lake | High |
| 4a | Clear Creek Near Marion | Water Supply | Sulfate | SC690 | MR, MN | Watershed | Low |
| 4a | Doyle Creek Near Florence | Water Supply | Sulfate | SC120 | HV | Watershed | Low |
| 3 | Clear Creek Near Marion | Aquatic Life | Alachlor | SC690 | MR, MN | Watershed | |

11070202 Upper Cottonwood

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-------------------------|--------------|------------|---------|----------|-----------|----------|
| 3 | Clear Creek Near Marion | Aquatic Life | Atrazine | SC690 | MR, MN | Watershed | |

11070203 Lower Cottonwood

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|---|--------------|------------------------|----------|----------|-----------|----------|
| 5 | Cottonwood River Near Elmdale | Aquatic Life | Atrazine | SC627 | MN, CS | Watershed | 2023 |
| 5 | Peter Pan Lake | Aquatic Life | Eutrophication | LM068901 | LY | Lake | 2023 |
| 5 | Bloody Creek Near Saffordville | Water Supply | Sulfate | SC689 | CS | Watershed | 2023 |
| 5 | Cottonwood River Near Elmdale | Aquatic Life | Total Suspended Solids | SC627 | MN, CS | Watershed | 2023 |
| 5 | Cottonwood River Near Plymouth | Aquatic Life | Total Suspended Solids | SC275 | CS | Watershed | 2023 |
| 4a | Fox Creek Near Strong City | Aquatic Life | Biology | SC718 | CS | Watershed | Medium |
| 4a | Palmer Creek Near Strong City | Aquatic Life | Biology | SC719 | CS | Watershed | Medium |
| 4a | South Fork Cottonwood River Near Bazaar | Aquatic Life | Biology | SC582 | CS | Watershed | Medium |
| 4a | Cottonwood River Near Elmdale | Water Supply | Sulfate | SC627 | MN, CS | Watershed | Low |
| 4a | Cottonwood River Near Emporia | Aquatic Life | Total Phosphorus | SC274 | LY, CS | Watershed | High |
| 3 | Cottonwood River Near Emporia | Aquatic Life | Biology | SC274 | LY, CS | Watershed | |
| 3 | Bloody Creek Near Saffordville | Recreation | E. coli | SC689 | CS | Watershed | |
| 3 | Diamond Creek Near Strong City | Recreation | E. coli | SC625 | MR, CS | Watershed | |
| 3 | Middle Creek Near Elmdale | Recreation | E. coli | SC626 | MN, CS | Watershed | |
| 3 | Rock Creek near Bazaar | Aquatic Life | Total Suspended Solids | SC760 | CS | Watershed | |

11070204 Upper Neosho

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-------------------------|--------------|------------------|----------|----------|-----------|----------|
| 5 | Long Creek Near Le Roy | Aquatic Life | Atrazine | SC695 | CF | Watershed | 2023 |
| 5 | Big Creek Near Chanute | Aquatic Life | Dissolved Oxygen | SC611 | AL, NO | Watershed | 2022 |
| 5 | Deer Creek Near Iola | Aquatic Life | Dissolved Oxygen | SC609 | AN, AL | Watershed | 2022 |
| 5 | Long Creek Near Le Roy | Aquatic Life | Dissolved Oxygen | SC695 | CF | Watershed | 2022 |
| 5 | Owl Creek Near Humboldt | Aquatic Life | Dissolved Oxygen | SC610 | WO, WL | Watershed | 2022 |
| 5 | Circle Lake | Aquatic Life | Eutrophication | LM021101 | WO | Lake | 2023 |
| 5 | Leonard's Lake | Aquatic Life | Eutrophication | LM021301 | WO | Lake | 2023 |
| 5 | Neosho Falls City Lake | Aquatic Life | Eutrophication | LM021401 | WO | Lake | 2023 |

11070204
Upper Neosho

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|--------------------------|--------------|------------------|----------|----------|-----------|----------|
| 4a | Owl Creek Near Humboldt | Aquatic Life | Copper | SC610 | WO, WL | Watershed | Low |
| 4a | Chanute Santa Fe Lake | Aquatic Life | Dissolved Oxygen | LM044401 | NO | Lake | Medium |
| 4a | Gridley City Lake | Aquatic Life | Dissolved Oxygen | LM045601 | CF | Lake | Medium |
| 4a | Turkey Creek Near Le Roy | Recreation | E. coli | SC614 | CF, WO | Watershed | High |
| 4a | Chanute Santa Fe Lake | Aquatic Life | Eutrophication | LM044401 | NO | Lake | Medium |
| 4a | Gridley City Lake | Aquatic Life | Eutrophication | LM045601 | CF | Lake | Medium |
| 4a | Deer Creek Near Iola | Recreation | Fecal Coli | SC609 | AN, AL | Watershed | Medium |
| 4a | Chanute Santa Fe Lake | Aquatic Life | pH | LM044401 | NO | Lake | Medium |
| 3 | Big Creek Near Chanute | Recreation | E. coli | SC611 | AL, NO | Watershed | |
| 3 | Wolf Creek Lake | Aquatic Life | Selenium | LM039601 | CF | Lake | |

11070205
Middle Neosho

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-----------------------------|--------------|------------------|----------|----------|-----------|----------|
| 5 | Cherry Creek Near Faulkner | Aquatic Life | Atrazine | SC605 | CK | Watershed | 2023 |
| 5 | Lightning Creek Near Oswego | Aquatic Life | Atrazine | SC565 | CR, CK | Watershed | 2023 |
| 5 | Labette Creek Near Labette | Aquatic Life | Biology | SC564 | NO, LB | Watershed | 2023 |
| 5 | Neosho River near Chetopa | Aquatic Life | Biology | SC214 | LB | Watershed | 2022 |
| 5 | Labette Creek Near Labette | Aquatic Life | Diazinon | SC564 | NO, LB | Watershed | 2023 |
| 5 | Mined Land Lake 14 | Aquatic Life | Eutrophication | LM036101 | CK | Lake | 2023 |
| 5 | Mined Land Lake 19 | Aquatic Life | Eutrophication | LM036501 | CK | Lake | 2023 |
| 5 | Mined Land Lake 24 | Aquatic Life | Eutrophication | LM037001 | CK | Lake | 2023 |
| 5 | Mined Land Lake 25 | Aquatic Life | Eutrophication | LM037101 | CK | Lake | 2023 |
| 5 | Mined Land Lake 26 | Aquatic Life | Eutrophication | LM037201 | CK | Lake | 2023 |
| 5 | Mined Land Lake 31 | Aquatic Life | Eutrophication | LM037701 | CK | Lake | 2023 |
| 5 | Mined Land Lake 34 | Aquatic Life | Eutrophication | LM038001 | CK | Lake | 2023 |
| 5 | Mined Land Lake 35 | Aquatic Life | Eutrophication | LM038101 | CK | Lake | 2023 |
| 5 | Mined Land Lake 36 | Aquatic Life | Eutrophication | LM038201 | CK | Lake | 2023 |
| 5 | Mined Land Lake 40 | Aquatic Life | Eutrophication | LM038601 | CK | Lake | 2023 |
| 5 | Mined Land Lake 41 | Aquatic Life | Eutrophication | LM038701 | CK | Lake | 2023 |
| 5 | Mined Land Lake WA | Water Supply | Siltation | LM038841 | CK | Lake | 2023 |
| 5 | Cherry Creek Near Faulkner | Water Supply | Sulfate | SC605 | CK | Watershed | 2023 |
| 4a | Bachelor Creek Near Labette | Aquatic Life | Dissolved Oxygen | SC698 | LB | Watershed | High |
| 4a | Canville Creek Near Shaw | Aquatic Life | Dissolved Oxygen | SC612 | AL, NO | Watershed | Medium |
| 4a | Cherry Creek Near Faulkner | Aquatic Life | Dissolved Oxygen | SC605 | CK | Watershed | High |

11070205
Middle Neosho

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-------------------------------|--------------|------------------|----------|------------|-----------|----------|
| 4a | Labette Creek Near Labette | Aquatic Life | Dissolved Oxygen | SC564 | NO, LB | Watershed | High |
| 4a | Mined Land Lake WA | Aquatic Life | Dissolved Oxygen | LM038841 | CK | Lake | Low |
| 4a | Neosho Co. SFL | Aquatic Life | Dissolved Oxygen | LM044601 | NO | Lake | Medium |
| 4a | Altamont City Main Lake (#1) | Aquatic Life | Eutrophication | LM068001 | LB | Lake | Low |
| 4a | Altamont City West Lake (#3) | Aquatic Life | Eutrophication | LM068201 | LB | Lake | Low |
| 4a | Bartlett City Lake | Aquatic Life | Eutrophication | LM045401 | LB | Lake | Low |
| 4a | Neosho Co. SFL | Aquatic Life | Eutrophication | LM044601 | NO | Lake | Medium |
| 4a | Neosho W.A. | Aquatic Life | Eutrophication | LM053401 | NO | Lake | Medium |
| 4a | Parsons Lake | Aquatic Life | Eutrophication | LM041401 | NO | Lake | Medium |
| 4a | Neosho W.A. | Aquatic Life | Lead | LM053401 | NO | Lake | Medium |
| 4a | Neosho Co. SFL | Aquatic Life | pH | LM044601 | NO | Lake | Medium |
| 4a | Neosho W.A. | Aquatic Life | pH | LM053401 | NO | Lake | Medium |
| 4a | Neosho W.A. | Water Supply | Siltation | LM053401 | NO | Lake | Medium |
| 4a | Parsons Lake | Water Supply | Siltation | LM041401 | NO | Lake | Medium |
| 4a | Mined Land Lake WA | Water Supply | Sulfate | LM038841 | CK | Lake | Low |
| 4a | Mined Land Lake 12 | Water Supply | Sulfate | LM035901 | CK | Lake | Low |
| 4a | Mined Land Lake 17 | Water Supply | Sulfate | LM048201 | CK | Lake | Low |
| 4a | Mined Land Lake 22 | Water Supply | Sulfate | LM036801 | CK | Lake | Low |
| 4a | Mined Land Lake 23 | Water Supply | Sulfate | LM036901 | CK | Lake | Low |
| 4a | Mined Land Lake 27 | Water Supply | Sulfate | LM037301 | CK | Lake | Low |
| 4a | Mined Land Lake 30 | Water Supply | Sulfate | LM037601 | CK | Lake | Low |
| 4a | Mined Land Lake 44 | Water Supply | Sulfate | LM048401 | CK | Lake | Low |
| 4a | Bachelor Creek Near Labette | Aquatic Life | Total Phosphorus | SC698 | LB | Watershed | High |
| 4a | Labette Creek Near Chetopa | Aquatic Life | Total Phosphorus | SC571 | LB | Watershed | High |
| 4a | Labette Creek Near Labette | Aquatic Life | Total Phosphorus | SC564 | NO, LB | Watershed | High |
| 3 | Flat Rock Creek Near St. Paul | Aquatic Life | Atrazine | SC613 | BB, NO, CR | Watershed | |
| 3 | Neosho W.A. | Aquatic Life | Atrazine | LM053401 | NO | Lake | |
| 3 | Cherry Creek Near Faulkner | Recreation | E. coli | SC605 | CK | Watershed | |
| 3 | Labette Creek Near Chetopa | Recreation | E. coli | SC571 | LB | Watershed | |
| 3 | Labette Creek Near Labette | Recreation | E. coli | SC564 | NO, LB | Watershed | |
| 3 | Lightning Creek Near Oswego | Recreation | E. coli | SC565 | CR, CK | Watershed | |

11070206
Lake O' The Cherokees

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|--------------------------------|--------------|------------|---------|----------|-----------|----------|
| 4a | Tar Creek At Pitcher, Oklahoma | Aquatic Life | Cadmium | SC110 | CK | Watershed | Medium |
| 4a | Tar Creek At Pitcher, Oklahoma | Aquatic Life | Lead | SC110 | CK | Watershed | Medium |
| 4a | Tar Creek At Pitcher, Oklahoma | Aquatic Life | Zinc | SC110 | CK | Watershed | Medium |

11070207
Spring

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|------------------------------------|--------------|------------------|----------|----------|-----------|----------|
| 5 | Shawnee Creek Near Crestline | Aquatic Life | Atrazine | SC569 | CK | Watershed | 2023 |
| 5 | Mined Land Lake 01 | Aquatic Life | Eutrophication | LM035101 | CR | Lake | 2023 |
| 5 | Mined Land Lake 06 | Aquatic Life | Eutrophication | LM047601 | CR | Lake | 2023 |
| 5 | Mined Land Lake 08 | Aquatic Life | Eutrophication | LM035501 | CR | Lake | 2023 |
| 5 | Mined Land Lake 09 | Aquatic Life | Eutrophication | LM035601 | CK | Lake | 2023 |
| 5 | Short Creek Near Galena | Water Supply | Fluoride | SC570 | CK | Watershed | 2023 |
| 5 | Short Creek Near Galena | Aquatic Life | Selenium | SC570 | CK | Watershed | 2023 |
| 5 | Turkey Creek Near Joplin, Missouri | Aquatic Life | Total Phosphorus | SC211 | MISSOURI | Watershed | |
| 4a | Shoal Creek Near Galena | Aquatic Life | Biology | SC212 | CK | Watershed | High |
| 4a | Spring River Near Baxter Springs | Aquatic Life | Biology | SC213 | CK | Watershed | High |
| 4a | Spring River Near Crestline | Aquatic Life | Biology | SC568 | CK | Watershed | High |
| 4a | Shawnee Creek Near Crestline | Aquatic Life | Cadmium | SC569 | CK | Watershed | High |
| 4a | Shoal Creek Near Galena | Aquatic Life | Cadmium | SC212 | CK | Watershed | High |
| 4a | Short Creek Near Galena | Aquatic Life | Cadmium | SC570 | CK | Watershed | High |
| 4a | Spring River Near Baxter Springs | Aquatic Life | Cadmium | SC213 | CK | Watershed | High |
| 4a | Turkey Creek Near Joplin, Missouri | Aquatic Life | Cadmium | SC211 | MISSOURI | Watershed | High |
| 4a | Shawnee Creek Near Crestline | Aquatic Life | Copper | SC569 | CK | Watershed | High |
| 4a | Short Creek Near Galena | Aquatic Life | Copper | SC570 | CK | Watershed | High |
| 4a | Spring River Near Baxter Springs | Aquatic Life | Copper | SC213 | CK | Watershed | High |
| 4a | Spring River Near Crestline | Aquatic Life | Copper | SC568 | CK | Watershed | High |
| 4a | Turkey Creek Near Joplin, Missouri | Aquatic Life | Copper | SC211 | MISSOURI | Watershed | High |
| 4a | Shawnee Creek Near Crestline | Aquatic Life | Dissolved Oxygen | SC569 | CK | Watershed | High |
| 4a | Pittsburg College Lake | Aquatic Life | Eutrophication | LM073301 | CR | Lake | Low |

11070207**Spring**

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|------------------------------------|--------------|------------------|----------|----------|-----------|----------|
| 4a | Playter's Lake | Aquatic Life | Eutrophication | LM069001 | CR | Lake | Low |
| 4a | Shawnee Creek Near Crestline | Aquatic Life | Lead | SC569 | CK | Watershed | High |
| 4a | Shoal Creek Near Galena | Aquatic Life | Lead | SC212 | CK | Watershed | High |
| 4a | Short Creek Near Galena | Aquatic Life | Lead | SC570 | CK | Watershed | High |
| 4a | Spring River Near Baxter Springs | Aquatic Life | Lead | SC213 | CK | Watershed | High |
| 4a | Spring River Near Crestline | Aquatic Life | Lead | SC568 | CK | Watershed | High |
| 4a | Turkey Creek Near Joplin, Missouri | Aquatic Life | Lead | SC211 | MISSOURI | Watershed | High |
| 4a | Pittsburg College Lake | Aquatic Life | pH | LM073301 | CR | Lake | Low |
| 4a | Cow Creek Near Lawton | Water Supply | Sulfate | SC567 | CR, CK | Watershed | Low |
| 4a | Mined Land Lake 06 | Water Supply | Sulfate | LM047601 | CR | Lake | Low |
| 4a | Mined Land Lake 07 | Water Supply | Sulfate | LM047801 | CR | Lake | Low |
| 4a | Cow Creek Near Lawton | Aquatic Life | Total Phosphorus | SC567 | CR, CK | Watershed | High |
| 4a | Shoal Creek Near Galena | Aquatic Life | Total Phosphorus | SC212 | CK | Watershed | High |
| 4a | Short Creek Near Galena | Aquatic Life | Total Phosphorus | SC570 | CK | Watershed | High |
| 4a | Shawnee Creek Near Crestline | Aquatic Life | Zinc | SC569 | CK | Watershed | High |
| 4a | Shoal Creek Near Galena | Aquatic Life | Zinc | SC212 | CK | Watershed | High |
| 4a | Short Creek Near Galena | Aquatic Life | Zinc | SC570 | CK | Watershed | High |
| 4a | Spring River Near Baxter Springs | Aquatic Life | Zinc | SC213 | CK | Watershed | High |
| 4a | Spring River Near Crestline | Aquatic Life | Zinc | SC568 | CK | Watershed | High |
| 4a | Turkey Creek Near Joplin, Missouri | Aquatic Life | Zinc | SC211 | MISSOURI | Watershed | High |
| 4a | Willow Creek Near Baxter Springs | Aquatic Life | Zinc | SC747 | CK | Watershed | High |
| 3 | Spring River Near Crestline | Recreation | E. coli | SC568 | CK | Watershed | |
| 3 | Mined Land Lake 04 | Aquatic Life | pH | LM035401 | CR | Lake | |
| 3 | Mined Land Lake 04 | Water Supply | Sulfate | LM035401 | CR | Lake | |

Smoky Hill- Saline River Basin**10260001****Smoky Hill Headwaters**

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|--------------------------|--------------|------------------|---------|----------|-----------|----------|
| 5 | Willow Creek Near Weskan | Aquatic Life | Dissolved Oxygen | SC724 | WA | Watershed | 2023 |
| 5 | Willow Creek Near Weskan | Water Supply | Fluoride | SC724 | WA | Watershed | 2023 |

10260002

North Fork Smoky Hill

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|------------------------|--------------|----------------|----------|----------|-----------|----------|
| 4a | Smoky Hill Garden Lake | Aquatic Life | Eutrophication | LM070101 | SH | Lake | Low |
| 3 | Smoky Hill Garden Lake | Water Supply | Fluoride | LM070101 | SH | Lake | |

10260003

Upper Smoky Hill

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-----------------------------|--------------|------------------------|----------|----------------|-----------|----------|
| 5 | Smoky Hill River At Elkader | Water Supply | Arsenic | SC224 | LG, WA, WH | Watershed | 2023 |
| 5 | Smoky Hill River At Elkader | Aquatic Life | Cadmium | SC224 | LG, WA, WH | Watershed | 2023 |
| 5 | Smoky Hill River Near Trego | Recreation | E. coli | SC550 | LG, GO, TR | Watershed | 2023 |
| 5 | Smoky Hill River Near Gove | Water Supply | Fluoride | SC739 | LG, GO, SC, LE | Watershed | 2023 |
| 5 | Smoky Hill River Near Gove | Water Supply | Gross Alpha | SC739 | LG, GO, SC, LE | Watershed | 2023 |
| 5 | Smoky Hill River At Elkader | Aquatic Life | Total Suspended Solids | SC224 | LG, WA, WH | Watershed | 2023 |
| 4a | Smoky Hill River Near Gove | Aquatic Life | Dissolved Oxygen | SC739 | LG, GO, SC, LE | Watershed | Medium |
| 4a | Smoky Hill River Near Trego | Aquatic Life | Dissolved Oxygen | SC550 | LG, GO, TR | Watershed | Medium |
| 4a | Cedar Bluff Lake | Aquatic Life | Eutrophication | LM013001 | TR, NS | Lake | Medium |
| 4a | Smoky Hill River At Elkader | Water Supply | Fluoride | SC224 | LG, WA, WH | Watershed | Low |
| 4a | Smoky Hill River At Elkader | Aquatic Life | Selenium | SC224 | LG, WA, WH | Watershed | Low |
| 4a | Smoky Hill River Near Gove | Aquatic Life | Selenium | SC739 | LG, GO, SC, LE | Watershed | Low |
| 4a | Smoky Hill River Near Trego | Aquatic Life | Selenium | SC550 | LG, GO, TR | Watershed | Low |
| 4a | Cedar Bluff Lake | Water Supply | Sulfate | LM013001 | TR, NS | Lake | Low |
| 4a | Smoky Hill River At Elkader | Water Supply | Sulfate | SC224 | LG, WA, WH | Watershed | Low |
| 4a | Smoky Hill River Near Gove | Water Supply | Sulfate | SC739 | LG, GO, SC, LE | Watershed | Low |
| 4a | Smoky Hill River Near Trego | Water Supply | Sulfate | SC550 | LG, GO, TR | Watershed | Low |

10260004

Ladder Creek

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-----------------------|--------------|----------------|----------|----------|-----------|----------|
| 5 | Lake Scott State Park | Water Supply | Arsenic | LM011201 | SC | Lake | 2023 |
| 5 | Lake Scott State Park | Water Supply | Fluoride | LM011201 | SC | Lake | 2023 |
| 4a | Lake Scott State Park | Recreation | Aquatic Plants | LM011201 | SC | Lake | High |
| 4a | Lake Scott State Park | Aquatic Life | Eutrophication | LM011201 | SC | Lake | High |
| 4a | Lake Scott State Park | Aquatic Life | pH | LM011201 | SC | Lake | High |

10260006

Middle Smoky Hill

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|---------------------------|--------------|------------|---------|----------|-----------|----------|
| 5 | Fossil Creek Near Russell | Water Supply | Arsenic | SC713 | RS | Watershed | 2023 |

10260006
Middle Smoky Hill

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|----------------------------------|--------------|------------------------|----------|------------|-----------|----------|
| 5 | Smoky Hill River Near Russell | Water Supply | Arsenic | SC007 | RS, EL, RH | Watershed | 2023 |
| 5 | Smoky Hill River At Ellsworth | Aquatic Life | Biology | SC269 | EW | Watershed | 2023 |
| 5 | Coal Creek Near Wilson | Aquatic Life | Dissolved Oxygen | SC733 | RS, BT | Watershed | 2023 |
| 5 | Smoky Hill River Near Schoenchen | Water Supply | Gross Alpha | SC539 | EL, TR | Watershed | 2023 |
| 5 | Coal Creek Near Wilson | Aquatic Life | Selenium | SC733 | RS, BT | Watershed | 2023 |
| 5 | Fossil Creek Near Russell | Aquatic Life | Selenium | SC713 | RS | Watershed | 2023 |
| 5 | Landon Creek Near Russell | Aquatic Life | Selenium | SC714 | RS, BT | Watershed | 2023 |
| 5 | Sellens Creek Near Russell | Aquatic Life | Selenium | SC736 | RS, BT | Watershed | 2023 |
| 5 | Smoky Hill River At Ellsworth | Aquatic Life | Selenium | SC269 | EW | Watershed | 2023 |
| 5 | Smoky Hill River Near Russell | Aquatic Life | Selenium | SC007 | RS, EL, RH | Watershed | 2023 |
| 5 | Smoky Hill River Near Schoenchen | Aquatic Life | Selenium | SC539 | EL, TR | Watershed | 2023 |
| 5 | Smoky Hill River Near Wilson | Aquatic Life | Selenium | SC723 | BT | Watershed | 2023 |
| 5 | Fossil Creek Near Russell | Aquatic Life | Total Phosphorus | SC713 | RS | Watershed | 2023 |
| 5 | Smoky Hill River Near Russell | Aquatic Life | Total Phosphorus | SC007 | RS, EL, RH | Watershed | 2023 |
| 5 | Coal Creek Near Wilson | Aquatic Life | Total Suspended Solids | SC733 | RS, BT | Watershed | 2023 |
| 4a | Beaver Creek Near Dorrance | Water Supply | Chloride | SC734 | RS, BT | Watershed | Low |
| 4a | Coal Creek Near Wilson | Water Supply | Chloride | SC733 | RS, BT | Watershed | Low |
| 4a | Fossil Creek Near Russell | Water Supply | Chloride | SC713 | RS | Watershed | Low |
| 4a | Kanopolis Lake | Water Supply | Chloride | LM016001 | EW | Lake | Low |
| 4a | Landon Creek Near Russell | Water Supply | Chloride | SC714 | RS, BT | Watershed | Low |
| 4a | Smoky Hill River At Ellsworth | Water Supply | Chloride | SC269 | EW | Watershed | Low |
| 4a | Smoky Hill River Near Russell | Water Supply | Chloride | SC007 | RS, EL, RH | Watershed | Low |
| 4a | Smoky Hill River Near Wilson | Water Supply | Chloride | SC723 | BT | Watershed | Low |
| 4a | Fossil Lake | Aquatic Life | Eutrophication | LM052601 | RS | Lake | Low |
| 4a | Kanopolis Lake | Aquatic Life | Eutrophication | LM016001 | EW | Lake | High |
| 4a | Fossil Lake | Water Supply | Siltation | LM052601 | RS | Lake | Low |
| 4a | Beaver Creek Near Dorrance | Water Supply | Sulfate | SC734 | RS, BT | Watershed | Low |
| 4a | Coal Creek Near Wilson | Water Supply | Sulfate | SC733 | RS, BT | Watershed | Low |
| 4a | Fossil Creek Near Russell | Water Supply | Sulfate | SC713 | RS | Watershed | Low |

10260006

Middle Smoky Hill

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|----------------------------------|--------------|------------|----------|------------|-----------|----------|
| 4a | Kanopolis Lake | Water Supply | Sulfate | LM016001 | EW | Lake | Low |
| 4a | Landon Creek Near Russell | Water Supply | Sulfate | SC714 | RS, BT | Watershed | Low |
| 4a | Smoky Hill River At Ellsworth | Water Supply | Sulfate | SC269 | EW | Watershed | Low |
| 4a | Smoky Hill River Near Russell | Water Supply | Sulfate | SC007 | RS, EL, RH | Watershed | Low |
| 4a | Smoky Hill River Near Schoenchen | Water Supply | Sulfate | SC539 | EL, TR | Watershed | Low |
| 4a | Smoky Hill River Near Wilson | Water Supply | Sulfate | SC723 | BT | Watershed | Low |
| 3 | Sellens Creek Near Russell | Aquatic Life | Atrazine | SC736 | RS, BT | Watershed | |

10260007

Big Creek

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|----------------------------------|--------------|------------------------|----------|------------|-----------|----------|
| 5 | Big Creek near Russell | Aquatic Life | Biology | SC752 | RS, EL | Watershed | 2023 |
| 5 | Big Creek Near Hays | Aquatic Life | Selenium | SC541 | GO, EL, TR | Watershed | 2023 |
| 5 | Big Creek Near Munjor | Aquatic Life | Selenium | SC540 | EL, TR | Watershed | 2023 |
| 5 | North Fork Big Creek Near Walker | Aquatic Life | Selenium | SC715 | EL | Watershed | 2023 |
| 5 | Big Creek Near Munjor | Water Supply | Sulfate | SC540 | EL, TR | Watershed | 2023 |
| 4a | North Fork Big Creek Near Walker | Water Supply | Chloride | SC715 | EL | Watershed | Low |
| 4a | Big Creek Near Munjor | Recreation | E. coli | SC540 | EL, TR | Watershed | Low |
| 4a | Big Creek Oxbow | Aquatic Life | Eutrophication | LM070301 | EL | Lake | Low |
| 4a | Ellis City Lake | Aquatic Life | Eutrophication | LM069601 | EL | Lake | Low |
| 4a | Big Creek Near Munjor | Water Supply | Nitrate | SC540 | EL, TR | Watershed | Low |
| 4a | Big Creek Near Hays | Aquatic Life | Total Phosphorus | SC541 | GO, EL, TR | Watershed | High |
| 4a | Big Creek Near Munjor | Aquatic Life | Total Phosphorus | SC540 | EL, TR | Watershed | High |
| 4a | Big Creek near Russell | Aquatic Life | Total Phosphorus | SC752 | RS, EL | Watershed | High |
| 4a | North Fork Big Creek Near Walker | Aquatic Life | Total Phosphorus | SC715 | EL | Watershed | High |
| 4a | Big Creek Near Munjor | Aquatic Life | Total Suspended Solids | SC540 | EL, TR | Watershed | Low |
| 4a | Big Creek near Russell | Aquatic Life | Total Suspended Solids | SC752 | RS, EL | Watershed | Low |
| 3 | Big Creek Near Hays | Recreation | E. coli | SC541 | GO, EL, TR | Watershed | |

10260008

Lower Smoky Hill

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|--------------------------------|--------------|------------|---------|----------|-----------|----------|
| 5 | Smoky Hill River At Enterprise | Water Supply | Arsenic | SC265 | DK, SA | Watershed | 2023 |

10260008

Lower Smoky Hill

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-----------------------------------|--------------|------------------------|----------|------------|-----------|----------|
| 5 | Gypsum Creek Near Solomon | Aquatic Life | Atrazine | SC641 | SA, MP | Watershed | 2023 |
| 5 | Smoky Hill River At Junction City | Aquatic Life | Biology | SC264 | GE, DK | Watershed | 2022 |
| 5 | Holland Creek Near Sand Springs | Recreation | E. coli | SC642 | DK | Watershed | 2023 |
| 5 | Smoky Hill River At Enterprise | Water Supply | Gross Alpha | SC265 | DK, SA | Watershed | 2023 |
| 5 | Smoky Hill River Near Salina | Water Supply | Nitrate | SC268 | SA, MP | Watershed | 2018 |
| 5 | Holland Creek Near Sand Springs | Aquatic Life | Selenium | SC642 | DK | Watershed | 2023 |
| 5 | Herington Reservoir | Water Supply | Siltation | LM047201 | DK | Lake | 2023 |
| 5 | Mud Creek Near Abilene | Aquatic Life | Total Phosphorus | SC643 | DK | Watershed | 2018 |
| 5 | Sharps Creek Near Freemount | Aquatic Life | Total Phosphorus | SC749 | MP, RC | Watershed | 2018 |
| 5 | Smoky Hill River At Enterprise | Aquatic Life | Total Phosphorus | SC265 | DK, SA | Watershed | 2018 |
| 5 | Smoky Hill River At Junction City | Aquatic Life | Total Phosphorus | SC264 | GE, DK | Watershed | 2018 |
| 5 | Smoky Hill River Near Salina | Aquatic Life | Total Phosphorus | SC268 | SA, MP | Watershed | 2018 |
| 5 | Chapman Creek Near Sutphen | Aquatic Life | Total Suspended Solids | SC515 | CY, OT, DK | Watershed | 2023 |
| 4a | McPherson Co. SFL | Recreation | Aquatic Plants | LM013501 | MP | Lake | Medium |
| 4a | Herington Reservoir | Aquatic Life | Atrazine | LM047201 | DK | Lake | Medium |
| 4a | Smoky Hill River At Enterprise | Aquatic Life | Biology | SC265 | DK, SA | Watershed | Medium |
| 4a | Smoky Hill River Near Salina | Aquatic Life | Biology | SC268 | SA, MP | Watershed | Medium |
| 4a | Smoky Hill River At Enterprise | Water Supply | Chloride | SC265 | DK, SA | Watershed | Low |
| 4a | Smoky Hill River At Junction City | Water Supply | Chloride | SC264 | GE, DK | Watershed | Low |
| 4a | Herington Reservoir | Aquatic Life | Dissolved Oxygen | LM047201 | DK | Lake | High |
| 4a | Holland Creek Near Sand Springs | Aquatic Life | Dissolved Oxygen | SC642 | DK | Watershed | High |
| 4a | McPherson Co. SFL | Aquatic Life | Dissolved Oxygen | LM013501 | MP | Lake | Medium |
| 4a | Smoky Hill River Near Mentor | Recreation | E. coli | SC514 | SA, EW, MP | Watershed | High |
| 4a | Geary Co. SFL | Aquatic Life | Eutrophication | LM043201 | GE | Lake | Medium |
| 4a | Herington City Lake | Aquatic Life | Eutrophication | LM069701 | DK | Lake | Low |
| 4a | Herington City Park Lake | Aquatic Life | Eutrophication | LM072801 | DK | Lake | Low |
| 4a | Herington Reservoir | Aquatic Life | Eutrophication | LM047201 | DK | Lake | High |
| 4a | Lakewood Park Lake | Aquatic Life | Eutrophication | LM069801 | SA | Lake | Low |
| 4a | McPherson Co. SFL | Aquatic Life | Eutrophication | LM013501 | MP | Lake | Medium |

10260008
Lower Smoky Hill

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-----------------------------------|--------------|------------------------|----------|------------|-----------|----------|
| 4a | McPherson Co. SFL | Aquatic Life | pH | LM013501 | MP | Lake | Medium |
| 4a | Carry Creek Near Lyona | Water Supply | Sulfate | SC708 | DK | Watershed | Low |
| 4a | Chapman Creek Near Sutphen | Water Supply | Sulfate | SC515 | CY, OT, DK | Watershed | Low |
| 4a | Gypsum Creek Near Solomon | Water Supply | Sulfate | SC641 | SA, MP | Watershed | Low |
| 4a | Holland Creek Near Sand Springs | Water Supply | Sulfate | SC642 | DK | Watershed | Low |
| 4a | Mud Creek Near Abilene | Water Supply | Sulfate | SC643 | DK | Watershed | Low |
| 4a | Smoky Hill River At Enterprise | Water Supply | Sulfate | SC265 | DK, SA | Watershed | Low |
| 4a | Smoky Hill River At Junction City | Water Supply | Sulfate | SC264 | GE, DK | Watershed | Low |
| 4a | Turkey Creek Near Abilene | Water Supply | Sulfate | SC644 | DK, MN | Watershed | Low |
| 4a | Smoky Hill River At Enterprise | Aquatic Life | Total Suspended Solids | SC265 | DK, SA | Watershed | Low |
| 4a | Smoky Hill River At Junction City | Aquatic Life | Total Suspended Solids | SC264 | GE, DK | Watershed | Low |
| 4a | Smoky Hill River Near Mentor | Aquatic Life | Total Suspended Solids | SC514 | SA, EW, MP | Watershed | Low |
| 4a | Smoky Hill River Near Salina | Aquatic Life | Total Suspended Solids | SC268 | SA, MP | Watershed | Low |
| 3 | Herington City Lake | Water Supply | Arsenic | LM069701 | DK | Lake | |
| 3 | Herington Reservoir | Water Supply | Arsenic | LM047201 | DK | Lake | |
| 3 | Smoky Hill River At Junction City | Recreation | E. coli | SC264 | GE, DK | Watershed | |
| 3 | Lakewood Park Lake | Aquatic Life | Lead | LM069801 | SA | Lake | |
| 3 | Lakewood Park Lake | Water Supply | Siltation | LM069801 | SA | Lake | |

10260009
Upper Saline

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|---------------------------|--------------|------------------------|----------|------------------------|-----------|----------|
| 5 | Paradise Creek Near Waldo | Water Supply | Arsenic | SC538 | OB, RO, RS | Watershed | 2023 |
| 5 | Saline River Near Hays | Water Supply | Arsenic | SC548 | TH, RO, SD, GH, EL, TR | Watershed | 2023 |
| 5 | Paradise Creek Near Waldo | Aquatic Life | Dissolved Oxygen | SC538 | OB, RO, RS | Watershed | 2023 |
| 5 | Saline River Near Hays | Aquatic Life | Dissolved Oxygen | SC548 | TH, RO, SD, GH, EL, TR | Watershed | 2023 |
| 5 | Paradise Creek Near Waldo | Aquatic Life | Total Suspended Solids | SC538 | OB, RO, RS | Watershed | 2023 |
| 4a | Paradise Creek Near Waldo | Water Supply | Chloride | SC538 | OB, RO, RS | Watershed | Low |
| 4a | Saline River Near Russell | Water Supply | Chloride | SC011 | RO, RS, EL | Watershed | Low |
| 4a | Wilson Lake | Water Supply | Chloride | LM014001 | RS | Lake | Low |

10260009

Upper Saline

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|---------------------------|--------------|----------------|----------|------------------------|-----------|----------|
| 4a | Plainville Township Lake | Aquatic Life | Eutrophication | LM070001 | RO | Lake | Low |
| 4a | Sheridan W.A. | Recreation | Fecal Coli | LM014501 | SD | Lake | Low |
| 4a | Sheridan W.A. | Aquatic Life | pH | LM014501 | SD | Lake | Low |
| 4a | Paradise Creek Near Waldo | Aquatic Life | Selenium | SC538 | OB, RO, RS | Watershed | Low |
| 4a | Saline River Near Hays | Aquatic Life | Selenium | SC548 | TH, RO, SD, GH, EL, TR | Watershed | Low |
| 4a | Saline River Near Russell | Aquatic Life | Selenium | SC011 | RO, RS, EL | Watershed | Low |
| 4a | Paradise Creek Near Waldo | Water Supply | Sulfate | SC538 | OB, RO, RS | Watershed | Low |
| 4a | Saline River Near Hays | Water Supply | Sulfate | SC548 | TH, RO, SD, GH, EL, TR | Watershed | Low |
| 4a | Saline River Near Russell | Water Supply | Sulfate | SC011 | RO, RS, EL | Watershed | Low |
| 4a | Wilson Lake | Water Supply | Sulfate | LM014001 | RS | Lake | Low |
| 3 | Saline River Near Hays | Recreation | E. coli | SC548 | TH, RO, SD, GH, EL, TR | Watershed | |

10260010

Lower Saline

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-------------------------------|--------------|------------------------|---------|------------|-----------|----------|
| 5 | Spillman Creek Near Lincoln | Water Supply | Arsenic | SC673 | MC, LC | Watershed | 2023 |
| 5 | Spillman Creek Near Lincoln | Aquatic Life | Atrazine | SC673 | MC, LC | Watershed | 2023 |
| 5 | Saline River Near New Cambria | Aquatic Life | Biology | SC267 | OT, LC,SA | Watershed | 2023 |
| 5 | Mulberry Creek Near Salina | Aquatic Life | Copper | SC640 | SA, EW, MP | Watershed | 2023 |
| 5 | Wolf Creek Near Sylvan Grove | Aquatic Life | Dissolved Oxygen | SC537 | OB, RS | Watershed | 2023 |
| 5 | Saline River Near Beverly | Aquatic Life | Selenium | SC513 | LC | Watershed | 2023 |
| 5 | Mulberry Creek Near Salina | Aquatic Life | Total Phosphorus | SC640 | SA, EW, MP | Watershed | 2018 |
| 5 | Saline River Near New Cambria | Aquatic Life | Total Phosphorus | SC267 | OT, LC,SA | Watershed | 2018 |
| 5 | Spillman Creek Near Lincoln | Aquatic Life | Total Phosphorus | SC673 | MC, LC | Watershed | 2023 |
| 5 | Saline River Near Beverly | Aquatic Life | Total Suspended Solids | SC513 | LC | Watershed | 2023 |
| 5 | Saline River Near New Cambria | Aquatic Life | Total Suspended Solids | SC267 | OT, LC,SA | Watershed | 2023 |
| 5 | Spillman Creek Near Lincoln | Aquatic Life | Total Suspended Solids | SC673 | MC, LC | Watershed | 2023 |
| 5 | Wolf Creek Near Sylvan Grove | Aquatic Life | Total Suspended Solids | SC537 | OB, RS | Watershed | 2023 |
| 4a | Saline River Near Beverly | Water Supply | Chloride | SC513 | LC | Watershed | Low |
| 4a | Saline River Near New Cambria | Water Supply | Chloride | SC267 | OT, LC,SA | Watershed | Low |
| 4a | Wolf Creek Near Sylvan Grove | Water Supply | Chloride | SC537 | OB, RS | Watershed | Low |

10260010
Lower Saline

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-------------------------------|--------------|------------------|----------|-----------|-----------|----------|
| 4a | Spillman Creek Near Lincoln | Aquatic Life | Dissolved Oxygen | SC673 | MC, LC | Watershed | High |
| 4a | Wolf Creek Near Sylvan Grove | Aquatic Life | Selenium | SC537 | OB, RS | Watershed | Low |
| 4a | Bullfoot Creek Near Lincoln | Water Supply | Sulfate | SC672 | LC, EW | Watershed | Low |
| 4a | Elkhorn Creek Near Lincoln | Water Supply | Sulfate | SC671 | LC, EW | Watershed | Low |
| 4a | Saline River Near Beverly | Water Supply | Sulfate | SC513 | LC | Watershed | Low |
| 4a | Saline River Near New Cambria | Water Supply | Sulfate | SC267 | OT, LC,SA | Watershed | Low |
| 4a | Wolf Creek Near Sylvan Grove | Water Supply | Sulfate | SC537 | OB, RS | Watershed | Low |
| 3 | Bullfoot Creek Near Lincoln | Recreation | E. coli | SC672 | LC, EW | Watershed | |
| 3 | Saline River Near New Cambria | Recreation | E. coli | SC267 | OT, LC,SA | Watershed | |
| 3 | Saline Co. SFL | Water Supply | Siltation | LM013701 | SA | Lake | |

Solomon River Basin

10250016
Middle Republican

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-------------|--------------|----------------|----------|----------|-----------|----------|
| 5 | Lake Jewell | Aquatic Life | Eutrophication | LM062901 | JW | Lake | 2023 |

10260011
Upper North Fork Solomon

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-------------------------------------|--------------|------------------|----------|----------------|-----------|----------|
| 5 | Bow Creek Near Stockton | Water Supply | Arsenic | SC545 | PL, RO, SD, GH | Watershed | 2023 |
| 5 | North Fork Solomon River Near Glade | Water Supply | Arsenic | SC546 | PL, NT, TH, SD | Watershed | 2023 |
| 5 | Bow Creek Near Stockton | Water Supply | Sulfate | SC545 | PL, RO, SD, GH | Watershed | 2023 |
| 5 | Bow Creek Near Stockton | Aquatic Life | Total Phosphorus | SC545 | PL, RO, SD, GH | Watershed | 2023 |
| 5 | North Fork Solomon River Near Glade | Aquatic Life | Total Phosphorus | SC546 | PL, NT, TH, SD | Watershed | 2023 |
| 4a | Kirwin Lake | Aquatic Life | Dissolved Oxygen | LM011001 | PL, RO | Lake | Medium |
| 4a | Kirwin Lake | Aquatic Life | Eutrophication | LM011001 | PL, RO | Lake | Medium |
| 4a | Logan City Lake | Aquatic Life | Eutrophication | LM069301 | PL | Lake | Low |
| 4a | Bow Creek Near Stockton | Aquatic Life | Selenium | SC545 | PL, RO, SD, GH | Watershed | Low |
| 4a | North Fork Solomon River Near Glade | Aquatic Life | Selenium | SC546 | PL, NT, TH, SD | Watershed | Low |
| 4a | North Fork Solomon River Near Glade | Water Supply | Sulfate | SC546 | PL, NT, TH, SD | Watershed | Low |

10260011
Upper North Fork Solomon

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-------------|--------------|------------|----------|----------|-----------|----------|
| 3 | Kirwin Lake | Water Supply | Arsenic | LM011001 | PL, RO | Lake | |

10260012
Lower North Fork Solomon

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|------------------------------------|--------------|------------------------|---------|----------|-----------|----------|
| 5 | Beaver Creek Near Gaylord | Water Supply | Arsenic | SC670 | SM | Watershed | 2023 |
| 5 | Cedar Creek near Cedar | Water Supply | Arsenic | SC753 | SM | Watershed | 2023 |
| 5 | Deer Creek Near Kirwin | Water Supply | Arsenic | SC721 | PL | Watershed | 2023 |
| 5 | North Fork Solomon River At Portis | Water Supply | Arsenic | SC014 | SM, PL | Watershed | 2023 |
| 5 | Oak Creek Near Cawker City | Water Supply | Arsenic | SC544 | JW, SM | Watershed | 2023 |
| 5 | North Fork Solomon River At Portis | Aquatic Life | Biology | SC014 | SM, PL | Watershed | 2023 |
| 5 | Beaver Creek Near Gaylord | Aquatic Life | Dissolved Oxygen | SC670 | SM | Watershed | 2023 |
| 5 | Deer Creek Near Kirwin | Aquatic Life | Dissolved Oxygen | SC721 | PL | Watershed | 2023 |
| 5 | Oak Creek Near Cawker City | Aquatic Life | Dissolved Oxygen | SC544 | JW, SM | Watershed | 2023 |
| 5 | Cedar Creek near Cedar | Aquatic Life | Selenium | SC753 | SM | Watershed | 2023 |
| 5 | Beaver Creek Near Gaylord | Aquatic Life | Total Phosphorus | SC670 | SM | Watershed | 2023 |
| 5 | Cedar Creek near Cedar | Aquatic Life | Total Phosphorus | SC753 | SM | Watershed | 2023 |
| 5 | Deer Creek Near Kirwin | Aquatic Life | Total Phosphorus | SC721 | PL | Watershed | 2023 |
| 5 | North Fork Solomon River At Portis | Aquatic Life | Total Phosphorus | SC014 | SM, PL | Watershed | 2023 |
| 5 | Oak Creek Near Cawker City | Aquatic Life | Total Phosphorus | SC544 | JW, SM | Watershed | 2023 |
| 5 | Twelve Mile Creek Near Downs | Aquatic Life | Total Phosphorus | SC674 | SM, OB | Watershed | 2023 |
| 5 | North Fork Solomon River At Portis | Aquatic Life | Total Suspended Solids | SC014 | SM, PL | Watershed | 2023 |
| 4a | North Fork Solomon River At Portis | Recreation | E. coli | SC014 | SM, PL | Watershed | Low |
| 4a | Beaver Creek Near Gaylord | Aquatic Life | Selenium | SC670 | SM | Watershed | Low |
| 4a | Deer Creek Near Kirwin | Aquatic Life | Selenium | SC721 | PL | Watershed | Low |
| 4a | North Fork Solomon River At Portis | Aquatic Life | Selenium | SC014 | SM, PL | Watershed | Low |
| 4a | Oak Creek Near Cawker City | Aquatic Life | Selenium | SC544 | JW, SM | Watershed | Low |
| 4a | Beaver Creek Near Gaylord | Water Supply | Sulfate | SC670 | SM | Watershed | Low |
| 4a | Deer Creek Near Kirwin | Water Supply | Sulfate | SC721 | PL | Watershed | Low |
| 4a | North Fork Solomon River At Portis | Water Supply | Sulfate | SC014 | SM, PL | Watershed | Low |
| 4a | Oak Creek Near Cawker City | Water Supply | Sulfate | SC544 | JW, SM | Watershed | Low |
| 4a | Twelve Mile Creek Near Downs | Water Supply | Sulfate | SC674 | SM, OB | Watershed | Low |

10260013
Upper South Fork Solomon

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-------------------------------------|--------------|------------------|----------|------------|-----------|----------|
| 5 | Sheridan Co. SFL | Water Supply | Arsenic | LM069401 | SD | Lake | 2023 |
| 5 | Antelope Lake | Aquatic Life | Eutrophication | LM069501 | GH | Lake | 2023 |
| 5 | Webster Lake | Water Supply | Siltation | LM012001 | RO | Lake | 2023 |
| 4a | Sheridan Co. SFL | Aquatic Life | Dissolved Oxygen | LM069401 | SD | Lake | Medium |
| 4a | Sheridan Co. SFL | Aquatic Life | Eutrophication | LM069401 | SD | Lake | Medium |
| 4a | Webster Lake | Aquatic Life | Eutrophication | LM012001 | RO | Lake | Medium |
| 4a | South Fork Solomon River Near Damar | Aquatic Life | Selenium | SC547 | TH, SD, GH | Watershed | Low |
| 4a | South Fork Solomon River Near Damar | Water Supply | Sulfate | SC547 | TH, SD, GH | Watershed | Low |
| 4a | Webster Lake | Water Supply | Sulfate | LM012001 | RO | Lake | Low |
| 3 | Webster Lake | Water Supply | Arsenic | LM012001 | RO | Lake | |
| 3 | Webster Lake | Aquatic Life | Selenium | LM012001 | RO | Lake | |

10260014
Lower South Fork Solomon

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|--|--------------|------------------------|----------|------------|-----------|----------|
| 5 | South Fork Solomon River Near Woodston | Water Supply | Arsenic | SC737 | RO | Watershed | 2023 |
| 5 | South Fork Solomon River Near Woodston | Aquatic Life | Dissolved Oxygen | SC737 | RO | Watershed | 2023 |
| 5 | Carr Creek Near Cawker City | Aquatic Life | Total Phosphorus | SC669 | OB, MC | Watershed | 2023 |
| 5 | South Fork Solomon River Near Osborne | Aquatic Life | Total Phosphorus | SC543 | OB | Watershed | 2023 |
| 5 | Twin Creek Near Corinth | Aquatic Life | Total Phosphorus | SC668 | OB | Watershed | 2023 |
| 5 | Carr Creek Near Cawker City | Aquatic Life | Total Suspended Solids | SC669 | OB, MC | Watershed | 2023 |
| 5 | South Fork Solomon River Near Osborne | Aquatic Life | Total Suspended Solids | SC543 | OB | Watershed | 2023 |
| 4a | South Fork Solomon River Near Osborne | Aquatic Life | Biology | SC543 | OB | Watershed | Medium |
| 4a | South Fork Solomon River Near Osborne | Aquatic Life | Biology | SC542 | OB, RO, RS | Watershed | Medium |
| 4a | Rooks Co. SFL | Aquatic Life | Dissolved Oxygen | LM011901 | RO | Lake | Medium |
| 4a | Twin Creek Near Corinth | Aquatic Life | Dissolved Oxygen | SC668 | OB | Watershed | Medium |
| 4a | South Fork Solomon River Near Osborne | Recreation | E. coli | SC542 | OB, RO, RS | Watershed | Low |
| 4a | South Fork Solomon River Near Osborne | Recreation | E. coli | SC543 | OB | Watershed | Low |
| 4a | Rooks Co. SFL | Aquatic Life | Eutrophication | LM011901 | RO | Lake | Medium |
| 4a | Carr Creek Near Cawker City | Aquatic Life | Selenium | SC669 | OB, MC | Watershed | Low |

10260014
Lower South Fork Solomon

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|--|--------------|------------|---------|------------|-----------|----------|
| 4a | Covert Creek Near Osborne | Aquatic Life | Selenium | SC666 | OB | Watershed | Low |
| 4a | Kill Creek Near Bloomington | Aquatic Life | Selenium | SC665 | OB | Watershed | Low |
| 4a | South Fork Solomon River Near Osborne | Aquatic Life | Selenium | SC542 | OB, RO, RS | Watershed | Low |
| 4a | South Fork Solomon River Near Osborne | Aquatic Life | Selenium | SC543 | OB | Watershed | Low |
| 4a | South Fork Solomon River Near Woodston | Aquatic Life | Selenium | SC737 | RO | Watershed | Low |
| 4a | Twin Creek Near Corinth | Aquatic Life | Selenium | SC668 | OB | Watershed | Low |
| 4a | Carr Creek Near Cawker City | Water Supply | Sulfate | SC669 | OB, MC | Watershed | Low |
| 4a | Covert Creek Near Osborne | Water Supply | Sulfate | SC666 | OB | Watershed | Low |
| 4a | Kill Creek Near Bloomington | Water Supply | Sulfate | SC665 | OB | Watershed | Low |
| 4a | South Fork Solomon River Near Osborne | Water Supply | Sulfate | SC543 | OB | Watershed | Low |
| 4a | South Fork Solomon River Near Osborne | Water Supply | Sulfate | SC542 | OB, RO, RS | Watershed | Low |
| 4a | South Fork Solomon River Near Woodston | Water Supply | Sulfate | SC737 | RO | Watershed | Low |
| 4a | Twin Creek Near Corinth | Water Supply | Sulfate | SC668 | OB | Watershed | Low |

10260015
Solomon River

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|---------------------------------|--------------|------------------|----------|------------|-----------|----------|
| 5 | Salt Creek Near Minneapolis | Water Supply | Arsenic | SC512 | MC, OT, LC | Watershed | 2023 |
| 5 | Solomon River At Niles | Water Supply | Arsenic | SC266 | CD, OT, SA | Watershed | 2023 |
| 5 | Limestone Creek Near Glen Elder | Aquatic Life | Atrazine | SC667 | JW | Watershed | 2023 |
| 5 | Solomon River At Niles | Aquatic Life | Atrazine | SC266 | CD, OT, SA | Watershed | 2023 |
| 5 | Solomon River At Niles | Aquatic Life | Biology | SC266 | CD, OT, SA | Watershed | 2023 |
| 5 | Pipe Creek Near Minneapolis | Aquatic Life | Dissolved Oxygen | SC651 | CD, OT, SA | Watershed | 2023 |
| 5 | Salt Creek Near Minneapolis | Aquatic Life | Dissolved Oxygen | SC512 | MC, OT, LC | Watershed | 2023 |
| 5 | Jewell Co. SFL | Aquatic Life | Eutrophication | LM012801 | JW | Lake | 2023 |
| 5 | Solomon River Near Glasco | Water Supply | Gross Alpha | SC511 | JW, CD, MC | Watershed | 2023 |
| 5 | Solomon River Near Glasco | Aquatic Life | Selenium | SC511 | JW, CD, MC | Watershed | 2023 |
| 5 | Jewell Co. SFL | Water Supply | Siltation | LM012801 | JW | Lake | 2023 |
| 5 | Limestone Creek Near Glen Elder | Aquatic Life | Total Phosphorus | SC667 | JW | Watershed | 2023 |
| 5 | Salt Creek Near Minneapolis | Aquatic Life | Total Phosphorus | SC512 | MC, OT, LC | Watershed | 2023 |

10260015

Solomon River

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|---------------------------------|--------------|------------------------|------------|------------|-----------|----------|
| 5 | Solomon River At Niles | Aquatic Life | Total Phosphorus | SC266 | CD, OT, SA | Watershed | 2023 |
| 5 | Solomon River Near Glasco | Aquatic Life | Total Phosphorus | SC511 | JW, CD, MC | Watershed | 2023 |
| 5 | Salt Creek Near Minneapolis | Aquatic Life | Total Suspended Solids | SC512 | MC, OT, LC | Watershed | 2023 |
| 5 | Solomon River Near Glasco | Aquatic Life | Total Suspended Solids | SC511 | JW, CD, MC | Watershed | 2023 |
| 4a | Ottawa Co. SFL | Recreation | Aquatic Plants | LM014101 | OT | Lake | Medium |
| 4a | Salt Creek Near Minneapolis | Water Supply | Chloride | SC512 | MC, OT, LC | Watershed | Low |
| 4a | Solomon River At Niles | Water Supply | Chloride | SC266 | CD, OT, SA | Watershed | Low |
| 4a | Solomon River Near Glasco | Water Supply | Chloride | SC511 | JW, CD, MC | Watershed | Low |
| 4a | Limestone Creek Near Glen Elder | Aquatic Life | Dissolved Oxygen | SC667 | JW | Watershed | High |
| 4a | Ottawa Co. SFL | Aquatic Life | Dissolved Oxygen | LM014101 | OT | Lake | Medium |
| 4a | Ottawa Co. SFL | Aquatic Life | Eutrophication | LM014101 | OT | Lake | Medium |
| 4a | Waconda Lake | Aquatic Life | Eutrophication | LM018001 | OB, MC | Lake | Medium |
| 4a | Limestone Creek Near Glen Elder | Aquatic Life | Selenium | SC667 | JW | Watershed | Low |
| 4a | Limestone Creek Near Glen Elder | Water Supply | Sulfate | SC667 | JW | Watershed | Low |
| 4a | Salt Creek Near Minneapolis | Water Supply | Sulfate | SC512 | MC, OT, LC | Watershed | Low |
| 4a | Solomon River At Niles | Water Supply | Sulfate | SC266 | CD, OT, SA | Watershed | Low |
| 4a | Solomon River Near Glasco | Water Supply | Sulfate | SC511 | JW, CD, MC | Watershed | Low |
| 4a | Waconda Lake | Water Supply | Sulfate | LM018001 | OB, MC | Lake | Low |
| 4a | Solomon River At Niles | Aquatic Life | Total Suspended Solids | SC266 | CD, OT, SA | Watershed | Low |
| 3 | Solomon River at Beloit | Aquatic Life | Atrazine | PWS2012301 | MC | Watershed | |

Upper Arkansas River Basin

10260014

Lower South Fork Solomon

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-----------------------------|--------------|------------|---------|----------|-----------|----------|
| 3 | Carr Creek Near Cawker City | Aquatic Life | Atrazine | SC669 | OB, MC | Watershed | |

11030001

Middle Arkansas-Lake McKinney

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|----------------------------|--------------|------------------|----------|----------|-----------|----------|
| 5 | Hamilton Co. SFL | Aquatic Life | Dissolved Oxygen | LM016101 | HM | Lake | 2023 |
| 5 | Arkansas River At Coolidge | Water Supply | Fluoride | SC223 | HM | Watershed | 2023 |

11030001
Middle Arkansas-Lake McKinney

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-------------------------------|--------------|------------------------|----------|----------|-----------|----------|
| 5 | Arkansas River Near Deerfield | Water Supply | Fluoride | SC598 | KE, HM | Watershed | 2023 |
| 5 | Arkansas River At Coolidge | Water Supply | Gross Alpha | SC223 | HM | Watershed | 2023 |
| 5 | Arkansas River Near Deerfield | Water Supply | Gross Alpha | SC598 | KE, HM | Watershed | 2023 |
| 5 | Arkansas River Near Deerfield | Aquatic Life | Total Suspended Solids | SC598 | KE, HM | Watershed | 2023 |
| 4a | Hamilton Co. SFL | Recreation | Aquatic Plants | LM016101 | HM | Lake | Low |
| 4a | Arkansas River At Coolidge | Water Supply | Boron | SC223 | HM | Watershed | Medium |
| 4a | Arkansas River Near Deerfield | Water Supply | Boron | SC598 | KE, HM | Watershed | Medium |
| 4a | Hamilton Co. SFL | Water Supply | Chloride | LM016101 | HM | Lake | Low |
| 4a | Hamilton W.A. | Water Supply | Chloride | LM016141 | HM | Lake | Low |
| 4a | Hamilton W.A. | Aquatic Life | Dissolved Oxygen | LM016141 | HM | Lake | Low |
| 4a | Hamilton Co. SFL | Aquatic Life | Eutrophication | LM016101 | HM | Lake | Low |
| 4a | Hamilton W.A. | Aquatic Life | Eutrophication | LM016141 | HM | Lake | Low |
| 4a | Arkansas River At Coolidge | Aquatic Life | Selenium | SC223 | HM | Watershed | High |
| 4a | Arkansas River Near Deerfield | Aquatic Life | Selenium | SC598 | KE, HM | Watershed | High |
| 4a | Hamilton Co. SFL | Water Supply | Siltation | LM016101 | HM | Lake | Low |
| 4a | Hamilton W.A. | Water Supply | Siltation | LM016141 | HM | Lake | Low |
| 4a | Arkansas River At Coolidge | Water Supply | Sulfate | SC223 | HM | Watershed | Medium |
| 4a | Arkansas River Near Deerfield | Water Supply | Sulfate | SC598 | KE, HM | Watershed | Medium |
| 4a | Hamilton Co. SFL | Water Supply | Sulfate | LM016101 | HM | Lake | Low |
| 4a | Hamilton W.A. | Water Supply | Sulfate | LM016141 | HM | Lake | Low |
| 3 | Beymer Lake | Water Supply | Fluoride | LM071001 | JO | Lake | |
| 3 | Beymer Lake | Aquatic Life | Selenium | LM071001 | JO | Lake | |

11030003
Arkansas-Dodge City

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-------------------|--------------|------------------------|----------|----------|-----------|----------|
| 4c | Arkansas River At | Aquatic Life | Total Phosphorus | SC286 | FI, KE | Watershed | Low |
| 4c | Arkansas River At | Aquatic Life | Total Suspended Solids | SC286 | FI, KE | Watershed | Low |
| 4a | Arkansas River At | Water Supply | Boron | SC286 | FI, KE | Watershed | Medium |
| 4a | Lake Charles | Aquatic Life | Eutrophication | LM071101 | FO | Lake | Low |
| 4a | Arkansas River At | Recreation | Fecal Coli | SC286 | FI, KE | Watershed | High |
| 4a | Arkansas River At | Aquatic Life | pH | SC286 | FI, KE | Watershed | Medium |
| 4a | Arkansas River At | Aquatic Life | Selenium | SC286 | FI, KE | Watershed | High |

11030003
Arkansas-Dodge City

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-------------------|--------------|------------|---------|----------|-----------|----------|
| 4a | Arkansas River At | Water Supply | Sulfate | SC286 | FI, KE | Watershed | Medium |

11030004
Arkansas-Pickerel

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|--------------------------------|--------------|------------------------|---------|------------|-----------|----------|
| 5 | Arkansas River Near Dundee | Aquatic Life | Atrazine | SC584 | PN, ED, FO | Watershed | 2023 |
| 5 | Arkansas River Near Great Bend | Aquatic Life | Atrazine | SC284 | BT, SF | Watershed | 2023 |
| 5 | Arkansas River Near Ford | Water Supply | Fluoride | SC594 | GY, FO, HS | Watershed | 2023 |
| 5 | Arkansas River Near Great Bend | Water Supply | Gross Alpha | SC284 | BT, SF | Watershed | 2023 |
| 5 | Arkansas River Near Dundee | Aquatic Life | Selenium | SC584 | PN, ED, FO | Watershed | 2023 |
| 5 | Arkansas River Near Ford | Aquatic Life | Selenium | SC594 | GY, FO, HS | Watershed | 2023 |
| 5 | Arkansas River Near Great Bend | Aquatic Life | Selenium | SC284 | BT, SF | Watershed | 2023 |
| 5 | Arkansas River Near Kinsley | Aquatic Life | Selenium | SC587 | ED, FO | Watershed | 2023 |
| 5 | Arkansas River Near Ford | Aquatic Life | Total Phosphorus | SC594 | GY, FO, HS | Watershed | 2023 |
| 5 | Arkansas River Near Great Bend | Aquatic Life | Total Phosphorus | SC284 | BT, SF | Watershed | 2023 |
| 5 | Mulberry Creek Near Ford | Aquatic Life | Total Suspended Solids | SC700 | FO | Watershed | 2023 |
| 4a | Arkansas River Near Great Bend | Aquatic Life | Biology | SC284 | BT, SF | Watershed | Medium |
| 4a | Mulberry Creek Near Ford | Aquatic Life | Dissolved Oxygen | SC700 | FO | Watershed | Low |
| 4a | Arkansas River Near Dundee | Recreation | E. coli | SC584 | PN, ED, FO | Watershed | High |
| 4a | Arkansas River Near Ford | Recreation | E. coli | SC594 | GY, FO, HS | Watershed | High |
| 4a | Arkansas River Near Kinsley | Recreation | E. coli | SC587 | ED, FO | Watershed | High |
| 4a | Arkansas River Near Great Bend | Recreation | Fecal Coli | SC284 | BT, SF | Watershed | High |
| 4a | Arkansas River Near Kinsley | Water Supply | Fluoride | SC587 | ED, FO | Watershed | Medium |
| 4a | Arkansas River Near Dundee | Water Supply | Sulfate | SC584 | PN, ED, FO | Watershed | Medium |
| 4a | Arkansas River Near Ford | Water Supply | Sulfate | SC594 | GY, FO, HS | Watershed | Medium |
| 4a | Arkansas River Near Great Bend | Water Supply | Sulfate | SC284 | BT, SF | Watershed | Medium |

11030005
Pawnee

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|---------------|--------------|------------|----------|----------|-----------|----------|
| 5 | Concannon SFL | Water Supply | Boron | LM053601 | FI | Lake | 2023 |
| 5 | Concannon SFL | Water Supply | Fluoride | LM053601 | FI | Lake | 2023 |

11030005**Pawnee**

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|---------------------------|--------------|------------------------|----------|------------|-----------|----------|
| 5 | Concannon SFL | Water Supply | Sulfate | LM053601 | FI | Lake | 2023 |
| 5 | Pawnee River Near Burdett | Aquatic Life | Total Phosphorus | SC586 | NX, FI, HG | Watershed | 2023 |
| 5 | Pawnee River Near Larned | Aquatic Life | Total Phosphorus | SC585 | PN | Watershed | 2023 |
| 5 | Pawnee River Near Burdett | Aquatic Life | Total Suspended Solids | SC586 | NX, FI, HG | Watershed | 2023 |
| 4a | Pawnee River Near Burdett | Aquatic Life | Atrazine | SC586 | NX, FI, HG | Watershed | Medium |
| 4a | Pawnee River Near Larned | Aquatic Life | Atrazine | SC585 | PN | Watershed | Medium |
| 4a | Pawnee River Near Burdett | Aquatic Life | Copper | SC586 | NX, FI, HG | Watershed | Low |
| 4a | Pawnee River Near Larned | Aquatic Life | Copper | SC585 | PN | Watershed | Low |
| 4a | Pawnee River Near Burdett | Aquatic Life | Dissolved Oxygen | SC586 | NX, FI, HG | Watershed | Low |
| 4a | Pawnee River Near Larned | Aquatic Life | Dissolved Oxygen | SC585 | PN | Watershed | Low |
| 4a | Pawnee River Near Burdett | Recreation | E. coli | SC586 | NX, FI, HG | Watershed | High |
| 4a | Concannon SFL | Aquatic Life | Eutrophication | LM053601 | FI | Lake | Low |
| 4a | Pawnee River Near Larned | Recreation | Fecal Coli | SC585 | PN | Watershed | High |
| 4a | Pawnee River Near Burdett | Aquatic Life | Lead | SC586 | NX, FI, HG | Watershed | Low |
| 4a | Pawnee River Near Larned | Aquatic Life | Lead | SC585 | PN | Watershed | Low |
| 3 | Concannon SFL | Water Supply | Arsenic | LM053601 | FI | Lake | |

11030006**Buckner**

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|------------------------|--------------|------------------|----------|----------|-----------|----------|
| 5 | Hain SFL | Aquatic Life | Eutrophication | LM070901 | FO | Lake | 2023 |
| 5 | Hodgeman Co. SFL/W.A. | Aquatic Life | Eutrophication | LM074201 | HG | Lake | 2023 |
| 5 | Horsethief Canyon Lake | Aquatic Life | Eutrophication | LM055001 | HG | Lake | 2023 |
| 4a | Jetmore Lake | Recreation | Aquatic Plants | LM073901 | HG | Lake | Low |
| 4a | Ford Co. Lake | Aquatic Life | Dissolved Oxygen | LM070801 | FO | Lake | High |
| 4a | Ford Co. Lake | Aquatic Life | Eutrophication | LM070801 | FO | Lake | High |
| 4a | Jetmore Lake | Aquatic Life | Eutrophication | LM073901 | HG | Lake | Low |
| 4a | Ford Co. Lake | Aquatic Life | pH | LM070801 | FO | Lake | High |
| 3 | Boy Scout Lake | Aquatic Life | Eutrophication | LM070601 | HG | Lake | |

11030007**Upper Walnut Creek**

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|---------------------------|--------------|------------|---------|------------|-----------|----------|
| 5 | Walnut Creek At Ness City | Water Supply | Arsenic | SC595 | SC, LE, NS | Watershed | 2023 |
| 4a | Walnut Creek At Ness City | Aquatic Life | Selenium | SC595 | SC, LE, NS | Watershed | Low |
| 4a | Walnut Creek At Ness City | Water Supply | Sulfate | SC595 | SC, LE, NS | Watershed | Low |

11030008
Lower Walnut Creek

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-----------------------------|--------------|------------------------|----------|----------|-----------|----------|
| 5 | Walnut Creek Near Alexander | Water Supply | Arsenic | SC596 | LE, NS | Watershed | 2023 |
| 5 | Walnut Creek Near Heizer | Water Supply | Arsenic | SC597 | RH, BT | Watershed | 2023 |
| 5 | Goodman SFL | Aquatic Life | Eutrophication | LM052401 | NS | Lake | 2023 |
| 5 | Goodman SFL | Water Supply | Sulfate | LM052401 | NS | Lake | 2023 |
| 5 | Walnut Creek Near Heizer | Aquatic Life | Total Phosphorus | SC597 | RH, BT | Watershed | 2023 |
| 5 | Walnut Creek Near Heizer | Aquatic Life | Total Suspended Solids | SC597 | RH, BT | Watershed | 2023 |
| 4a | Walnut Creek Near Alexander | Aquatic Life | Dissolved Oxygen | SC596 | LE, NS | Watershed | Low |
| 4a | Walnut Creek Near Heizer | Aquatic Life | Dissolved Oxygen | SC597 | RH, BT | Watershed | Low |
| 4a | Memorial Park Lake | Aquatic Life | Eutrophication | LM071501 | BT | Lake | Low |
| 4a | Stone Lake | Aquatic Life | Eutrophication | LM074001 | BT | Lake | Low |
| 4a | Walnut Creek Near Alexander | Aquatic Life | Selenium | SC596 | LE, NS | Watershed | Low |
| 4a | Walnut Creek Near Heizer | Aquatic Life | Selenium | SC597 | RH, BT | Watershed | Low |
| 4a | Walnut Creek Near Alexander | Water Supply | Sulfate | SC596 | LE, NS | Watershed | Low |
| 4a | Walnut Creek Near Heizer | Water Supply | Sulfate | SC597 | RH, BT | Watershed | Low |
| 3 | Walnut Creek Near Heizer | Aquatic Life | Atrazine | SC597 | RH, BT | Watershed | |
| 3 | Walnut Creek Near Heizer | Recreation | E. coli | SC597 | RH, BT | Watershed | |
| 3 | Goodman SFL | Aquatic Life | Selenium | LM052401 | NS | Lake | |

Upper Republican River Basin

10250001
Arikaree

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|---------------------------------------|--------------|------------------|---------|----------|-----------|----------|
| 5 | Arikaree River Near Haigler, Nebraska | Aquatic Life | Dissolved Oxygen | SC226 | CN | Watershed | 2023 |
| 4a | Arikaree River Near Haigler, Nebraska | Water Supply | Fluoride | SC226 | CN | Watershed | Low |
| 4a | Arikaree River Near Haigler, Nebraska | Aquatic Life | Selenium | SC226 | CN | Watershed | Low |
| 3 | Arikaree River Near Haigler, Nebraska | Recreation | E. coli | SC226 | CN | Watershed | |

10250003
South Fork Republican

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|--|--------------|-------------|---------|----------|-----------|----------|
| 5 | South Fork Republican River Near St. Francis | Water Supply | Gross Alpha | SC225 | CN | Watershed | 2023 |

10250003**South Fork Republican**

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|--|--------------|----------------|----------|----------|-----------|----------|
| 4a | South Fork Republican River Near Benkelman, Nebraska | Water Supply | Fluoride | SC227 | CN | Watershed | Low |
| 4a | South Fork Republican River Near St. Francis | Water Supply | Fluoride | SC225 | CN | Watershed | Low |
| 3 | South Fork Republican River Near St. Francis | Aquatic Life | Biology | SC225 | CN | Watershed | |
| 3 | Saint Francis W.A. | Aquatic Life | Copper | LM071401 | CN | Lake | |
| 3 | Saint Francis W.A. | Aquatic Life | Eutrophication | LM071401 | CN | Lake | |

10250011**Lower Sappa**

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|--|--------------|------------------|---------|--------------------|-----------|----------|
| 5 | Sappa Creek Near Beaver City, Nebraska | Water Supply | Arsenic | SC229 | RA, DC, NT, SH, TH | Watershed | 2023 |
| 5 | Sappa Creek Near Beaver City, Nebraska | Aquatic Life | Dissolved Oxygen | SC229 | RA, DC, NT, SH, TH | Watershed | 2023 |
| 5 | Sappa Creek Near Beaver City, Nebraska | Aquatic Life | Selenium | SC229 | RA, DC, NT, SH, TH | Watershed | 2023 |
| 5 | Sappa Creek Near Beaver City, Nebraska | Aquatic Life | Total Phosphorus | SC229 | RA, DC, NT, SH, TH | Watershed | 2023 |

10250012**South Fork Beaver**

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|----------------------|--------------|----------------|----------|----------|-----------|----------|
| 3 | Atwood Township Lake | Aquatic Life | Eutrophication | LM071201 | RA | Lake | |
| 3 | Atwood Township Lake | Water Supply | Fluoride | LM071201 | RA | Lake | |
| 3 | Atwood Township Lake | Water Supply | Sulfate | LM071201 | RA | Lake | |

10250014**Beaver Creek**

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|------------------------------|--------------|------------------|---------|----------------|-----------|----------|
| 4a | Beaver Creek At Cedar Bluffs | Aquatic Life | Dissolved Oxygen | SC228 | CN, RA, DC, SH | Watershed | Low |
| 4a | Beaver Creek At Cedar Bluffs | Water Supply | Fluoride | SC228 | CN, RA, DC, SH | Watershed | Low |
| 3 | Beaver Creek At Cedar Bluffs | Aquatic Life | Total Phosphorus | SC228 | CN, RA, DC, SH | Watershed | |

10250015**Prairie Dog Creek**

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|---------------------------------|--------------|------------|---------|----------|-----------|----------|
| 5 | Prairie Dog Creek Near Dellvale | Water Supply | Arsenic | SC549 | DC, TH | Watershed | 2023 |
| 5 | Prairie Dog Creek Near Woodruff | Water Supply | Arsenic | SC230 | PL, NT | Watershed | 2023 |

10250015
Prairie Dog Creek

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|---------------------------------|--------------|------------------|----------|----------|-----------|----------|
| 5 | Prairie Dog Creek Near Dellvale | Aquatic Life | Dissolved Oxygen | SC549 | DC, TH | Watershed | 2023 |
| 5 | Prairie Dog Creek Near Woodruff | Aquatic Life | Total Phosphorus | SC230 | PL, NT | Watershed | 2023 |
| 4a | Norton Lake (Sebelius Lake) | Aquatic Life | Dissolved Oxygen | LM010001 | NT | Lake | Low |
| 4a | Prairie Dog Creek Near Woodruff | Aquatic Life | Dissolved Oxygen | SC230 | PL, NT | Watershed | High |
| 4a | Colby City Lake | Aquatic Life | Eutrophication | LM071301 | TH | Lake | Low |
| 4a | Norton Lake (Sebelius Lake) | Aquatic Life | Eutrophication | LM010001 | NT | Lake | High |
| 4a | Norton Lake (Sebelius Lake) | Aquatic Life | pH | LM010001 | NT | Lake | Low |
| 4a | Prairie Dog Creek Near Dellvale | Aquatic Life | Total Phosphorus | SC549 | DC, TH | Watershed | Low |
| 3 | Colby City Lake | Aquatic Life | Lead | LM071301 | TH | Lake | |

Verdigris River Basin

11070101
Upper Verdigris

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-----------------------------|--------------|------------------|----------|------------|-----------|----------|
| 5 | Verdigris River Near Virgil | Recreation | E. coli | SC289 | LY, CS, GW | Watershed | 2023 |
| 5 | Toronto Lake | Aquatic Life | Lead | LM024001 | GW, WO | Lake | 2023 |
| 5 | Woodson W.A. | Water Supply | Siltation | LM011841 | WO | Lake | 2023 |
| 4a | Chetopa Creek Near Neodesha | Aquatic Life | Dissolved Oxygen | SC696 | WL, NO | Watershed | Medium |
| 4a | Toronto Lake | Aquatic Life | Dissolved Oxygen | LM024001 | GW, WO | Lake | High |
| 4a | Wilson Co. SFL | Aquatic Life | Dissolved Oxygen | LM015101 | WL | Lake | Medium |
| 4a | Woodson W.A. | Aquatic Life | Dissolved Oxygen | LM011841 | WO | Lake | Medium |
| 4a | Eureka Lake | Aquatic Life | Eutrophication | LM040201 | GW | Lake | Medium |
| 4a | Toronto Lake | Aquatic Life | Eutrophication | LM024001 | GW, WO | Lake | High |
| 4a | Wilson Co. SFL | Aquatic Life | Eutrophication | LM015101 | WL | Lake | Medium |
| 4a | Woodson W.A. | Aquatic Life | Eutrophication | LM011841 | WO | Lake | Medium |
| 4a | Chetopa Creek Near Neodesha | Recreation | Fecal Coli | SC696 | WL, NO | Watershed | Medium |
| 4a | Woodson W.A. | Recreation | Fecal Coli | LM011841 | WO | Lake | Medium |
| 4a | Eureka Lake | Water Supply | Siltation | LM040201 | GW | Lake | Medium |
| 4a | Toronto Lake | Water Supply | Siltation | LM024001 | GW, WO | Lake | High |

11070102
Fall River

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-----------------|--------------|------------------|----------|----------|-----------|----------|
| 4a | Fall River Lake | Aquatic Life | Dissolved Oxygen | LM023001 | GW | Lake | High |

11070102**Fall River**

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-------------------------|--------------|----------------|----------|----------|-----------|----------|
| 4a | Fall River Lake | Aquatic Life | Eutrophication | LM023001 | GW | Lake | |
| 4a | Fall River Near Climax | Recreation | Fecal Coli | SC575 | GW, BU | Watershed | High |
| 4a | Fall River Lake | Water Supply | Siltation | LM023001 | GW | Lake | High |
| 3 | Otter Creek Near Climax | Aquatic Life | Biology | SC574 | GW | Watershed | |

11070103**Middle Verdigris**

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-----------------------------------|--------------|------------------|----------|----------|-----------|----------|
| 5 | Verdigris River Near Sycamore | Aquatic Life | Biology | SC105 | WL, MG | Watershed | 2023 |
| 5 | Verdigris River Near Coffeyville | Aquatic Life | Selenium | SC215 | MG | Watershed | 2023 |
| 4a | Verdigris River Near Coffeyville | Aquatic Life | Biology | SC215 | MG | Watershed | Medium |
| 4a | Verdigris River Near Independence | Aquatic Life | Biology | SC563 | MG | Watershed | Medium |
| 4a | Big Hill Creek Near Avian | Aquatic Life | Dissolved Oxygen | SC607 | MG, LB | Watershed | Medium |
| 4a | Montgomery Co. SFL | Aquatic Life | Dissolved Oxygen | LM010701 | MG | Lake | Medium |
| 4a | Onion Creek Near Coffeyville | Aquatic Life | Dissolved Oxygen | SC608 | MG | Watershed | Medium |
| 4a | Pumpkin Creek Near Coffeyville | Aquatic Life | Dissolved Oxygen | SC606 | LB | Watershed | Medium |
| 4a | Big Hill Creek Near Avian | Recreation | E. coli | SC607 | MG, LB | Watershed | Medium |
| 4a | Big Hill Lake | Aquatic Life | Eutrophication | LM031001 | NO, LB | Lake | High |
| 4a | La Claire Lake | Aquatic Life | Eutrophication | LM072901 | MG | Lake | Low |
| 4a | Lake Tanko (Cherryvale City Lake) | Aquatic Life | Eutrophication | LM071601 | MG | Lake | Low |
| 4a | Montgomery Co. SFL | Aquatic Life | Eutrophication | LM010701 | MG | Lake | Medium |
| 4a | Verdigris River Near Coffeyville | Recreation | Fecal Coli | SC215 | MG | Watershed | Medium |
| 4a | Verdigris River Near Independence | Recreation | Fecal Coli | SC563 | MG | Watershed | Medium |
| 4a | Montgomery Co. SFL | Aquatic Life | pH | LM010701 | MG | Lake | Medium |
| 3 | Drum Creek Near Independence | Recreation | E. coli | SC699 | NO, MG | Watershed | |
| 3 | Pumpkin Creek Near Coffeyville | Recreation | E. coli | SC606 | LB | Watershed | |
| 3 | Verdigris River Near Sycamore | Recreation | E. coli | SC105 | WL, MG | Watershed | |

11070104**Elk River**

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|------------------|--------------|----------------|----------|----------|-----------|----------|
| 5 | Moline Reservoir | Aquatic Life | Eutrophication | LM071901 | EK | Lake | 2023 |

11070104

Elk River

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|---------------------------------|--------------|----------------|----------|------------|-----------|----------|
| 5 | Polk Daniels Lake (Elk Co. SFL) | Aquatic Life | Eutrophication | LM012701 | EK | Lake | 2023 |
| 4a | Elk City Lake | Aquatic Life | Eutrophication | LM025001 | EK, MG, CQ | Lake | Medium |
| 4a | Elk River Near Howard | Recreation | Fecal Coli | SC693 | EK, MG | Watershed | Medium |
| 4a | Elk City Lake | Water Supply | Siltation | LM025001 | EK, MG, CQ | Lake | Medium |

11070106

Caney River

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-------------------------------|--------------|------------------|----------|----------|-----------|----------|
| 5 | Middle Caney Creek Near Sedan | Aquatic Life | Dissolved Oxygen | SC694 | CQ | Watershed | 2023 |
| 5 | Sedan City North Lake | Aquatic Life | Eutrophication | LM048601 | CQ | Lake | 2023 |
| 5 | Little Caney River Near Caney | Water Supply | Nitrate | SC572 | MG, CQ | Watershed | 2023 |

Walnut River Basin

11030017

Upper Walnut River

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-----------------------------|--------------|------------------|----------|------------|-----------|----------|
| 5 | Whitewater River At Towanda | Water Supply | Arsenic | SC038 | HV, BU, SG | Watershed | 2023 |
| 5 | Whitewater River At Towanda | Aquatic Life | Biology | SC038 | HV, BU, SG | Watershed | 2023 |
| 5 | Walnut River Near El Dorado | Aquatic Life | Selenium | SC279 | BU | Watershed | 2023 |
| 4a | Augusta Santa Fe Lake | Aquatic Life | Dissolved Oxygen | LM041601 | BU | Lake | Medium |
| 4a | Walnut River Near El Dorado | Aquatic Life | Dissolved Oxygen | SC279 | BU | Watershed | High |
| 4a | Walnut River Near El Dorado | Recreation | E. coli | SC279 | BU | Watershed | High |
| 4a | Whitewater River At Towanda | Recreation | E. coli | SC038 | HV, BU, SG | Watershed | High |
| 4a | Augusta City Lake | Aquatic Life | Eutrophication | LM040001 | BU | Lake | High |
| 4a | Augusta Santa Fe Lake | Aquatic Life | Eutrophication | LM041601 | BU | Lake | Medium |
| 4a | El Dorado Lake | Aquatic Life | Eutrophication | LM033001 | BU | Lake | High |
| 4a | Harvey Co. East Lake | Aquatic Life | Eutrophication | LM052001 | HV | Lake | Medium |
| 4a | Augusta Santa Fe Lake | Water Supply | Siltation | LM041601 | BU | Lake | Medium |
| 4a | El Dorado Lake | Water Supply | Siltation | LM033001 | BU | Lake | High |
| 4a | Walnut River Near El Dorado | Aquatic Life | Total Phosphorus | SC279 | BU | Watershed | High |
| 4a | Whitewater River At Towanda | Aquatic Life | Total Phosphorus | SC038 | HV, BU, SG | Watershed | High |
| 3 | Harvey Co. East Lake | Aquatic Life | Atrazine | LM052001 | HV | Lake | |

11030017**Upper Walnut River**

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|-----------------------------|--------------|------------|---------|----------|-----------|----------|
| 3 | Walnut River Near El Dorado | Aquatic Life | Biology | SC279 | BU | Watershed | |

11030018**Lower Walnut River**

| Cat. | Stream/Lake | Impaired Use | Impairment | Station | Counties | Body Type | Priority |
|------|----------------------------------|--------------|------------------|----------|----------|-----------|----------|
| 5 | Eight Mile Creek Near Douglas | Aquatic Life | Atrazine | SC704 | BU | Watershed | 2023 |
| 4a | Walnut River At Gordon | Aquatic Life | Biology | SC106 | BU | Watershed | Medium |
| 4a | Walnut River Near Hackney | Aquatic Life | Biology | SC532 | BU, CL | Watershed | Medium |
| 4a | Eight Mile Creek Near Douglas | Aquatic Life | Dissolved Oxygen | SC704 | BU | Watershed | High |
| 4a | Little Walnut River Near Douglas | Recreation | E. coli | SC655 | BU | Watershed | High |
| 4a | Rock Creek Near Rock | Recreation | E. coli | SC654 | BU, CL | Watershed | High |
| 4a | Butler Co. SFL | Aquatic Life | Eutrophication | LM049401 | BU | Lake | Medium |
| 4a | Winfield City Lake | Aquatic Life | Eutrophication | LM050801 | CL | Lake | High |
| 4a | Winfield Park Lagoon | Aquatic Life | Eutrophication | LM072301 | CL | Lake | Low |
| 4a | Eight Mile Creek Near Douglas | Water Supply | Sulfate | SC704 | BU | Watershed | Low |
| 4a | Four Mile Creek Near Gordon | Water Supply | Sulfate | SC744 | BU, SG | Watershed | Low |
| 4a | Walnut River At Gordon | Water Supply | Sulfate | SC106 | BU | Watershed | Low |
| 4a | Eight Mile Creek Near Douglas | Aquatic Life | Total Phosphorus | SC704 | BU | Watershed | High |
| 4a | Four Mile Creek Near Gordon | Aquatic Life | Total Phosphorus | SC744 | BU, SG | Watershed | High |
| 4a | Walnut River At Gordon | Aquatic Life | Total Phosphorus | SC106 | BU | Watershed | High |
| 3 | Eight Mile Creek Near Douglas | Recreation | E. coli | SC704 | BU | Watershed | |
| 3 | Timber Creek Near Winfield | Recreation | E. coli | SC653 | CL | Watershed | |
| 3 | Walnut River Near Hackney | Recreation | E. coli | SC532 | BU, CL | Watershed | |

KANSAS SURFACE WATER REGISTER MAPS

An accompanying document to the
Kansas Surface Water Register, December 15, 2013

Prepared by:

Kansas Department of Health and Environment
Division of Environment
Bureau of Water
Curtis State Office Building
Topeka, Kansas 66612

INTRODUCTION

This is an accompanying document to the Kansas Surface Water Register, December 15, 2013 that contains the maps of classified surface waters in the State of Kansas.

The maps of Kansas streams and lakes were prepared using a Geographic Information System (GIS), utilizing the National Hydrology Dataset (NHD). A subset of the NHD was selected to represent the Kansas Surface Water Register. In addition, errors in the NHD required some modification, which included stream renaming and the addition of new stream segments.

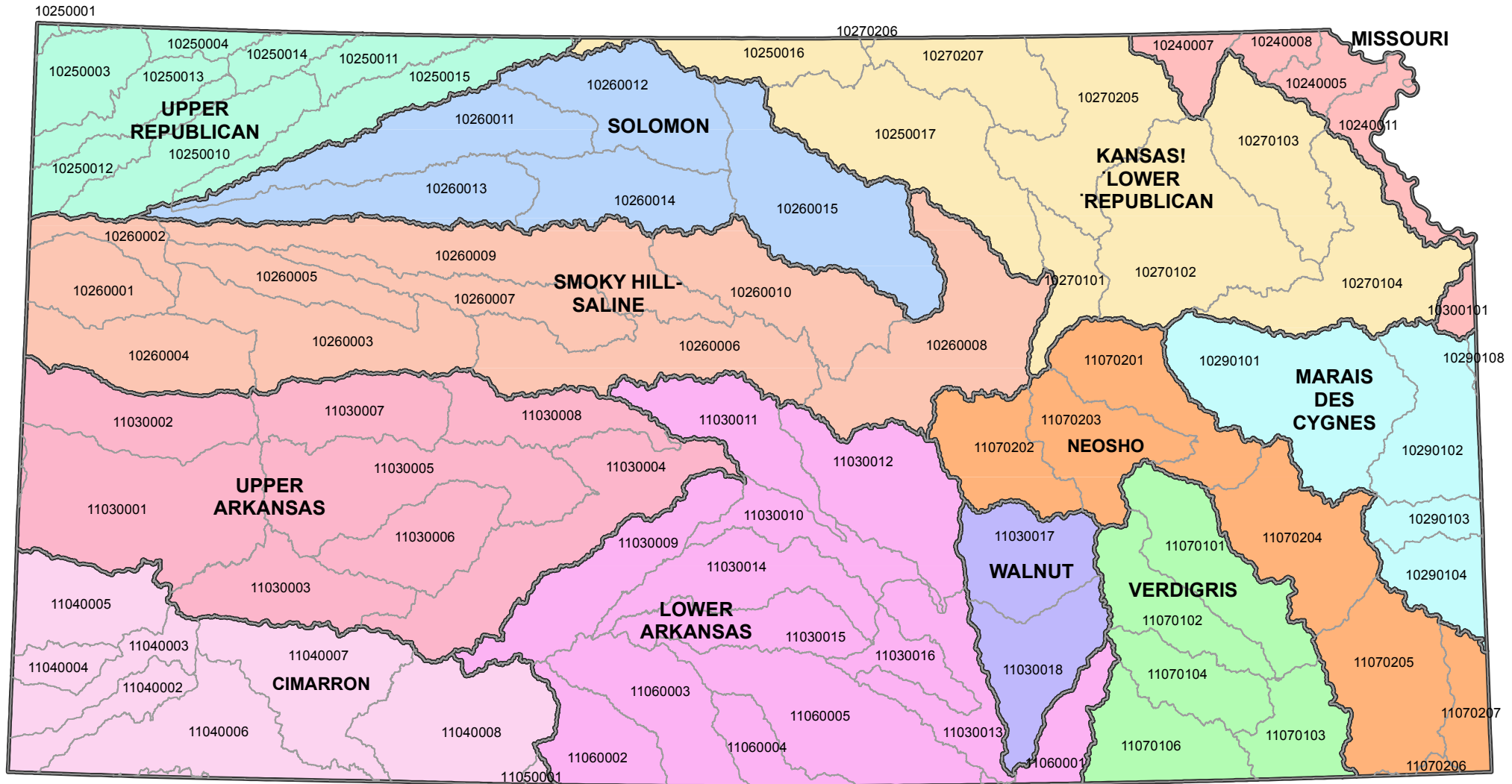
The Kansas Surface Water Register Maps is composed of one set of maps, which include the streams, lakes, and wildlife areas.

Each page depicts one or more Hydrologic Unit Code (HUC 8), depending on the HUC size and/or location. The map section starts with a reference map and a text version of the HUCS. The table and the maps are hyperlinked in the electronic copy. The segment numbers for the streams are indicated and the segments are depicted in varying colors. Lake and wildlife areas are polygons and are labeled with their names. The maps are grouped alphabetically and then numerically by HUC 8.

| BASIN | HYDROLOGIC UNIT CODE (HUC) | PAGE NUMBER |
|-------------------------------|---|-------------|
| CIMARRON RIVER | | |
| | SUBBASIN: UPPER CIMARRON (HUC 11040002) | Page 5 |
| | SUBBASIN: NORTH FORK CIMARRON (HUC 11040003) | Page 5 |
| | SUBBASIN: UPPER CIMARRON-LIBERAL (11040006) | Page 6 |
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| BASIN | HYDROLOGIC UNIT CODE (HUC) | PAGE NUMBER |
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Kansas Surface Water Register Maps

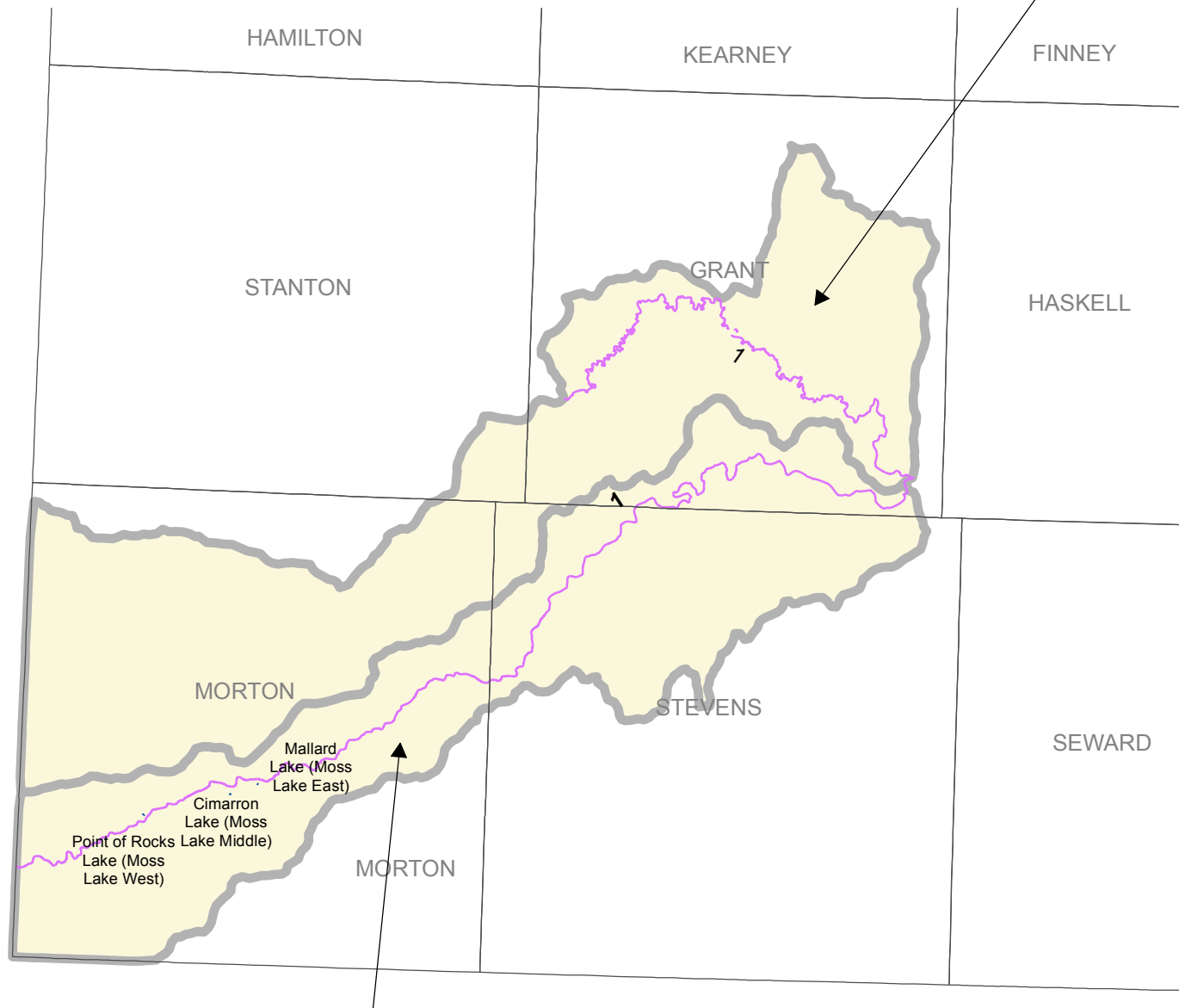


National Hydrography Dataset (HUC) , USGS 2012
 Kansas Surface Water Register, 2013
 HUC8 Boundaries, USGS 2004

KDHE/BOW 2015

CIMARRON RIVER

SUBBASIN: NORTH FORK CIMARRON (HUC 11040003)

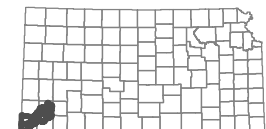


SUBBASIN: UPPER CIMARRON (HUC 11040002)

National Hydrography Dataset (NHD), USGS 2012
Kansas Surface Water Register, 2013
HUC 8 boundaries, USGS 2004

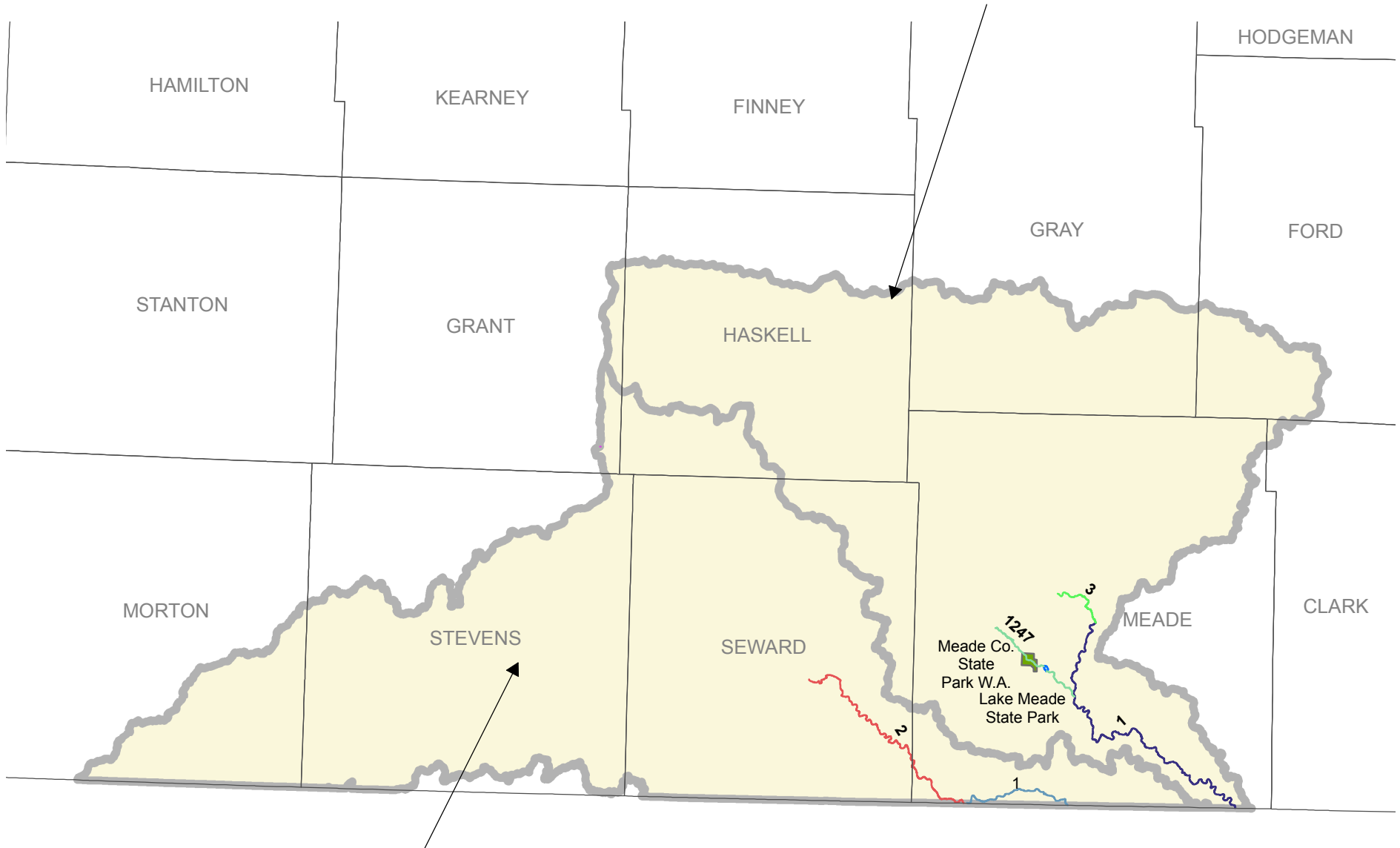
KDHE/BOW. 2015

0 3 6 12 18 24 Miles



CIMARRON RIVER BASIN

SUBBASIN: CROOKED CREEK (HUC11040007)



SUBBASIN: UPPER CIMARRON-LIBERAL (HUC 11040006)

National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE. BOW. 2015

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CIMARRON RIVER

SUBBASIN: UPPER CIMARRON-BLUFF (HUC 11040008)

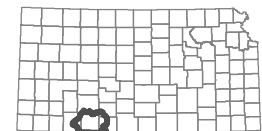


SUBBASIN: LOWER CIMARRON-EAGLE CHIEF (HUC 11050001)

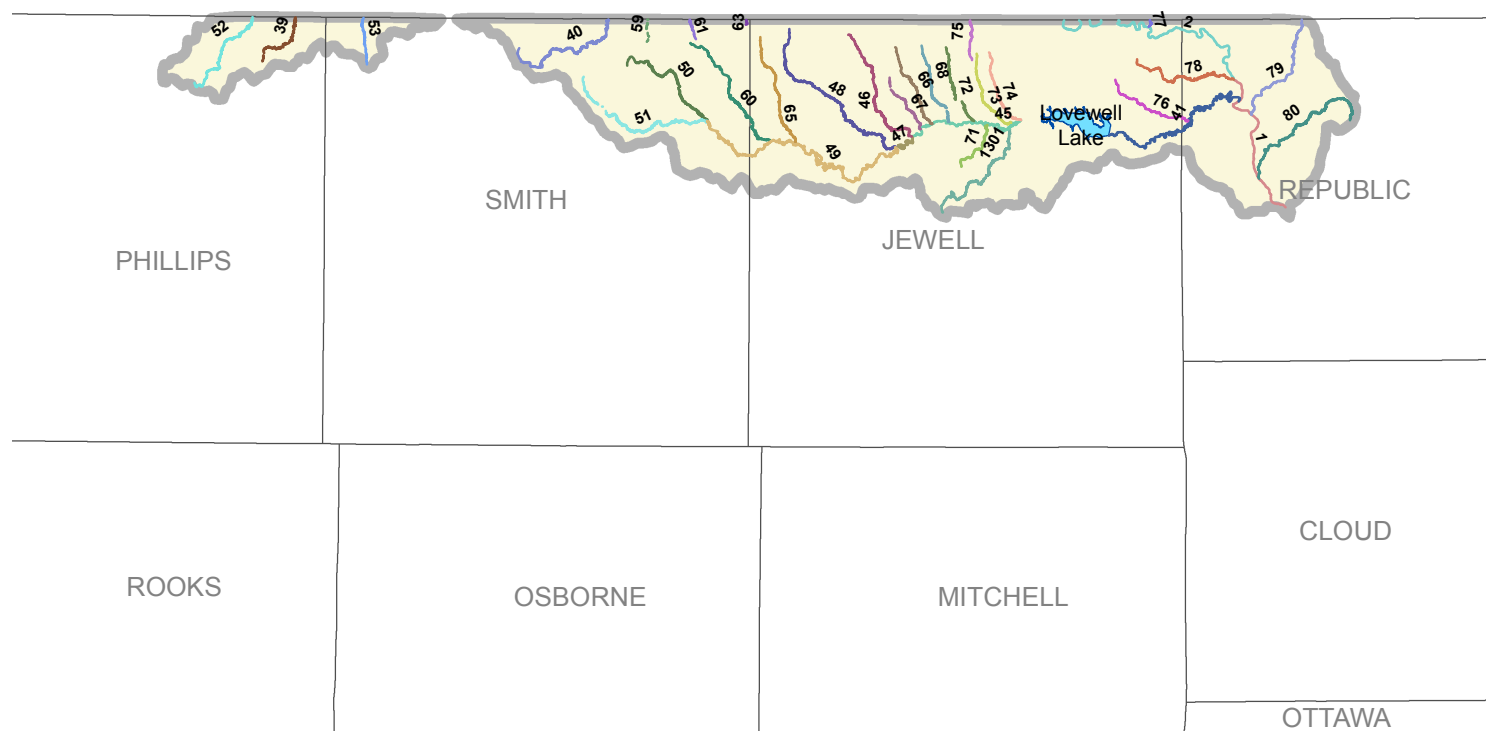
National Hydrography Dataset (NHD), USGS 2012
Kansas Surface Water Register, KDHE 2013
HUC 8 boundaries, USGS 2004

KDHE/BOW. 2015

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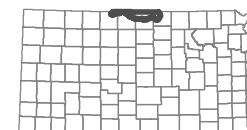
KANSAS-LOWER REPUBLICAN RIVER BASIN SUBBASIN: MIDDLE REPUBLICAN (HUC 10250016)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015

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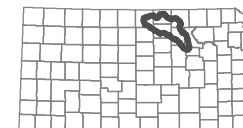
KANSAS-LOWER REPUBLICAN RIVER BASIN SUBBASIN: LOWER REPUBLICAN (HUC 10250017)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015

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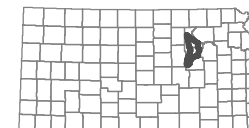
KANSAS-LOWER REPUBLICAN RIVER BASIN SUBBASIN: UPPER KANSAS (HUC 10270101)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015

0 3 6 12 18 24 Miles



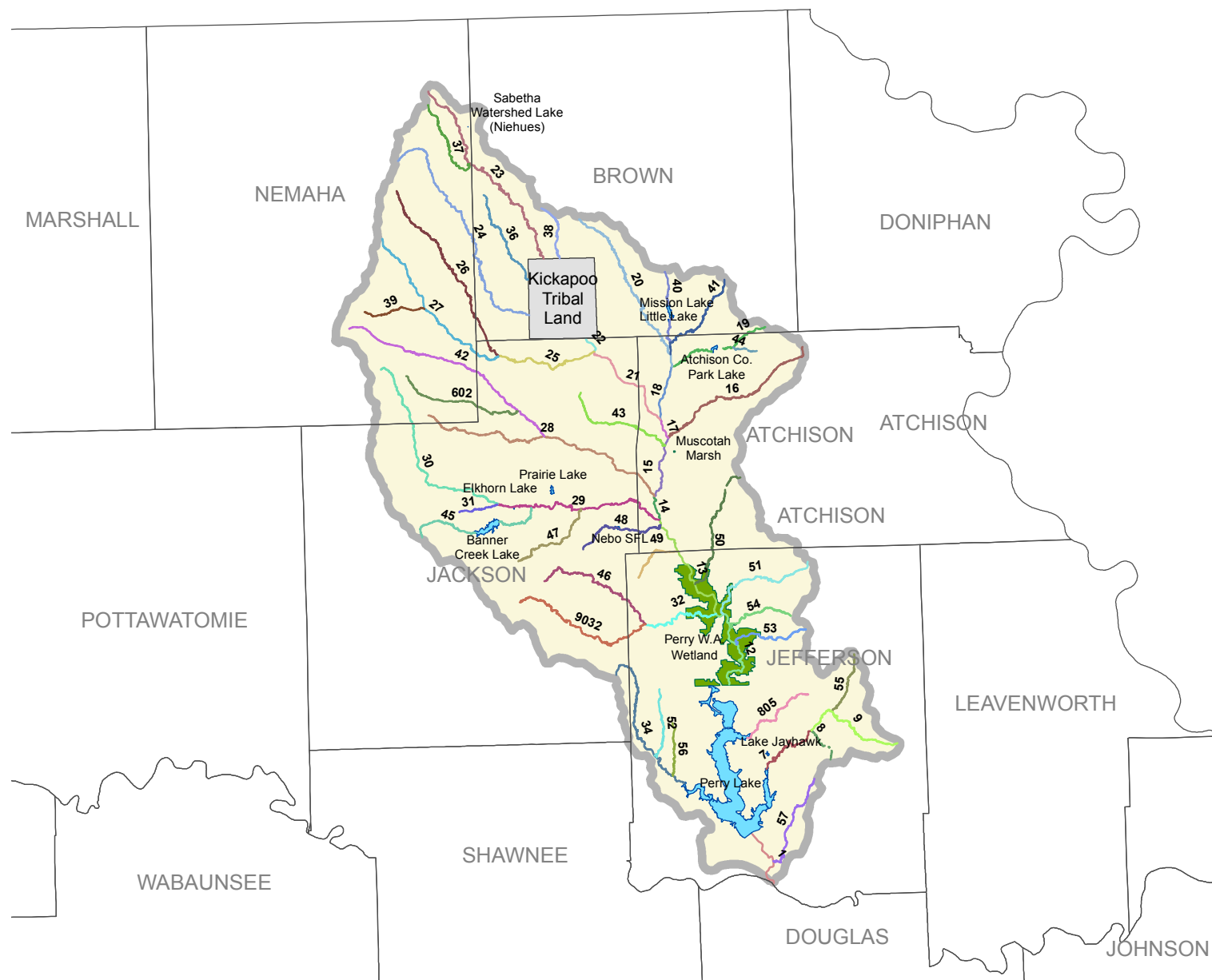
KANSAS-LOWER REPUBLICAN RIVER BASIN SUBBASIN: MIDDLE KANSAS (HUC 10270102)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

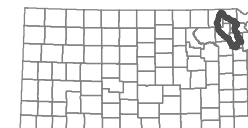
KDHE/BOW. 2015

KANSAS-LOWER REPUBLICAN RIVER BASIN SUBBASIN: DELAWARE (HUC 10270103)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004
 KDHE/ BOW. 2015

0 3.5 7 14 21 28 Miles



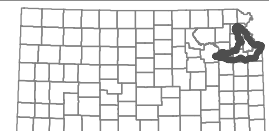
KANSAS-LOWER REPUBLICAN RIVER BASIN SUBBASIN: LOWER KANSAS (HUC 10270104)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/BOW. 2015

0 2.75 5.5 11 16.5 22 Miles



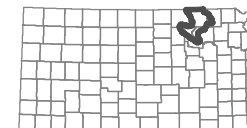
KANSAS-LOWER REPUBLICAN RIVER BASIN SUBBASIN: LOWER BIG BLUE (HUC 10270205)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

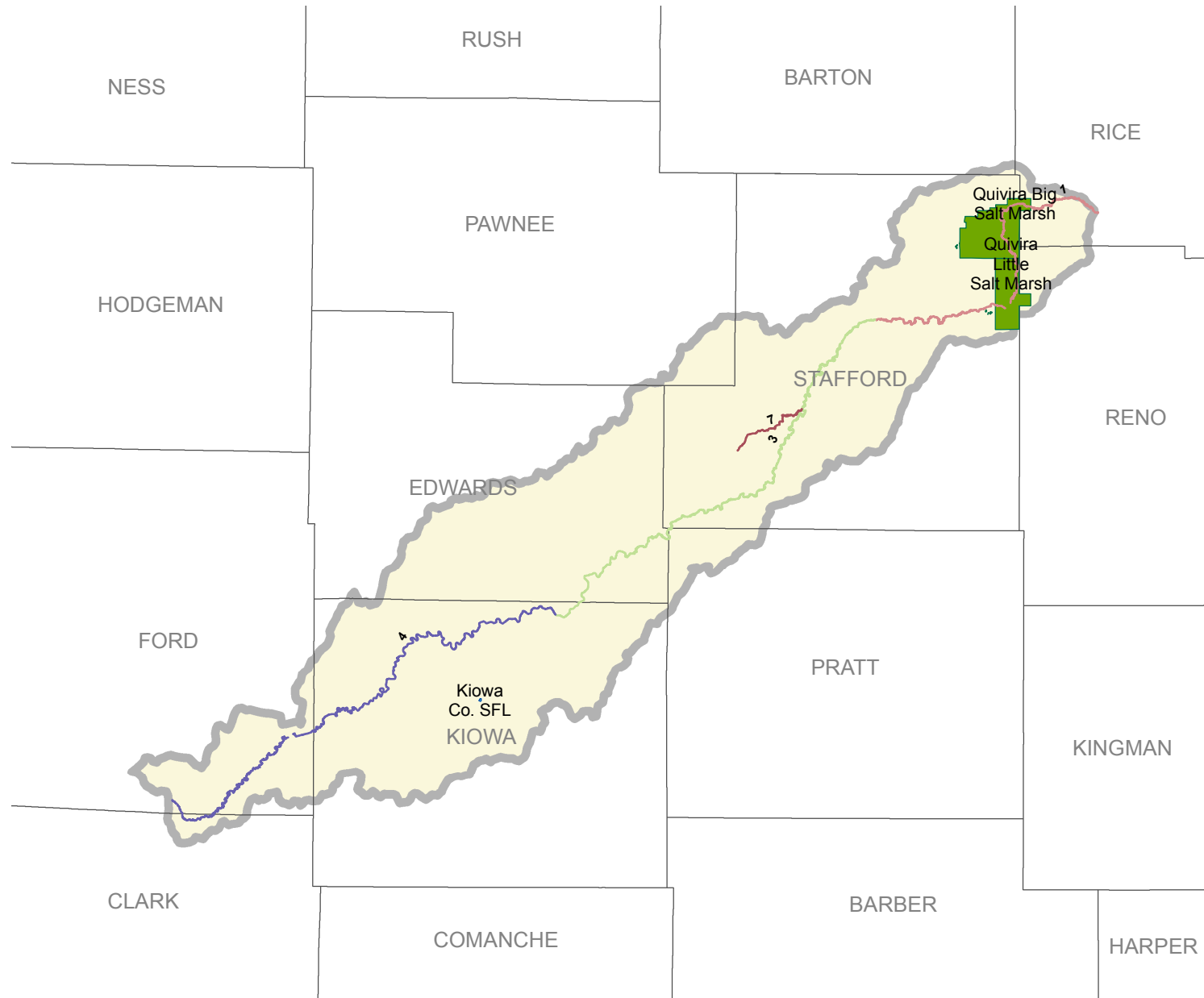
KDHE/BOW. 2015

0 3.5 7 14 21 28 Miles



LOWER ARKANSAS RIVER BASIN

SUBBASIN: RATTLESNAKE (HUC 11030009)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015

0 4 8 16 24 32 Miles



LOWER ARKANSAS RIVER BASIN

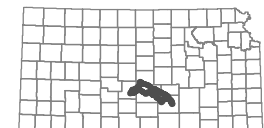
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Kansas Surface Water Register, KDHE 2013
HUC 8 boundaries, USDA/NRCS/USGS 2004

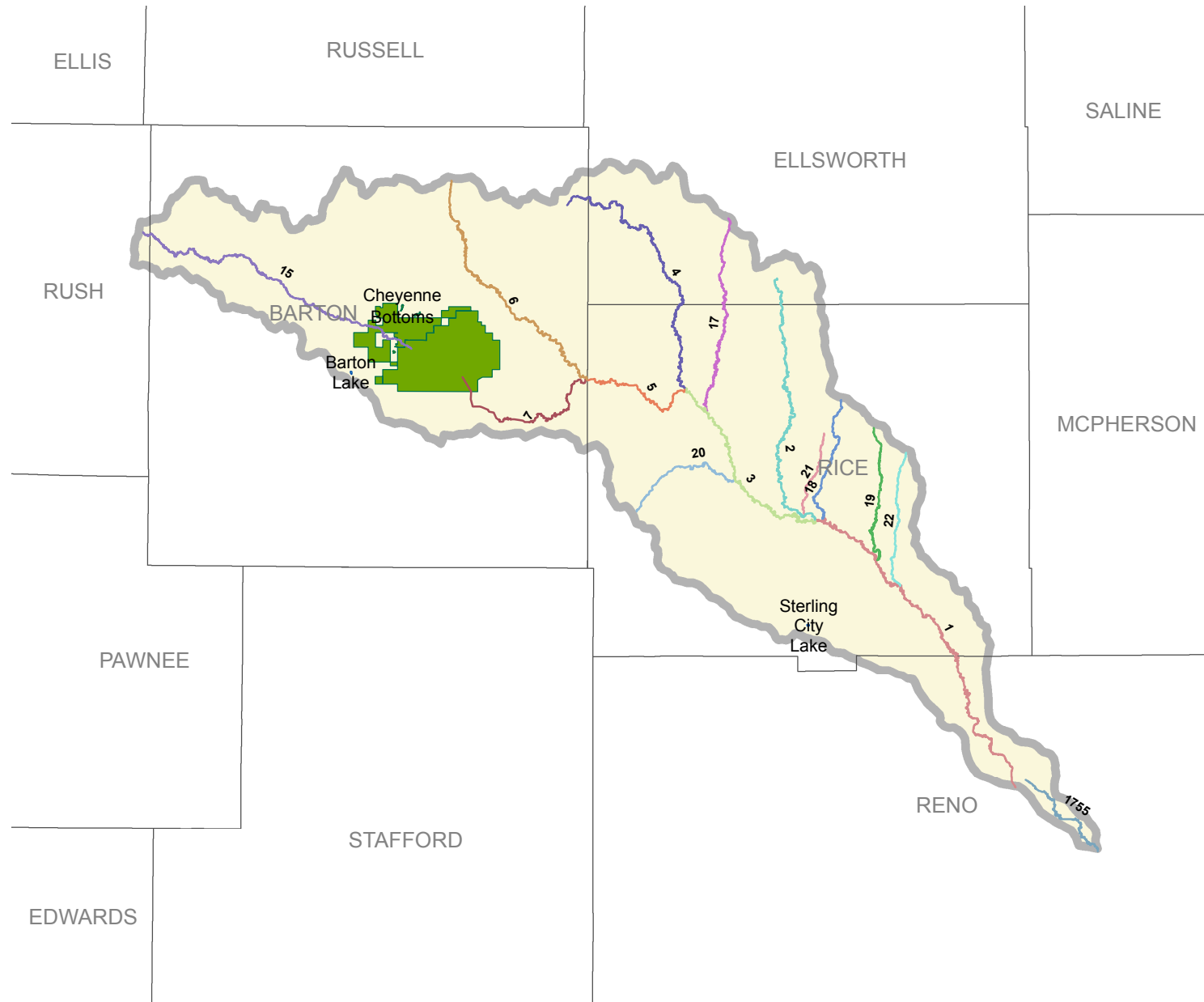
KDHE/ BOW. 2015

0 3.5 7 14 21 28 Miles



LOWER ARKANSAS RIVER BASIN

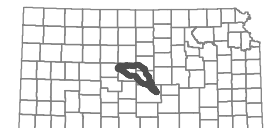
SUBBASIN: COW (HUC 11030011)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015

0 3.25 6.5 13 19.5 26 Miles



LOWER ARKANSAS RIVER BASIN

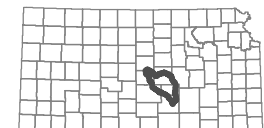
SUBBASIN: LITTLE ARKANSAS (HUC 11030012)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

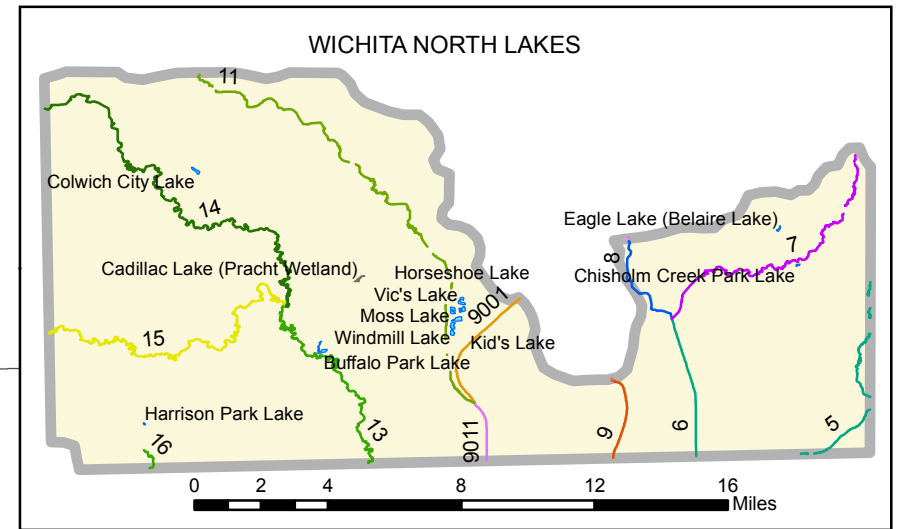
KDHE/BOW. 2015

0 3.5 7 14 21 28 Miles



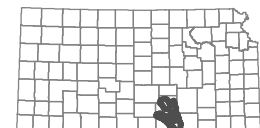
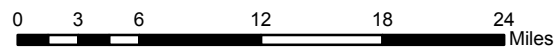
LOWER ARKANSAS RIVER BASIN

SUBBASIN: MIDDLE ARKANSAS-SLATE (HUC 11030013)



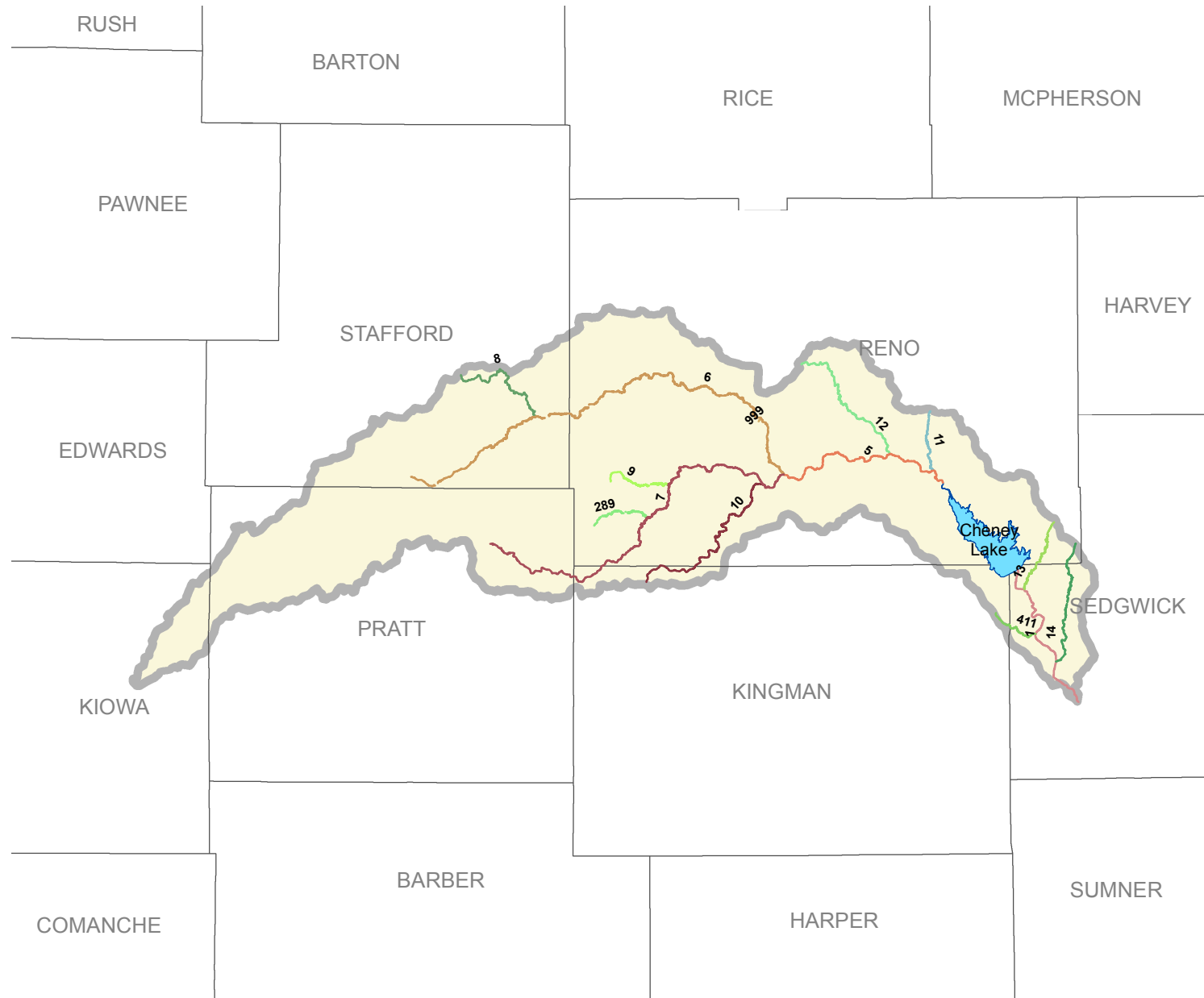
National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NCRS/USGS 2004

KDHE. BOW. 2015



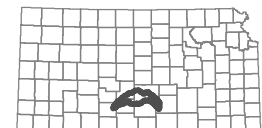
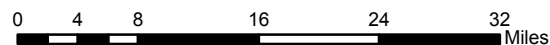
LOWER ARKANSAS RIVER BASIN

SUBBASIN: NORTH FORK NINNESCAH (HUC 11030014)



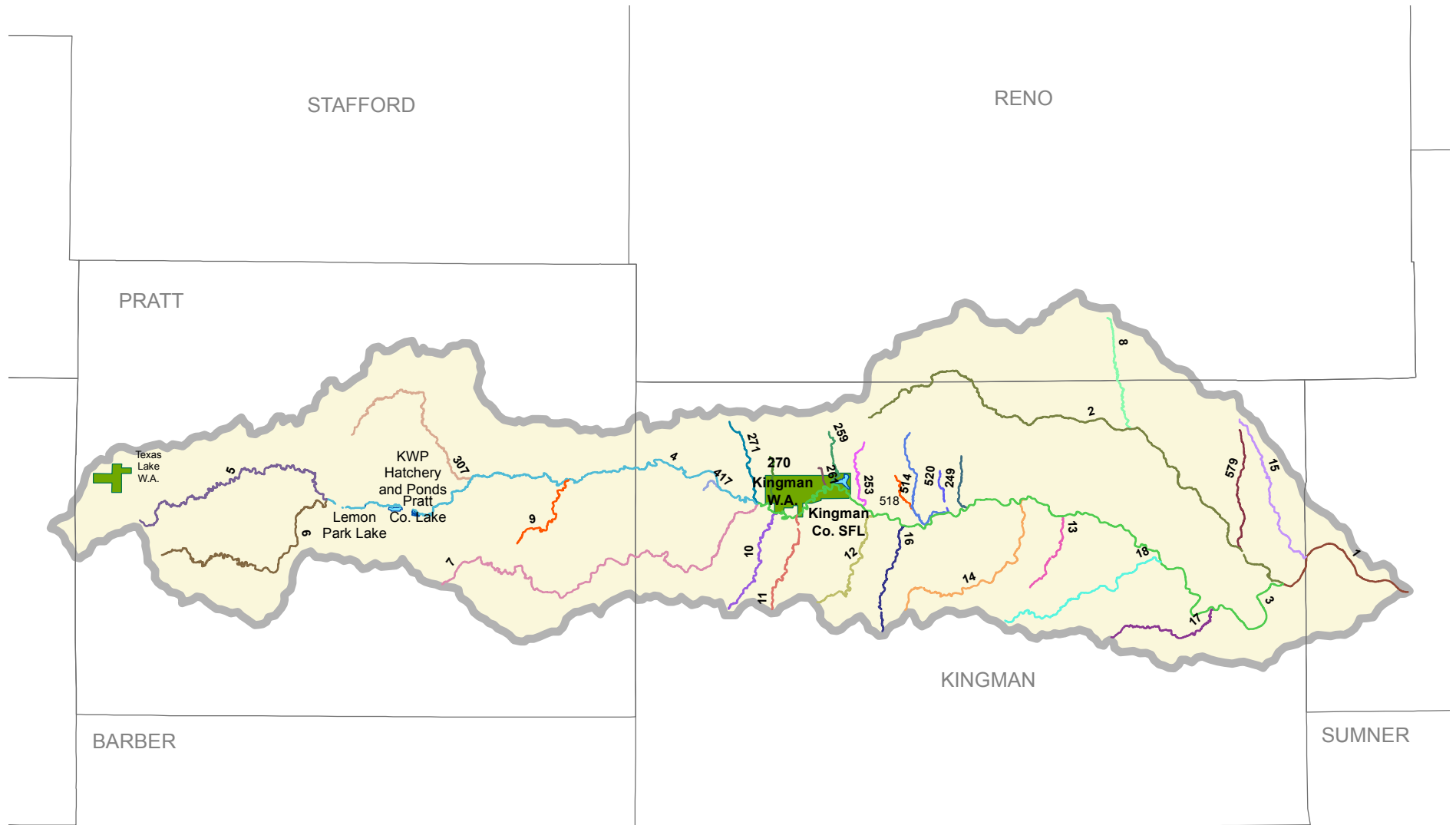
National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015



LOWER ARKANSAS RIVER BASIN

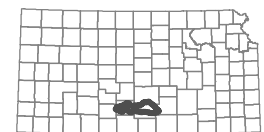
SUBBASIN: SOUTH FORK NINNESCAH (HUC 11030015)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015

0 2.5 5 10 15 20 Miles



LOWER ARKANSAS RIVER BASIN

SUBBASIN: NINNESCAH (HUC 11030016)



National Hydrography Dataset (NHD), USGS 2012
Kansas Surface Water Register, KDHE 2013
HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015

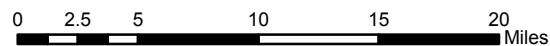
LOWER ARKANSAS RIVER BASIN

SUBBASIN: KAW LAKE (HUC 11060001)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015



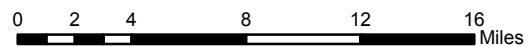
LOWER ARKANSAS RIVER BASIN

SUBBASIN: UPPER SALT FORK (HUC 11060002)



National Hydrography Dataset (NHD), USGS 2012
Kansas Surface Water Register, KDHE 2013
HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015



LOWER ARKANSAS RIVER BASIN

SUBBASIN: MEDICINE LODGE (HUC 11060003)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015

0 2.75 5.5 11 16.5 22 Miles



LOWER ARKANSAS RIVER BASIN

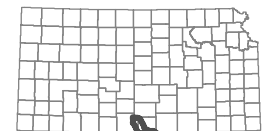
SUBBASIN: LOWER SALT FORK (HUC 11060004)



National Hydrography Dataset (NHD), USGS 2012
Kansas Surface Water Register, KDHE 2013
HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015

0 2 4 8 12 16 Miles



LOWER ARKANSAS RIVER BASIN

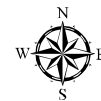
SUBBASIN: CHIKASKIA (HUC 11060005)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/BOW. 2015

0 2.75 5.5 11 16.5 22 Miles



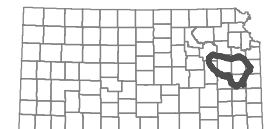
MARAIS DES CYGNES RIVER BASIN

SUBBASIN: UPPER MARAIS DES CYGNES (HUC 10290101)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004
 KDHE/BOW. 2015

0 3.5 7 14 21 28 Miles



MARAIS DES CYGNES RIVER BASIN

SUBBASIN: SOUTH GRAND (HUC 10290108)

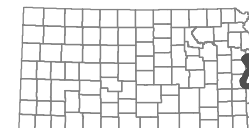


SUBBASIN:
LOWER MARAIS DES CYGNES
(HUC 10290102)

National Hydrography Dataset (NHD), USGS 2012
Kansas Surface Water Register, KDHE 2013
HUC 8 boundaries USDA/NRCS/USGS 2004

KDHE/BOW. 2015

0 2.5 5 10 15 20 Miles



MARAIS DES CYGNES RIVER BASIN

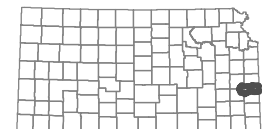
SUBBASIN: LITTLE OSAGE (HUC 10290103)



National Hydrography Dataset (NHD), USGS 2012
Kansas Surface Water Register, KDHE 2013
HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015

0 1.5 3 6 9 12 Miles



MARAIS DES CYGNES RIVER BASIN

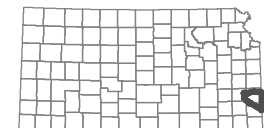
SUBBASIN: MARMATON (HUC 10290104)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/BOW. 2015

0 2 4 8 12 16 Miles



MISSOURI RIVER BASIN

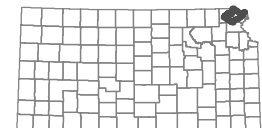
SUBBASIN: TARKIO-WOLF (HUC 10240005)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

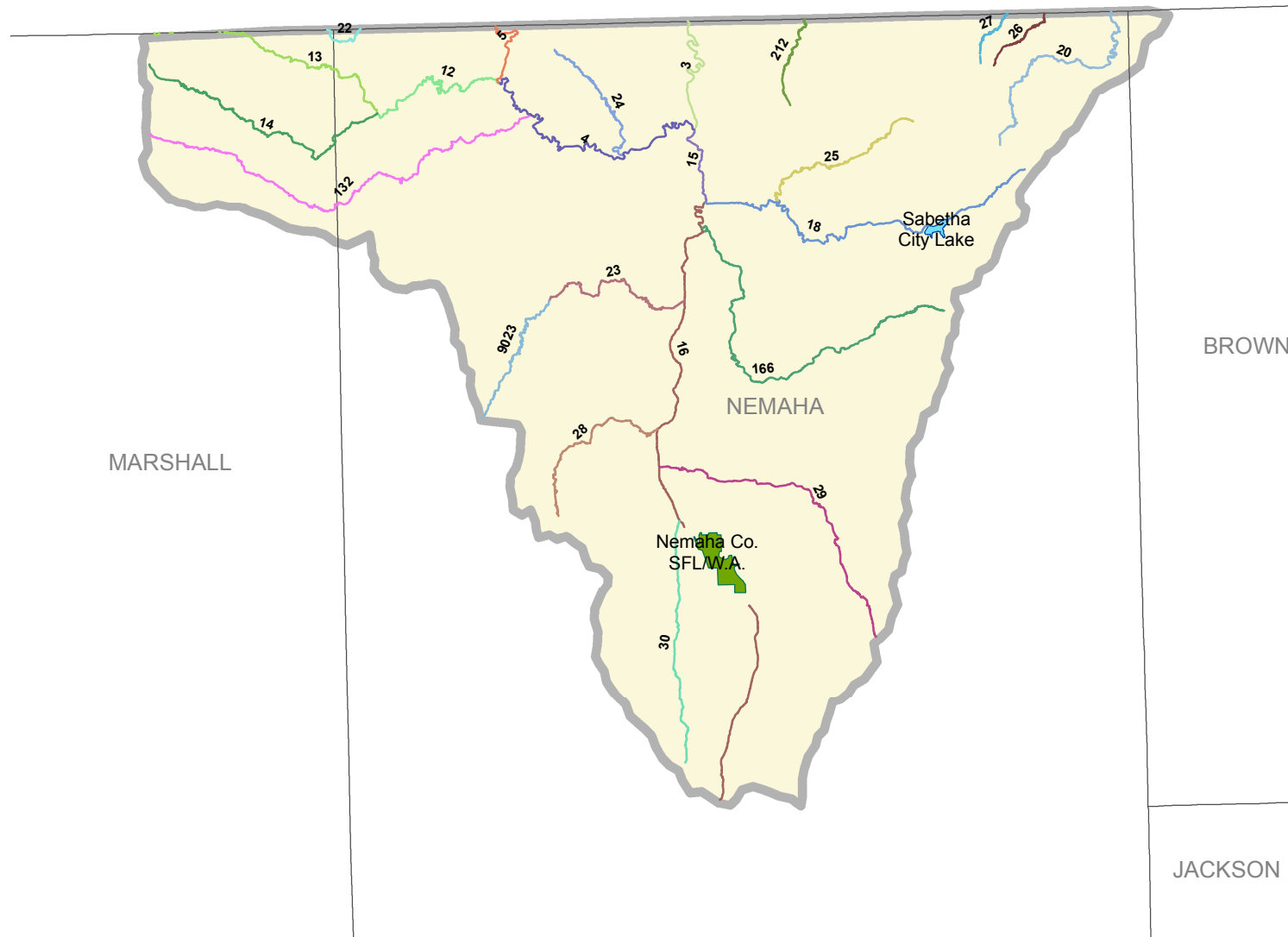
KDHE/ BOW. 2015

0 1.75 3.5 7 10.5 14 Miles



MISSOURI RIVER BASIN

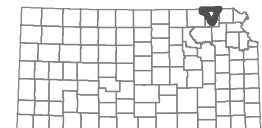
SUBBASIN: SOUTH FORK BIG NEMAHA (HUC 10240007)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

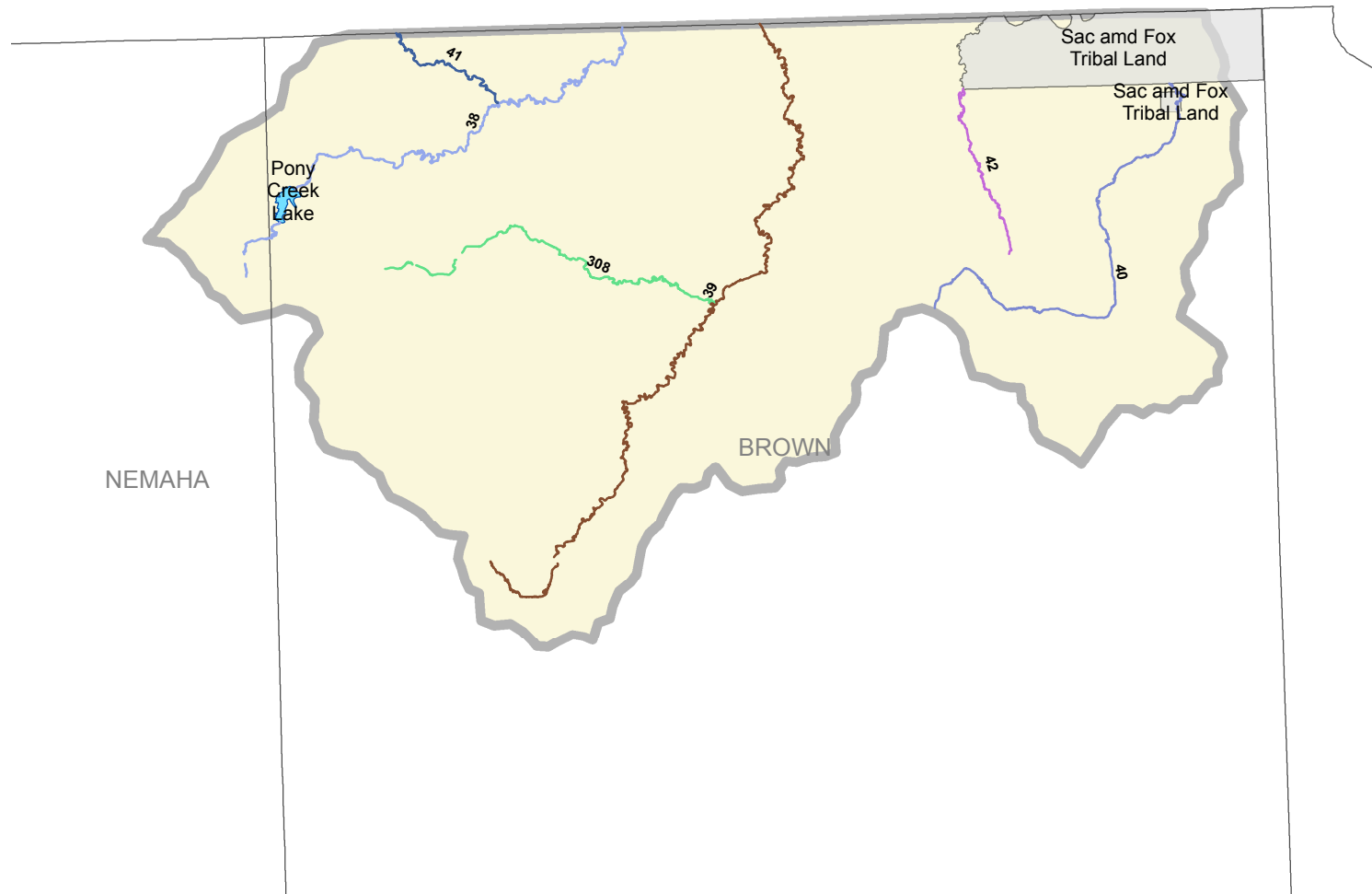
KDHE/ BOW. 2015

0 1.5 3 6 9 12 Miles



MISSOURI RIVER BASIN

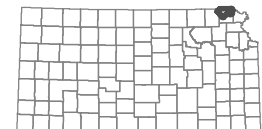
SUBBASIN: BIG NEMAHA (HUC 10240008)



National Hydrography Dataset (NHD), USGS 2012
Kansas Surface Water Register, KDHE 2013
HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015

0 1.25 2.5 5 7.5 10 Miles



MISSOURI RIVER BASIN

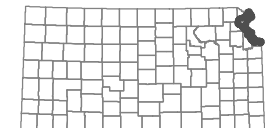
SUBBASIN: INDEPENDENCE-SUGAR (HUC 10240011)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

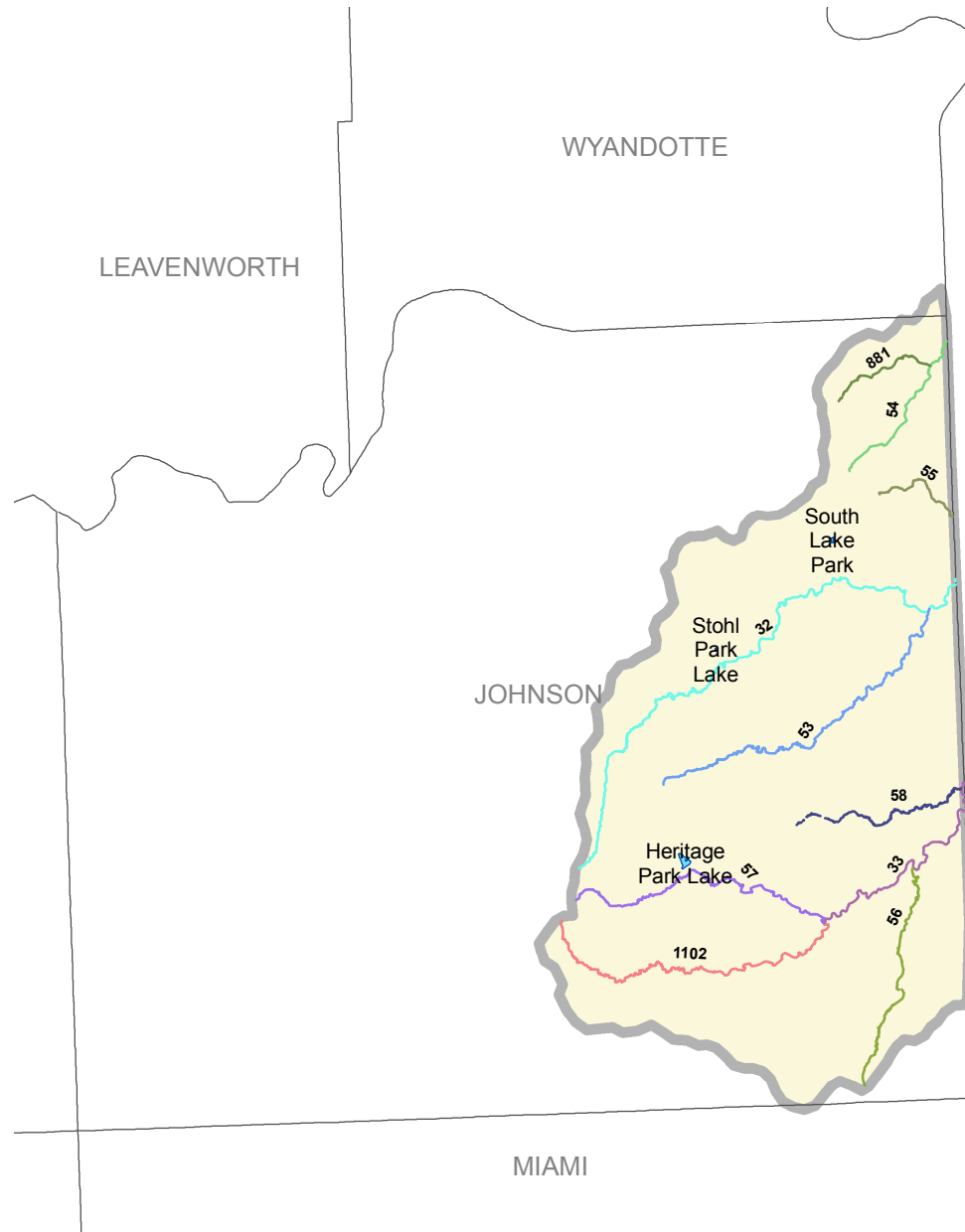
KDHE/ BOW. 2015

0 3.25 6.5 13 19.5 26 Miles



MISSOURI RIVER BASIN

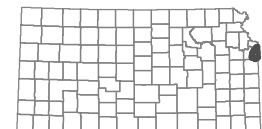
SUBBASIN: LOWER MISSOURI-CROOKED (HUC 10300101)



National Hydrography Dataset (NHD), USGS 2012
Kansas Surface Water Register, KDHE 2013
HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015

0 1.5 3 6 9 12 Miles



NEOSHO RIVER BASIN

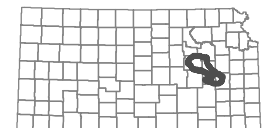
SUBBASIN: NEOSHO HEADWATERS (HUC 11070201)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015

0 3 6 12 18 24 Miles



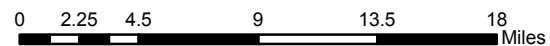
NEOSHO RIVER BASIN

SUBBASIN: UPPER COTTONWOOD (HUC 11070202)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015



NEOSHO RIVER BASIN

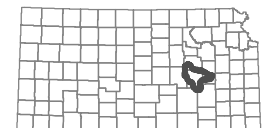
SUBBASIN: LOWER COTTONWOOD (HUC 11070203)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015

0 2.75 5.5 11 16.5 22 Miles



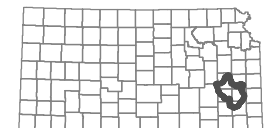
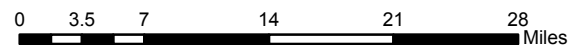
NEOSHO RIVER BASIN

SUBBASIN: UPPER NEOSHO (HUC 11070204)



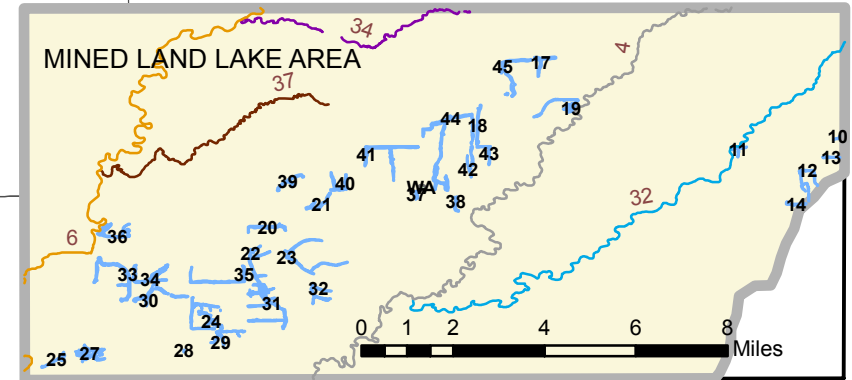
National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/BOW 2015



NEOSHO RIVER BASIN

SUBBASIN: MIDDLE NEOSHO (HUC 11070205)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries USDA/NRCS/USGS 2004

KDHE/BOW. 2015

0 2.5 5 10 15 20 Miles



NEOSHO RIVER BASIN

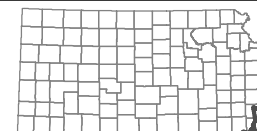
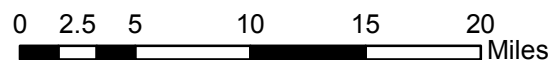
SUBBASIN: SPRING (HUC11070207)



SUBBASIN: LAKE OF THE CHEROKEES (HUC11070206)

National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDS/NRCS/USGS 2004

KDHE/BOW. 2015



SMOKY HILL-SALINE RIVER BASIN

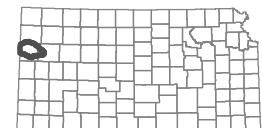
SUBBASIN: SMOKY HILL HEADWATERS (HUC 10260001)



National Hydrography Dataset (NHD), USGS 2012
Kansas Surface Water Register, KDHE 2013
HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015

0 2 4 8 12 16 Miles



SMOKY HILL-SALINE RIVER BASIN

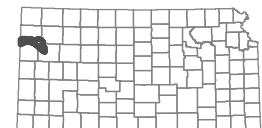
SUBBASIN: NORTH FORK SMOKY HILL (HUC 10260002)



National Hydrography Dataset (NHD), USGS 2012
Kansas Surface Water Register, KDHE 2013
HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/BOW. 2015

0 2 4 8 12 16 Miles



SMOKY HILL-SALINE RIVER BASIN

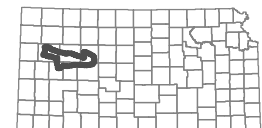
SUBBASIN: UPPER SMOKY HILL (HUC 10260003)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

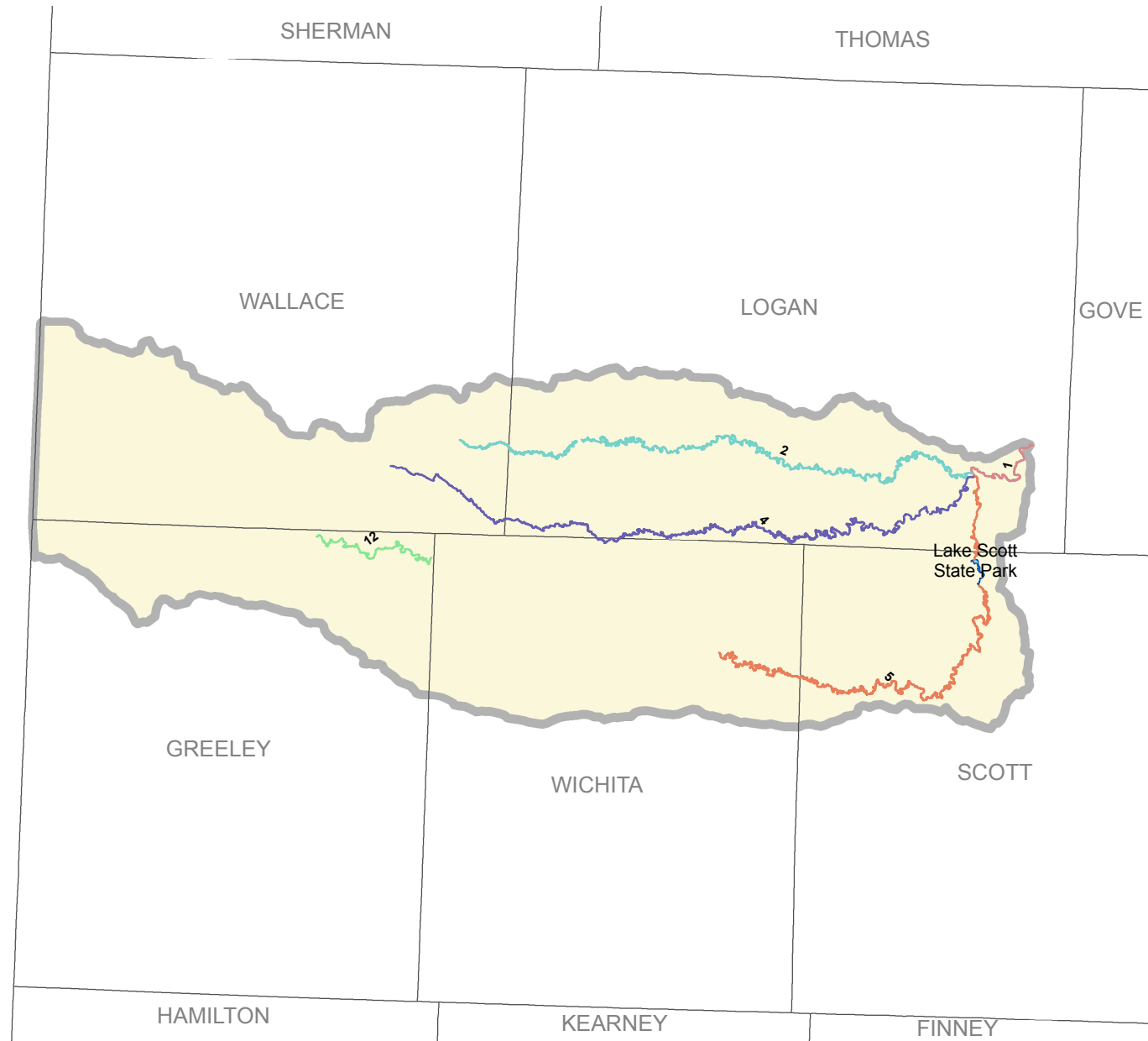
KDHE/ BOW. 2015

0 4.5 9 18 27 36 Miles



SMOKY HILL-SALINE RIVER BASIN

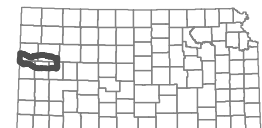
SUBBASIN: LADDER (HUC 10260004)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015

0 3.25 6.5 13 19.5 26 Miles



SMOKY HILL-SALINE RIVER BASIN

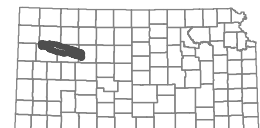
SUBBASIN: HACKBERRY (HUC 10260005)



National Hydrography Dataset (NHD), USGS 2012
Kansas Surface Water Register, KDHE 2013
HUC 8 boundaries, USDA/NRCS/USGS 2004

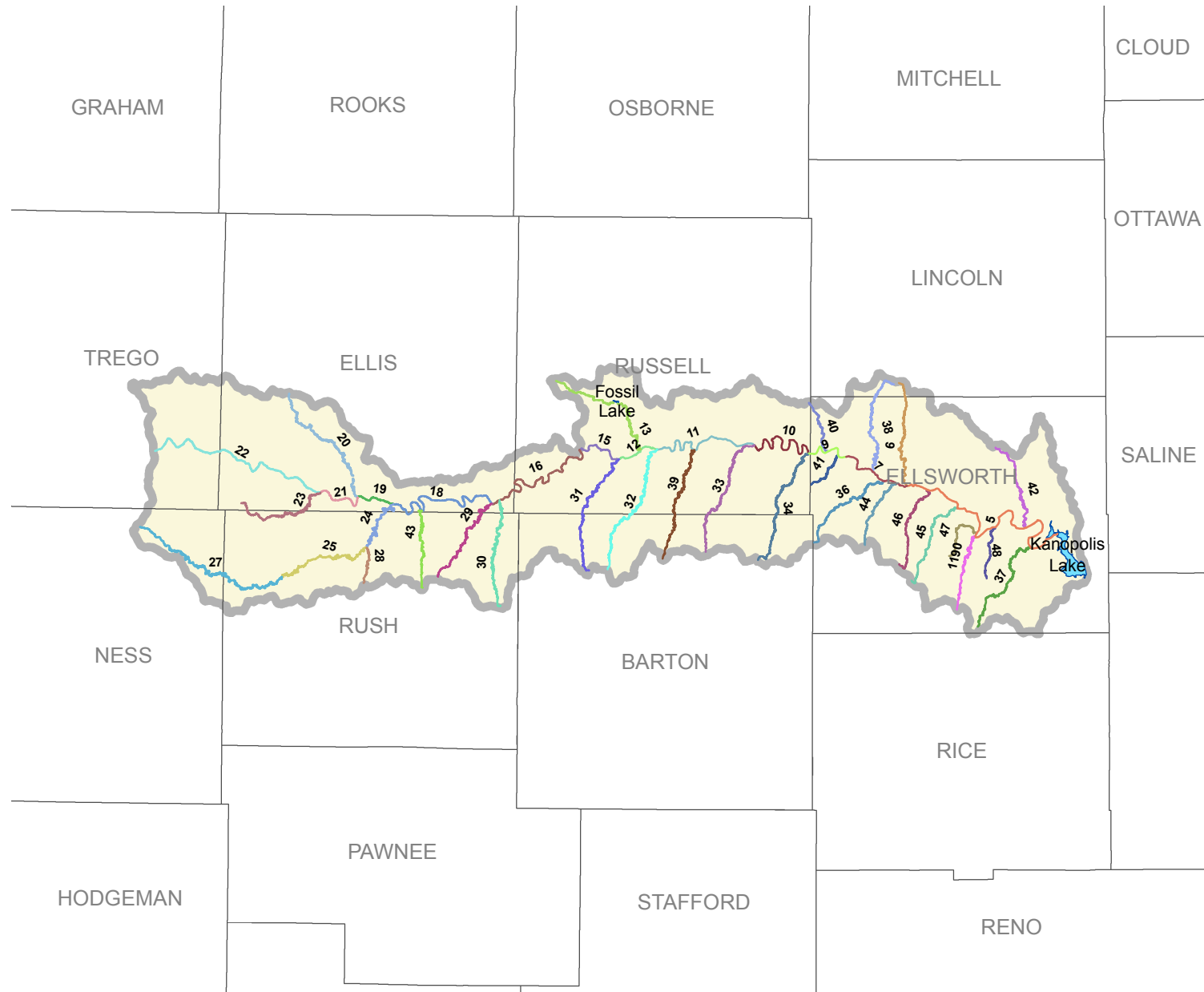
KDHE/ BOW. 2015

0 3.5 7 14 21 28 Miles



SMOKY HILL-SALINE RIVER BASIN

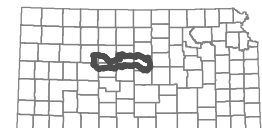
SUBBASIN: MIDDLE SMOKY HILL (HUC 10260006)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015

0 5 10 20 30 40 Miles



SMOKY HILL-SALINE RIVER BASIN

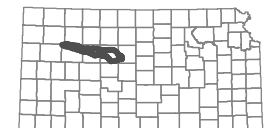
SUBBASIN: BIG (HUC 10260007)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

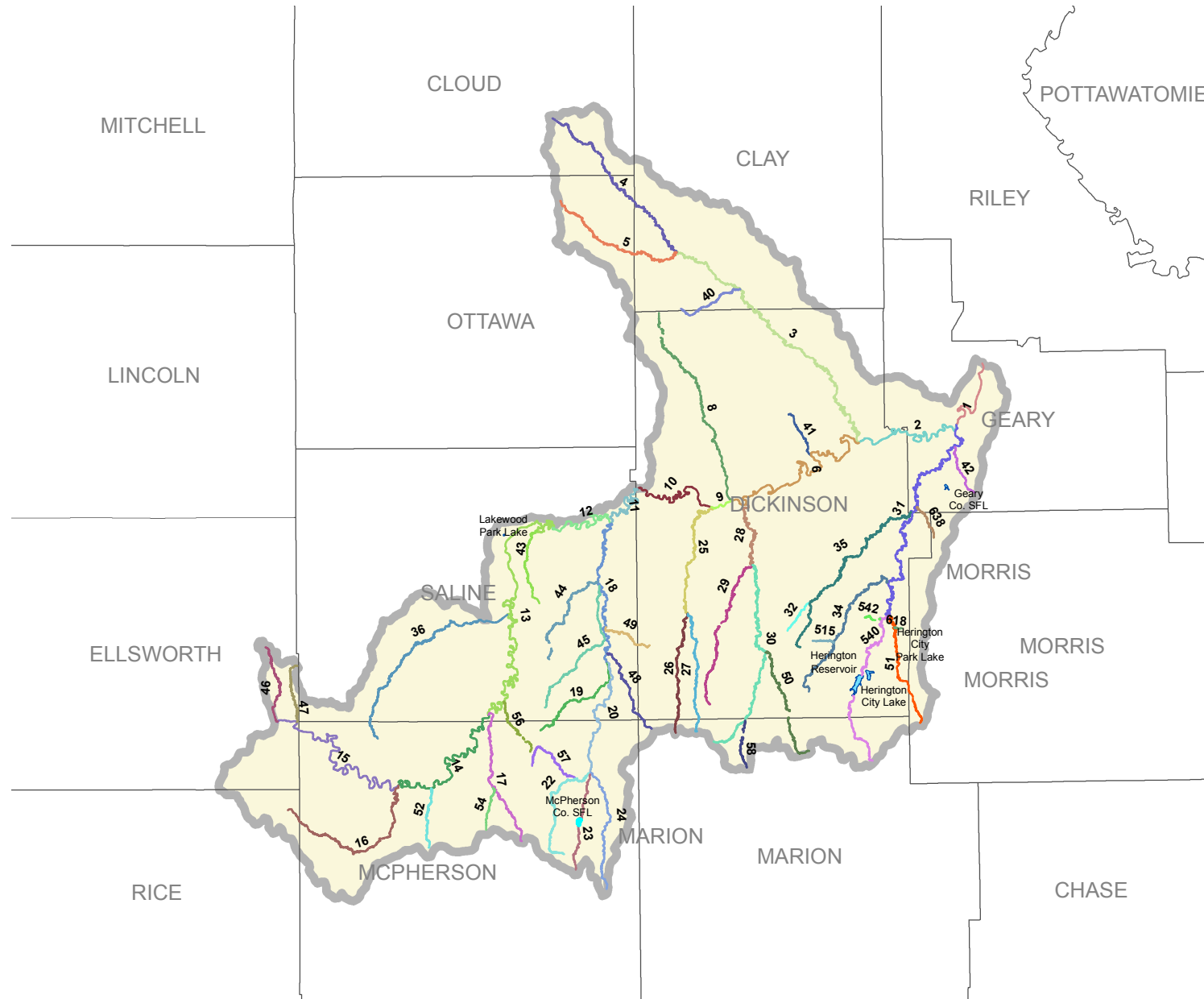
KDHE/ BOW. 2015

0 5 10 20 30 40 Miles



SMOKY HILL-SALINE RIVER BASIN

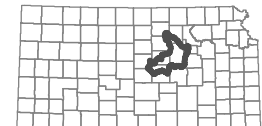
SUBBASIN: LOWER SMOKY HILL (HUC 10260008)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/BOW. 2015

0 4.25 8.5 17 25.5 34 Miles



SMOKY HILL-SALINE RIVER BASIN

SUBBASIN: UPPER SALINE (HUC 10260009)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/BOW. 2015

0 5 10 20 30 40 Miles



SMOKY HILL-SALINE RIVER BASIN

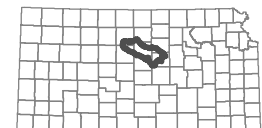
SUBBASIN: LOWER SALINE (HUC 10260010)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

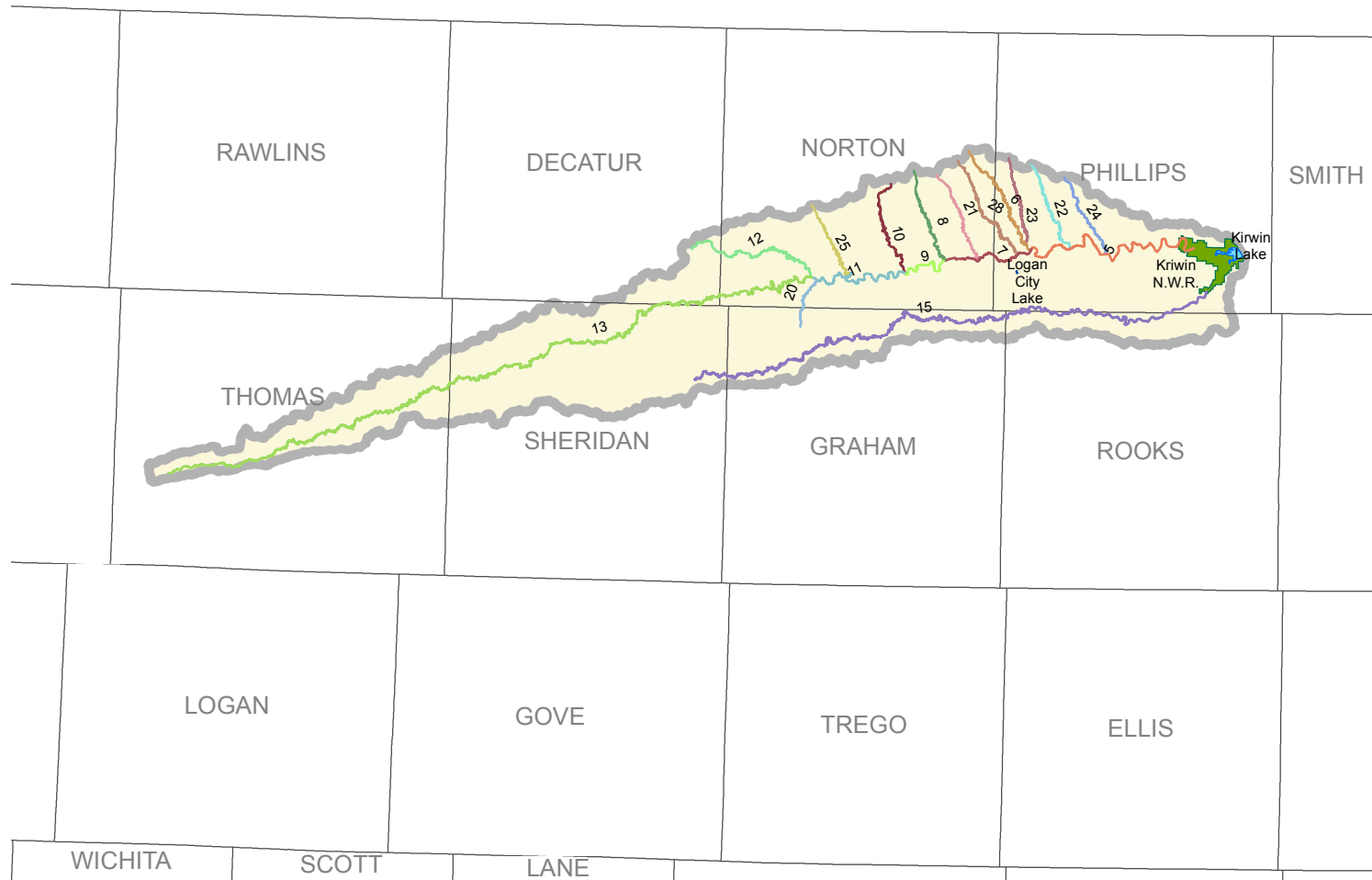
KDHE/ BOW. 2015

0 3.75 7.5 15 22.5 30 Miles



SOLOMON RIVER BASIN

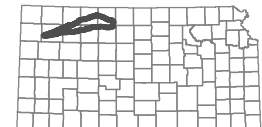
SUBBASIN: UPPER NORTH FORK SOLOMON (HUC 10260011)



National Hydrography Dataset (NHD), USGS 2012
Kansas Surface Water Register, KDHE 2013
HUC 8 boundaries, USDA/NRCS/USGS 2004

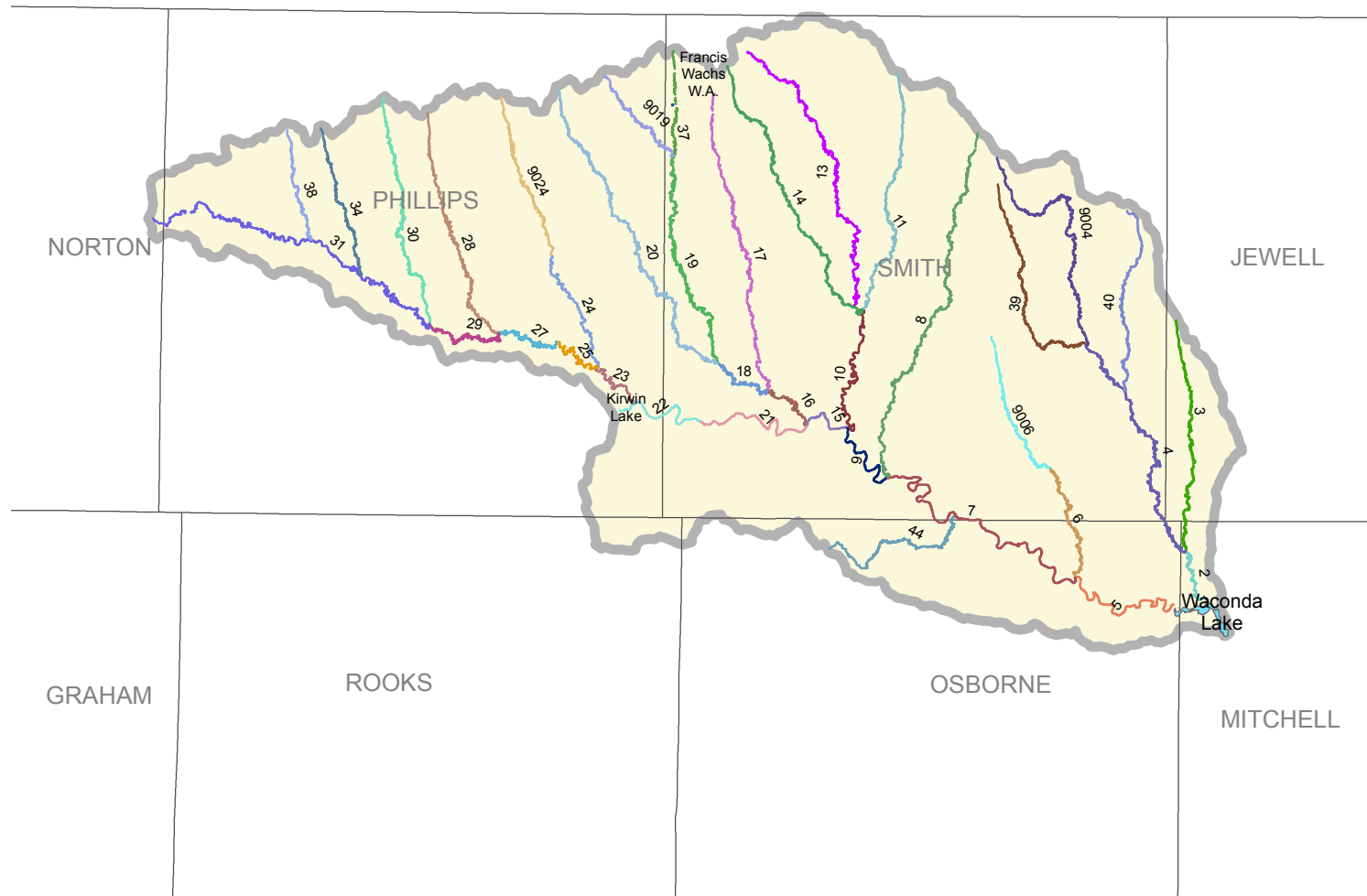
KDHE/BOW. 2015

0 5 10 20 30 Miles



SOLOMON RIVER BASIN

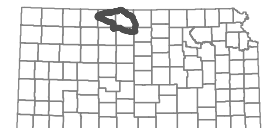
SUBBASIN: LOWER NORTH FORK SOLOMON (HUC 10260012)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

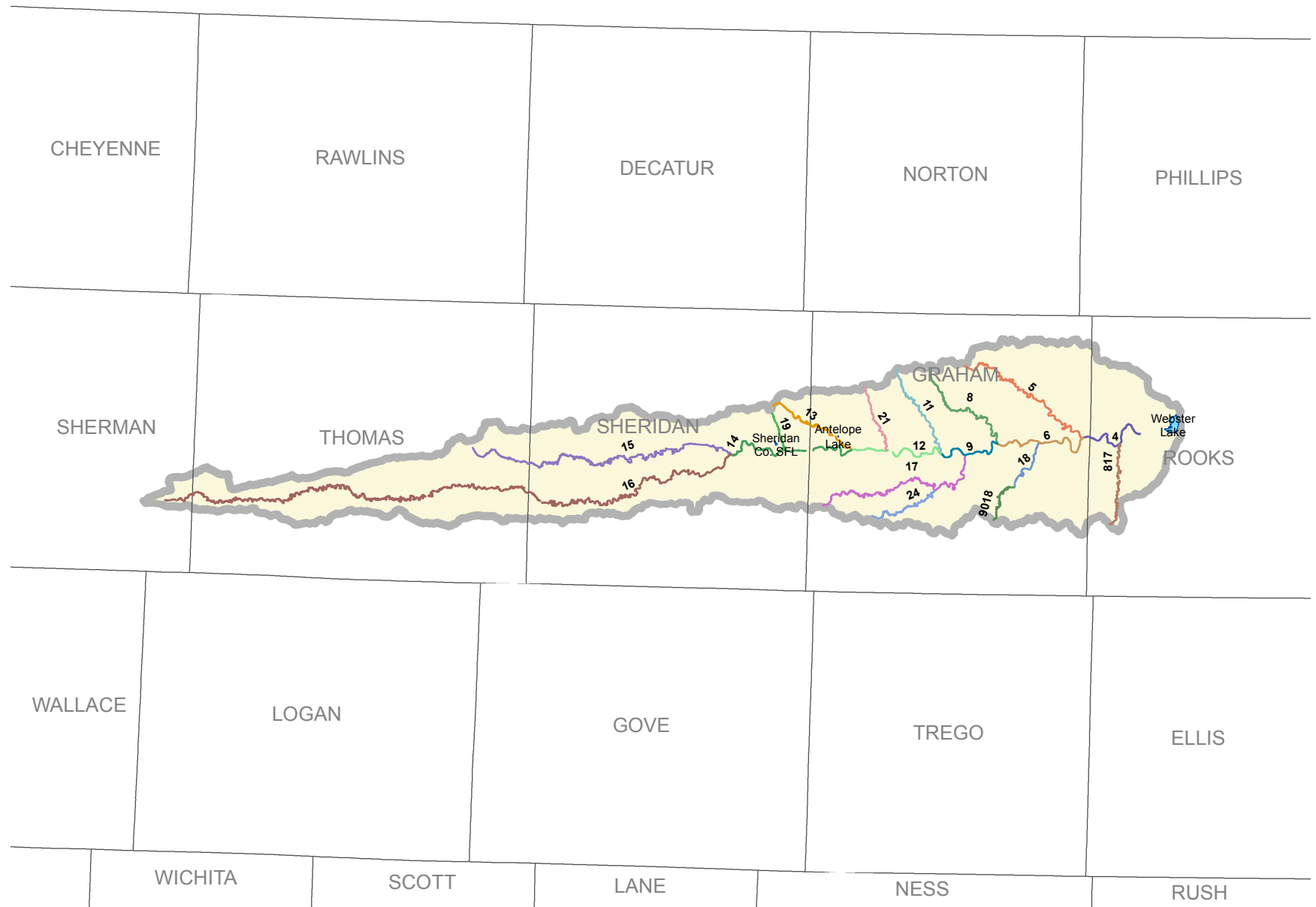
KDHE. BOW. 2015

0 2.75 5.5 11 16.5 22 Miles



SOLOMON RIVER BASIN

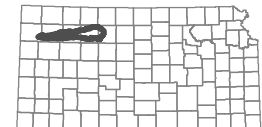
SUBBASIN: UPPER SOUTH FORK SOLOMON (HUC 10260013)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015

0 5 10 20 30 40 Miles



SOLOMON RIVER BASIN

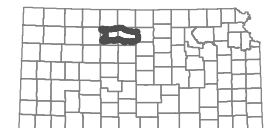
SUBBASIN: LOWER SOUTH FORK SOLOMON (HUC 10260014)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015

0 3.25 6.5 13 19.5 26 Miles



SOLOMON RIVER BASIN

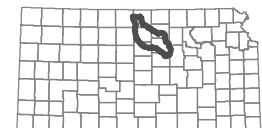
SUBBASIN: SOLOMON RIVER (HUC 10260015)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015

0 4.25 8.5 17 25.5 34 Miles



UPPER ARKANSAS RIVER BASIN

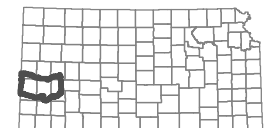
SUBBASIN: MIDDLE ARKANSAS-LAKE MCKINNEY HUC (11030001)



National Hydrography Dataset (NHD), USGS 2012
Kansas Surface Water Register, KDHE 2013
HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/BOW. 2015

0 3.5 7 14 21 28 Miles



UPPER ARKANSAS RIVER BASIN

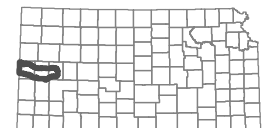
SUBBASIN: WHITEWOMAN (HUC 11030002)



National Hydrography Dataset (NHD), USGS 2012
Kansas Surface Water Register, KDHE 2013
HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015

0 3.25 6.5 13 19.5 26 Miles



UPPER ARKANSAS RIVER BASIN

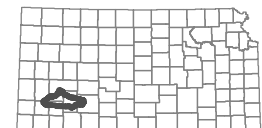
SUBBASIN: ARKANSAS-DODGE CITY (HUC 11030003)



National Hydrography Dataset (NHD), USGS 2012
Kansas Surface Water Register, KDHE 2013
HUC 8 boundaries, USDA/NRCS/USGS 2004

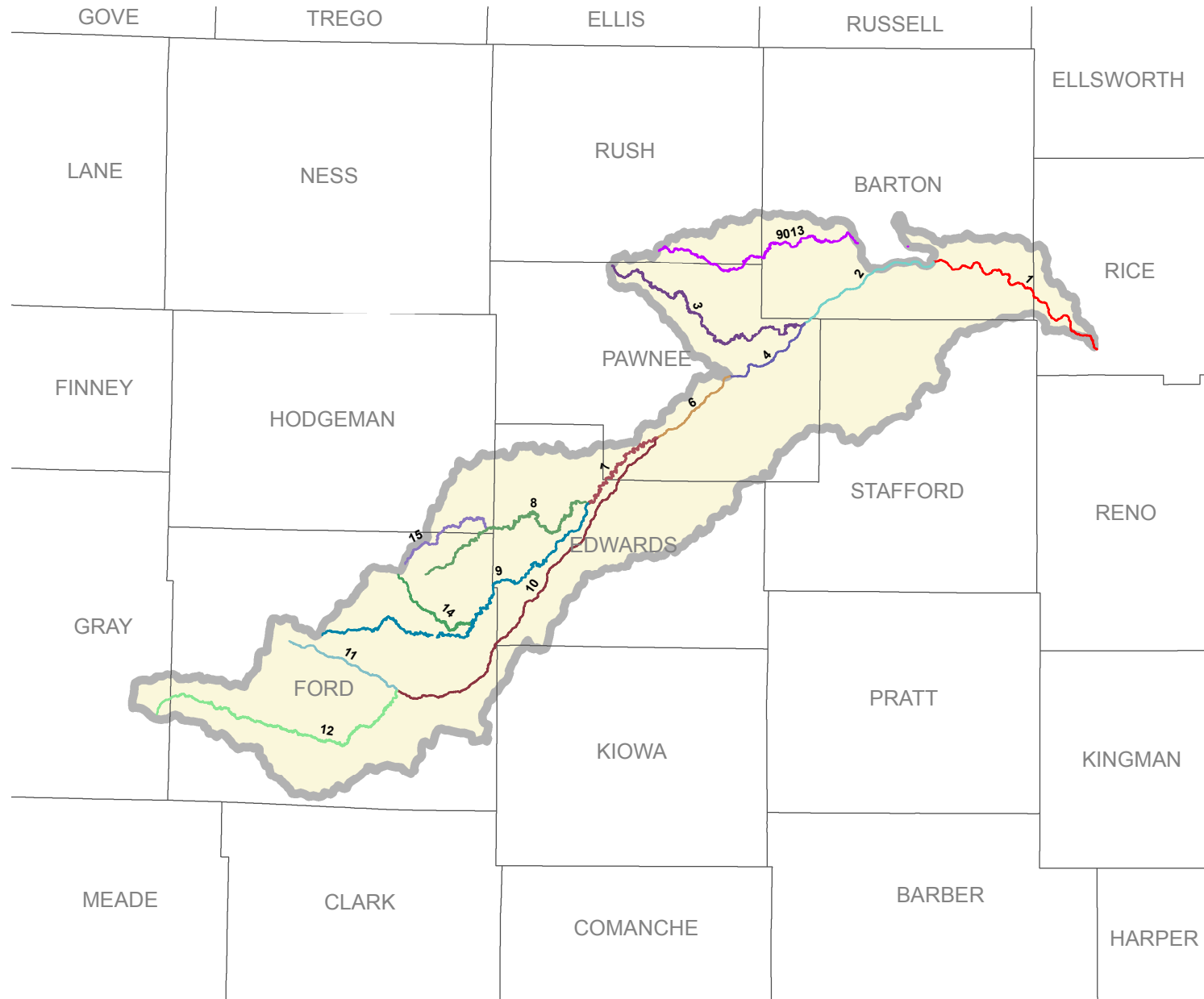
KDHE/BOW. 2015

0 3.5 7 14 21 28 Miles



UPPER ARKANSAS RIVER BASIN

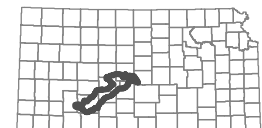
SUBBASIN: ARKANSAS-PICKEREL (HUC 11030004)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/BOW. 2015

0 5 10 20 30 40 Miles



UPPER ARKANSAS RIVER BASIN

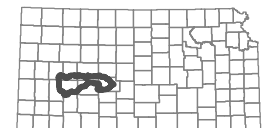
SUBBASIN: PAWNEE (HUC 11030005)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015

0 4.75 9.5 19 28.5 38 Miles



UPPER ARKANSAS RIVER BASIN

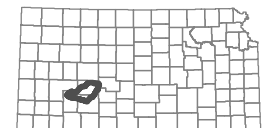
SUBBASIN: BUCKNER (HUC 11030006)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015

0 2.75 5.5 11 16.5 22 Miles



UPPER ARKANSAS RIVER BASIN

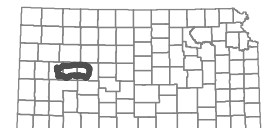
SUBBASIN: UPPER WALNUT CREEK (HUC 11030007)



National Hydrography Dataset (NHD), USGS 2012
Kansas Surface Water Register, KDHE 2013
HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015

0 2.75 5.5 11 16.5 22 Miles



UPPER ARKANSAS RIVER BASIN

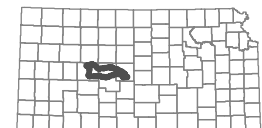
SUBBASIN: LOWER WALNUT CREEK (HUC 11030008)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/BOW. 2015

0 3.5 7 14 21 28 Miles

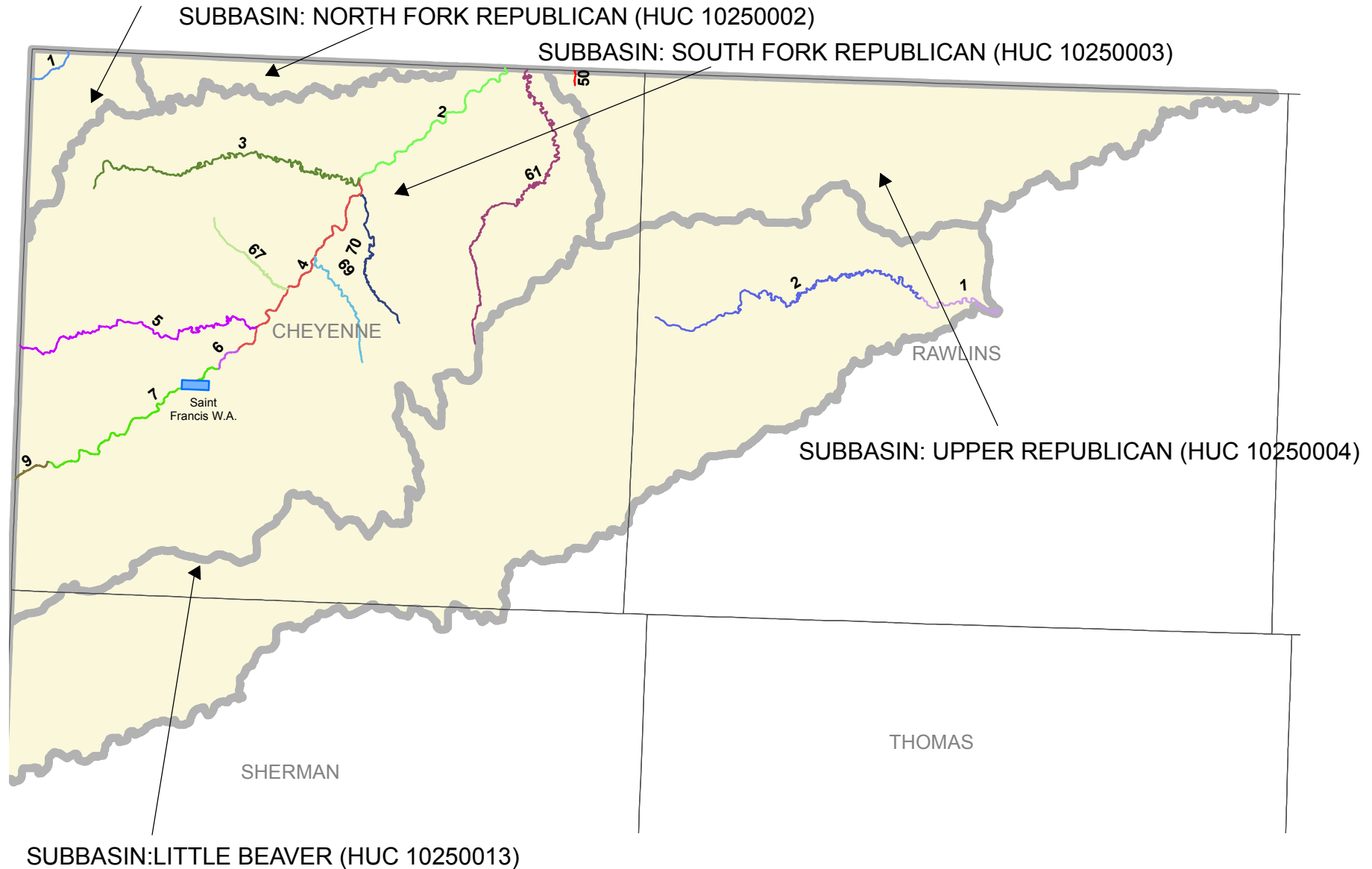


UPPER REPUBLICAN RIVER BASIN

SUBBASIN: ARIKAREE (HUC 10250001)

SUBBASIN: NORTH FORK REPUBLICAN (HUC 10250002)

SUBBASIN: SOUTH FORK REPUBLICAN (HUC 10250003)



National Hydrography Dataset (NHD), USGS 2012
Kansas Surface Water Register, KDHE 2013
HUC 8 boundaries, USDA/NRCS/USGS 2004

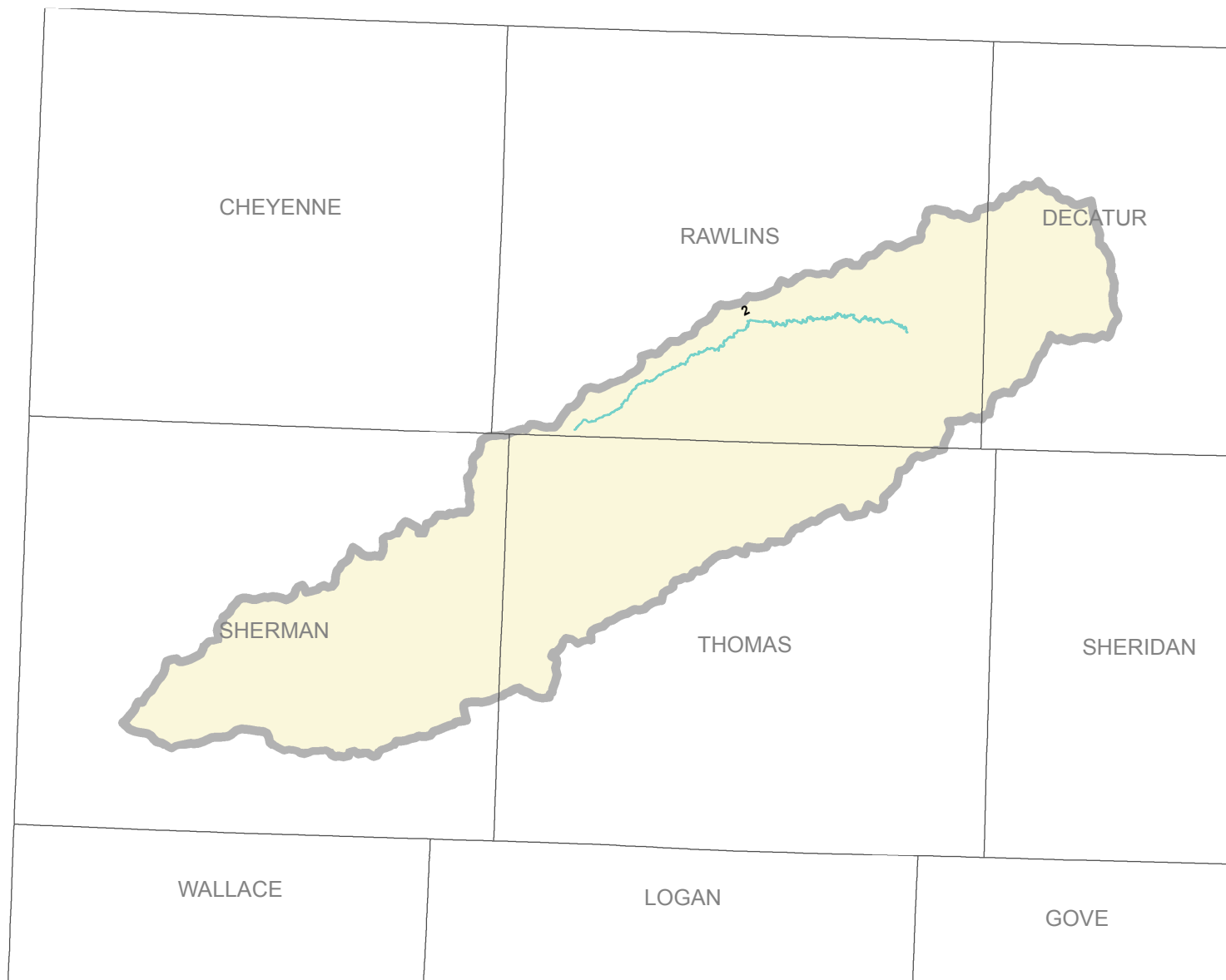
KDHE/ BOW. 2015

0 2.5 5 10 15 20 Miles



UPPER REPUBLICAN RIVER BASIN

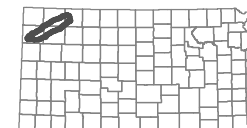
SUBBASIN: UPPER SAPPA (HUC 10250010)



National Hydrography Dataset (NHD), USGS 2012
Kansas Surface Water Register, KDHE 2013
HUC 8 boundaries, USDA/NRCS/USGS 2004

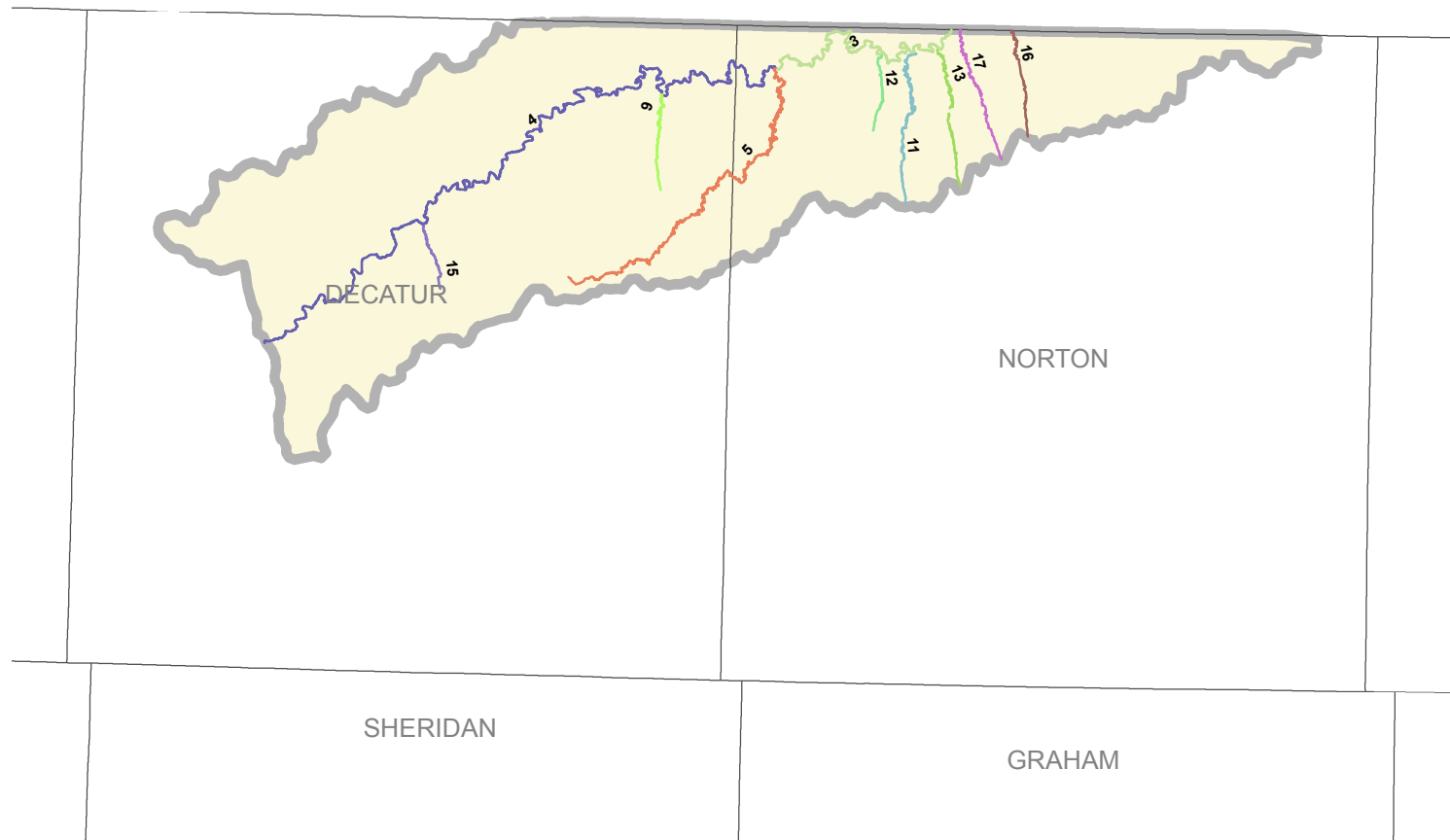
KDHE/ BOW. 2015

0 3.75 7.5 15 22.5 30 Miles



UPPER REPUBLICAN RIVER BASIN

SUBBASIN: LOWER SAPPA (HUC 10250011)



National Hydrography Dataset (NHD), USGS 2012
Kansas Surface Water Register, KDHE 2013
HUC 8 boundaries, USDA/NRCS/USGS 2004

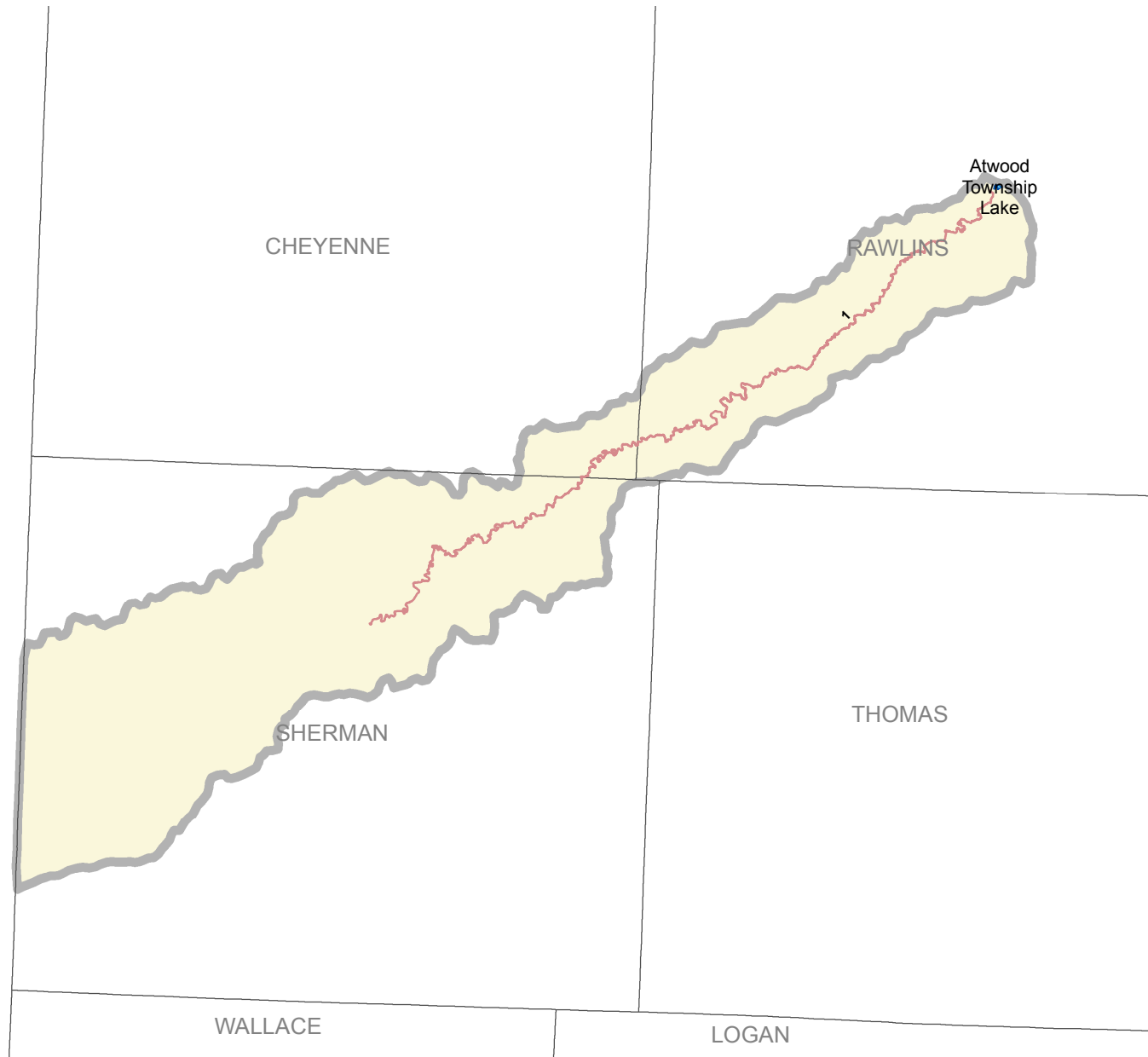
KDHE/ BOW. 2015

0 2.75 5.5 11 16.5 22 Miles



UPPER REPUBLICAN RIVER BASIN

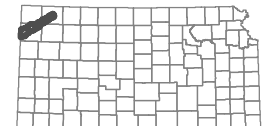
SUBBASIN: SOUTH FORK BEAVER (HUC 10250012)



National Hydrography Dataset (NHD), USGS 2012
Kansas Surface Water Register, KDHE 2013
HUC 8 boundaries, USDA/NRCS/USGS 2004

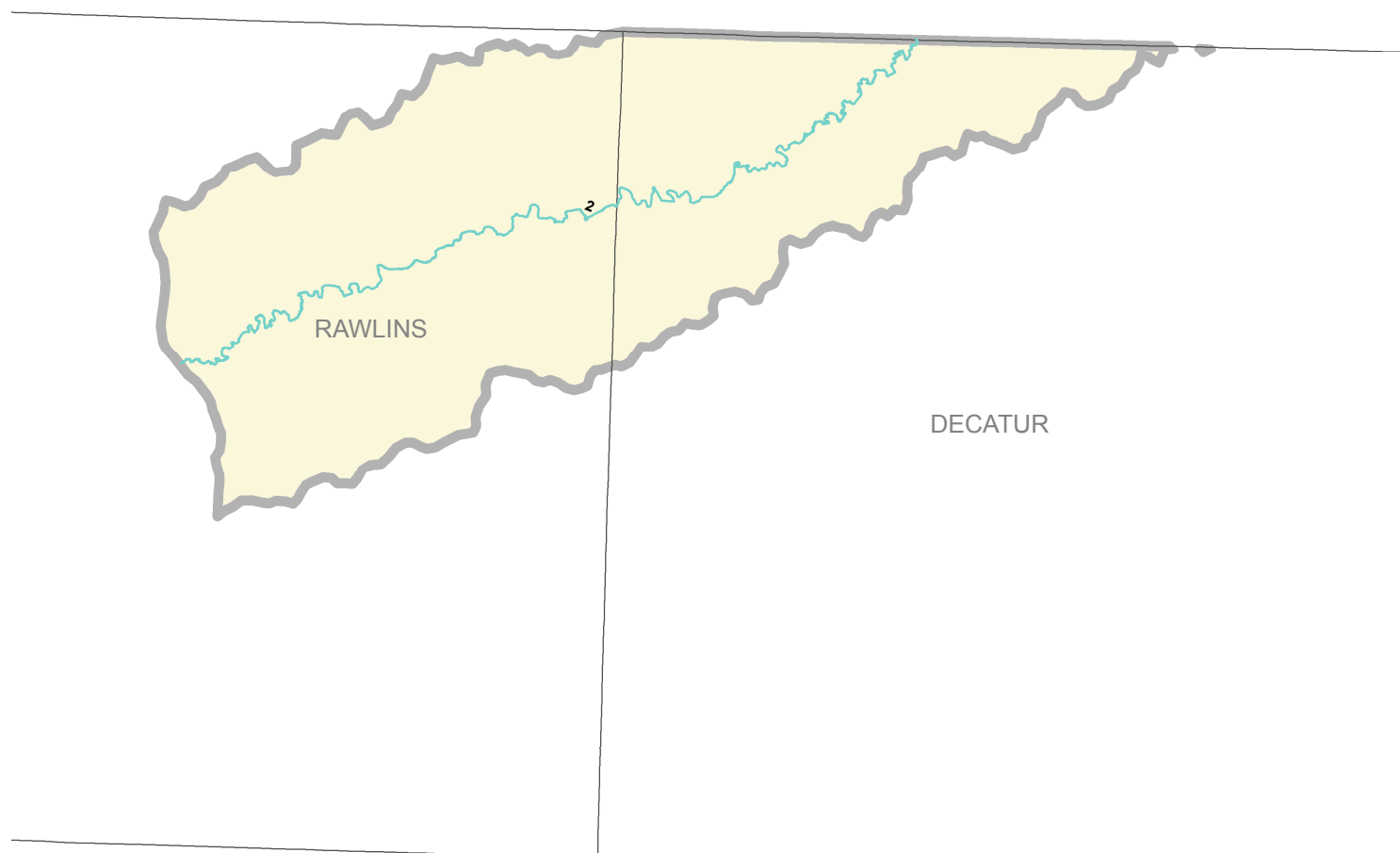
KDHE/ BOW. 2015

0 2.75 5.5 11 16.5 22 Miles



UPPER REPUBLICAN RIVER BASIN

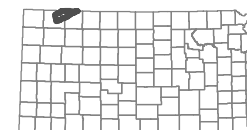
SUBBASIN: BEAVER (HUC 10250014)



National Hydrography Dataset (NHD), USGS 2012
Kansas Surface Water Register, KDHE 2013
HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015

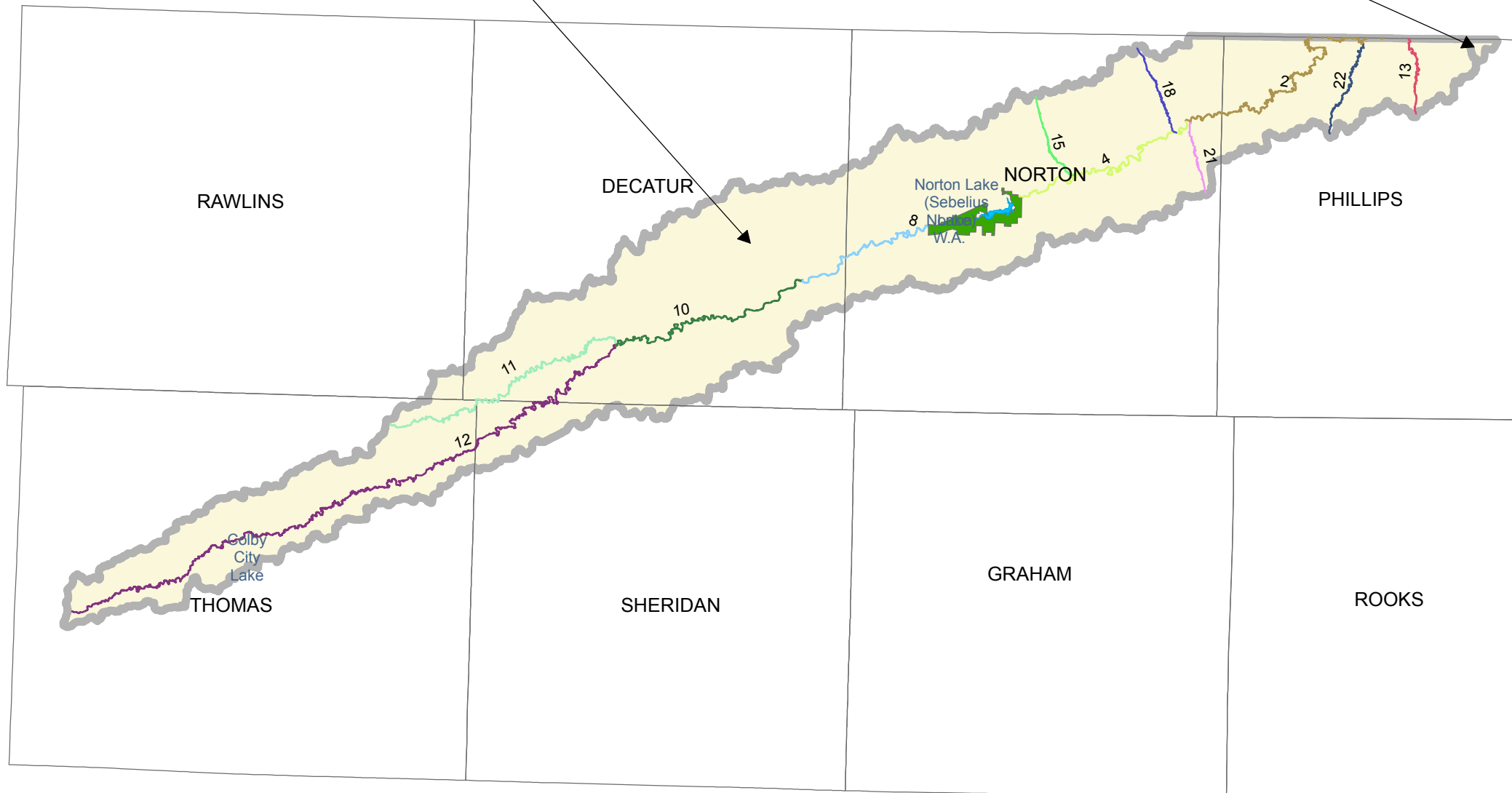
0 2 4 8 12 16 Miles



UPPER REPUBLICAN RIVER BASIN

SUBBASIN: HARLAN COUNTY RESERVOIR (HUC 10250009)

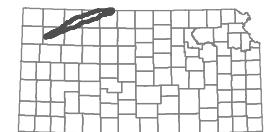
SUBBASIN: PRAIRIE DOG (HUC 10250015)



National Hydrography Dataset (NHD), 2012
Kansas Surface Water Register, 2013
HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE. BOW. 2015

0 3.5 7 14 21 28 Miles



VERDIGRIS RIVER BASIN

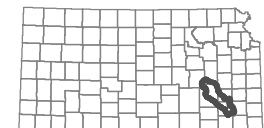
SUBBASIN: UPPER VERDIGRIS (HUC 11070101)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/BOW. 2015

0 3.75 7.5 15 22.5 30 Miles



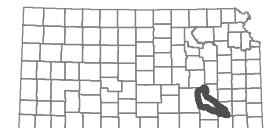
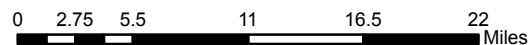
VERDIGRIS RIVER BASIN

SUBBASIN: FALL (HUC 11070102)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015



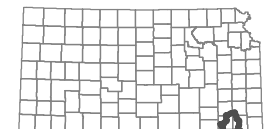
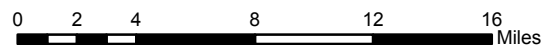
VERDIGRIS RIVER BASIN

SUBBASIN: MIDDLE VERDIGRIS (HUC 11070103)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015



VERDIGRIS RIVER BASIN

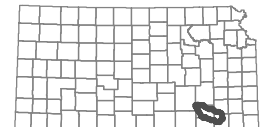
SUBBASIN: ELK (HUC 11070104)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/BOW. 2015

0 2 4 8 12 16 Miles



VERDIGRIS RIVER BASIN

SUBBASIN: CANEY (HUC 11070106)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015

0 2.5 5 10 15 20 Miles



WALNUT RIVER BASIN

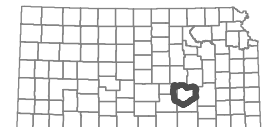
SUBBASIN: UPPER WALNUT RIVER (HUC 11030017)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/ BOW. 2015

0 2 4 8 12 16 Miles



WALNUT RIVER BASIN

SUBBASIN: LOWER WALNUT RIVER (HUC 11030018)



National Hydrography Dataset (NHD), USGS 2012
 Kansas Surface Water Register, KDHE 2013
 HUC 8 boundaries, USDA/NRCS/USGS 2004

KDHE/BOW. 2015

0 3.25 6.5 13 19.5 26 Miles



13 APPENDIX D

DRAFT

901 - TEMPORARY EROSION AND POLLUTION CONTROL

SECTION 901

TEMPORARY EROSION AND POLLUTION CONTROL

901.1 DESCRIPTION

Install, maintain and remove temporary erosion and pollution control devices as required during the construction of the project.

BID ITEMS

Temporary Berm
Temporary Slope Drain
Temporary Slope Barrier (Set Price)
Temporary Ditch Check
Temporary Ditch Check (Rock) (Set Price)
Temporary Inlet Sediment Barrier
Temporary Sediment Basin
Temporary Stream Crossing
Sediment Removal (Set Price)
Temporary Fertilizer (**)
Temporary Seed (****)
Soil Erosion Mix
Temporary Seeding
Erosion Control (*)
Mulching (Temporary)
Mobilization (Emergency Erosion Control) (Set Price)
* Class & Type
** Type of Fertilizer
*** Type

UNITS

Linear Foot
Linear Foot
Linear Foot
Linear Foot
Cubic Yard
Each
Cubic Yard
Each
Cubic Yard
Pound
Pound
Pound
Lump Sum
Square Yard
Acre
Each

901.2 MATERIALS

a. Provide sediment barriers, fertilizers, seeds, soil erosion mix, erosion control materials and mulch that comply with **DIVISION 2100**.

Provide aggregate that complies with aggregate ditch lining, $D_{50} = 6$ inches, **DIVISION 1100**. Existing aggregate from the project may be used under this specification, provided all applicable physical requirements are met.

b. Straw or Hay Bales. Provide straw or hay bales that are free of weeds declared noxious by the Kansas Department of Agriculture. Provide bales bound with twine. Do not use bales bound with wire.

The Engineer will accept the straw or hay bales based on **DIVISION 2100**.

c. Temporary Slope Drain. Provide metal pipe, plastic pipe or flexible rubber pipe for temporary slope drains.

The Engineer will accept the material for temporary slope drain based on the condition of the pipe and visual inspection of the installed drain.

d. Biodegradable Logs. Provide commercially available biodegradable logs manufactured from rice straw, excelsior wood fiber, coconut fiber, jute or other biodegradable material bound with an open mesh fabric of jute or light-weight plastic.

The Engineer will accept the biodegradable logs based on compliance with dimensional and other requirements shown in the Contract Documents, and visual inspection of the installed material.

e. Geo-Ridge Permeable BermTM or equivalent. The Environmental Scientist (Bureau of Design, Environmental Services Section) will consider an equivalent of the brand name specified. Provide the Engineer with a complete description, literature, test reports, etc. on the proposed equivalent.

901 - TEMPORARY EROSION AND POLLUTION CONTROL

The Engineer will accept the Geo-Ridge Permeable Berm™ (or an equivalent approved by the Environmental Scientist) based on brand name and visual inspection of the installed material.

f. Triangular Silt Dike™ or equivalent. The Environmental Scientist (Bureau of Design, Environmental Services Section) will consider an equivalent of the brand name specified. Provide the Engineer with a complete description, literature, test reports, etc. on the proposed equivalent.

The Engineer will accept the Triangular Silt Dike™ (or an equivalent approved by the Environmental Scientist) based on brand name and visual inspection of the installed material.

901.3 CONSTRUCTION REQUIREMENTS

a. Responsibility. Take all measures necessary to prevent erosion and pollution on the project and project related borrow areas.

If the contract does not include temporary erosion and pollution control bid items, and such work is required, items will be added as provided for in **subsection 104.8**.

Use KDOT's Temporary Erosion Control Manual as a guide for the design, installation and maintenance of temporary erosion control measures.

Install erosion control devices according to the approved erosion control schedule prior to or simultaneously with the clearing and grubbing operations. Do not perform grading until erosion control devices are in place as approved by the Engineer. Install devices to establish a perimeter control of the project in areas where it is anticipated that storm water runoff will leave the project.

Update the erosion control schedule as work progresses to show changes due to revisions in work schedules or sequence of construction, or as directed by the Engineer. Update the site map to reflect erosion control devices that have been installed.

As a minimum, perform the following erosion control actions:

- Use temporary erosion and pollution control actions to control erosion resulting from the construction of the project;
- Use temporary erosion and pollution control measures to prevent contamination of adjacent streams or other watercourses, lakes, ponds or other areas of water impoundment;
- Coordinate temporary erosion and pollution control measures with the construction of permanent erosion control features to provide continuous erosion control;
- Schedule construction of drainage structures and permanent erosion control features as soon as practical; and
- Initiate temporary erosion and pollution control measures for areas that have been disturbed, within 14 calendar days after construction activities have temporarily or permanently ceased on a portion of the project site. Exceptions are as follows:
 - If implementation of erosion and pollution control measures is precluded by snow cover, undertake such measures as soon as practical.
 - If construction activities will resume on the portion of the project site within 21 calendar days, temporary erosion and pollution control measures do not have to be initiated.
 - In arid regions (average annual rainfall of less than 10 inches), during seasonal arid conditions, implement the erosion and pollution control measures as soon as practical, but not necessarily within 14 calendar days.

Update the erosion control schedule as work progresses to account for changes due to revisions in work schedules or sequence of construction, or as directed by the Engineer. Update the site map to reflect erosion control devices that have been installed.

b. Permits. KDOT (or the local governmental agency) will obtain a National Pollutant Discharge Elimination System (NPDES) permit for projects with 1 acre or more of erodible surface. When Contractor-furnished borrow is required, obtain all required permits and clearances required for compliance, **subsection 107.2**.

A NPDES permit is not required for a project with less than 1 acre of erodible surface. The Contractor is not required to submit an erosion control schedule. The Contractor is required to comply with the concepts for erosion and pollution control presented in KDOT's Storm Water Pollution Prevention Plan (SWPPP), see **subsection 901.3d**.

901 - TEMPORARY EROSION AND POLLUTION CONTROL

c. General. Unless approved in writing by the Engineer, do not exceed 750,000 square feet of surface area of erodible earth material per equipment spread at one time. The Engineer will limit the surface area of erodible earth material exposed by clearing and grubbing, excavation, borrow and embankment operations. Limit the exposed erodible earth material according to the capability and progress and in keeping with the approved schedule.

If on-site or state-furnished off-site borrow areas are to be excavated below the ground water elevation, construct a permanent berm around the borrow area to prevent storm water runoff from entering the excavated area.

Restrict construction operations in rivers, streams and other water impoundments to those areas that must be entered for the construction of temporary or permanent structures. When no longer required, promptly remove all falsework, piling, temporary crossings and other obstructions caused by the construction.

Do not ford live streams with construction equipment.

As dictated by weather conditions, actual site conditions and construction procedures, install and maintain temporary erosion and pollution control devices as shown in the Contract Documents, and as directed by the Engineer.

Implement temporary erosion and pollution control with berms, slope drains, ditch checks, slope barriers, sediment basins, inlet sediment barriers, fertilizer, seeding, mulching and erosion control blankets.

If temporary erosion and pollution control is not implemented and maintained according to the approved schedule, all work on the project shall cease until conditions are brought into compliance, as determined by the Engineer.

d. Project Storm Water Pollution Prevention Plan (SWPPP). Include in the project SWPPP, KDOT's SWPPP, Contract Documents pertaining to temporary erosion and water pollution control, inspection and maintenance reports, and the Contractor's erosion control schedule. KDOT's SWPPP can be found on the KDOT Internet at www.ksdot.org.

Before any construction activities begin, the Contractor and subcontractors implementing any measures identified in the SWPPP are required to certify that they understand the terms and conditions of the general NPDES permit. The Engineer will provide the certification form.

Before the preconstruction conference, submit to the Field Engineer 3 copies of a schedule for implementing and maintaining erosion and pollution control work during the construction phases. No contract work may begin until the Field Engineer has approved the erosion control schedule. As a minimum, the following information shall be included in the Contractor's erosion control schedule:

- (1) The planned sequence of major construction activities.
- (2) A site map showing the locations and devices to be used for the initial perimeter controls.
- (3) A description of controls to be used:
 - Stabilization practices for all areas disturbed by construction;
 - Structural practices for all drainage/discharge locations; and
 - Other controls, including:
 - Waste disposal practices which prevent discharge of solid materials into water in the U.S.;
 - Methods of preventing contamination in areas designated for fuel and lubrication storage;
 - Actions to minimize offsite tracking of sediment by construction vehicles;
 - Actions to obtain compliance with state or local waste disposal, sanitary sewer or septic system regulations; and
 - When actions will be implemented, including permanent erosion control items when required in the Contract Documents.
- (4) Acknowledgment that State and Local requirements have been included in the schedule.
- (5) Provide a Maintenance and Inspection Report. See **subsection 901.3q**.

e. Temporary Berms. Use temporary berms to divert storm runoff to stabilized slopes or temporary slope drains. Construct temporary berms as shown in the Contract Documents. Compact the berms until no further consolidation is observed, using a dozer track, grader wheel or other equipment.

f. Temporary Slope Drains. Use temporary slope drains to carry storm runoff down fill slopes and cut backslopes. Construct the temporary slope drains as shown in the Contract Documents.

901 - TEMPORARY EROSION AND POLLUTION CONTROL

g. Temporary Slope Barriers. Use any of the materials listed in the Contract Documents to construct temporary slope barriers.

When temporary biodegradable logs, straw or hay bales are used, remove and dispose of the sediment when deposits reach approximately $\frac{1}{2}$ the height of the log or bale.

When conditions warrant, supplement the temporary silt fence with a support fence. Reduce the post spacing and drive the posts further in the ground in low and soft, swampy areas. Remove and dispose of sediment deposits when the deposit approaches $\frac{1}{3}$ the height of the silt fence.

h. Temporary Ditch Checks. The option exists to use any materials listed in the Contract Documents, excluding rock, to construct temporary ditch checks. When deposits reach approximately $\frac{1}{2}$ the height of the temporary ditch check, remove and dispose of the accumulated sediment.

i. Temporary Ditch Checks Rock. Use rock to construct temporary rock ditch checks listed in the Contract Documents. When deposits reach approximately $\frac{1}{2}$ the height of the temporary rock ditch check, remove and dispose of the accumulated sediment.

j. Temporary Inlet Sediment Barrier. Use any of the materials listed in the Contract Documents to construct temporary inlet sediment barriers.

When temporary silt fence is used, reduce post spacing and drive the posts further into the ground in low and soft, swampy areas. Remove and dispose of the sediment when deposits reach approximately $\frac{1}{3}$ the height of the silt fence.

When temporary triangular silt dike, straw or hay bales are used, remove and dispose of the sediment when deposits reach approximately $\frac{1}{2}$ the height of the silt dike or bales.

k. Temporary Sediment Basins. Before constructing a temporary sediment basin, clear the area of all vegetation. Construct the temporary sediment basin with a wide cross-section and a minimum grade, as shown in the Contract Documents. Dispose of excess excavated material.

Remove and dispose of the accumulated sediment when deposits reach approximately $\frac{1}{3}$ the depth of the structure.

l. Temporary Stream Crossing. Use any of the materials shown in the Contract Documents to construct temporary stream crossings.

When the Contractor's operations require a temporary stream crossing, and one is not shown in the Contract Documents, the Contractor may install one at no cost to KDOT. Comply with all applicable rules and regulations, obtain all required permits and provide copies of all permits to the Field Engineer.

m. Temporary Fertilizer, Seed and Mulch. Prepare the seedbed, fertilize, seed and mulch according to **DIVISION 900**. Apply the temporary fertilizer, seed and mulch at the rates shown in the Contract Documents.

n. Soil Erosion Mix. Prepare a smooth, weed-free and debris-free area, and broadcast or hydro-seed the soil erosion mix seed over the prepared area. Lightly hand rake broadcasted seed before placement of the erosion control.

o. Temporary Seeding. "Temporary Seeding" is to be used only if the project has less than 1 acre of erodible surface. If this item is used, fertilize, seed and mulch all exposed erodible earth.

Prepare the seedbed, fertilize, seed and mulch according to **DIVISION 900**. Apply the temporary fertilizer, seed and mulch at the rates shown in the Contract Documents.

p. Erosion Control. After seeding according to **DIVISION 900**, install erosion control according to the manufacturer's requirements for edge and junction overlaps, staple size and staple pattern.

(1) Areas with Erosion Control (Class I). Place the Erosion Control (Class I). Do not mulch over the Erosion Control (Class I).

(2) Areas with Erosion Control (Class II). Place the Erosion Control (Class II) and cover it with $\frac{1}{2}$ inch of pulverized, fine-grained soil. Hand rake the soil into the erosion control material; then mulch the area according to **SECTION 904**.

901 - TEMPORARY EROSION AND POLLUTION CONTROL

q. Maintenance and Removal of Temporary Erosion and Pollution Control Devices. Maintain the effectiveness of the temporary erosion and pollution control devices as long as required to contain sediment runoff. Inspect the temporary erosion and pollution control devices and complete the inspection and maintenance reports every 7 days and within 24 hours of a rainfall event of ½ inch or more. Monitor temporary erosion and pollution control devices at least daily during prolonged rainfall. Within 48 hours, begin corrective action of any deficiencies found in the perimeter controls, and complete corrective actions within 7 calendar days. Correct all other devices as soon as conditions allow access to their location without causing additional damage to the slopes.

Submit copies of inspection and maintenance reports to the Field Engineer within 3 working days after an inspection has been made. Use either KDOT-furnished maintenance report forms or approved Contractor's maintenance forms.

Remove the temporary devices when directed by the Engineer. After removing the temporary erosion and pollution control devices, remove and dispose of the silt accumulation. Grade, fertilize, seed and mulch any bare areas.

When temporary erosion and pollution control devices are installed according to the Contract Documents, or as approved by the Engineer and such devices are no longer effective because of deterioration or functional incapacity, payment will be made for replacement of these devices, as directed by the Engineer. No payment will be made for replacing temporary erosion control devices that become ineffective because of improper installation, lack of maintenance or the Contractor's failure to pursue timely installation of permanent erosion control devices according to the Contract Documents.

r. Mobilization for Emergency Erosion Control and Erosion Control Mobilization Delay Damages.

(1) Mobilize sufficient personnel, equipment, materials and incidentals to the job site within 24 hours after receiving the Engineer's written order to conduct temporary erosion control work on an emergency basis (24-hour period), unless extended by the conditions of **subsection 901.3r.(5)**. Note: "sufficient personnel, equipment, materials and incidentals" is considered to be enough to complete all emergency erosion control within the 7 days from date of notice.

(2) An emergency is a sudden occurrence of a serious nature that causes perimeter erosion control devices to fail (in whole or in part) allowing sediment to be deposited onto adjacent property or streams, or creating a risk that sediment will be deposited onto adjacent property or streams. The work is beyond normal maintenance of erosion control items and requires immediate movement of necessary personnel, equipment, materials and incidentals to the project site. The emergency may require immediate corrective work, installation of erosion control measures or both.

(3) If the Contractor mobilizes to the project within the 24-hour period or an approved extension under **subsection 901.3r.(5)**, the Engineer will pay Mobilization (Emergency Erosion Control) (Set Price).

(4) If the Contractor fails to mobilize to the project within the 24-hour period or approved extension under **subsection 901.3r.(5)**, the Contractor is liable for Erosion Control Mobilization Delay Damages. The Erosion Control Mobilization Delay Damages charged and owing are \$500.00 per calendar day for each calendar day (including Sundays, Holidays and the Winter Holiday Period) that the Contractor fails to mobilize to the project after the 24-hour period or approved extension expires. See **subsection 901.3r.(1)**.

(5) The Engineer may extend the mobilization time beyond the 24-hour period for unusually severe weather or Acts of God that prevent the Contractor from mobilizing to the project site.

s. Erosion Control Disincentive Assessment. If the Contractor fails to complete corrective actions of the perimeter controls within the 7 calendar days required under **subsection 901.3q.**, the Contractor is liable for an Erosion Control Disincentive Assessment. The Erosion Control Disincentive Assessment charged and owing is \$250.00 for each erosion control device deficiency and for each calendar day (including Sundays, Holidays and the Winter Holiday Period) the deficiency remains uncorrected.

t. Computing Mobilization Delay Damages and Erosion Control Disincentive Assessment. The Engineer will deduct and withhold the Erosion Control Mobilization Delay Damages under **subsection 901.3r.(4)** and Erosion Control Disincentive Assessment under **subsection 901.3s.** to either or both concurrently, as applicable. The assessments are to be computed in the same manner as damages under **subsection 108.8**, (Liquidated Damages) except calendar days include Sundays, Holidays and the Winter Holiday Period.

901 - TEMPORARY EROSION AND POLLUTION CONTROL

u. Indemnify KDOT, local government authorities or any other NPDES permit holders from fines that KDHE or EPA impose because of the Contractor's failure to comply with applicable laws, regulations, ordinances and permits.

901.4 MEASUREMENT AND PAYMENT

The Engineer will measure temporary berms, temporary slope drains, temporary slope barriers and temporary ditch checks by the linear foot.

The Engineer will measure temporary rock ditch checks by the cubic yard.

The Engineer will measure each temporary inlet sediment barrier and temporary stream crossing as a unit.

The Engineer will measure temporary sediment basins by the cubic yard excavated to construct the basin.

The Engineer will measure sediment removal by the cubic yard of sediment removed.

The Engineer will measure temporary fertilizer, temporary seed and soil erosion mix by the pound.

The Engineer will measure "Temporary Seeding" as a lump sum; no measurement of area is made.

The Engineer will measure erosion control by the square yard.

The Engineer will measure temporary mulching by the acre.

The Engineer will measure Mobilization, Emergency Erosion Control per each mobilization ordered by the Engineer.

The Engineer will measure any disincentive assessment on an each devise per day basis.

The Engineer will measure any erosion control mobilization delay damages by the lump sum.

Payment for the various items of temporary erosion and pollution control is full compensation for the specified work. Contract unit prices will govern regardless of overruns or underruns of the estimated quantity.

Payment for "Temporary Slope Barrier (Set Price)", "Temporary Ditch Check Rock (Set Price)", "Sediment Removal (Set Price)" and "Mobilization, Emergency Erosion Control (Set Price)" at the contract set unit prices is full compensation for the specified work.

14 APPENDIX E

DRAFT

Rolled Erosion Control Products

Definition

Rolled erosion control products (RECPs) consist of prefabricated blankets or netting which are formed from both natural and synthetic materials.

Description and Purpose

The predominantly used RECPs generally fall into the following two categories, each having unique characteristics:

- Erosion control blanket (ECB): A temporary degradable rolled erosion control product composed of processed natural or polymer fibers mechanically, structurally or chemically bound together to form a continuous matrix to provide erosion control and facilitate vegetation establishment.
- Turf reinforcement mat (TRM): A rolled erosion control product composed of non-degradable synthetic fibers, filaments, nets, wire mesh and/or other elements, processed into a permanent, three-dimensional matrix. TRM's, which may be supplemented with degradable components, are designed to provide immediate erosion protection, enhance vegetation establishment and provide long-term functionality by permanently reinforcing vegetation during and after maturation. TRM's are typically used in hydraulic applications, such as high flow ditches and channels, steep slopes, stream banks, and shorelines, where erosive forces may exceed the limits of natural, unreinforced vegetation or in areas where limited vegetation establishment is anticipated.

The practice may also be called Erosion Control Blanket, Mulch Blanket, or Erosion Control Matting

Pollutant controlled

- Suspended Sediment

Companion and Alternative BMPs

- Seeding/Vegetation
- Mulching

Advantages and Disadvantages

Advantages

- Can provide for some degree of immediate stabilization
- Numerous manufacturers, each with a number of different products, allow for the selection of a product which meets the individual characteristics of each site.

- Stabilizes disturbed slope and protects surface from erosive forces of raindrop impact.
- Promotes growth of vegetation.
- Most products degrade over time, eliminating potential maintenance issue.

Disadvantages

- Various products and manufacturers have different design and construction standards. Designer must rely on manufacturer's data.
- Permanent stabilization and protection is dependent on the establishment of vegetation unless TRMs are used.

Location

Rolled erosion control products should be used on bare ground that is highly susceptible to erosion, such as steep slopes and channels, and in locations where establishing vegetation may otherwise be difficult.

General Characteristics

- Several factors, such as soil conditions, steepness and length of slope, depth of flow, runoff velocities, and time required to establish desired vegetation, influence the choice of product.
- RECPs and TRMs are manufactured from a wide variety of different materials including coconut fiber (coir), jute, nylon, polypropylene, PVC, straw, hay, or wood fibers. These materials may be used individually, or in combination to form nets or blankets.
- The products function by protecting the ground surface from the impact of raindrops and stabilize the surface until vegetation can be established. RECPs and TRMs also promote the growth of vegetation by helping to keep seed in place, and by maintaining a consistent temperature and moisture content in the soil.
- Most RECPs are either biodegradable or photodegradable and will decompose over a period of time.
- RECPs should generally be installed parallel to the direction of water flow.

Materials

- Seed
- Fertilizer
- RECP
- Degradable Stakes/Pegs/Pins

Design Specifications

- RECPs are produced by a number of manufacturers, and are available in a wide variety of different configurations. Competing products from different manufacturers can have completely different material compositions and construction, but be intended to serve the same purpose. Given the wide variety of RECPs available, product selection and specification can be difficult.

- Table 1 is modified from the product selection guide produced by the ECTC and classifies products based upon longevity and product description.
- Factors such as the slope on which the RECP is to be placed and the sheer stress that the RECP will experience shall be used to determine which RECP product is adequate for the application it is intended for.
- Stake placement and installation should follow manufacturer recommendations

Construction Guidelines

1. Prior to placing a RECP, a topsoil seedbed should be prepared, smooth graded, and seeded and fertilized. It is imperative that seeding occur prior to placement of the RECP to ensure proper contact between seed and soil. Some manufacturers can embed the specified seed mixture into the product during the manufacturing process (if this process is used, follow the manufacturer's recommended installation specifications).
2. After seeding, the appropriate RECP may be placed and anchored with stakes or staples. The manufacturer will provide specifications for the pattern and spacing of anchor stakes or staples, overlap between rolls (typically 6 inches), and any additional product requirements.
3. It is important that the stakes or staples be properly installed to prevent "tenting" of the product as the vegetation begins to grow and push up on the matting. This can impact vegetative establishment and the product can become entangled in mowing equipment.
4. At the tops of slopes and at the entrance to a channel, the leading edge of the RECP should be trenched into the ground, approximately 6 inches, anchored in place with stakes or staples, and backfilled. This prevents runoff from lifting the leading edge, and flowing between the ground and the RECP.
5. Subsequent segments of RECPs should have their upstream edges trenched in, and the downstream edge should slightly overlap the next section to prevent water from flowing under the product.

Monitoring

Inspect weekly and after every storm event that results in a discharge from the site until adequate vegetation is established.

Maintenance

- Repair erosion and/or undermining at the top of the slope.
- Repair undermining beneath RECP(s), pull back the RECP(s), fill and compact eroded area, reseed and then secure RECP(s) firmly.
- Reposition or replace RECPs that have moved along the slope or channel and secure firmly.
- Replace damaged RECPs.

References

- Erosion Control Technology Council, 2006. *Standard Specification for Rolled Erosion Control Products*.
- Ontario. *Rolled Erosion Control Product (RECP) BMP 11*.
- Statewide Urban Design and Specifications, 2008. *Design Manual 7E-7*.

Table 1. Rolled Erosion Control Product Comparison

| Desired Time Scale | | Type Code | Product Category | Material Composition | Max Slope Gradient (H:V) | Max Channel Shear Stress ¹ | |
|--------------------|-------------|-----------|------------------------------------|---|--------------------------|---------------------------------------|------|
| Description | Length | | | | | (lb/sq ft) | (Pa) |
| Short-Term | 3-12 months | 1A | Single-Net Erosion Control Blanket | Processed degradable natural and/or polymer fibers mechanically bound together by a single rapidly-degrading synthetic or natural fiber netting | 3:1 | 1.50 | 72 |
| | | | Open-Weave Textile | Processed rapidly-degrading natural or polymer yarns or twines woven into a continuous matrix | | | |
| | | 1B | Double-Net Erosion Control Blanket | Processed degradable natural and/or polymer fibers mechanically bound together between two rapidly-degrading synthetic or natural fiber nettings | 2:1 | 1.75 | 84 |
| Extended-Term | 24 months | 2A | Erosion Control Blanket | Processed slow-degrading natural or polymer fibers mechanically bound together between two slow-degrading synthetic or natural fiber nettings to form a continuous matrix | 3:2 | 2.00 | 96 |
| | | | Open-Weave Textile | Processed slow-degrading natural or polymer yarns or twines woven into a continuous matrix | | | |

(continued)

¹ Shear stress unvegetated rolled erosion control product can sustain without physical damage or excessive erosion (>12.7 mm (0.5 in) soil loss) during a 30-minute flow event, based on historical experience and large-scale testing of products with Manning's roughness coefficients of 0.01-0.05. Test methods include ASTM D6459, or others deemed acceptable by the engineer.

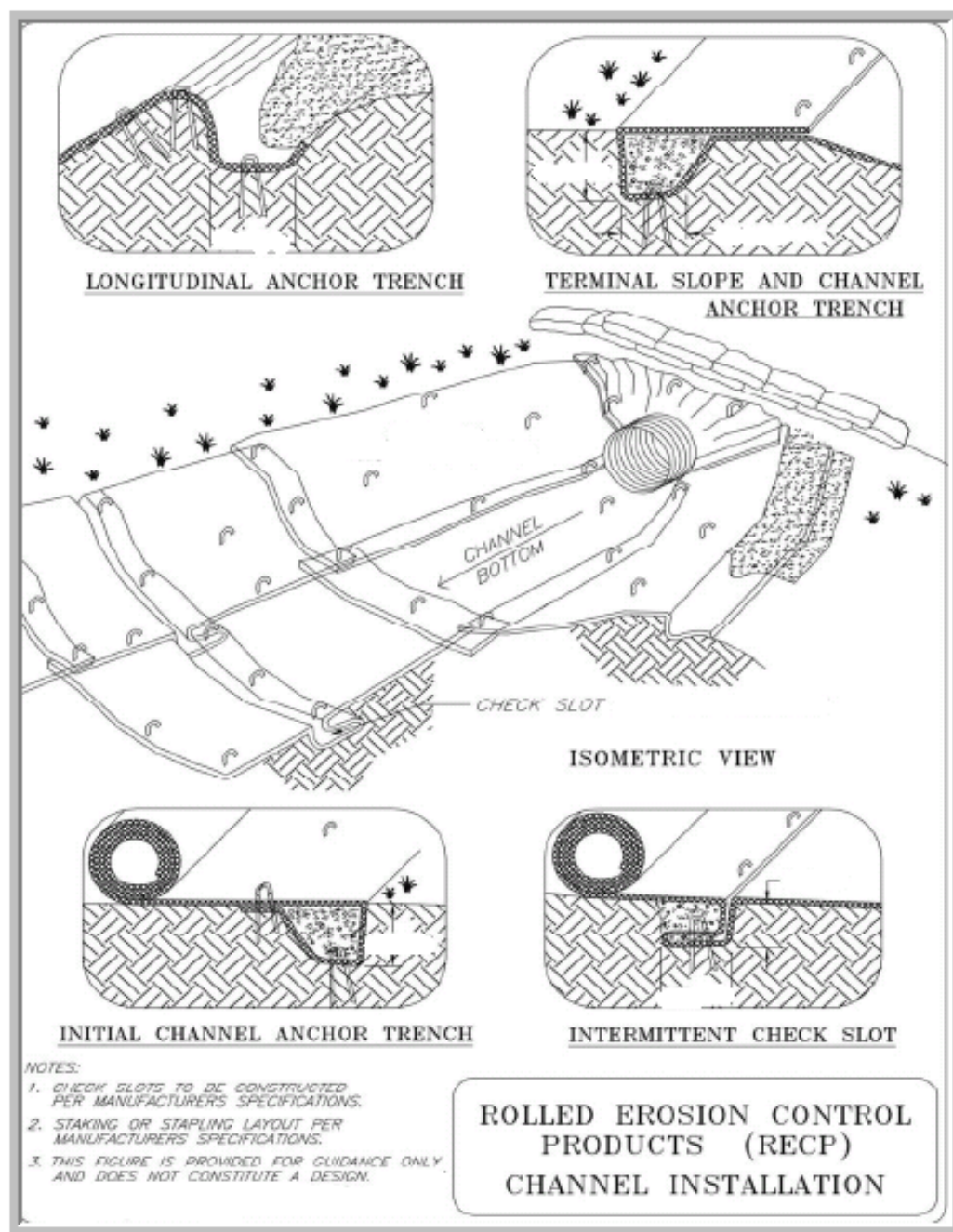
Table 1. Rolled Erosion Control Product Comparison (continued)

| Desired Time Scale | | Type Code | Product Category | Material Composition | Max Slope Gradient (H:V) | Max Channel Shear Stress ² | |
|--------------------|-----------|-----------|-------------------------|--|--------------------------|---------------------------------------|------|
| Description | Length | | | | | (lb/sq ft) | (Pa) |
| Long-Term | 36 months | 3A | Erosion Control Blanket | Processed slow-degrading natural or polymer fibers mechanically bound together between two slow-degrading synthetic or natural fiber nettings to form a continuous matrix | 1:1 | 2.25 | 108 |
| | | | Open-Weave Textile | Processed slow-degrading natural or polymer yarns or twines woven into a continuous matrix | | | |
| Permanent | -- | 4A | Turf Reinforcement Mat | Non- or partially degradable synthetic fibers, filaments, nets, wire mesh, and/or other elements, processed into a permanent, three-dimensional matrix of sufficient thickness | 1:2 | 6.00 | 288 |
| | | 4B | | | | 8.00 | 384 |
| | | 4C | | | | 10.0 | 480 |

Source: Adapted from Erosion Control Technology Council, 2006. *Standard Specification for Rolled Erosion Control Products*.

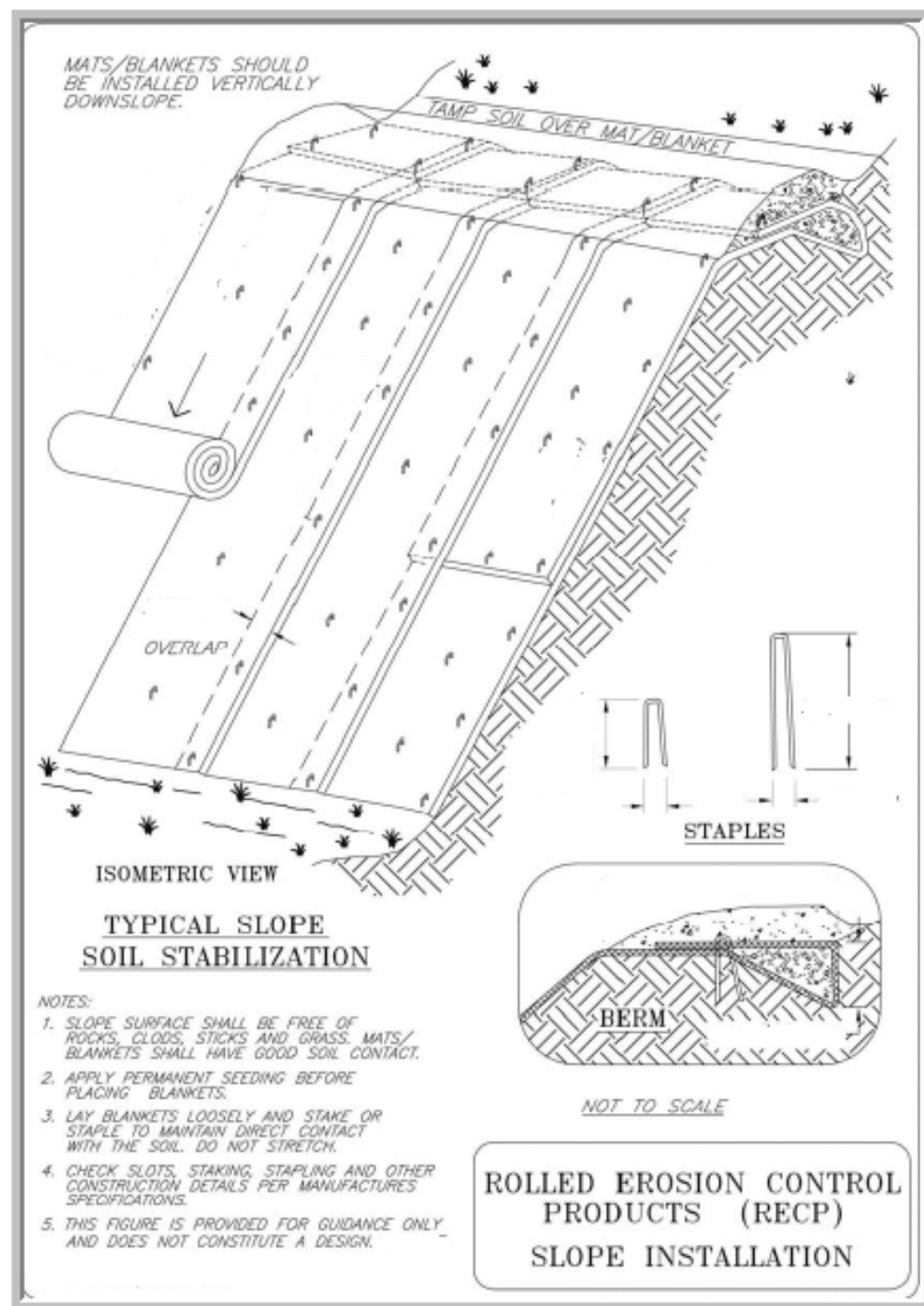
² Shear stress fully vegetated turf reinforcement mat can sustain without physical damage or excessive erosion (> 12.7 mm (0.5 in.) soil loss) during a 30-minute flow event, based on large-scale testing. Test methods include ASTM D6460, or others deemed acceptable by the engineer.

Exhibit 1. Rolled Erosion Control Product Channel Installation

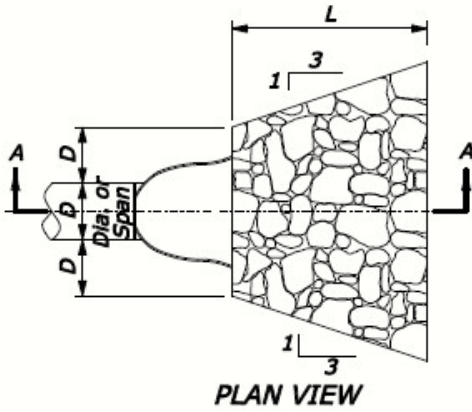


Source: Ontario. *Rolled Erosion Control Product (RECP) BMP 11.*

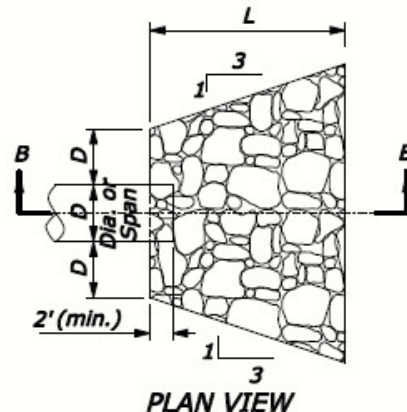
Exhibit 2. Rolled Erosion Control Product Slope Installation



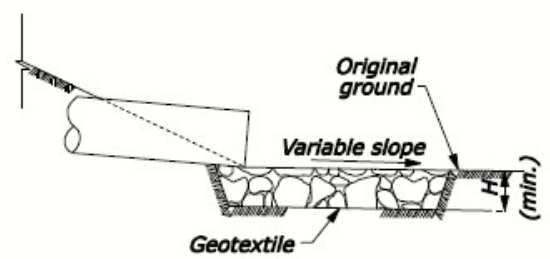
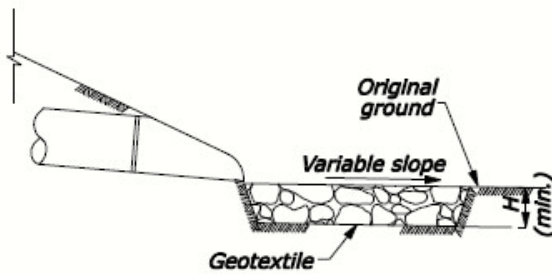
Source: Ontario. *Rolled Erosion Control Product (RECP) BMP 11.*



**CULVERT WITH STANDARD
END SECTION**



**CULVERT WITHOUT STANDARD
END SECTION**



**PROTECTIVE APRON AT CULVERT OUTLET
WITHOUT DITCH**

16 APPENDIX F

DRAFT

Initial Inspection of Erosion and Sediment Control

Project/LDP Number: _____ Date: _____

Contractor/Representative: _____

Evaluated by Construction Inspector: _____

A. Project Overview

- How Many Acres Total Does the Project Disturb? _____
- Project Start Date: _____ Project End Date: _____
- Phase I start date? _____

B. Paperwork

- | | | | |
|---|-----|----|-----|
| • *Does the project have a Land Disturbance Permit? | Yes | No | N/A |
| • *Is the SWPPP Notebook onsite? | Yes | No | N/A |

C. Site Preparation

- | | | | |
|--|-----|----|-----|
| • *Has the contractor installed temporary construction entrance(s) and are the vehicles using it? | Yes | No | N/A |
| • *Is there a place for concrete wash-out, is it clearly marked and do concrete trucks appear to be using it? | Yes | No | N/A |
| • *Is the site largely free of construction trash? (cups, lunch sacks, material packaging, etc.) | Yes | No | N/A |
| • *Have perimeter sediment controls been installed? | Yes | No | N/A |
| • *Have pre-construction controls been installed per the plan been installed? | Yes | No | N/A |
| • *Have easily recognizable indications of the construction limits been installed? (fencing, staking, physical barriers) | Yes | No | N/A |

* Must be "yes" or N/A in order for inspection to be "satisfactory".

D. Approval

City staff initial for approval:

_____ Land disturbance work **will** proceed, as this site has met all the initial standard requirements of the City of Overland Park Erosion and Sediment Control measures.

_____ Land disturbance work **will not** proceed as this site has not met all the initial standard requirements of the City of Overland Park Erosion and Sediment Control measures. The deficiencies below must be corrected in order to have a satisfactory inspection:

1. _____
2. _____
3. _____
4. _____
5. _____

Erosion and Sediment Control Inspection Report Form

Project Name and Location

Weather:

Rain in last 24 hrs (inches):

Owner / Permittee:

A. Current Construction / Active Areas:

Pollution Control Measures (BMP) Checklist:

- _____ Inlet Barrier (ie: gravel bags)
- _____ Sediment Barriers (ie: ditch checks)
- _____ Erosion Blankets, Hydromulch / Seed, etc
- _____ Stabilized Construction Entrance
- _____ Stream Crossings
- _____ Seed / Sod Areas
- _____ Sediment Basins & Discharge Locations
- _____ Borrow Areas
- _____ General Site Condition (trash, etc)

B. Problem Areas / Special Observations(*Note problem areas ONLY below*):

| BMP | Location | Observations, Effectiveness, & Corrective Actions Ordered |
|-----|----------|---|
| | | |
| | | |
| | | |
| | | |

C. Listing of Areas where construction operations have permanently or temporarily stopped; stabilization measures initiated.

D. Have items noted on last inspection been corrected? Yes No (if No, Explain:)

Note: Inspection comments above indicate deficiencies only. Deficiencies must be corrected within 7 days, unless otherwise noted. All other BMP's on site are considered to be in good working condition.

Date of
Inspection

Inspector Signature

- 6 Goals • No Sediment Leaves the Site • Lines of Defense Everywhere & Always • Cover Quickly
• Protect the Swale, Ditch ,and Channel • Keep Clean Water Clean • Inspect, Clean & Fix

BMP INSPECTION CHECKLIST

General notes about Inspections:

- 1) Site inspected weekly
- 2) Within 24 hours of the end of a storm with rain >0.5"
- 3) Deficiencies corrected within 7 calendar days of inspection

Key elements to look at during inspection

- 1) Proper installation
- 2) Operation
- 3) Maintenance

Inlet Barriers (ie:sand bags, gutter buddies, straw wattles)

- ✓ Is the structure deteriorating
- ✓ Is sediment >1/2 the height of structure?
- ✓ Evidence of water/sediment getting **around or under** barrier?
- ✓ Are there other structures that require inlet barriers?

Sediment Barriers (ie:ditch checks)

- ✓ Are they trenched in or falling down?
- ✓ Evidence of sediment/water getting **around or under** barrier?
- ✓ Is sediment more than 1/2 height of structure?
- ✓ Are there areas where more sediment barriers are required or need extended?

Perimeter Control (ie: silt fence, straw wattles)

- ✓ Is all the off-site water being diverted where applicable?
- ✓ Evidence of water/sediment getting **around or under** barrier?
- ✓ Are there areas that need extended or additions to other locations?

Stabilized Construction Entrance

- ✓ Is gravel clean or getting filled with mud?
- ✓ Evidence of sediment being tracked off site onto public streets?

Stream Crossing

- ✓ Is crushed stone in place?
- ✓ Wash outs?

Final or temporary Stabilization area

- ✓ Mulches/Grasses-are areas thinning or have been disturbed? Re-application req'd?
- ✓ Straw Blankets-are they deteriorating and need replaced?

Borrow Areas

- ✓ When on site or offsite borrow areas, which include contractor furnished, are to be excavated below ground elevations, an earth berm must be constructed around the borrow area to prevent runoff from entering excavation area

Sediment Basin

- ✓ Note the basin depth. Is the basin more than 1/2 full of sediment from original design?
- ✓ Condition of basin side slopes
- ✓ Evidence of overtopping embankment
- ✓ Condition of outfall

General Site Conditions

- ✓ Trash barrels-any evidence of trash lying around site
- ✓ Location of porta potties
- ✓ Leaking vehicles
- ✓ Concrete Washouts Designated

Quality Assurance Field Review – Erosion and Sediment Control

Project/LDP Number: _____ Contractor/Representative: _____

Date: _____ Evaluated by Construction Inspector: _____

A. Project Status: *(brief description of the current phase of construction; major items of work in progress; and general observations of effectiveness and maintenance of site controls, and stormwater discharge at outfalls).*

B. Deficiencies Noted *(List any specific deficiencies found during the review).*

C. Have weekly and rainfall-required inspections been conducted by the Contractor since the last compliance evaluation? Were noted deficiencies corrected within 7 days?

Notice to Contractor: All deficiencies must be corrected within 7 days unless otherwise noted. A record of corrected deficiencies must be maintained.

Final Inspection of Erosion and Sediment Control

Project/LDP Number: _____ Date: _____

Contractor/Representative: _____

Evaluated by Construction Inspector: _____

Project Overview

- How Many Acres Total Does the Project Disturb? _____
- Project Start Date _____ Project End Date _____

Paperwork

- | | | | |
|--|-----|----|-----|
| • Is the SWPPP Notebook onsite? | Yes | No | N/A |
| • Has a copy of the SWPPP been given to City staff | Yes | No | |

Final Site Preparation*

- | | | | |
|---|-----|----|-----|
| • Has the concrete wash-out area been cleaned? | Yes | No | N/A |
| • Is the site free of construction trash? (cups, lunch sacks, material packaging, wood debris, etc.) | Yes | No | N/A |
| • Have perimeter sediment controls been taken down? | Yes | No | N/A |
| • Have indications of the construction limits been taken down? (fencing, staking, physical barriers) | Yes | No | N/A |
| • Has all the dirt on the site been covered? | Yes | No | N/A |
| • Have appropriate grasses/sod/trees been planted? | Yes | No | N/A |
| • Have the plants accepted? | Yes | No | N/A |
| • Have gutters and streets been cleaned of soil/trash? | Yes | No | N/A |
| • Have all erosion controls been removed? | Yes | No | N/A |

* Must be "yes" or N/A in order for inspection to be "satisfactory".

Approval

City staff initial for approval:

_____ A Compliance certificate **will be** submitted, as this site has met all the requirements of the City of Overland Park Erosion and Sediment Control standards.

_____ A Compliance certificate will **not** submitted until all above requirements of the City of Overland Park Erosion and Sediment Control standards have been met. The items below must be completed in order to have a satisfactory inspection:

1. _____
2. _____
3. _____
4. _____

AMENDMENT LOG

Project/LDP Number: _____

Contractor/Representative:_____

[illegible]

Optional Form for Amendment Log- Use for major modifications that need approval, use site map or current amendment log for minor modifications.

SWPPP MODIFICATION REPORT FORM

Date Submitted: _____

Project/LDP Number: _____

Contractor/Representative: _____

| | |
|-------------------|--|
| Submit To: | S-1 CITY |
| | City Engineer |
| Address: | |
| Telephone: | |
| Facsimile: | |
| Sent Via: | <input type="checkbox"/> Facsimile <input type="checkbox"/> Courier <input type="checkbox"/> US Mail |

Authorized Author: _____ Title: _____

Company: _____ Project Role: _____

Signature: _____ Date: _____

Modifications Required to the STORMWATER POLLUTION PREVENTION PLAN:

Reasons for Modifications: _____
