UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7
11201 Renner Boulevard
Lenexa, Kansas 66219

MAY 0 7 2018

Mr. Leo Henning
Director, Division of Environment
Kansas Department of Health and Environment
1000 S.W. Jackson Street, Suite 540
Topeka, Kansas 66612-1368

Dear Mr. Henning:

On March 9, 2018, the U.S. Environmental Protection Agency received the submittal of new and revised water quality standards, under a cover letter dated February 23, 2018, from the Kansas Department of Health and Environment .[1] The new and revised WQS were formally adopted by the KDHE on January 26, 2018, were published in the Kansas Register on February 8, 2018, and became effective under state law on February 23, 2018. The WQS submittal packaged included a certification letter from the Office of the State Attorney General dated January 12, 2018.

Under Section 303(c) of the Clean Water Act, 33 U.S.C. § 1313(c) and Title 40, parts 131.20 and 131.21 of the Code of Federal Regulations, states must review their WQS at least every three years and submit any new or revised WQS to the EPA for review and approval or disapproval. As Director of the Water, Wetlands and Pesticides Division, I am charged with the responsibility of reviewing and approving or disapproving new and revised WQS under Section 303(c).

Today, the EPA is acting on certain portions of the following components of Kansas' WQS submittal: 1) adoption of the EPA's 2013 recommended ammonia criteria; 2) new and revised WQS included in the Kansas Code of State regulations, K.A.R. 28-16-28b, 28-16-28d, 28-16-28e, 28-16-28f, 28-16-28h; 3) revisions of the Kansas Water Quality Standards Implementation Procedures, Section 4 Water Quality Standards Variance; and 4) Specific portions of the Kansas Water Quality Standards Variance Register, including variances for 22 dischargers. The EPA is reserving action on 26 municipal dischargers identified in the Kansas Surface Water Quality Standards Variance Register. Finally, within the code of State regulations Kansas adopted by reference a number of documents. The Enclosure to this letter provides a more detailed description of the EPA's rationale for these actions.

The EPA has included as attachments, items that the EPA encourages the state to address in its next triennial review, as well as correspondence from the state that provided additional clarification regarding items related to provisions of the variance.

The EPA initiated consultation with the U. S. Fish and Wildlife Service under Section 7(a)(2) of the Endangered Species Act on October 5, 2017, for items EPA is approving. Section 7(a)(2) requires that

[1] Some supporting documents were omitted from the original WQS submittal package, but these filed were subsequently sent by the KDHE. The supporting documents were submitted to the EPA on April 10, 2018, and April 12, 2018.

Printed on Recycled Paper

federal agencies, in consultation with the USFWS, ensure that their actions are not likely to jeopardize the existence of federally listed species or result in the adverse modification of designated critical habitat of such species; this consultation is still on-going.

The EPA commends the state's commitment to protecting its waters by establishing WQS and adopting numeric criteria that significantly increase environmental protection to aquatic life for waters of the U.S. located in Kansas. We look forward to continuing to work with the KDHE to update its WQS through the triennial review process, including updates to the Kansas Surface Water Quality Standards Variance Register. If you have any questions regarding this matter, please contact me at (913) 551-7146, or Angela Sena, of my staff, at (913) 551-7989.

Sincerely,

Jeffery Robichaud
Director
Water, Wetlands and Pesticides Division

Enclosure w/ attachments

cc: Trevor Flynn, KDHE
Julia Young, KDHE
John Miesner, USFWS
Corey Buffo, EPA HQ

ENCLOSURE

EPA REGION 7 REVIEW OF 2018 RULE REVISIONS TO KANSAS WATER QUALITY STANDARDS

Under Section 303(c) of the Clean Water Act (CWA), 33 U.S.C. § 1313(c) and Title 40, Part 131.5 of the Code of Federal Regulations, states must review their WQS at least every three years and submit any new or revised WQS to the EPA for review and approval or disapproval. This review involves a determination of whether:

- The state has adopted designated uses consistent with the requirements of the CWA;
- The state has adopted criteria that protect the designated water uses;
- Whether the state has adopted an antidegradation policy that is consistent with 40 C.F.R. § 131.12, and whether any State adopted antidegradation implementation methods are consistent with § 131.12;
- Whether any state adopted WQS variance is consistent with 40 C.F.R. § 131.14;
- Whether any state adopted provision authorizing the use of schedules of compliance for water quality-based effluent limits in NPDES permits is consistent with 40 C.F.R. § 131.15;
- The state has followed its legal procedures for revising or adopting standards;
- The state standards that do not include the uses specified in Section 101(a)(2) of the CWA are based upon appropriate technical and scientific data and analyses;
- Whether the state submission meets the requirements included in 40 C.F.R. § 131.6 of this part and, for Great Lakes States or Great Lakes Tribes (as defined in 40 C.F.R. § 132.2) to conform to Section 118 of the CWA, the requirements of 40 C.F.R. Part 132; and
- The state submission meets the requirements included in 40 C.F.R. § 131.6.

The EPA's review of Kansas' 2018 WQS submittal as described in this enclosure is divided into four sections corresponding to: 1) those items the EPA is approving; 2) those items for which the EPA is reserving action; and 3) those items which the EPA has determined are not water quality standards and therefore do not require action; and 4) non-substantive changes to Kansas WQS. The EPA has included as attachments, items that the EPA encourages the state to address in its next triennial review as well as correspondence from the state that provided additional clarification regarding items related to provisions of the variance. The EPA is acting on the Kansas WQS submittal as follows:

- The EPA is approving: 1) adoption of the EPA's 2013 recommended ammonia criteria; 2) new and revised WQS included in the Kansas Code of State regulations, K.A.R. 28-16-28b, 28-16-28d, 28-16-28e, 28-16-28f, 28-16-28h; 3) revisions of the Kansas Water Quality Standards Implementation Procedures, Section 4 Water Quality Standards Variance; and 4) Specific portions of the Kansas Water Quality Standards Variance Register, including variances for 22 dischargers;
- The EPA is reserving action on portions of the submittal upon mutual agreement with KDHE, including the "Kansas Eligibility Determination for Wastewater Lagoon Variances July 2016"; Kansas Implementation Procedures, Surface Water Quality Standards: Section 4 Appendix A: Procedure to Calculate the Highest Attainable Condition Under the Multiple-Discharger Wastewater Lagoon Ammonia Variance-Alternative Ammonia Limits; and 26 discharges identified in the Kansas Surface Water Quality Standards Variance Register; and

- The EPA has determined that several appendices submitted as supporting documentation are not new or revised WQS; and therefore, are not subject to an EPA's action.

As part of the review process, the KDHE made the final draft WQS and supporting documentation[1] available for public review and comment starting on July 7, 2017, and ending on October 3, 2017. The availability of the new and revised WQS was announced in the Kansas Register (Volume 36, Number 27 on July 7, 2017). A public hearing was held at the Curtis State Office Building on October 3, 2017. The Office of the State Attorney General certified the final WQS on January 12, 2018. Based on our review, Kansas' public participation process is consistent with, and satisfies, the procedural requirements of 40 C.F.R. § 131.20, and submission of certification by the Office of the State Attorney General meets the minimum requirement of 40 C.F.R. § 131.6(e).

SECTION I: APPROVED ITEMS[2]

A.	**Revised Numeric Criteria (Including Revised Criteria for Total Ammonia)** • Kansas Surface Water Quality Standards: **Tables of Numeric Criteria**
B.	**Variance Authorizing Provisions** • Kansas Water Quality Standards Regulations: **Definitions -** K.A.R. 28-16-28b • Kansas Water Quality Standards Regulations: **Administration of Surface Water Quality Standards -** K.A.R. 28-16-28f • Kansas Implementation Procedures, Surface Water Quality Standards: **Sections 4.1 through 4.6** • Kansas Water Quality Standards Regulations: **Administration of surface water quality standards -** K.A.R. 28-16-28h • Kansas Surface Water Quality Standards Variance Register: **Section One**
C.	**Multiple-Discharger Wastewater Lagoon Ammonia Variances for 22 Dischargers** • Kansas Surface Water Quality Standards Variance Register: **Section Two and Table 1 (below)**
D.	**Federal Regulations Adopted by Reference** • Kansas Water Quality Standards Regulations: **Surface water classification and use designation -** K.A.R. 28-16-28d(d)(1)(B) • Kansas Water Quality Standards Regulations: **Surface water classification and use designation -** K.A.R. 28-16-28f(d)(1) • Kansas Water Quality Standards Regulations: **Surface water classification and use designation -** K.A.R. 28-16-28f(d)(5)(D)

[1] Supporting documentation available during public notice included the April 2017 draft State of Kansas Multiple-Discharger Wastewater Lagoon Ammonia Variance-Submission Package.

[2] Kansas WQS regulations presented with underlined text represent new or revised state WQS provisions; strike-out text denotes language removed from the state WQS.

A. Kansas Surface Water Quality Standards: Tables of Numeric Criteria (Including Revised Criteria for Total Ammonia)

Revision of Table 1a. Aquatic Life, Agriculture, and Public Health Designated Uses Numeric Criteria

The KDHE revised Table 1a of the *Kansas Surface Water Quality Standards: Tables of Numeric Criteria* to properly reflect the revised chronic ammonia criteria in Table 1d. The acute (Table 1c) and chronic (Table 1d) ammonia criteria are approved below in this section. The EPA approves the revision striking Table 1c and replacing it with Table 1d.

Removal of Table 1b. Hardness-Dependent Aquatic Life Support Criteria

On February 12, 2015, Kansas adopted the EPA's 304(a) criteria recommendations for copper, the Copper Biotic Ligand Model (BLM),[3] statewide. The new language replaced the previous hardness-based copper criteria equations, found in Table 1b of the Kansas surface water quality standards- Tables of Numeric Criteria. The EPA considers the revised Copper BLM to be more protective of aquatic life and approved Kansas' adoption of the Copper BLM on July, 18, 2017.

The EPA's 2017 approval of the copper BLM stated the following:

> "In the EPA's training materials on the implementation of the copper BLM, the EPA refers to the adoption of a statewide approach for the BLM. Kansas can develop numeric results up front when adopting the revised criteria or later when developing permits or conducting assessments. Under this approach, the BLM based criteria would replace the hardness-based criteria for copper. This approach allows Kansas to use the latest available science [to] the copper biotic ligand model for acute and chronic aquatic life."

In response to the 2017 EPA approval, Kansas has removed Table 1b, the hardness-based criteria equations for copper from the Kansas surface water quality standards - Tables of Numeric Criteria. The removal of Table 1b, containing the previous hardness-based copper equations, is appropriate and is hereby approved.

Revision of Table 1c. pH- and Temperature-Dependent Values Aquatic Life Criteria For Total Ammonia Acute Criterion; Revision of Table 1d. pH- and Temperature-Dependent Values Aquatic Life Criteria For Total Ammonia Chronic Criterion; Removal of Table 1e. pH- and Temperature-Dependent Chronic Aquatic Life Criteria For Total Ammonia Early Life Stages of Fish Absent, and, Removal of Table 1f. Surface Water Segments Where Early Life Stages of Fish Present Chronic Aquatic Life Criteria Are Applicable

KDHE has adopted new aquatic life criteria for ammonia to protect aquatic life from acute and chronic effects of ammonia in its designated aquatic life support use waters. The aquatic life support designated use in Kansas is defined as:

---

[3] Aquatic Life Ambient Freshwater Quality Criteria-Copper 2007 Revision (EPA-822-R-07-001, February 2007).

"Aquatic life support use" means the use of classified surface waters other than classified stream segments for the maintenance of the ecological integrity of lakes, wetlands, and ponds, including the sustained growth and propagation of native aquatic life; naturalized, important, recreational aquatic life; and indigenous or migratory semiaquatic or terrestrial wildlife directly or indirectly dependent on classified surface waters other than classified stream segments for survival."

The Kansas aquatic life criteria for ammonia for the Aquatic Life Support Use were revised and adopted to reflect the EPA's CWA §304(a) criteria recommendations published in 2013.[4] The EPA's 2014 ammonia criteria recommendations are based on additional information regarding the toxicity of ammonia to freshwater unionid mussels. Unionid mussels are much more sensitive to ammonia than the fish and invertebrates that were previously used to calculate the criteria. Freshwater unionid mussels are found statewide in Kansas; this is reflected in the Kansas adoption. pH and temperature tables associated with each of the acute and chronic criteria equations from EPA's 2013 Ammonia document were adopted in their entirety.

Kansas' approach of focusing on protection of unionid mussels is appropriate considering the presence of these mussels across the state. Unionid mussel sensitivity to ammonia decreases when temperatures decrease, so when water temperatures fall below [15 deg. C/59 deg. F]. Salmonids in the genus *Oncorhynchus* become the most sensitive. Although the Kansas Department of Wildlife, Parks & Tourism stocks some state waters for recreational fishing, no self-sustaining populations of *Oncorhynchus* are present in the state, and the state manages its aquatic life protection for warm-water fish. It is therefore appropriate for the state to use the *Oncorhynchus* species-absent ammonia criteria in *Tables 1c. pH- and Temperature-Dependent Values Aquatic Life Criteria for Total Ammonia Acute Criterion*, and *1d. pH- and Temperature-Dependent Values Aquatic Life Criteria for Total Ammonia Chronic Criterion* of the *Kansas Surface Water Quality Standards – Tables of Numeric Criteria*. These criteria will be protective of those sensitive species expected to be present in Kansas waters, specifically unionid mussels.

In the next triennial review, and for purposes of transparency, Kansas may wish to either consider also adopting the acute and chronic equations contained within the EPA's 2013 Ammonia update, or describe how the KDHE will implement the criteria when values don't correspond to the values in Tables 1c and 1d - *Tables of Numeric Criteria*. That is, the EPA expects that if the values do not fall on a specific table value, the KDHE will either adopt the appropriate equations, or explain how they will interpolate between values in Tables 1c and 1d.

The science supporting the EPA's 304(a) recommended criteria also supports the EPA's conclusion that Kansas' ammonia criteria in Tables 1c and 1d of the *Kansas Surface Water Quality Standards – Tables of Numeric Criteria* will be protective of the Aquatic life support use. As such, Kansas' adoption of these criteria is consistent with 40 C.F.R. §§ 131.6(b), (c), and 131.11(a) and (b)(i), and the EPA hereby approves these revised criteria.

As part of the adoption of the EPA's 304(a) 2013 ammonia, Kansas deleted *Table 1e. pH- and Temperature-Dependent Chronic Aquatic Life Criteria for Total Ammonia Early Life Stages of Fish*

[4] Aquatic Life Ambient Water Quality Criteria for Ammonia – Freshwater 2013, EPA 822-R-13-001.

Absent, and, *Table 1f. Surface Water Segments Where Early Life Stages of Fish Present Chronic Aquatic Life Criteria Are Applicable*, from the *Kansas Surface Water Quality Standards – Tables of Numeric Criteria.* As explained above, the EPA's new criteria recommendations are based on additional information regarding the toxicity of ammonia to freshwater unionid mussels and are no longer based on the sensitivity of early life stages of fish, therefore, the deletion of Tables 1e and 1f is appropriate and is approved.

B. Variance Authorizing Provisions

A WQS variance is a time-limited use and corresponding criterion targeted to a specific pollutant, pollutant source and/or waterbody and reflecting the highest attainable water quality condition during a specified timeframe. The EPA encourages states and authorized tribes to utilize WQS variances, where appropriate, as an important WQS tool that provides time to make progress towards attaining the underlying designated use and criteria.

Under section 303(c) of the CWA, a WQS variance requires both a public hearing and the prior approval of the EPA. To obtain approval, a state must show that the designated use and criterion is not feasible throughout the term of the variance because of one of the factors listed 40 C.F.R. § 131.14(b)(2)(i)(A). A variance provides a state additional time to implement adaptive management approaches for improving water quality while retaining the designated use and criterion as a long-term goal. EPA has recognized that WQS variances can apply to individual dischargers, groups of dischargers, and entire water bodies or segments thereof.[5] The EPA can approve a variance for a specific discharger or group of dischargers where the state satisfies the requirements in 40 C.F.R. § 131.14.

Collectively, the variance authorizing provisions provided in K.A.R. 28-16-28f(d); Kansas Water Quality Standards Implementation Procedures, Section 4; and the Kansas Water Quality Standards Variance Register, Section One, enables the state to develop less stringent water quality based effluent limitations in situations where a WQS cannot be achieved in the short-term owing to at least one of the factors at 40 C.F.R. § 131.14((b)(2)(i)(A). Variances granted under K.A.R. 28-16-28f(d) and approved by the EPA may be applied by the state in the issuance of water quality certifications under CWA Section 401 and in the implementation of WQBELs and CWA Section 402. The state is reminded that variances approved by the EPA do not replace designated uses and associated water quality criteria, nor do they provide a basis for delisting impaired waters under Section 303(d) of the CWA. 40 C.F.R. §131.14(a)(2), (3). The EPA looks forward to working closely with the KDHE in the implementation of the state's new variance authorizing provisions.

The EPA has reviewed the following new and revised WQS and determined that they are consistent with the CWA requirements. 40 C.F.R. § 131.13, provides that variance policies may be adopted at state discretion, and that such general policies are subject to review and approval by the EPA. The following provides the basis for EPA approval of Kansas' general authorizing provision for variances. Any variances adopted pursuant to this authorizing provision must be submitted to EPA and obtain EPA approval to be effective for CWA purposes.

---

[5] 80 Fed. Reg, 51020, 51036 (Aug. 21, 2015).

Kansas Water Quality Standards Regulations: Definitions – K.A.R. 28-16-28b

Revisions include new or revised definitions in K.A.R. 28-16-28b, as follows:

> *(kk) "Highest attainable condition" and "HAC" mean the achievable goal of a variance, according to K.A.R. 28-16-28f(d)(5), that reflects the modified designated use and criterion, designated use, or criterion that is applicable throughout the term of a variance.*
>
> *(mm) "Interim criterion" means a temporary criterion.*
>
> *(nn) "Interim designated use" means a temporary designated use.*
>
> *(xx) "Multiple-discharger variance" and MDV" mean a term-limited variance for more than one discharger that is issued for a specified criterion or pollutant to achieve the highest attainable condition.*
>
> *(fff) "Pollutant minimization plan" and "PMP" mean a structured set of activities to improve processes and pollutant controls that prevent and reduce pollutant levels, including any cost-effective process for reducing pollutant levels, pollution prevention, treatment, best management practices, and other control mechanisms.*
>
> *(lll) "Reconfiguration activities" means actions that beneficially reshape, remodel, or otherwise restructure the physical setting and characteristics of a surface water of the state.*
>
> *(zzz) "Variance means ~~the department's written approval and authorization of a proposed action that knowingly will result in a lack of conformity with one or more of the criteria of K.A.R. 28-16-28e but that is deemed necessary based on the provisions of 40 C.F.R. 131.10(g), dated July 1, 2012, which is hereby adopted by reference, except that the phrase "federal clean water" shall be inserted before the word "act." Variances shall be administered by the department in accordance with K.A.R. 28-16-28f~~ a time-limited designate use and criterion that reflects the highest attainable condition as an alternative to one or more of the criteria specified in K.A.R. 28-16-28e, as implemented by the department in accordance with K.A.R. 28-16-28f.*

The KDHE has provided new and revised definitions within K.A.R. 28-16-28b, to define terms included within its variance authorizing procedures. The new and revised definitions are consistent with 40 C.F.R. § 131.3(o) and (p) and 40 C.F.R. § 131.14. EPA hereby approves these new and revised definitions.

Kansas Water Quality Standards Regulations: Administration of surface water quality standards – K.A.R. 28-16-28f(d)

The KDHE revised **28-16-28f(d)**, as follows:

> *(d) Variances. ~~If, upon written application by any person, the secretary finds that by reason of substantial and widespread socioeconomic impact the strict enforcement of the water quality criteria of K.A.R. 28-16-28e(d) is not feasible, a variance from those criteria may be permitted and adopted~~*

~~*into the regulations at the next systematic review or subsequent triennial review after public notification and opportunity for public comment.*~~

~~*(1) Each person requesting a variance shall demonstrate compliance with 40 C.F.R. 131.10(g), which is adopted by reference in K.A.R. 28-16-28b.*~~

~~*(2) In granting a variance, conditions and time limitations may be set by the secretary with the intent that progress be made toward improvements in surface water quality.*~~

~~*(3) No action that impacts water quality shall be granted a variance from the requirements of K.A.R. 28-16-28e(b).*~~

(1) A variance establishing an interim designated use and interim criterion may be permitted and adopted into the regulations at the next systematic review or subsequent triennial review and after a public hearing consistent with 40 C.F.R. 131.20(b), dated July 1, 2016 if upon written request by any person, as defined in K.S.A. 65-170a and amendments thereto, the secretary find that the attainment of the designated use and criterion is not feasible because one of the following conditions is met:

(A) One of the factors listed in 40 C.F.R. 131.10(g), as adopted by reference in K.A.R. 28-16-28d(d)(1)(B), exists.

(B) Actions necessary to facilitate lake, wetlands, or stream restoration through dam removal or other significant reconfiguration activities preclude attainment of the designated use and criterion while the actions are being implemented.

(2) Each variance shall be issued and evaluated using methods outlined in the "Kansas implementation procedures: surface water quality standards," as adopted in K.A.R. 28-16-28b.

(3) Adoption and implementation of each variance shall be in accordance with 40 C.F.R. 131.14, dated July 1, 2016 and hereby adopted by reference, except that 131.14(a)(2), 131.14(a)(4), 131. 14(b)(1)(ii), and 131.14(b)(2)(i)(A) shall be replaced by paragraphs (d)(4) through (d)(7) of this regulation, respectively.

(4) Each variance shall have a designated term limit and reflect the highest attainable condition during the specified term. A variance may be applied to individual or multiple dischargers or surface water bodies.

(5) Each variance shall have requirements and a time limitation demonstrating the intent that progress be made toward the attainment of the underlying designated use and criterion.

(A) Each Kansas surface water quality standard not specifically addressed in a variance shall remain applicable.

(B) Each person requesting a variance shall provide evidence that a designated use and criterion, or a designated use or criterion, addressed by the variance cannot be achieved solely by the implementation of technology-based effluent limits.

(C) Each requirement shall represent the highest attainable condition of the surface water segment applicable throughout the term of the variance. A specified requirement shall not result in lowering the currently attained ambient water quality, unless a variance is necessary for physical reconfiguration activities intended for surface water segment

restoration. The highest attainable condition of each affected surface water segment as a quantifiable expression shall be specified as one of the following:

(i) The highest attainable interim criterion;

(ii) the interim effluent condition that reflects the greatest pollutant reduction achievable; or

(iii) the interim criterion or effluent condition that reflects the greatest pollutant reduction achievable with the pollutant control technologies installed at the time the variance is adopted.

(D) If the quantifiable expression identified in paragraph (d)(5)(C)(iii) is selected, a pollutant minimization plan consistent with 40 C.F.R. 131.3(p) shall be adopted and implemented if no additional feasible pollutant control technology is identified.

(6) Each variance request shall include supporting documentation that demonstrates all of the following:

(A) Attaining the designated use and criterion is not feasible throughout the term of the variance because of one of the factors cited in paragraph (d)(1)(A) and (B).

(B) The term of the variance is only as long as necessary to achieve the highest attainable condition.

(C) The highest attainable condition of the affected surface water segment is as defined in paragraph (d)(5)(C).

(7) A discharger that impacts water quality shall not be granted a variance from requirements of K.A.R. 28-16-28c and 28-16-28e.

The variance authorizing provision included by KDHE in K.A.R. 28-16-28f(d), sets forth a procedure to be implemented when establishing a variance. The language included in K.A.R. 28-16-28f(d) is consistent with CWA Section 303(c) and EPA's implementing regulations at 40 C.F.R. § 131.14, and is hereby approved by the EPA.

Consistent with 40 C.F.R. § 131.14, the variance authorizing provision provides that KDHE, after adequate public notice, may authorize alternative WQS upon the demonstration that one of the factors listed in 40 C.F.R. § 131.10(g) exists and/or actions necessary to facilitate lake, wetlands, or stream restoration through dam removal or other significant reconfiguration activities preclude attainment of the designated use and criterion while the actions are being implemented. Additionally, each variance shall be issued and evaluated using methods outlined in the *Kansas implementation procedures: surface water quality standards,* described in detail and approved below.

Within the variance authorizing provisions, the KDHE incorporates by reference 40 C.F.R. § 131.14, dated July 1, 2016, with exception that 131.14(a)(2), 131.14(a)(4), 131.14(b)(1)(ii), and 131.14(b)(2)(i)(A) shall be replaced by K.A.R. 28-16-28f paragraphs (d)(4) through (d)(7), respectively. The EPA hereby approves the adoption of 40 C.F.R. § 131.14, and paragraphs (d)(4) through (d)(7). The EPA finds paragraphs (d)(4) through (d)(7) to be consistent with 40 C.F.R. §§ 131.14(a)(2), 131.14(a)(4), 131.14(b)(1)(ii), and 131.14(b)(2)(i)(A).

K.A.R. 28-16-28f(d)(8), provides that *[s]pecific eligibility requirements may be included in a multiple-discharger variance as an alternative to identifying the specific dischargers at the time of adoption of*

the variance. Each discharger shall meet the eligibility requirements in the applicable section of the "Kansas surface water quality standards variance register," as adopted by reference in K.A.R. 28-16-28h, to participate in a multiple-discharger variance.

The EPA approves this language as an authorizing provision. The EPA finds providing for specific eligibility criteria as an alternative to identifying the specific discharger to be consistent with the EPA's Preamble to its 2015 promulgation of 40 C.F.R. § 131.14. 80 FR 51019. At this time, the EPA is reserving action on the referenced portion of the KDHE's eligibility requirements included in the *Kansas surface water quality standards variance register, "Kansas Eligibility Determination for Wastewater Lagoon Variances", dated July 11, 2016.*

Kansas Implementation Procedures: Surface Water Quality Standards, Section 4 Water Quality Standards Variances

The KDHE establishes in K.A.R. 28-16-28f(d)(2), that "[e]ach variance shall be issued and evaluated using methods outlined in the *Kansas implementation procedures: surface water quality standards.* The new provisions included within Section 4 of the Kansas Implementation Procedures and outlined below, are consistent with Sections 303(c) of the CWA, 40 C.F.R. § 131.14, and with 40 C.F.R. § 131.10(g), and are hereby approved by the EPA.

4.1 BACKGROUND

In August 2015, the Environmental Protection Agency (EPA) published 40 C.F.R. 131.14, implementing its authority under the Clean Water Act (CWA) section 101(a) and 303(c)(2) to establish requirements for water quality standard (WQS) variances. A WQS variance is a flexible mechanism of water quality protection that may be requested by an individual or group of dischargers who believe they cannot meet their current permit limit and are also uncertain whether the permit limit can ultimately be achieved. Variances establish time limited designated use and criterion, that reflects the highest attainable condition as an alternative to one or more of the criteria of K.A.R. 28-16-28e for the purposes of developing National Pollutant Discharge Elimination System (NPDES) permit limits where the underlying designated use and criterion cannot currently be met due to one of the factors cited in K.A.R. 28-16-28f(d)(1). The process of adopting WQS variance will be done according to K.AR. 28-16-28b, K.A.R. 28-16-28f(d) and K.A.R. 28-16-28h, which adopts in part 40 C.F.R. 131.14.

The Kansas Department of Health and Environment (KDHE), the permitting authority for the state of Kansas, may adopt time-limited WQS variances for a designated use and criterion reflecting the highest attainable condition (HAC) applicable throughout the term of the WQS variance, pursuant to K.A.R. 2816-28b(sss) and 28-16-28f(d). A WQS variance does not exempt the discharger from the requirement to comply with all other applicable technology-based effluent limitations (TBELs) or water quality-based effluent limitations (WQBELs) outside of the parameters specified in the variance. WQS variances may be adopted for a single discharger, multiple dischargers, or a water body or waterbody segment(s). Each WQS variance is considered to be a WQS and is subject to the requirements of the public participation process

referenced in 40 CFR 131.14 and referenced in K.A.R. 28-16-28f(d), and defined in 40 C.F.R. 131.20.

A WQS variance may be appropriate when a facility has opportunities to improve water quality, but the timeframe is uncertain as to when the criteria will be consistently met. A WQS variance will not be adopted if the underlying designated use and criterion of the proposed WQS variance can be achieved by implementing technology-based effluent limits.

WQS variances and requests for subsequent WQS variances are initially reviewed by the KDHE Bureau of Water (BOW). If KDHE BOW supports the proposed WQS variance, it is then subject to public review and comment during the public notice process, and a public hearing as a change to the WQS. KDHE BOW will address any public comments prior to submittal to U.S. EPA Region 7 for final approval. Once EPA Region 7 has granted final approval of the WQS variance, NPDES permit(s) with the WQS variance can be issued. Each WQS variance is granted for the minimum time needed as to achieve compliance with the applicable highest attainable condition as determined by KDHE.

The procedural requirements provided by Section 4.1 Background are consistent with 40 C.F.R. § 131.14, and are hereby approved.

4.2 ELIGIBILITY
Person(s) requesting a WQS variance shall meet at least one of the factors listed in K.A.R. 28-16-28f(d)(1).

As part of the WQS variance application or request, the requestor is to demonstrate they have assessed and considered the following factors:

- *Technology-based controls are insufficient to meet WQBELs derived to meet the underlying designated use and criteria at issue in the variance,*
- *Ensure there is no jeopardy to threatened or endangered species,*
- *Ensure there is no unreasonable risk to human health, and*
- *Ensure the highest attainable condition applicable throughout the term of the variance does not result in any lowering of currently attained ambient water quality, consistent with 131.14(b)(1)(ii)*

As an alternative to identifying qualified dischargers at the time of adoption of a WQS variance for multiple dischargers, specified eligibility requirements may be adopted in a WQS variance. Qualified permittees, approved to be included in a multiple discharger WQS variance will be listed in the Kansas Variance Register (K.A.R. 28-16-28h).

The EPA approves this language as an authorizing provision. The EPA finds providing for specific eligibility criteria as an alternative to identifying the specific discharger to be consistent with the EPA's Preamble to its 2015 promulgation of 40 C.F.R. § 131.14. 80 FR 51019. The EPA additionally approves

the inclusion of approved dischargers to be identified in the referenced Kansas Water Quality Standards Variance Register.

The eligibility requirements provided by Section 4.2 Eligibility, and reference to the language in K.A.R. 28-16-28f(d)(1), which incorporates the factors as presented in 40 C.F.R. § 131.10(g) and 40 C.F.R. § 131.14(b)(2)(A)(2), are consistent with 40 C.F.R. § 131.14, and are hereby approved.

4.3 SUBMISSION REQUIREMENTS

WQS variance requests from a discharger(s) will include an application that will be reviewed by KDHE. WQS variance requests shall include the following information, provided by KDHE or the applicant, for consideration:

4.3.1 Variance submissions to EPA.

WQS variance submission per 40 C.F.R. 131.14(b) shall include:

1) *The pollutant(s) or water quality criterion, and the water body/waterbody segment(s) to which the WQS variance applies.*
2) *The specific discharger subject to the WQS variance. (K.A.R. 28-16-28f(d) and 40 C.F.R. 131.14(b)(1))*
3) *All the applicable requirements that represent the HAC of the water body or waterbody segment throughout the term of the WQS variance.*
4) *Provide a quantitative expression of the HAC of the water body or waterbody segment receiving the discharge. Determine if the variance is for a discharger(s)-specific or applied to a water body or waterbody segment then select the appropriate quantifiable expression described below:*
   a) *A quantifiable expression for discharger(s)-specific sites will be stated as one of the options listed in this section. (40 C.F.R. 131.14(b)(1)(ii)(A)(1-3))*
      - *The highest attainable interim criterion; or*
      - *The interim effluent condition that reflects the greatest pollution reduction achievable; or*
      - *If no additional feasible pollutant control technology can be identified, the interim criterion or interim effluent condition that reflects the greatest pollutant reduction achievable with the optimization of pollutant control technologies installed at the time the WQS variance is adopted, and the adoption and implementation of a pollutant minimization plan (PMP).*
   b) *A quantifiable expression for a water body or waterbody segment will be stated as one of the options listed in this section. (40 C.F.R. 131.14(b)(1)(ii)(B)(1-2))*
      - *The highest attainable interim use and interim criterion; or*
      - *If no additional feasible pollutant control technology can be identified, the interim use and interim criterion that reflect the greatest pollutant reduction achievable with the pollutant control technologies installed at*

the time of adoption of a WQS variance, and the adoption and implementation of a PMP.

5) *A statement providing that the requirements of the WQS variance are derived from the HAC identified at the time of the adoption of the WQS variance, or a subsequent HAC identified during any reevaluation, whichever is more stringent. (40 C.F.R. 131.14(b)(1)(iii))*
6) *The term of the WQS variance. Term limits may be documented to expire on a specific date or as an interval of time after EPA-approval. (40 C.F.R. 131.14(b)(1)(iv))*
7) *A provision specifying the schedule for the reevaluation(s) using all existing and readily available information and associated public input process for a WQS variance with a term greater than five years. Reevaluations will occur no less frequently than every five years after EPA approval of the WQS variance. (40 C.F.R. 131.14(b)(1)(v))*

   Upon the completion of the reevaluation the results will be submitted to EPA within 30 days.
8) *A provision that the WQS variance will no longer be the applicable water quality standard for purposes of the Federal Clean Water Act if a reevaluation consistent with the frequency specified in the WQS variance is not conducted or the results are not submitted to EPA, unless and until the reevaluation is conducted and the results are submitted to EPA. (40 C.F.R. 131.14(b)(1)(vi))*

This language is consistent with 40 C.F.R. § 131.14, and is hereby approved.

4.3.2. Supporting Documentation

Compile the appropriate supporting documentation for the type of variance being requested as required for the submission packet. Supporting documentation shall include:

1) *Indicate if the designated use is a Federal Clean Water Act 101(a)(2) use or a non-101(a)(2) use. Based on the designated use determination include the appropriate documentation as defined in this section. Federal Clean Water Act 101(a)(2) use(s) include those uses which provide for the protection and propagation of fish, shellfish, wildlife and recreation in and on the water.*
   a. *For 101(a)(2) use(s) (40 C.F.R. 131.14(b)(2)(i)(A)):*
      i. *Document one of the factors listed in K.A.R. 28-16-28f(d)(1), is met, or*
      ii. *List the actions necessary to facilitate lake, wetland, or stream restoration through dam removal or other significant reconfiguration activities that preclude attainment of the designated use and criterion while the actions are being implemented.*
   b. *For Non-101(a)(2) use(s) (40 C.F.R. 131.14(b)(2)(i)(B)) provide justification and demonstration that the use and value of the water for those uses listed in 40 C.F.R.*

131.10(a) appropriately supports the WQS variance and term.

2) *Submit documentation demonstrating the term of the WQS variance is only as long as necessary to achieve the HAC. Such documentation will justify the term of the WQS variance by describing the pollutant control activities to achieve the HAC, including those activities identified through an associated PMP, which are to serve as milestones for the WQS variance.*
3) *A WQS variance for a water body or waterbody segment requires additional supporting documentation per 40 C.F.R. 131.14(b)(2)(i)(B)(iii), that identify and document any cost-effective and reasonable BMPs for nonpoint source controls related to the pollutant(s) or water quality parameter(s) and water body or waterbody segment(s) specified in the WQS variance that could be implemented to make progress towards attaining the underlying designated use and criterion.*

This language is consistent with 40 C.F.R. § 131.14, and is hereby approved.

4.4 REEVALUATIONS

WQS variances that exceed five years will be reevaluated according to the reevaluation schedule identified in the variance. The purpose of the reevaluation is to ensure that the highest attainable condition is reflected throughout the term of the variance. When a more stringent attainable condition is identified that condition will become the applicable interim WQS without additional action. Upon permit reissuance, the WQBEL will be based on the newly identified interim condition consistent with the NPDES permitting process. If the reevaluation identifies a condition less stringent than the highest attainable condition, the WQS variance will be revised and submitted to EPA for approval consistent with the Clean Water Act requirements.

Additionally, the reevaluation period allows the department to consider and evaluate changes in technology, operation or design of the existing wastewater treatment system to further optimize the treatment of wastewater and reduce the discharge of the pollutant(s) subject to the WQS variance. Incorporation of these changes will be made within the context of the permit holder's capacity to financially implement those changes and the applicability of the change to the current system of the permit holder. Such changes may include, but are not limited to:

1) *Opportunity to irrigate the treated effluent onto adjacent agricultural, commercial or recreational land, thereby reducing or eliminating the discharge of effluent.*
2) *Employing controlled discharge operations to alter the flow and volume of effluent discharges during critical and favorable conditions in the receiving waters.*
3) *Review piping flow path to maximize the detention time of wastewater within the treatment system and construct improvements as appropriate.*
4) *Schedule desludging of the treatment system to restore retention and functionality in the treatment system.*
5) *Shield wastewater from exposure to sunlight as appropriate to support treatment*

capability on detained wastewater.

6) *Construct alternative discharge structures that opportunistically access wastewaters of differing quality.*
7) *Construction of additional treatment cells, basins, raceways or polishing wetlands to enhance biological treatment or eliminate discharge of wastewater.*
8) *Construction of aeration, chemical feeds or other capacity for treating influent sewage and initiating biological removal of pollutants from the final discharging wastewater.*

Other emerging technology as applicable to reduce the concentration and loads of pollutants from wastewater.

This language clarifies that the purpose of the reevaluation is to ensure that the highest attainable condition is maintained throughout the term of the variance. Where a more stringent condition is determined to be attainable, the KDHE's authorizing language specifies that the more stringent condition must become the applicable HAC. The language also provides a list of changes that the state will evaluate to determine if they can be implemented by the permittee without causing substantial and widespread economic and social impact (i.e. "capacity to financially implement"). Where the KDHE determines that the discharger has the capacity to financially implement any of these changes (or additional changes), the KDHEs language is clear that "*Incorporation of these changes will be made" in the permit.* Therefore, this language is consistent with 40 C.F.R. § 131.14, and is hereby approved.

4.5 SUBSEQUENT VARIANCES

If necessary, a subsequent WQS variance may be adopted when water quality goals have not been attained within the term of the original variances or as special circumstances dictate. Subsequent variances will follow the same variance submittal process for a new variance as defined in section 2 and 3 of this procedure. (K.A.R. 28-16-28f(d) and 40 CFR 131.14(b)(1)(iv))

When requesting a subsequent WQS variance for a water body or waterbody segment, documentation detailing the extent of best management practices (BMP) implementation for nonpoint source controls to address the pollutant(s) subject to the initial WQS variance and the resulting water quality improvements is to be compiled for the submission packet and approval. (40 CFR 131.14(b)(2)(iii)(B))

The subsequent variance process is consistent with 40 C.F.R. § 131.14(b)(1)(iv), and is hereby approved.

4.6 IMPLEMENTING WQS VARIANCES IN NPDES PERMITS

A WQS variance serves as the applicable water quality standard for implementing NPDES permitting requirements pursuant to 40 C.F.R. 122.44(d) for the term of the WQS variance. Any limitations and requirements necessary to implement the WQS variance shall be included as enforceable conditions of the NPDES permit (40 C.F.R. 131.14(c)). Each NPDES permit and its

conditions involving the variance will be subject to public notification and opportunity for comment as typical through the department's permitting process.

Discharger-specific and multiple discharger WQS variances will be detailed in the Kansas Variance Register per K.A.R. 28-16-28h and will be publicly accessible on the KDHE BOW Water Quality Standards website. The Kansas Variance Register will include a narrative and listing section for each approved variance adopted by Kansas. During the permit renewal process if it is found that a facility no longer requires the use of a WQS variance, the permit will be written to reflect the most current applicable criteria.

Where a permittee cannot immediately meet the WQBEL derived from the terms of a WQS variance, a permit compliance schedule or order may be issued so the permittee can remain in compliance with the NPDES permit.

Calculating the HAC alternative effluent limitations will be dependent upon the criteria included in the variance. The methods used to calculate HAC alternate effluent limitations will be presented in the appendices of section 4 of this document.

This language is consistent with 40 C.F.R. § 131.14(c) and is hereby approved.

Kansas Water Quality Standards Regulations: Administration of surface water quality standards – K.A.R. 28-16-28h

The KDHE created a new regulation 28-16-28h as follows:

Surface water variance register. The variances approved by the secretary shall be those identified in the department's "Kansas surface water quality standards variance register," dated October 31, 2017, which is hereby adopted by reference. (Authorized by K.S.A. 2017 Supp. 65-171d; implementing K.S.A. 2017 Supp. 65-171d and K.S.A. 65-171m; effective P-_____.)

Kansas has established in K.A.R. 28-16-28h, a rule-referenced Kansas Waster Quality Standards Variance Register, to identify to the public, the state-adopted and EPA-approved variances and pertinent information related to those variances. The Kansas Waster Quality Standards Variance Register identifies the pollutant and waterbody to which the variance applies,the discharger that is subject to the variance, and the calculated highest attainable interim criteria limit. The EPA hereby approves the rule-reference to the "Kansas surface water quality standards variance register" consistent with 40 C.F.R. § 131.14. As set forth below, only the first 22 dischargers listed are approved in this action as being subject to the multiple discharger variance. Consistent with the KDHE's letter from Thomas C. Stiles, Assistant Director, to Jeff Robichaud, Acting Director, EPA R7 WWPD, dated April 10, 2018, and provided with this Enclosure as "Attachment B", the EPA is reserving action for the remaining 26 dischargers.

Kansas Surface Water Quality Standards Variance Register, Section One

The new WQS provisions included within Kansas Water Quality Standards Variance Register, Section One, establish a variance authorizing procedure (the Abbreviations and Symbols, are non-substantive). The language in Section One is consistent with Section 303(c) of the CWA, 40 C.F.R. § 131.14, and is hereby approved by the EPA.

C. Multiple-Discharger Wastewater Lagoon Ammonia Variances for 22 Dischargers

Kansas Surface Water Quality Standards Variance Register: Section Two and Table 1

A variance is a temporary modification to the designated use and associated water quality criteria that would otherwise apply. It is based on a demonstration and targets achievement of the highest attainable use and associated criteria during the variance period. Modifying the use through a variance process allows the state to limit the applicability of a specific criterion and to identify an alternative designated use and associated criteria (or surrogate effluent condition) to be met during the term of the variance. The variance may be written to address a specified geographical coverage, a specified pollutant or pollutants, and/or a specified pollutant source. All other applicable WQS not specifically modified by the variance remain applicable (e.g., any other criteria adopted to protect the designated use). A typical variance modifies the use and specified criteria as it pertains to the discharge of a single pollutant from a single source for a defined timeframe.

KDHE submitted a MDV from the numeric ammonia criteria, identified in K.A.R. 28-16-28e(c), in its Kansas Water Quality Standards Variance Register[6], based on a demonstration that funding the level of treatment required to meet the numeric ammonia criteria would cause substantial and widespread economic and social impact to 22 dischargers and their rate payers. The designated uses for a waterbody segment include Aquatic Life Support Use. Except for this MDV, all other WQS remain in effect for the term of the variance. The alternative ammonia effluent limits for each of the 22 dischargers identified in the MDV will be calculated consistently with the Kansas Water Quality Standards Variance Register[7], and represent the highest attainable effluent quality where substantial widespread economic and social impacts will not occur during the term of the variance(s), based on currently available treatment technologies.

---

[6] KDHE's letter from Thomas C. Stiles, Assistant Director, to Jeff Robichaud, Acting Director, EPA R7 WWPD, dated April 10, 2018, and provided with this Enclosure as "Attachment B", provides for the EPA to act on the first 22 dischargers identified in the Kansas Water Quality Standards Variance Register.

[7] The Kansas WQS Variance Register identifies in the footnote in Section Two, "n-[t]he Highest Attainable Interim Criteria Limit shall be derived as the 99th percentile value or highest value of recent historical (e.g., last five years) effluent discharge water quality data, whichever is lower. The Highest Attainable Interim Criteria Limit will be calculated when permits come up for renewal". The EPA concludes that the selection of the most stringent calculated value at the time of permit issuance reflects the greatest pollution reduction achievable in addition to the current pollution control technologies installed when this variance is adopted along with the adoption and implementation of the Pollutant Minimization Plan (PMP) for each discharger. This expression of HAC is consistent with 40 C.F.R. §131.14(b)(1)(ii)(A)(3).

1. Consistent with 40 C.F.R. §131.14(b)(1(i), the MDV identifies the pollutants, and waterbodies, and permittees subject to the WQS variance.

For each of the 22 discharges, KDHE has appropriately identified in Section Two of its Kansas Water Quality Standards Variance Register, ammonia as the pollutant, the receiving waterbodies, and name and permit number of the 22 permittees subject to the MDV.

2. Consistent with 40 C.F.R. §131.14((b)(1)(ii), the MDV reflects the highest attainable condition during the term of the WQS variance.

The KDHE's discussion provided below explains its basis for the determination that no *additional* feasible pollutant control technology can be identified and its basis that it is appropriate to set the HAC at an interim effluent condition that reflects the greatest pollutant reduction achievable with pollutant control technologies installed at the time of the variance and adoption and implementation of a PMP. 40 C.F.R. §131.14((b)(1)(ii)(A)(3).

The KDHE provides the following in its "State of Kansas Multiple-Discharger Wastewater Lagoon Ammonia Variance-Submission Package":

> *40 CFR §131.14 (b)(1)(ii)(A) identifies three possible ways to quantify the Highest Attainable Condition (HAC). Since there is no additional feasible pollutant control technology available beyond optimizing existing technology, this variance identifies the following HAC consistent with the regulation: (1) the greatest pollutant reduction achievable by the existing treatment technology (multi-cell facultative lagoon) being achieved through optimization and (2) implementation of required PMPs.*
>
> - *No additional feasible ammonia control could be identified that would routinely meet the 2013 ammonia criteria. Kansas evaluated several retrofit options, including aerated lagoons and lagoon covers.*
> - *Aerated lagoons have proven unsuccessful in Kansas in trials across the state – even those designed for operating depths deeper than the 5 foot depth for facultative lagoons. Because of cold weather operations leading to a pattern of not achieving current ammonia limits year round Kansas has eliminated all but 3 municipal aerated lagoon systems in the state. The remaining aerated lagoon systems discharge into large streams with sufficient assimilative capacity for their effluent. The addition of aeration to existing, shallow facultative lagoons in Kansas more rapidly cool the lagoon water in winter where average cool temperatures routinely drop below freezing for several months each year. Cooler temperatures equate to diminishing ammonia reduction. In addition, aerators may resuspend solids from the bottom of the lagoon, further degrading the effluent. There is no basis to conclude these aerated lagoon retrofits would comply with the more stringent 2013 recommended ammonia criteria when lagoons designed for aeration could not meet the less stringent 1999 ammonia*

criteria.

Covering shallow facultative lagoons to trap heat has not been previously practiced in Kansas. Again, with shallow Kansas lagoons (5 feet deep) and extended cold periods in the winter, covers are an expensive and unproven technology. It is unlikely an engineer could guarantee permit compliance with the 2013 recommended ammonia criteria with an unproven technology.

The only treatment system identified that would allow Kansas municipal dischargers to reliably meet the ammonia criteria is a mechanical treatment plant with biological nitrogen removal. The results of the TetraTech report referenced in footnote[][8] show that replacement with a mechanical plant is unaffordable for most[9] communities. Affordability will be determined individually for each community applying for the variance using the worksheet in Appendix F - Kansas Eligibility Determination for Wastewater Lagoon Variance.

Optimization. Only dischargers with well-functioning, "optimized" facultative lagoon systems will be eligible for this multiple discharger variance. Optimization for facultative lagoons is more difficult than for mechanical treatment plants. With short detention mechanical plants (<24 hr) they are set up for optimizing by being able to be finetuned in terms of how much aeration is provided, where the air is provided, how much mixed liquor suspended solids (MLSS) is recycled, etc. Those functions are all controlled by electric blowers, pumps, and valves. Facultative lagoons are long detention (>120 days), quiescent basins that do not have those types of controls. That said, KDHE considers lagoons to be optimized based on the manner in which lagoons are constructed, operated, and regulated by the state. Those things KDHE require to ensure optimized operation include:

1. Design.

a. All KS lagoons are required to be multi-cell. Multi-cell lagoons provide better treatment for several reasons.

i. The initial cells can provide most of the treatment while final cells polish the effluent.

ii. Multiple cells allow the lagoon systems to be run differently due to climatic conditions – parallel operation in the winter when microbial activity is lower, and series operation in the summer when microbial activity is higher. Parallel operation allows influent to be distributed over two or more cells, so even if lower microbial activity occurs due to cooler temperatures, more microbes will be exposed to the initial waste and

---

[8] TetraTech and ECONorthwest (2015) Kansas Lagoon Upgrades to Meet Water Quality Standards for Ammonia-Cost Analysis for Replacement with Mechanical Systems.

[9] KDHE financial analysis utilizing applicable portion of the *Kansas Eligibility Determination for Wastewater Lagoon Variance* worksheet, concluded that a mechanical treatment plant is unaffordable for each of the 22 dischargers included in the MDV.

provide better treatment than series operation. NOTE: the rule of thumb in design is that microbial activity drops by 50% for every 10o C drop in temperature.

b. All KS lagoons are required to have long minimum detention times (>120 days) which is at the conservative end of the 90120 days recommended by the Ten States Standards.[10] *Longer detention promotes better treatment.*

c. All KS lagoons are shallow, allowing for light penetration that drives photosynthesis (green algae growth which provides oxygen) and oxygenation of most of the lagoon.

The Pollution Minimization Plan in the MDV establishes requirements for dischargers covered by the MDV to maintain optimized operation. The PMP will consist of global requirements for all permittees subject to the MDV.

The Kansas Water Quality Standards Variance Register identifies in the footnote in Section Two, the HAC as, "n-[t]he Highest Attainable Interim Criteria Limit shall be derived as the 99th percentile value or highest value of recent historical (e.g., last five years) effluent discharge water quality data, whichever is lower. The Highest Attainable Interim Criteria Limit will be calculated when permits come up for renewal."

The KDHE's inclusion of the "99th percentile value or highest value of recent historical (e.g., last five years) effluent discharge water quality data, whichever is lower" as a reflection of what is achievable with current pollutant control technologies is reasonable, because, if the **calculated** 99th percentile is greater than any **measured** effluent value, the measured value (i.e. the value that is "lower" than the calculated 99th percentile) is used as the permit limit. It works in favor of producing a lower, more stringent, permit limit than the 99th percentile, and leads to a better environmental outcome.

As noted above in section B, the EPA approves the Kansas definition of a PMP because, in the context of 40 CFR 131.14, it is consistent with the EPA's definition at 40 CFR 131.3(p):

(fff) "Pollutant minimization plan" and "PMP" mean a structured set of activities to improve processes and pollutant controls that prevent and reduce pollutant levels, including any cost-effective process for reducing pollutant levels, pollution prevention, treatment, best management practices, and other control mechanisms.

The KDHE's supporting documentation included it its' supporting documentation, *State of Kansas Multiple-Discharger Wastewater Lagoon Ammonia Variance-Submission Package*, Permit Writer Implementation Procedure, details the PMP:

Kansas Eligibility Determination for Wastewater Lagoon Variances – Ammonia Permit Writer Implementation Procedure

---

[10]Recommended Standards for Wastewater Facilities 2004 Edition. Great Lakes - Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers. http://10statesstandards.com/ wastewaterstandards.html#93. Retrieved September 20, 2016.

Page 4 contains the following directions to the KS permit writer with respect to the PMP:

> *9. In the permit, present the alternate HAC ammonia effluent limit, best management practices, and the pollutant minimization plan (PMP) that will address the requirements the discharger must comply with to minimize the level of ammonia being released.*
>
> *Requirements of the PMP may include, but are not limited, to the following:*
>
> *a. Facilities that serve a population over 2,000 people must monitor ammonia monthly.*
> *b. Retain a certified operator as required by regulations.*
> *c. Provide reasonable and adequate maintenance of the existing wastewater treatment lagoon system.*
> *d. Does not allow industrial strength wastewater containing high concentrations of nitrogen to enter the existing lagoon system through the collection system or otherwise.*
> *e. Monitor the depth of accumulated sludge in each lagoon cell.*
> *f. Plan for expansion of the lagoon system should the population and its associated pollutant loading approach the rated design capacity of the existing lagoon system.*
>
> *The department will evaluate the capabilities of each discharger receiving a variance to incorporate any additional elements into their PMP to further optimize the treatment of wastewater and reduce the discharge of ammonia prior to the reissuance of the facility's NPDES permit. (Additional details may be found in the Water Quality Standards Variance section of the "Kansas Implementation Procedures: Surface Water Quality Standard").*

As discussed above, the EPA has approved Section 4.4 REEVALUATIONS of the *Kansas Implementation Procedures: Surface Water Quality Standards*. The Reevaluation process of individual dischargers prior to <u>reissuance</u> of their NPDES permit may lead to them having to undergo further optimizations to reduce the discharge of ammonia. As noted in the previous paragraph:

> *The department will evaluate the capabilities of each discharger receiving a variance to <u>incorporate any additional elements into their PMP</u>* (emphasis added) *to further optimize the treatment of wastewater and reduce the discharge of ammonia prior to the reissuance of the facility's NPDES permit.*

Therefore, the reevaluation process provides the KDHE the ability to incorporate additional elements into the facility's PMP. The following, as stated in the *Kansas Implementation Procedures: Surface Water Quality Standards* describes the potential elements that may be incorporated:

> *Additionally, the reevaluation period allows the department to consider and evaluate changes in technology, operation or design of the existing wastewater treatment system to further optimize the treatment of wastewater and reduce the discharge of the*

pollutant(s) subject to the WQS variance. Incorporation of these changes will be made within the context of the permit holder's capacity to financially implement those changes and the applicability of the change to the current system of the permit holder. Such changes may include, but are not limited to:

1) Opportunity to irrigate the treated effluent onto adjacent agricultural, commercial or recreational land, thereby reducing or eliminating the discharge of effluent.

2) Employing controlled discharge operations to alter the flow and volume of effluent discharges during critical and favorable conditions in the receiving waters.

3) Review piping flow path to maximize the detention time of wastewater within the treatment system and construct improvements as appropriate.

4) Schedule desludging of the treatment system to restore retention and functionality in the treatment system.

5) Shield wastewater from exposure to sunlight as appropriate to support treatment capability on detained wastewater.

6) Construct alternative discharge structures that opportunistically access wastewaters of differing quality.

7) Construction of additional treatment cells, basins, raceways or polishing wetlands to enhance biological treatment or eliminate discharge of wastewater.

8) Construction of aeration, chemical feeds or other capacity for treating influent sewage and initiating biological removal of pollutants from the final discharging wastewater.

Other emerging technology as applicable to reduce the concentration and loads of pollutants from wastewater.

Based on the KDHE's supporting documentation that no additional feasible control technology can be identified, the current pollution control technologies installed at the time of adoption of the MDV, and the adoption and implementation of the PMP for each discharger, the EPA concludes that the selection of the most stringent calculated value at the time of permit issuance reflects the greatest pollution reduction achievable. This expression of HAC, and the adoption and implementation of the PMP, are consistent with 40 C.F.R. §131.14(b)(1)(ii)(A)(3).

3. Consistent with 40 C.F.R. §131.14(b)(1)(iii), (v), and (vi), the KDHE provided supporting documentation that the MDV will reflect the more stringent HAC at the time of adoption of the WQS variance or during any reevaluation.

The EPA's position is that variances must reflect the highest attainable condition for the duration of the variance. The KDHE's variance authorizing procedures, *Kansas Implementation Procedures: Surface Water Quality Standards, Section 4 Water Quality Standards Variances, Section 4.4 Reevaluations,* were utilized in the adoption of the ammonia MDV, and are consistent with the regulations. 40 C.F.R. Part 131, provides requirements that will facilitate

progress towards the underlying designated use and applicable ammonia criteria. In situations where attainment of the WQS is not feasible for a period of time, the procedures will require the highest degree of protection that is feasible, and that such requirements are re-examined not less than once every five years.

Since the MDV for the 22 discharges exceeds five years, the KDHE will reevaluatate each permittee every five years starting from the date the MDV is approved by the EPA. If, during the reevaluation, a more stringent yet attainable condition is identified, the more stringent HAC will become the applicable interim WQS for that permittee. The KDHE will obtain public input on the reevaulation during the public notice process associated with its permit reissuance. If KDHE does not complete the reevaluation as fully outlined in the supporting documentation, *State of Kansas Multiple-Discharger Wastewater Lagoon Ammonia Variance-Submission Package*, p. 8, the MDV will no longer be applicable for that facility.

4. Consistent with 40 C.F.R. §131.14(b)(2)(i)(A)(1), KDHE provides supporting documentation that attaining the WQS is not feasible for the 22 dischargers throughout the term of the MDV.

The KDHE only considered small municipalities with facultative lagoon wastewater treatment systems that have optimized their current operation eligible for the MDV. The 22 dischargers were determined to meet these eligibility criteria. The median size of towns with lagoons that potentially meet this criterion is around 500 persons. The US Census Bureau estimates that towns in Kansas have 2.52 persons per household.[11] Therefore, 500 people equates to roughly 200 ratepayers, a town size unlikely to generate enough revenue to afford construction of a mechanical treatment plant that would reliably meet NPDES ammonia limits based on the new ammonia criteria.[12]

The variance submittal[13] included the Tetra-Tech and ECONorthwest Report ("Report" cited in footnote 12) that identified potential pollutant control technologies, and associated costs, necessary to meet the newly adopted ammonia criterion and the aquatic life designated use (equivalent to a "full CWA section 101(a)(2) use) that the criterion was adopted to protect. The Report was written because the EPA tasked TetraTech with providing a representative analysis of costs associated with replacing municipal lagoons with mechanical wastewater treatment systems to meet the EPA's currently recommended 304(a) criteria for ammonia in Kansas. Tetra-Tech estimated the total costs and total annual capital costs to design, build, and operate mechanical treatment systems to achieve the ammonia standards, including the specific costs of each treatment step, and operation, maintenance, and energy requirements. TetraTech also examined how regional variation within the state might affect costs by analyzing several variables, including:

---

[11] http://www.census.gov/quickfacts/table/PST045215/20

[12] TetraTech and ECONorthwest (2015) Kansas Lagoon Upgrades to Meet Water Quality Standards for Ammonia - Cost Analysis for Replacement with Mechanical Systems. EPA and its contractor, TetraTech, provided technical assistance to prepare this report for KDHE's consideration of whether to pursue the variance.

[13] See also KDHE's letter from Thomas C. Stiles, Assistant Director, to Jeff Robichaud, Acting Director, EPA R7 WWPD, dated April 10, 2018, and provided with this Enclosure as "Attachment B".

- Temperature differences that could impact upfront capital and operational costs; and
- How availability of State Revolving Fund (SRF) resources—as impacted by Davis-Bacon mandates regarding union employment—might affect costs in parts of the state with no union labor available.

In the Report, Tetra-Tech also developed representative cost curves to present findings. The Report demonstrates that the replacement of the lagoon with a mechanical plant is unaffordable for most communities, and would result in substantial and widespread economic and social impacts for most Kansas lagoon communities (*see*: Page 23, Figure 11, Monthly Cost per Connection at pH 7.0 and 8.0 by Design Flow Capacity and Flow Category (2015) in the Report.

In addition, the KDHE conducted a financial analysis for each of the 22 dischargers subject to the MDV based on site-specific cost information to show, consistent with the more general demonstration, that the 22 dischargers are eligible for the MDV based on substantial and widespread economic and social impacts associated with the installation of a WWTP to treat to the underlying ammonia criteria and associated aquatic life designated use. Specifically, the KDHE completed the *Kansas Eligibility Determination for Wastewater Lagoon Variances*, July 2016 worksheet for each of the 22 dischargers, and determined that "No", the [22 dischargers] cannot afford the proposed mechanical plant and the variance can be granted.

5. Consistent with 40 C.F.R. § 131.14(b)(1)(iv) and (b)(2)(ii), the term of the MDV is appropriate.

The MDV shall remain in effect for 20 years from the date of the EPA approval. The KDHE submitted that the term is reasonable and appropriate to allow the reevaluation of emerging and available technology and pollutant minimization strategies.

The EPA agrees with the KDHE's determination that the timeframe of the MDV provides necessary time to achieve the HAC, including full implementation of the pollutant control activities identified in the PMP. The EPA notes the commitment by the KDHE to consider newly-identified affordable technology during the term of this variance, as well as a more stringent HAC, if identified by the reevaluation process. The EPA recognizes that the specific schedule submitted with the variance represents maximum allowable time, and that reevaluation may result in a determination that the variance is no longer necessary.

EPA has determined that the above conditions have been met, therefore, EPA hereby approves variances for the following dischargers as set forth in Table 1, below:

Table 1

Discharger	NPDES Permit Number	Receiving Water Body (HUC8; Name Code)	Pollutant/ Criterion	Highest Attainable Interim Criteria – Unit mg/L (may be seasonal)[14]
Altamont, City of	KS0045918	Deer Creek via unnamed tributary (11070205; 27)	Ammonia	n*
Americus, City of	KS0047406	Allen Creek via Troublesome Creek via Pester Creek (11070201; 5)	Ammonia	n*
Arma, City of	KS0045926	First Cow Creek via unnamed tributary (11070207; 27)	Ammonia	n*
Bern, City of	KS0047244	Unnamed stream (KS/NEB Line) via unnamed tributary (10240007; 212)	Ammonia	n*
Chetopa, City of	KS0031135	Neosho River via Town Creek (11070205; 28)	Ammonia	n*
Dwight, City of	KS0051675	Lairds Creek via unnamed tributary (11070201; 30)	Ammonia	n*
Erie, City of	KS0045977	Neosho River via unnamed tributary (11070205; 15)	Ammonia	n*
Girard, City of	KS0022551	Lightning Creek via Thunderbolt Creek (11070205; 44)	Ammonia	n*
Highland, City of	KS0047457	Missouri River via Mission Creek (10240005; 339)	Ammonia	n*
Marion, City of	KS0051691	Cottonwood River (11070202; 3)	Ammonia	n*
Oswego, City of	KS0047554	Labette Creek via unnamed tributary (11070205; 21)	Ammonia	n*
Seneca, City of	KS0047538	South Fork Big Nemaha River (11070203; 16)	Ammonia	n*
St. Paul, City of	KS0084174	Neosho River via Flat Rock Creek via KDWP&T Neosho Wildlife Area Wetlands (11070207; LM053401)	Ammonia	n*
Strong City, City of	KS0031178	Cottonwood River via Fox Creek (11070203; 19)	Ammonia	n*

[14] The KDHE responses to the EPA comments dated February 14, 2018, stated that KDHE had inadvertently not changed the title of the column header, to the recommended "Highest Attainable Interim Effluent Limit (may be seasonal)," based on comments provided by EPA on October 2, 2017, as part of the public comment. The KDHE stated it will include the recommend column header in the online version of the Kansas Water Quality Standards Variance Register and will update in the next triennial review.

Weir, City of	KS0079146	11070207; 26	Ammonia	n*
Fairview, City of	KS0098774	Walnut Creek via Spring Creek via unnamed tributary (10240008; 39)	Ammonia	n*
Galena, City of	KS0048135	Spring River via unnamed tributary (11070207; 3)	Ammonia	n*
Tipton, City of	KS0085219	South Fork Solomon River via Carr Creek via unnamed tributary (10260014; 21)	Ammonia	n*
Burlingame, City of	KS0024694	Dragoon Creek via Switzler Creek (10290101; 80)	Ammonia	n*
Lane, City of	KS0081515	Pottawatomie Creek via unnamed tributary (10290101; 51)	Ammonia	n*
Mulberry, City of	KS0087467	Cox Creek via unnamed tributary (10290104; 324)	Ammonia	n*
Pomona, City of	KS0029068	Marais des Cygnes River (10290101; 18)	Ammonia	n*

*n- The Highest Attainable Interim Criteria Limit shall be derived as the 99th percentile value or highest value of recent historical (e.g., last five years) effluent discharge water quality data, whichever is lower. The Highest Attainable Interim Criteria Limit will be calculated when permits come up for renewal.

D. Federal Regulations Adopted by Reference

Kansas Water Quality Standards Regulations: Surface water classification and use designation – K.A.R. 28-16-28d

The KDHE revised 28-16-28d(d)(1)(B), as follows:

> *(B) 40 C.F.R. 131.10(g), dated July 1, 2016, is hereby adopted by reference, except that the phrase "federal clean water" shall be inserted before the word "act."*

The KDHE has included the rule-referenced federal regulation in K.A.R. 28-16-28d, with exception, to implement its variance procedure. The new reference is consistent with 40 C.F.R. 131.10(g) and the EPA hereby approves the language.

Kansas Water Quality Standards Regulations: **Surface water classification and use designation -** K.A.R. 28-16-28f(d)(1)

The KDHE revised 28-16-28f(d)(1), as follows:

> *(d)(1) A variance establishing an interim designated use and interim criterion may be permitted and adopted into the regulations at the next systematic review or subsequent triennial review and after a public hearing consistent with 40 C.F.R. 131.20(b), dated July 1, 2016....*

The KDHE has included the reference to the federal regulation in K.A.R. 28-16-28f, to implement its variance procedure. The new reference is consistent with 40 C.F.R. Part 131 and the EPA hereby approves the language.

Kansas Water Quality Standards Regulations: **Surface water classification and use designation - K.A.R. 28-16-28f(d)(5)(D)**

The KDHE revised 28-16-28d(d)(5)(D), as follows:

> *(D) If the quantifiable expression identified in paragraph (d)(5)(C)(iii) is selected, a pollutant minimization plan consistent with 40 C.F.R. 131.3(p) shall be adopted and implemented if no additional feasible pollutant control technology is identified.*

The KDHE has included the reference to the federal regulation in K.A.R. 28-16-28f, to implement its variance procedure. The new reference is consistent with 40 C.F.R. Part 131 and the EPA hereby approves the language.

SECTION II: RESERVED ACTION

A.	Kansas Surface Water Quality Standards Variance Register: **Table 2**
B.	Kansas Surface Water Quality Standards Variance Register: **Section Two, Rule-Referenced, "Kansas Eligibility Determination for Wastewater Lagoon Variances," dated July 11, 2016**[15]
C.	Kansas Implementation Procedures: Surface Water Quality Standards: **Section 4 Appendix A, Procedure to Calculate the Highest Attainable Effluent Condition Under the Kansas Ammonia Multiple Discharger Variance-Alternative Ammonia Limits**

Kansas Surface Water Quality Standards Variance Register: Table 2

The KDHE intends to update its Kansas Water Quality Standards Variance Register as variance(s) are adopted consistent with its variance authorizing provisions. Specifically, to employ a variance, each discharger must demonstrate not only its eligibility consistent with Section 4 of the Kansas Implementation Procedures, but also that it has met one of the factors set forth in K.A.R. 28-16-28f(d)(1)(A). It is the EPA's understanding that the KDHE intends to determine eligibility of the following 26 facilities listed in Table 2 below, using the financial data collected and analyzed by the applicable portions of the "Kansas Eligibility Determination for Wastewater Lagoon Variances" dated July 2016.[16] The EPA looks forward to acting on variances to be applied to the following discharges upon completion of KDHE's analysis, in order to complete its' submission to EPA.

[15] Document is dated July 12, 2016.

[16] The KDHE's letter from Thomas C. Stiles, Assistant Director, to Jeff Robichaud, Acting Director, EPA R7 WWPD, dated April 10, 2018, and provided with this Enclosure as "Attachment B".

Table 2

Discharger	NPDES Permit Number
Hillsboro, City of	KS0097896
Russell, City of	KS0091367
Delphos, City of	KS0092169
Hillsdale, City of	KS0081396
Lucas, City of	KS0095222
Melvern, City of	KS0046027
Miltonvale, City of	KS0021911
Moran, City of	KS0047490
Mound City, City of	KS0047503
Natoma, City of	KS0031160
Pleasanton, City of	KS0016653
Princeton, City of	KS0093891
Scranton, City of	KS0031283
Eskridge, City of	KS0046400
Osage City, City of	KS0022675
Osborne, City of	KS0092398
Plainville, City of	KS0093165
Rantoul, City of	KS0048119
Fontana, City of	KS0095532
Williamsburg, City of	KS0093203
Glen Elder, City of	KS0020982
Kensington, City of	KS0093998
Oberlin, City of	KS0098655
Overbrook, City of	KS0046451
Smith Center, City of	KS0098221
WaKenny, City of	KS0099309

Kansas Eligibility Determination for Wastewater Lagoon Variances

Kansas' authorizing provisions provide for specific eligibility criteria as an alternative to identifying the specific discharger consistent with EPA's Preamble to its 2015 promulgation of 40 C.F.R. § 131.14. 80 FR 51019. The Kansas Water Quality Standards Variance Register, requires, "[e]ligibility to employ the variance to the numeric ammonia criteria" to be determined by utilizing the rule-referenced *Kansas Eligibility Determination for Wastewater Lagoon Variances* worksheet. Completion of the worksheet for each discharger yields either:

- Uncertain, studies need to be performed. The variance can be granted temporarily while further study is conducted.
- No, the city cannot afford the proposed mechanical plant and the variance can be granted.
- Yes, the city can afford the proposed mechanical plant and no variance will be granted and the city is not eligible for the MDV.

The EPA requested the KDHE to provide further explanation regarding the "uncertain" status upon completion of the worksheet. The KDHE's letter from Thomas C. Stiles, Assistant Director, to Jeff Robichaud, Acting Director, EPA R7 WWPD dated April 10, 2018, and provided with this Enclosure as "Attachment B, explained that KDHE did not intend to issue "temporary" variances as the worksheet provided. The EPA looks forward to working with the KDHE during its next triennial review to revise the worksheet to reflect the KDHE's intent.

Section 4 Appendix A, Procedure to Calculate the Highest Attainable Effluent Condition Under the Kansas Ammonia Multiple Discharger Variance-Alternative Ammonia Limits

The EPA requested the KDHE to provide further explanation regarding the language provided in 1.b.v. discussing the calculation of alternative ammonia limits if there is not sufficient data. The EPA anticipates KDHE to clarify this language to be consistent with 40 C.F.R. §131.14(b)(1)(ii)(A)(3). The EPA looks forward to working with KDHE during its next triennial review to revise this provision.

As described above, the EPA in this action is approving the calculation of the HAC as described above, "n- The Highest Attainable Interim Criteria Limit shall be derived as the 99th percentile value or highest value of recent historical (e.g., last five years) effluent discharge water quality data, whichever is lower. The Highest Attainable Interim Criteria Limit will be calculated when permits come up for renewal." The KDHE will utilize the approved provision to implement the MDV for the 22 dischargers.

SECTION III: ITEMS NOT SUBJECT TO EPA ACTION

A.	State of Kansas Multiple-Discharger Wastewater Lagoon Ammonia Variance-Submission Package, including Appendices A, G, H, I, and J

Pursuant to 40 C.F.R. § 131.2, "[a] water quality standard defines the water quality goals of a water body, or portion thereof, by designating the use or uses to be made of the water and by setting criteria necessary to protect the uses." See also 40 C.F.R. § 130.3, 131.3(i). The KDHE included in its March 9, 2018, submittal to the EPA, various documents collectively referred to as the "State of Kansas Multiple-Discharger Wastewater Lagoon Ammonia Variance-Submission Package." The EPA has approved as set forth above, many of those documents that were duly adopted into rule and determined to be new and revised WQS. However, Appendices A, G, H, I, and J, were not duly adopted, nor determined to be new and revised WQS. The EPA understands that it is the KDHE's intent that, during the variance process, the appendices will be used to evaluate the variance submittal. The EPA encourages the KDHE to utilize these documents, to support the evaluation and implementation of its variance authorizing provisions.

Appendix A includes the KDHE's list of "Potential Dischargers and Receiving Waters Affected by the Variance." As discussed, this Appendix is not binding and thus not a new or revised WQS. It is the EPA's understanding that the KDHE intends to determine eligibility of facilities listed in Appendix A but not included in the current KDHE Surface Water Register, during future triennial reviews using the authorizing provisions approved by this action. The EPA looks forward to future actions on any additional discharges upon completion of the KDHE's analysis, the KDHE's adoption of the discharger into the Kansas Water Quality Standards Variance Register, a public hearing and submission to the

EPA. The EPA encourages the KDHE to continue its evaluation of dischargers eligible for the Multiple-Discharger Wastewater Lagoon Ammonia Variance consistent with the KDHE's letter from Thomas C. Stiles, Assistant Director, to Jeff Robichaud, Acting Director, EPA R7 WWPD, dated April 10, 2018, and provided with this Enclosure as "Attachment B".

SECTION IV: NON-SUBSTANTIVE NEW AND REVISED WQS

A.	Non-Substantive Changes Crosswalk, Table 3

Non-Substantive Changes Crosswalk

Many non-substantive changes were made to various provisions in K.A.R. 28-16-28b through 28-16-28f. For example, the KDHE made wording changes to meet the current style requirements for regulations set by the Kansas Department of Administration, updated dates for citations of supporting statutes and regulation, updated citation cross-references for statutes and regulations incorporated by reference, and changed section numbering to accommodate provisions added or deleted. The EPA previously reviewed and approved each of the underlying provisions in question; the current revisions do not substantively change the meaning or intent of the existing approved WQS.

The EPA determined that the wording changes, cross-reference changes and renumbering of the K.A.R. 28-16-26b through 28-16-28f were editorial, non-substantive changes to Kansas' EPA-approved water quality standards. The EPA, therefore approves these changes.

Table 3

Current KAR#	Former KAR# (where applicable)	Title/Description (summary)	Comments Regarding Changes (other than renumbering)
28-16-28b		**Definitions**	
28-16-28b		Definitions	Non-substantive changes, included addition of regulation 28-16-28h
28-16-28b(e)		Background concentration	Non-substantive wording changes; updated tables
28-16-28b(m)		Classified surface water	Non-substantive changes; updated dates
28-16-28b(q)		Criterion	Non-substantive changes, included addition of regulation 28-16-28h
28-16-28b(r)		Critical low flow	Non-substantive changes, included addition of regulation 28-16-28h
28-16-28b(t)		Designated Use	Non-substantive changes; updated dates
28-16-28b(x)		Discharger	Not a WQS
28-16-28b(y)		Duration of digression	Updated cross-references
28-16-28b(z)	28-16-28b(y)	Ecological integrity	Updated cross-references
28-16-28b(aa)	28-16-28b(z)	Effluent	Updated cross-references
28-16-28b(bb)	28-16-28b(aa)	EPA	Updated cross-references
28-16-28b(cc)	28-16-28b(bb)	*Escherichia coli*	Updated cross-references
28-16-28b(dd)	28-16-28b(cc)	Exceptional state waters	Updated cross-references
28-16-28b(ee)	28-16-28b(dd)	Excursion from numeric criteria value	Updated cross-references

Current KAR#	Former KAR# (where applicable)	Title/Description (summary)	Comments Regarding Changes (other than renumbering)
28-16-28b(ff)	28-16-28b(ee)	Existing use	Updated cross-references
28-16-28b(gg)	28-16-28b(ff)	Federal clean water act	Updated cross-references
28-16-28b(hh)	28-16-28b(gg)	Frequency of digression	Updated cross-references
28-16-28b(ii)	28-16-28b(hh)	General purpose waters	Updated cross-references
28-16-28b(jj)	28-16-28b(ii)	Groundwater	Updated cross-references
28-16-28b(ll)	28-16-28b(jj)	Inhibition concentration 25	Updated cross-references
28-16-28b(oo)	28-16-28b(kk)	Kansas antidegradation policy	Updated cross-references
28-16-28b(pp)	28-16-28b(ll)	Kansas implementation procedures	Non-substantive wording changes; update cross-references and dates
28-16-28b(qq)	28-16-28b(mm)	Maximum contaminant level	Updated cross-references
28-16-28b(rr)	28-16-28b(nn)	Median lethal concentration	Updated cross-references
28-16-28b(ss)	28-16-28b(oo)	Microfibers per liter	Updated cross-references
28-16-28b(tt)	28-16-28b(pp)	Microgram per liter	Updated cross-references
28-16-28b(uu)	28-16-28b(qq)	Milligram per liter	Updated cross-references
28-16-28b(vv)	28-16-28b(rr)	Mixing zone	Updated cross-references
28-16-28b(ww)	28-16-28b(ss)	Mutagenic	Updated cross-references
28-16-28b(yy)	28-16-28b(tt)	Nonpoint source	Updated cross-references
28-16-28b(zz)	28-16-28b(uu)	Numeric criteria value	Updated cross-references
28-16-28b(aaa)	28-16-28b(vv)	Outstanding national resource water	Updated cross-references
28-16-28b(bbb)	28-16-28b(ww)	pH	Updated cross-references
28-16-28b(ccc)	28-16-28b(xx)	Picocurie per liter	Updated cross-references
28-16-28b(ddd)	28-16-28b(yy)	Point source	Updated cross-references
28-16-28b(eee)	28-16-28b(zz)	Pollutant	Updated cross-references
28-16-28b(ggg)	28-16-28b(aaa)	Potable water	Updated cross-references
28-16-28b(hhh)	28-16-28b(bbb)	Precipitation runoff	Updated cross-references
28-16-28b(iii)	28-16-28b(ccc)	Presedimentation sludge	Updated cross-references
28-16-28b(jjj)	28-16-28b(ddd)	Private surface water	Updated cross-references
28-16-28b(kkk)	28-16-28b(eee)	Public swimming area	Updated cross-references
28-16-28b(mmm)	28-16-28b(fff)	Seven-day, ten-year low flow	Updated cross-references
28-16-28b(nnn)	28-16-28b(ggg)	Site-specific criterion	Updated cross-references
28-16-28b(ooo)	28-16-28b(hhh)	Streamflow	Updated cross-references
28-16-28b(ppp)		Pollution	Non-substantive wording changes
28-16-28b(qqq)	28-16-28b(jjj)	Surface water register	Updated cross-references
28-16-28b(rrr)	28-16-28b(kkk)	Surface water segment	Updated cross-references
28-16-28b(sss)	28-16-28b(lll)	Surface waters	Updated cross-references
28-16-28b(ttt)	28-16-28b(mmm)	Surface waters of the state	Updated cross-references
28-16-28b(uuu)	28-16-28b(nnn)	Teratogenic	Updated cross-references
28-16-28b(vvv)	28-16-28b(ooo)	Thirty-day, ten-year low flow	Updated cross-references
28-16-28b(www)	28-16-28b(ppp)	Toxic substance	Updated cross-references
28-16-28b(xxx)	28-16-28b(qqq)	Turbidity	Updated cross-references
28-16-28b(yyy)	28-16-28b(rrr)	Use attainability analysis	Non-substantive wording changes; update cross-references and dates
28-16-28b(aaaa)	28-16-28b(ttt)	Water-effect ratio	Updated cross-references
28-16-28b(bbbb)	28-16-28b(uuu)	Water quality certification	Non-substantive wording changes
28-16-28b(cccc)	28-16-28b(vvv)	Whole-effect toxicity limitations	Updated cross-references

Current KAR#	Former KAR# (where applicable)	Title/Description (summary)	Comments Regarding Changes (other than renumbering)
28-16-28b(dddd)	28-16-28b(www)	Zone of initial dilution	Non-substantive wording changes; update cross-references and dates
28-16-28d(1)		Classified stream segments	Non-substantive wording changes; updated dates
28-16-28d(c)		Designates uses of classified stream segments.	Non-substantive wording changes; updated dates
28-16-28d(d)(1)(A)		Classified surface waters	Non-substantive wording changes; update cross-references and dates
28-16-28d(d)(3)		The use designations for classified streams…(Authorized by…)	Non-substantive wording changes; update cross-references and dates
28-16-28e(b)(9)		In stream segments where background concentrations of naturally occurring substances…	Non-substantive wording changes
28-16-28e(c)(1)		The numeric criteria in tables…	Non-substantive wording changes
28-16-28e(c)(2)		The numeric criteria in tables…for waters designated as special aquatic life	Non-substantive wording changes
28-16-28e(2)(D)(ii)		Acute criteria for the aquatic life support use	Non-substantive wording changes
28-16-28e(e)		Tables	Non-substantive wording changes; update cross-references and dates
28-16-28f(f)		Enforcement	Non-substantive wording changes; update cross-references and dates

ATTACHMENT A

ITEMS TO CONSIDER FOR NEXT TRIENNIAL

EPA has the following items for Kansas' consideration in the next triennial.

Human Health Updates

The EPA published updated ambient water quality criteria for the protection of human health on January 19, 2015. In this 2015 update, the EPA revised 94 of the existing human health criteria to reflect the latest scientific information, including updated exposure factors (body weight, drinking water consumption rates, fish consumption rate), bioaccumulation factors, and toxicity factors (reference dose, cancer slope factor). The criteria have also been updated to follow the current EPA methodology for deriving human health criteria (USEPA 2000).

The EPA also developed chemical specific science documents for each of the 94 chemical pollutants. The science documents detail the latest scientific information supporting the updated final human health criteria, particularly the updated toxicity and exposure input values. Table 1, lists the EPA's recommended human health criteria. These human health criteria updates can be found by contacting the EPA or on the EPA's website at:

https://www.epa.gov/wqc/national-recommended-water-quality-criteria-human-health-criteria-table

The EPA also suggests the KDHE refer to our July 18, 2017, action where the agency did not act on the maximum contaminant level (MCL) criteria for the protection of human health. The following language from the EPA's 2017 action summarizes this issue.

> *The Kansas domestic water supply use is characterized as the consumption of water after treatment. However, the designated use is also associated with water + organism water quality criteria promulgated under the NTR. While waters with only a drinking water supply (water consumption) use may be sufficiently protected by MCLs, this approach would not be protective of waters that also have aquatic life and/or food procurement designated uses and thus have fish consumption exposure pathways. States and authorized tribes must adopt water quality criteria that protect designated uses (emphasis added) (40 CFR §131.11(a)(l)). Criteria must be based on a sound scientific rationale and contain sufficient parameters or constituents to protect the designated uses. Criteria may be expressed in either narrative or numeric form. The EPA's regulations provide that states and authorized tribes should adopt numeric water quality criteria based on:*
>
> *1) EPA's recommended section 304(a) criteria; or*
> *2) EPA's recommended section 304(a) criteria modified to reflect site specific conditions; or*
> *3) Other scientifically defensible methods. (40 CFR § 131.1 l(b)).*
>
> *In the 2015 WQS submission, the KDHE adopted a new water quality criterion (WQC) for mercury based on the current MCL under the Safe Drinking Water Act; there is no 304(a) recommendation for mercury. The KDHE adopted WQC equivalent to MCLs for four additional pollutants (1,2 dichloropropane, and 1,2,4 trichlorobenzene, Barium, and Endrin) for the domestic water supply use that have more stringent Section 304(a) recommendations.*

- *Mercury, total. This compound is under the NTR. The NTR promulgation was for 0.14 µg/L. There is no current EPA 304(a) recommendation. The KDHE adopted 2 µg/L, which is the MCL.*
- *1,2-dichloropropane-The current EPA 304(a) recommendation is 0.9 µg/L; this criterion was updated in 2015 prior to the KDHE's adoption of 5 µg/L, which is the MCL. The current EPA approved WQC is 0.5 µg/L; this was the 304(a) recommendation prior to the 2015 update.*
- *1,2,4-trichlorobenzene- The current EPA 304(a) recommendation is 0.071 ug/L; this criterion was updated in 2015 prior to the KDHE's adoption of 70 µg/L, which is the MCL. The current EPA approved WQC is 260 µg/L; this criterion is based on an EPA 2002 update.*
- *Barium- The EPA 304(a) recommendation is 1000 µg/L and the KDHE adopted 2000 µg/L, which is the MCL. The current EPA approved WQC for barium is 1000 µg/L; this criterion is based on the EPA' s 1986 Quality Criteria for Water (Gold Book) value.*
- *Endrin-The EPA 304(a) recommendation is 0.03 ug/L; this criterion was updated in 2015 prior to the KDHE's adoption of 2 µg/L, which is the MCL. The current EPA approved WQC is 0. 76 µg/L; this criterion is based on an EPA 2002 update.*

The WQS submitted by the State did not include information explaining how these new or revised criteria are scientifically defensible or how they are protective of the state's combined domestic water supply/human health water+ organism uses established by the EPA under the NTR. Because no explanation was provided, Kansas' adoption of these criteria is not consistent with 40 C.F.R. §§ 13 l.6(b), (c), (f), and 131.1 l(a) and (b)(l)(i).

It appears the KDHE was relying on the provision discussed directly above in Section G ***(28-16-28e(d)(3)(C)),*** *which directs the KDHE to adopt MCL's "Unless site-specific water quality conditions warrant the promulgation of more protective criteria .... " KDHE may believe these pollutants are not "harmful" to the water+organism exposure pathway. If that is the case, the EPA requests further justification from the KDHE as to how these criteria are protective even when there are possible additional exposure routes.*

Unless the KDHE can demonstrate that these criteria are protective of a human health water + organism designated use, the State should adopt any new or updated Section 304(a) recommended criteria for these compounds as part of its next triennial review process to ensure that state water quality criteria reflect sound science and protect applicable designated uses.

Selenium Criteria

The EPA has published the final national chronic aquatic life criterion for the pollutants selenium in fresh water. The 2016 criterion document is the final update of EPA's 1999 recommended national chronic aquatic life criterion for selenium, developed per Clean Water Act section 304(a). The recommended criteria reflect the latest scientific information, which indicates that selenium toxicity to aquatic life is primarily driven by organisms consuming selenium-contaminated food rather than by direct exposure to selenium dissolved in water. The criterion has four parts, including two fish tissue-

based (egg/ovary, whole body, muscle) and two water column-based elements (lentic, lotic). The selenium criteria can be found by contacting the EPA or on the EPA's website at: https://www.epa.gov/sites/production/files/2016-07/documents/aquatic_life_awqc_for_selenium_-_freshwater_2016.pdf

Cadmium Criteria

The EPA published updated aquatic life water quality criteria for cadmium on April 4, 2016. The EPA's water quality criteria for cadmium provides recommendations to states and tribes authorized to establish water quality standards under the Clean Water Act. In adopting water quality standards, states set exposure protections for aquatic life; acute exposure to cadmium results in lethality, while chronic exposure to cadmium negatively impacts growth, development, behavior, reproduction, and immune and endocrine systems in aquatic life. Cadmium enters the environment by natural and human processes, however, human sources, such as mining and urban processes, are responsible for contributing approximately 90 percent of the cadmium found in surface waters. The aquatic life water quality criteria for cadmium can be found by contacting the EPA or on the EPA's website at: https://www.federalregister.gov/documents/2016/04/04/2016-07647/recommended-aquatic-life-ambient-water-quality-criteria-for-cadmium-2016

Recreational Criteria

On November 26, 2012, the EPA published updated recreational water quality criteria (RWQC) for protecting human health in all coastal and non-coastal waters designated for primary contact recreation use. The EPA provides two sets of recommended criteria. Primary contact recreation is protected if either set of criteria recommendations are adopted into state water quality standards. The 2012 criteria takes into effect studies associated with pathogens and human health, and revised criteria recommendations for pathogens and pathogen indicators based on those studies. The 2012 RWQC meets those requirements. The 2012 RWQC rely on the latest research, including studies that show a link between illness and fecal contamination in recreational waters. These are based on the use of two bacterial indicators of fecal contamination *E. coli* and enterococci. The RWQC consists of three components: magnitude, duration and frequency. The magnitude of the bacterial indicators are described by both geometric mean (GM) and a statistical threshold value (STV) for the bacteria samples. The STV approximates the 90th percentile of the water quality distribution and is intended to be a value that should not be exceeded by more than 10 percent of the samples taken. The recreational water quality criteria updates can be found by contacting the EPA or on the EPA's website at: https://www.epa.gov/wqc/microbial-pathogenrecreational-water-quality-criteria#2012rec

If Kansas were to adopt the EPA's 304(a) recommendations for contact recreation it would clear a backlog on Kansas' prior use change adoptions for which the EPA has yet to act; Tables 25-29 of the EPA's 2015 action identify 35 water bodies with this issue. In the EPA's July 9, 2015, action on many designated use changes, the EPA stated:

"Based on the results of the UAAs performed, the state adopted primary contact recreation use designations for classified stream segments in the December 15, 2010 Register and December 12, 2013 Register (identified in Tables 25-29). Given the 2012 ambient water quality criteria recommendations for recreational waters, the EPA has requested additional information from the state regarding the protectiveness of these revisions and is therefore taking no action at this time."

The EPA's statement refers to Kansas' primary contact recreational criteria A, B, and C, for which the state criteria are 160, 262, and 427 CFU/100 mL respectively. The Kansas PCR criteria should be updated in accordance with the 2012 recreational criteria, or provide additional information regarding the protectiveness of those revisions.

Outstanding UAA items

In the EPA's July 9, 2015, action the UAA's submitted to the EPA by the KDHE were determined to be incomplete:

New segments due to new NPDES discharges:

The state adopted new aquatic life and secondary contact recreation, b, uses for Diamond Creek and Brush Creek, in HUC 11030017 in the Upper Walnut River Sub-basin. The EPA spoke to the KDHE on January 14, 2015, and determined that UAAs had not been fully completed for these new segments. EPA recommends that KDHE complete the UAAs for the new segments.

Ammonia Criteria

As noted in EPA's decision document for the 2018 Kansas WQS submittal, for purposes of transparency during its next triennial review, Kansas may wish to either consider also adopting the acute and chronic equations contained within the EPA's 2013 Ammonia update, or describe how the KDHE will implement the criteria when values don't correspond to the values in Tables 1c and 1d - *Tables of Numeric Criteria*. That is, the EPA expects that if the values do not fall on a specific table value, the KDHE will either adopt the appropriate equations, or explain how they will interpolate between values in Tables 1c and 1d.

Multiple-Discharger Variance Provisions

To address minor inconsistencies in the headings of columns found in Table 1 of the Registry (as indicated in EPA's decision document for the 2018 Kansas WQS submittal), KDHE should update the Table to read:

- The title of the column header relating to interim effluent limits to read "**Highest Attainable Interim Effluent Limit (may be seasonal;**
- Inclusion of the footnote, "n - The Highest Attainable Interim Criteria Limit shall be derived as the 99th percentile value or highest value of recent historical (e.g., last five years) effluent discharge water quality data, whichever is lower. The Highest Attainable Interim Criteria Limit will be calculated when permits

come up for renewal," at the bottom of the table with "n" in respective fields or the actual HAC interim effluent limit if it has been calculated.

- Elimination of the date columns Eligibility Date and Effective Year, which includes, columns with the header of **Date Variance went into Effect for the Permit** or **Variance Reevaluation Date**.

Numeric Nutrient Criteria

The Agency applauds the State's efforts associated with establishing numeric nutrient criteria for drinking water lakes, which EPA approved in 2017. As part of that approval, EPA deferred action on one lake, Cheney Reservoir, for which an incorrect value was found in the table. EPA would encourage the State to update this table with the correct value during the next triennial review. Additionally, EPA would encourage the State to develop additional criteria to protect the State's other use categories (including aquatic life and recreational uses) as well as criteria for causal parameters, specifically nitrogen and phosphorus. EPA continues to advocate the establishment of numeric nutrient criteria, as most recently outlined in the September 22, 2016 memorandum from Deputy Assistant Administrator Joel Beauvais (https://www.epa.gov/sites/production/files/2016-09/documents/renewed-call-nutrient-memo-2016.pdf). EPA also encourages Kansas to attend EPA's Central Numeric Nutrient Criteria Workshop located in Dallas during September of 2018. Additional details and a formal invitation will be sent in the near future.

ATTACHMENT B

LETTER FROM THOMAS C. STILES, ASSISTANT DIRECTOR TO JEFF ROBICHAUD, ACTING DIRECTOR

Dated April 10, 2018

STATE OF KANSAS

DEPARTMENT OF HEALTH AND ENVIRONMENT
DIVISION OF ENVIRONMENT
CURTIS STATE OFFICE BUILDING
1000 SW JACKSON ST., SUITE 400
TOPEKA, KS 66612-1367

PHONE: (785) 296-1535
FAX: (785) 559-4264
WWW.KDHEKS.GOV

GOVERNOR JEFF COLYER, M.D.
JEFF ANDERSEN, SECRETARY

April 10, 2018

Mr. Jeff Robichaud, Acting Director
U.S. Environmental Protection Agency, Region 7
Water, Wetlands, and Pesticides Division
11201 Renner Boulevard
Lenexa, KS 66219

Dear ~~Mr. Robichaud:~~ Jeff

On behalf of KDHE I am pleased to provide additional information to clarify our process for authorizing water quality variances under the new ammonia Multiple Discharger Variance, which is currently with EPA Region 7 for approval.

As submitted, the *Kansas Surface Water Quality Standards Variance Register* contains 48 facilities that have been prescreened to determine their need for consideration of a variance to the proposed ammonia criteria. These facilities have issues meeting their new limits based on the 2013 ammonia criteria. The subsequent economic assessment on those facilities, which definitively determines eligibility, was not completed and submitted with the initial submittal package. KDHE anticipated the provided examples of determining eligibility would suffice for EPA review. To alleviate any concerns over the eligibility of the initial list of facilities on the register, KDHE has completed the economic eligibility assessment on the first 22 facilities on the list, which covers the facilities that will have permits renewed between July 1, 2018 and April 1, 2019.

KDHE is requesting EPA give approval for just those first 22 communities in the *Kansas Surface Water Quality Variance Register* upon review of the submitted economic assessments and the MDV process. KDHE will complete the economic eligibility assessments for the remaining facilities this summer. I have enclosed a list of the facilities within the *Multiple-Discharger Wastewater Lagoon Ammonia Variance Register Discharger List* targeted for the initial approval that are deemed eligible based on the completion of their economic assessments, along with information detailing the receiving waterbody associated with each facility.

The electronic files encompassing the economic assessments will be sent via electronic mail to Angela Sena, the Region 7 WQS coordinator for Kansas.

EPA has additionally requested clarification on how KDHE will permit facilities whose economic eligibility assessment results in an "uncertain" status. For these facilities, KDHE will issue permits that require additional ammonia effluent monitoring along with a Schedule of Compliance, in order to comply with limits based on the new ammonia criteria, including an economic study and summary that provides additional evidence on the affordability of wastewater treatment modifications in order to comply with those new ammonia limits. Additionally, the permit will be issued with a Pollutant Minimization Plan (PMP). Based on the resulting information from the facility, their next NPDES permit will either be issued with the applicable ammonia limits or qualify for the MDV. If the facility qualifies for the MDV, KDHE will issue the subsequent permit with the Highest Attainable Condition (HAC) in accordance with the MDV requirements.

KDHE would also like to clarify how eligible systems "have optimized their current operation", as stated in our submission packet. KDHE considers lagoon systems that conform to the Kansas design standards, which are more stringent than the accepted "10-State Standards", meet this expectation. Lagoon facilities that are deemed eligible are expected to be performing adequately based on these standards, where they are providing the greatest reduction achievable for all pollutants with the existing technology. This is further assessed through routine on-site inspections and detailed reviews of their discharge data. Eligible facilities demonstrate that there are no issues meeting secondary treatment limits and will have no compliance or enforcement issues. As facilities employ the MDV, the requirements of the PMP expand upon our expectations and provide assurances that their current performance will be maintained or enhanced. Therefore, eligible and approved lagoon facilities within the MDV must meet requirements within their PMP, which may include, but are not limited, to the following:

1. Effluent ammonia monitoring shows compliance with the HAC
2. Retain a certified operator as required by regulations
3. Provide reasonable and adequate maintenance per KDHE inspection reports
4. Maintain operation and performance of the existing lagoon system to comply with secondary treatment limitations
5. Prohibit industrial strength wastewater containing high concentrations of nitrogen to enter the existing lagoon system through the collection system or otherwise
6. Monitor the depth of accumulated sludge in each lagoon cell
7. No significant population growth occurs that would increase pollutant loading or alter the economic profile of the community
8. Sufficient capacity within the lagoon system to accommodate modest increases in population and associated pollutant loadings.

KDHE will further evaluate each discharger receiving the MDV to incorporate any additional requirements into their PMP and permits to ensure the treatment of wastewater is conducted to the greatest capabilities of the available technology.

Some question apparently remains on the potential universe of facilities and their receiving waters that would be subject to the proposed MDV. I have attached a listing, previously submitted, of all the potential facilities and waters that may undergo assessment for application of the variance in the future.

KDHE appreciates the questions posed by EPA regarding the water quality standards package and hopes that this letter provides clarification to the MDV eligibility determination process. If you or your staff have any further questions on the overall intent and process of our submission, please contact me [Tom.Stiles@ks.gov; 785-296-6170] or Trevor Flynn [Trevor.Flynn@ks.gov; 785-296-8791].

Sincerely,

Tom

Thomas C. Stiles, Assistant Director
Bureau of Water
Kansas Department of Health and Environment

Enclosure
Attachment

cc: Angela Sena, EPA Region 7
Mike Tate, EPA Region 7
Glenn Curtis, EPA Region 7
Trevor Flynn, KDHE BOW
Michelle Probasco, KDHE BOW
Julia Young, KDHE BOW
Rod Geisler, KDHE BOW

Economic Eligibility Tracking Form

Discharger	NPDES Permit Number	KS Permit Number	Receiving Water Body			Type of Variance and Use	Pollutant / Criterion	Permit Renewal Time Frame	Economic Eligibility Assessment Score - Primary Screener (see Key)	Economic Eligibility Assessment Score - Secondary Screener (see Key)
			HUC8	Segment or Lake Project Name Code	Text Name of Receiving Water Body					
Altamont, City of	KS0045918	M-NE01-OO01	11070205	27	Deer Creek via Unnamed Tributary	m*	Ammonia	Jun-18	2.05	2.50
Americus, City of	KS0047406	M-NE02-OO01	11070201	5	Allen Creek via Troublesome Creek via Pester Creek	m*	Ammonia	Jun-18	2.93	2.20
Arma, City of	KS0045926	M-NE03-OO01	11070207	27	First Cow Creek via Unnamed Tributary	m*	Ammonia	Jun-18	3.13	2.40
Bern, City of	KS0047244	M-MO02-OO01	10240007	212	Fourmile Creek (Nebraska) via Unnamed Stream (KS/Neb Line) via Unnamed Tributary	m*	Ammonia	Jun-18	4.53	NA
Chetopa, City of	KS0031135	M-NE13-OO01	11070205	28	Neosho River via Town Creek	m*	Ammonia	Jun-18	3.29	1.80
Dwight, City of	KS0051675	M-NE20-OO01	11070201	30	Lairds Creek via Unnamed Tributary	m*	Ammonia	Jun-18	5.76	NA
Erie, City of	KS0045977	M-NE25-OO01	11070205	15	Neosho River via Unnamed Tributary	m*	Ammonia	Jun-18	3.00	1.80
Girard, City of	KS0022551	M-NE31-OO01	11070205	44	Lightning Creek via Thunderbolt Creek	m*	Ammonia	Jun-18	2.26	1.80
Highland, City of	KS0047457	M-MO09-OO01	10240005	339	Missouri River via Mission Creek	m*	Ammonia	Jun-18	2.49	2.20
Marion, City of	KS0051691	M-NE45-OO01	11070202	3	Cottonwood River	m*	Ammonia	Jun-18	2.42	1.80
Oswego, City of	KS0047554	M-NE53-OO01	11070205	21	Labette Creek via Unnamed Tributary	m*	Ammonia	Jun-18	2.41	1.80
Seneca, City of	KS0047538	M-MO19-OO01	10240007	16	South Fork Big Nemaha	m*	Ammonia	Jun-18	2.40	2.40
St. Paul, City of	KS0084174	M-NE59-OO02	11070205	LM053401	Neosho River via Flat Rock Creek via KDWP&T Neosho Wildlife Area	m*	Ammonia	Jun-18	2.86	1.83

Economic Eligibility Tracking Form

Discharger	NPDES Permit Number	KS Permit Number	Receiving Water Body			Type of Variance and Use	Pollutant / Criterion	Permit Renewal Time Frame	Economic Eligibility Assessment Score - Primary Screener (see Key)	Economic Eligibility Assessment Score - Secondary Screener (see Key)
			HUC8	Segment or Lake Project Name Code	Text Name of Receiving Water Body					
Strong City, City of	KS0031178	M-NE63-OO01	11070203	19	Cottonwood River via Fox Creek	m*	Ammonia	Jun-18	4.46	NA
Weir, City of	KS0079146	M-NE67-OO01	11070207	26	Brush Creek via Unnamed Tributary	m*	Ammonia	Jun-18	4.1	NA
Fairview, City of	KS0098744	M-MO06-OO02	10240008	39	Walnut Creek via Spring Creek via Unnamed Tributary	m*	Ammonia	Dec-18	5.2	NA
Galena, City of	KS0048135	M-NE28-OO01	11070207	3	Spring River via Unnamed Tributary	m*	Ammonia	Dec-18	2.05	2.20
Burlingame, City of	KS0024694	M-MC07-OO01	10290101	80	Dragoon Creek via Sitzler Creek	m*	Ammonia	Mar-19	3.99	1.80
Lane, City of	KS0081515	M-MC19-OO01	10290101	51	Pottawatomie Creek via Unnamed Tributary	m*	Ammonia	Mar-19	5.47	NA
Mulberry, City of	KS0087467	M-MC27-OO01	10290104	324	Cox Creek via Unnamed Tributary	m*	Ammonia	Mar-19	5.89	NA
Pomona, City of	KS0029068	M-MC36-OO01	10290101	18	Marais Des Cygnes River	m*	Ammonia	Mar-19	3.31	2.00
Tipton, City of	KS0085219	M-SO42-OO01	10260014	21	South Fork Solomon River via Carr Creek via Unnamed Tributary	m*	Ammonia	Mar-19	4.62	NA

Key:

No, city cannot afford project; Eligible for MDV

APPENDIX A

Potential Dischargers and Receiving Waters Affected by the Variance

POTENTIAL DISCHARGERS AND RECEIVING WATERS AFFECTED by the MULTIPLE-DISCHARGER WASTEWATER LAGOON AMMONIA VARIANCE NOVEMBER 2, 2016

FACILITY NAME	PERMIT NUMBER	EXPIRATION DATE	RECEIVING STREAM	BASIN	HUC8	SEGMENT or LAKE PROJECT NAME CODE
NEODESHA, CITY OF	M-VE29-OO01	6/30/2016	VERDIGRIS RIVER	VERDIGRIS	11070101	1
LACROSSE, CITY OF	M-UA23-OO02	6/30/2016	SAND CREEK	UPPER ARKANSAS	11030008	3
INMAN, CITY OF	M-LA08-OO01	6/30/2016	BLAZE FORK CREEK	LITTLE ARKANSAS	11030012	14
ALTOONA, CITY OF	M-VE01-OO01	6/30/2016	VERDIGRIS RIVER	VERDIGRIS	11070101	1
HAMILTON, CITY OF	M-VE20-OO01	6/30/2016	ONION CREEK VIA UNNAMED TRIBUTARY	VERDIGRIS	11070101	23
TRIBUNE, CITY OF	M-UA41-OO01	6/30/2016	WHITE WOMAN CREEK	UPPER ARKANSAS	11030002	2
BUFFALO, CITY OF	M-VE03-OO02	6/30/2016	BUFFALO CREEK	VERDIGRIS	11070101	2
CHERRYVALE, CITY OF	M-VE07-OO02	6/30/2016	DRUM CREEK	VERDIGRIS	11070103	34
ELK CITY, CITY OF	M-VE14-OO01	6/30/2016	ELK RIVER	VERDIGRIS	11070104	2
MOLINE, CITY OF	M-VE27-OO01	6/30/2016	ELK R VIA WILDCAT CR	VERDIGRIS	11070104	16
LEAVENWORTH CO. S.D. #5 GINGER CREEK	M-KS04-OO03	9/30/2016	HOG CREEK	KANSAS	10270104	54
KDOT - MONTGOMERY CO.	M-VE07-OO03	9/30/2016	DRUM CREEK VIA UNNAMED TRIBUTARY	VERDIGRIS	11070103	34
MC LOUTH, CITY OF	M-KS42-OO01	9/30/2016	KANSAS RIVER VIA NINE MILE CREEK VIA UNNAMED TRIBUTARY	KANSAS	10270104	17
LONGTON, CITY OF	M-VE25-OO01	9/30/2016	ELK RIVER VIA HITCHEN CREEK	VERDIGRIS	11070104	7
HAVANA, CITY OF	M-VE21-OO01	9/30/2016	LITTLE CANEY RIVER VIA BEE CREEK	VERDIGRIS	11070106	9
DEARING, CITY OF	M-VE11-OO01	9/30/2016	ONION CREEK	VERDIGRIS	11070103	39
TYRO, CITY OF	M-VE37-OO01	9/30/2016	CANEY CREEK	VERDIGRIS	11070103	56

FACILITY NAME	PERMIT NUMBER	EXPIRATION DATE	RECEIVING STREAM	BASIN	HUC8	SEGMENT or LAKE PROJECT NAME CODE
KDWP&T - CROSS TIMBERS - HONOR CAMP	M-VE36-OO03	9/30/2016	VERDIGRIS RIVER VIA CARLISLE BRANCH	VERDIGRIS	11070101	5
SEDAN, CITY OF	M-VE33-OO02	9/30/2016	LITTLE CANEY RIVER/MIDDLE CANEY CREEK	VERDIGRIS	11070106	12
LIBERTY, CITY OF	M-VE24-OO01	9/30/2016	BIG HILL CREEK VIA UNNAMED TRIBUTARY	VERDIGRIS	11070103	32
HOWARD, CITY OF	M-VE22-OO02	9/30/2016	ELK RIVER VIA PAW PAW CREEK	VERDIGRIS	11070104	11
MONTGOMERY CO. S.D. #4-HAVANA LAKE	M-VE21-OO02	9/30/2016	UNNAMED TRIB OF COTTON CR./VERDIGRIS	VERDIGRIS	11070106	38
FALL RIVER, CITY OF	M-VE17-OO01	9/30/2016	FALL RIVER VIA UNNAMED TRIBUTARY	VERDIGRIS	11070102	2
OTIS, CITY OF	M-UA31-OO01	9/30/2016	WALNUT CREEK VIA BOOT CREEK	UPPER ARKANSAS	11030008	15
DIGHTON, CITY OF	M-UA10-OO01	9/30/2016	SOUTH FORK WALNUT CREEK	UPPER ARKANSAS	11030007	10
VALLEY FALLS, CITY OF	M-KS73-OO01	9/30/2016	DELAWARE RIVER INTO LAKE PERRY	KANSAS	10270103	12
WAKEFIELD MWTP	M-LR24-OO01	9/30/2016	MILFORD LAKE VIA UNNAMED TRIBUTARY	LOWER REPUBLICAN	10250017	LM019001
CIMARRON, CITY OF	M-UA07-OO02	9/30/2016	ARKANSAS RIVER	UPPER ARKANSAS	11030003	1
NORTONVILLE, CITY OF	M-KS50-OO01	11/30/2016	STRANGER CREEK VIA CROOKED CREEK VIA UNNAMED TRIBUTARY	KANSAS	10270104	12
WETMORE, CITY OF	M-KS78-OO02	12/31/2016	SPRING CREEK VIA UNNAMED TRIBUTARY	KANSAS	10270103	42
MONTGOMERY CO. S.D. #5-SYCAMORE	M-VE40-OO01	12/31/2016	VERDIGRIS RIVER VIA UNNAMED TRIBUTARY	VERDIGRIS	11070103	36
EUREKA, CITY OF	M-VE16-OO02	12/31/2016	FALL RIVER VIA UNNAMED TRIBUTARY	VERDIGRIS	11070102	8
POWHATTAN, CITY OF	M-KS60-OO01	12/31/2016	DELAWARE RIVER VIA UNNAMED TRIBUTARY	KANSAS	10270103	22
THAYER, CITY OF	M-VE35-OO01	12/31/2016	CHETOPA CREEK VIA LITTLE CHETOPA CREEK	VERDIGRIS	11070101	471

FACILITY NAME	PERMIT NUMBER	EXPIRATION DATE	RECEIVING STREAM	BASIN	HUC8	SEGMENT or LAKE PROJECT NAME CODE
LEAVENWORTH CO. S.D. #2 TIMBERLAKE	M-KS06-OO03	12/31/2016	KANSAS RIVER VIA WOLF CREEK	KANSAS	10270104	53
SMOLAN, CITY OF	M-SH36-OO01	12/31/2016	WEST DRY CREEK VIA UNNAMED TRIBUTARY; SMOKY HILL RIVER BASIN	SMOKY HILL	10260008	36
MADISON, CITY OF	M-VE26-OO02	12/31/2016	VERDIGRIS RIVER	VERDIGRIS	11070101	12
LANCASTER, CITY OF	M-KS29-OO01	12/31/2016	NORTH FORK OF STRANGER CREEK	KANSAS	10270104	9
PERRY, CITY OF	M-KS58-OO01	12/31/2016	OLD CHANNEL OF DELAWARE RIVER	KANSAS	10270104	23
MUSCOTAH, CITY OF	M-KS48-OO01	12/31/2016	DELAWARE RIVER	KANSAS	10270103	17
WINCHESTER, CITY OF	M-KS84-OO01	12/31/2016	CROOKED CREEK VIA UNNAMED TRIBUTARY	KANSAS	10270104	12
HURON, CITY OF	M-KS26-OO01	12/31/2016	DELAWARE RIVER VIA LITTLE GRASSHOPPER CREEK VIA UNNAMED TRIBUTARY	KANSAS	10270103	16
ARLINGTON, CITY OF	M-AR07-OO01	3/31/2017	NORTH FORK NINNESCAH RIVER	LOWER ARKANSAS	11030014	6
HARDTNER, CITY OF	M-AR39-OO02	3/31/2017	DRIFTWOOD CREEK	LOWER ARKANSAS	11060003	905
BURDEN, CITY OF	M-AR14-OO02	3/31/2017	SILVER CREEK VIA UNNAMED TRIBUTARY	LOWER ARKANSAS	11060001	17
HAVILAND, CITY OF	M-AR42-OO01	3/31/2017	LOST LAKE VIA UNNAMED TRIBUTARY.	LOWER ARKANSAS	11030014	NA
FUN VALLEY	M-AR49-OO01	3/31/2017	ARKANSAS RIVER	LOWER ARKANSAS	11030010	4
STAFFORD, CITY OF	M-AR84-OO01	3/31/2017	N. FORK NINNESCAH VIA DOOLEYVILLE CREEK	LOWER ARKANSAS	11030014	8
WINDOM, CITY OF	M-LA18-OO01	6/30/2017	LITTLE ARKANSAS RIVER VIA UNNAMED TRIBUTARY	LITTLE ARKANSAS	11030012	14
OXFORD, CITY OF	M-AR68-OO01	6/30/2017	ARKANSAS RIVER	LOWER ARKANSAS	11030013	2
WALTON, CITY OF	M-LA17-OO01	6/30/2017	SAND CREEK VIA BEAVER CREEK VIA UNNAMED TRIBUTARY	LITTLE ARKANSAS	11030012	26

FACILITY NAME	PERMIT NUMBER	EXPIRATION DATE	RECEIVING STREAM	BASIN	HUC8	SEGMENT or LAKE PROJECT NAME CODE
TURON, CITY OF	M-AR89-OO01	6/30/2017	NORTH FORK NINNESCAH RIVER VIA SILVER CREEK VIA UNNAMED TRIBUTARY	LOWER ARKANSAS	11030014	289
HOLYROOD, CITY OF	M-AR46-OO01	6/30/2017	PLUM CREEK	LOWER ARKANSAS	11030011	4
ATTICA, CITY OF	M-AR08-OO01	6/30/2017	SANDY CREEK VIA CAMP CREEK; LOWER ARKANSAS RIVER BASIN	LOWER ARKANSAS	11060004	68
ST. FRANCIS, CITY OF	M-UR18-OO01	6/30/2017	SOUTH FORK OF REPUBLICAN RIVER; UPPER REPUBLICAN RIVER BASIN	UPPER REPUBLICAN	10250003	4
ALMENA , CITY OF	M-UR01-OO02	6/30/2017	PRAIRIE DOG CREEK; UPPER REPUBLICAN RIVER BASIN	UPPER REPUBLICAN	10250015	4
CLEARWATER, CITY OF	M-AR22-OO01	6/30/2017	NINNESCAH RIVER	LOWER ARKANSAS	11030016	3
HOISINGTON, CITY OF	M-AR45-OO01	6/30/2017	COW CREEK VIA LITTLE CHEYENNE CREEK CHEYENNE BOTTOMS) VIA BLOOD CREEK VIA UNNAMED TRIBUTARY	LOWER ARKANSAS	11030011	15
ATWOOD, CITY OF	M-UR02-OO01	6/30/2017	BEAVER CREEK	UPPER REPUBLICAN	10250014	2
NORTON CORRECTIONAL FACILITY	M-UR16-OO02	6/30/2017	PRAIRIE DOG CREEK VIA WALNUT CREEK	UPPER REPUBLICAN	10250015	4
ASHLAND, CITY OF	M-CI01-OO02	6/30/2017	CIMMARRON RIVER VIA BEAR CREEK	CIMARRON	11040008	18
ST. JOHN, CITY OF	M-AR77-OO01	6/30/2017	RATTLESNAKE CR	LOWER ARKANSAS	11030009	3
GEUDA SPRINGS, CITY OF	M-AR36-OO01	6/30/2017	ARKANSAS RIVER VIA SALT CREEK	LOWER ARKANSAS	11030013	22
DEXTER, CITY OF	M-AR30-OO01	6/30/2017	GROUSE CREEK	LOWER ARKANSAS	11060001	16
CONWAY SPRINGS, CITY OF	M-AR25-OO01	6/30/2017	ARKANSAS RIVER VIA SLATE CREEK	LOWER ARKANSAS	11030013	17
COLWICH, CITY OF	M-AR24-OO02	6/30/2017	ARKANSAS RIVER VIA COWSKIN CREEK	LOWER ARKANSAS	10030013	14

FACILITY NAME	PERMIT NUMBER	EXPIRATION DATE	RECEIVING STREAM	BASIN	HUC8	SEGMENT or LAKE PROJECT NAME CODE
BUCKLIN, CITY OF	M-AR13-OO01	6/30/2017	RATTLESNAKE CREEK VIA WEST FORK RATTLESNAKE CREEK	LOWER ARKANSAS	11030009	4
PECK IMPROVEMENT DISTRICT	M-AR09-OO04	6/30/2017	NINNESCAH RIVER VIA UNNAMED TRIBUTARY	LOWER ARKANSAS	11030016	1
BELLE PLAINE, CITY OF	M-AR09-OO03	6/30/2017	NINNESCAH RIVER VIA UNNAMED TRIBUTARY	LOWER ARKANSAS	11030016	1
ANTHONY, CITY OF	M-AR04-OO02	6/30/2017	LOWER ARKANSAS RIVER VIA BLUFF CREEK VIA SPRING CREEK	LOWER ARKANSAS	11060005	47
ANDALE, CITY OF	M-AR03-OO01	6/30/2017	ARKANSAS RIVER VIA COWSKIN CREEK	LOWER ARKANSAS	11030013	14
LEAVENWORTH CO. S.D. #1 HIGH CREST	M-KS04-OO04	9/30/2017	STRANGER CREEK VIA LITTLE SANDY CREEK	KANSAS	10270104	883
CHENEY, CITY OF	M-AR20-OO02	9/30/2017	NORTH FORK OF NINNESCAH RIVER	LOWER ARKANSAS	11030014	1
GOESSEL, CITY OF	M-LA05-OO02	9/30/2017	EMMA CREEK VIA MIDDLE EMMA CREEK	LITTLE ARKANSAS	11030012	7
EASTON, CITY OF	M-KS13-OO01	9/30/2017	STRANGER CREEK	KANSAS	10270104	8
CARBONDALE, CITY OF	M-KS07-OO01	9/30/2017	WAKARUSA RIVER VIA BURY'S CREEK	KANSAS	10270104	32
HARPER, CITY OF	M-AR40-OO01	9/30/2017	CHIKASKIA RIVER VIA SAND CREEK	LOWER ARKANSAS	110600005	12
CUNNINGHAM, CITY OF	M-AR27-OO01	9/30/2017	SOUTH FORK NINNESCAH RIVER; LOWER ARKANSAS RIVER BASIN	LOWER ARKANSAS	11030015	4
MEADE, CITY OF	M-CI12-OO02	9/30/2017	CROOKED CREEK VIA UNNAMED TRIBUTARY	CIMARRON	11040007	1
NORWICH, CITY OF	M-AR67-OO02	9/30/2017	NINNESCAH RIVER VIA SAND CREEK	LOWER ARKANSAS	11030016	14
CALDWELL, CITY OF	M-AR17-OO02	9/30/2017	FALL CREEK VIA AN UNNAMED TRIBUTARY; LOWER ARKANSAS RIVER BASIN	LOWER ARKANSAS	11060005	14

FACILITY NAME	PERMIT NUMBER	EXPIRATION DATE	RECEIVING STREAM	BASIN	HUC8	SEGMENT or LAKE PROJECT NAME CODE
STERLING, CITY OF	M-AR85-OO01	11/30/2017	COW CREEK VIA BULL CREEK VIA UNNAMED TRIBUTARY	LOWER ARKANSAS	11030011	1
EFFINGHAM, CITY OF	M-KS15-OO01	12/31/2017	STRANGER CREEK VIA UNNAMED TRIBUTARY	KANSAS	10270104	9
VIOLA, CITY OF	M-AR90-OO01	12/31/2017	NINNESCAH RIVER VIA UNNAMED TRIBUTARY	LOWER ARKANSAS	11030016	3
PRETTY PRAIRIE, CITY OF	M-AR75-OO02	12/31/2017	NINNESCAH RIVER VIA SMOOTS CREEK VIA UNNAMED TRIBUTARY	LOWER ARKANSAS	11030015	2
HAVEN, CITY OF	M-AR41-OO01	12/31/2017	ARKANSAS RIVER VIA GAR CREEK	LOWER ARKANSAS	110310010	8
GENESEO, CITY OF	M-LA04-OO02	12/31/2017	LITTLE ARKANSAS RIVER	LITTLE ARKANSAS	11030012	14
ALDEN, CITY OF	M-AR02-OO01	12/31/2017	ARKANSAS RIVER	LOWER ARKANSAS	11030010	5
ARGONIA, CITY OF	M-AR05-OO01	12/31/2017	CHIKASKIA RIVER; LOWER ARKANSAS RIVER BASIN	LOWER ARKANSAS	110600005	8
NICKERSON, CITY OF	M-AR66-OO02	12/31/2017	ARKANSAS RIVER	LOWER ARKANSAS	11030010	4
PRESTON, CITY OF	M-AR74-OO02	12/31/2017	SILVER CREEK VIA UNNAMED TRIBUTARY	LOWER ARKANSAS	11030014	7
CHASE, CITY OF	M-AR19-OO01	12/31/2017	COW CREEK VIA SPRING CREEK	LOWER ARKANSAS	11030011	20
WILLOWBROOK, CITY OF	M-AR95-OO02	12/31/2017	COW CREEK	LOWER ARKANSAS	11030011	1
GALVA, CITY OF	M-LA03-OO01	12/31/2017	TURKEY CREEK VIA UNNAMED TRIBUTARY; LITTLE ARKANSAS RIVER BASIN	LITTLE ARKANSAS	11030012	12
JETMORE, CITY OF	M-UA21-OO02	12/31/2017	BUCKNER CREEK	UPPER ARKANSAS	110300006	2
MOUNDRIDGE, CITY OF	M-LA12-OO01	12/31/2017	BLACK KETTLE CREEK	LITTLE ARKANSAS	11030012	368
PARTRIDGE, CITY OF	M-AR70-OO01	12/31/2017	NORTH FORK NINNESCAH RIVER VIA RED ROCK CREEK	LOWER ARKANSAS	11030014	12

FACILITY NAME	PERMIT NUMBER	EXPIRATION DATE	RECEIVING STREAM	BASIN	HUC8	SEGMENT or LAKE PROJECT NAME CODE
WILSEY, CITY OF	M-NE69-OO01	1/31/2018	ELM CREEK VIA UNNAMED TRIBUTARY	NEOSHO	11070201	946
ONEIDA, CITY OF	M-MO15-OO01	1/31/2018	SOUTH FORK NEMAHA RIVER VIA HARRIS CREEK	MISSOURI	10240007	166
COTTONWOOD FALLS, CITY OF	M-NE16-OO01	2/28/2018	COTTONWOOD RIVER	NEOSHO	11070203	2
COFFEY CO. S.D. #1 (JACOBS CREEK)	M-NE07-OO03	3/31/2018	NEOSHO RIVER VIA JACOB'S CREEK VIA UNNAMED TRIBUTARY	NEOSHO	11070201	LM072401
WATHENA, CITY OF	M-MO23-OO01	3/31/2018	MISSOURI RIVER	MISSOURI	10240011	15
TROY, CITY OF (PETERS CREEK)	M-MO22-OO01	3/31/2018	MISSOURI RIVER VIA PETERS CREEK	MISSOURI	10240011	27
ELWOOD, CITY OF	M-MO05-OO01	3/31/2018	MISSOURI RIVER	MISSOURI	10240011	15
CHEROKEE CO. S.D. #1	M-NE73-OO02	3/31/2018	SPRING RIVER	NEOSHO	11070205	33
WOODSON CO. IMP. DIST. #2	M-NE72-OO02	3/31/2018	PLUM CREEK VIA AN UNNAMED TRIBUTARY	NEOSHO	11070204	22
WHITE CITY, CITY OF	M-NE68-OO02	3/31/2018	NEOSHO RIVER VIA UNNAMED TRIBUTARY	NEOSHO	11070201	23
LEROY, CITY OF	M-NE42-OO01	3/31/2018	CROOKED CREEK	NEOSHO	11070204	44
OLPE, CITY OF	M-NE52-OO01	3/31/2018	NEOSHO RIVER VIA EAGLE CREEK	NEOSHO	11070201	25
MC CUNE, CITY OF	M-NE47-OO01	3/31/2018	MULBERRY CREEK VIA UNNAMED TRIBUTARY	NEOSHO	11070205	35
HARTFORD, CITY OF	M-NE33-OO01	3/31/2018	NEOSHO RIVER VIA UNNAMED TRIBUTARY	NEOSHO	11070201	26
GRIDLEY, CITY OF	M-NE32-OO01	3/31/2018	NEOSHO RIVER VIA BIG CREEK VIA SOUTH FORK BIG CREEK VIA DINNER CREEK	NEOSHO	11070204	823
COLUMBUS, CITY OF	M-NE15-OO01	3/31/2018	SPRING RIVER VIA BRUSH CREEK	NEOSHO	11070207	23
LEBO, CITY OF	M-NE40-OO01	3/31/2018	LEBO CREEK	NEOSHO	11070201	51
TROY, CITY OF (MOSQUITO CREEK)	M-MO22-OO02	3/31/2018	MISSOURI RIVER VIA MOSQUITO CREEK	MISSOURI	102400005	73

FACILITY NAME	PERMIT NUMBER	EXPIRATION DATE	RECEIVING STREAM	BASIN	HUC8	SEGMENT or LAKE PROJECT NAME CODE
NEW STRAWN, CITY OF	M-NE51-OO01	3/31/2018	NEOSHO RIVER	NEOSHO	11070204	13
PEABODY, CITY OF	M-NE56-OO03	3/31/2018	DOYLE CREEK TO COTTONWOOD RIVER	NEOSHO	11070202	21
ALLEN CO. S.D. #1	M-NE37-OO02	3/31/2018	ROCK CREEK	NEOSHO	11070204	7
COUNCIL GROVE, CITY OF	M-NE17-OO01	3/31/2018	NEOSHO RIVER	NEOSHO	11070201	10
ALTA VISTA, CITY OF	M-NE05-OO01	3/31/2018	MUNKERS CREEK	NEOSHO	11070201	18
COLONY, CITY OF	M-NE14-OO01	3/31/2018	DEER CREEK VIA UNNAMED TRIBUTARY	NEOSHO	11070204	9
CANTON, CITY OF	M-NE09-OO02	3/31/2018	COTTONWOOD RIVER VIA DRY CREEK	NEOSHO	11070202	401
WEST MINERAL, CITY OF	M-NE48-OO01	3/31/2018	CHERRY CREEK VIA UNNAMED TRIBUTARY	NEOSHO	11070205	4
LINCOLNVILLE, CITY OF	M-NE43-OO01	3/31/2018	COTTONWOOD RIVER VIA CLEAR CREEK	NEOSHO	11070202	5
WEIR, CITY OF	M-NE67-OO01	6/30/2018	BRUSH CREEK VIA UNNAMED TRIBUTARY	NEOSHO	11070207	26
SCAMMON, CITY OF	M-NE61-OO01	6/30/2018	CHERRY CREEK VIA LITTLE CHERRY CREEK	NEOSHO	11070205	32
CHETOPA, CITY OF	M-NE13-OO01	6/30/2018	NEOSHO RIVER VIA TOWN CREEK	NEOSHO	11070205	28
MORRILL, CITY OF	M-MO13-OO01	6/30/2018	WALNUT CREEK VIA TERRAPIN CREEK	MISSOURI	10240008	308
BERN, CITY OF	M-MO02-OO01	6/30/2018	FOURMILE CREEK(NEB) VIA UNNAMED STREAM (KS/NEB LINE) VIA UNNAMED TRIBUTARY	MISSOURI	10240007	212
ARMA, CITY OF	M-NE03-OO01	6/30/2018	FIRST COW CREEK VIA UNNAMED TRIBUTARY	NEOSHO	11070207	27
LEHIGH, CITY OF	M-NE41-OO01	6/30/2018	FRENCH CREEK VIA UNNAMED TRIBUTARY	NEOSHO	11070202	16
ROBINSON, CITY OF	M-MO17-OO01	6/30/2018	WOLF RIVER	MISSOURI	10240005	56
FRONTENAC, CITY OF	M-NE27-OO01	6/30/2018	COW CREEK VIA FIRST COW CREEK	NEOSHO	11070207	27

FACILITY NAME	PERMIT NUMBER	EXPIRATION DATE	RECEIVING STREAM	BASIN	HUC8	SEGMENT or LAKE PROJECT NAME CODE
NEOSHO RAPIDS, CITY OF	M-NE50-OO01	6/30/2018	NEOSHO RIVER VIA PLUM CREEK	NEOSHO	11070201	50
BARTLETT, CITY OF	M-NE04-OO01	6/30/2018	LAKE CREEK VIA UNNAMED TRIBUTARY	NEOSHO	11070205	24
ALTAMONT, CITY OF	M-NE01-OO01	6/30/2018	DEER CREEK VIA UNNAMED TRIBUTARY	NEOSHO	11070205	27
SENECA, CITY OF	M-MO19-OO01	6/30/2018	SOUTH FORK BIG NEMAHA RIVER	MISSOURI	10240007	16
WILLIS, CITY OF	M-MO31-OO01	6/30/2018	MIDDLE FORK WOLF RIVER VIA HAZEL CREEK	MISSOURI	1024005	67
STRONG CITY, CITY OF	M-NE63-OO01	6/30/2018	COTTONWOOD RIVER VIA FOX CREEK	NEOSHO	11070203	19
STARK, CITY OF	M-NE62-OO02	6/30/2018	NEOSHO RIVER VIA CANVILLE CREEK	NEOSHO	11070205	16
OSWEGO, CITY OF	M-NE53-OO01	6/30/2018	LABETTE CREEK VIA UNNAMED TRIBUTARY	NEOSHO	11070205	21
HIGHLAND, CITY OF	M-MO09-OO01	6/30/2018	MISSOURI RIVER VIA MISSION CREEK	MISSOURI	1024005	339
HEPLER, CITY OF	M-NE34-OO01	6/30/2018	WALNUT CREEK VIA UNNAMED TRIBUTARY	NEOSHO	11070205	13
GIRARD, CITY OF	M-NE31-OO01	6/30/2018	LIGHTNING CREEK VIA THUNDERBOLT CREEK	NEOSHO	11070205	44
DWIGHT, CITY OF	M-NE20-OO01	6/30/2018	LAIRDS CREEK VIA UNNAMED TRIBUTARY	NEOSHO	11070201	30
CHEROKEE, CITY OF	M-NE12-OO01	6/30/2018	LIMESTONE CREEK VIA WOLF CREEK VIA UNNAMED TRIBUTARY	NEOSHO	11070205	33
MARION, CITY OF	M-NE45-OO01	6/30/2018	COTTONWOOD RIVER	NEOSHO	11070202	3
LA HARPE, CITY OF	M-NE39-OO02	6/30/2018	ELM CREEK VIA UNNAMED TRIBUTARY VIA CONSTRUCTED WETLANDS	NEOSHO	11070204	1050
AMERICUS, CITY OF	M-NE02-OO01	6/30/2018	ALLEN CREEK VIA TROUBLESOME CREEK VIA PESTER CREEK	NEOSHO	11070201	5

FACILITY NAME	PERMIT NUMBER	EXPIRATION DATE	RECEIVING STREAM	BASIN	HUC8	SEGMENT or LAKE PROJECT NAME CODE
WILSON CO. S.D. #1 (TULAKES)	M-NE11-OO04	6/30/2018	VILLAGE CREEK VIA UNNAMED TRIBUTARY	NEOSHO	11070204	33
FLORENCE, CITY OF	M-NE26-OO01	6/30/2018	COTTONWOOD RIVER VIA DOYLE CREEK	NEOSHO	11070202	21
BURLINGTON, CITY OF	M-NE07-OO02	6/30/2018	NEOSHO RIVER	NEOSHO	11070204	13
ERIE, CITY OF	M-NE25-OO01	6/30/2018	NEOSHO RIVER VIA UNNAMED TRIBUTARY	NEOSHO	11070205	15
ST. PAUL, CITY OF	M-NE59-OO02	6/30/2018	NEOSHO RIVER VIA FLAT ROCK CREEK VIA KDWP&T NEOSHO WILDLIFE AREA WETLANDS	NEOSHO	11070205	LM053401
GALESBURG, CITY OF	M-NE29-OO02	6/30/2018	LABETTE CREEK VIA UNNAMED TRIBUTARY	NEOSHO	11070205	22
WALNUT, CITY OF	M-NE66-OO01	9/30/2018	NEOSHO RIVER VIA ROCK CREEK VIA BIG WALNUT CREEK VIA LITTLE WALNUT CREEK	NEOSHO	11070205	46
SOLOMON, CITY OF	M-SO39-OO01	12/31/2018	SOLOMON RIVER	SOLOMON	10260015	1
GALENA, CITY OF	M-NE28-OO01	12/31/2018	SPRING RIVER VIA UNNAMED TRIBUTARY	NEOSHO	11070207	3
HILLSBORO, CITY OF	M-NE35-OO02	12/31/2018	SOUTH COTTONWOOD RIVER VIA UNNAMED TRIBUTARY	NEOSHO	11070202	456
FAIRVIEW, CITY OF	M-MO06-OO02	12/31/2018	WALNUT CREEK VIA SPRING CREEK VIA UNNAMED TRIBUTARY	MISSOURI	10240008	39
MULBERRY, CITY OF	M-MC27-OO01	3/31/2019	COX CREEK VIA UNNAMED TRIBUTARY	MARAIS DES CYGNES	10290104	324
CRAWFORD CO. S.D. #4 - FARLINGTON	M-MC52-OO01	3/31/2019	WEST FORK DRYWOOD CREEK VIA UNNAMED TRIBUTARY VIA DRAINAGE DITCH	MARAIS DES CYGNES	10290104	323
TIPTON, CITY OF	M-SO42-OO01	3/31/2019	SOUTH FORK SOLOMON RIVER VIA CARR CREEK VIA UNNAMED TRIBUTARY	SOLOMON	10260014	21

FACILITY NAME	PERMIT NUMBER	EXPIRATION DATE	RECEIVING STREAM	BASIN	HUC8	SEGMENT or LAKE PROJECT NAME CODE
UNIONTOWN, CITY OF	M-MC46-OO01	3/31/2019	MARMATON RIVER	MARAIS DES CYGNES	10290104	12
CENTROPOLIS SEWER DISTRICT	M-MC62-OO01	3/31/2019	EIGHT MILE CREEK VIA UNNAMED TRIBUTARY	MARAIS DES CYGNES	10290101	13
RICHMOND, CITY OF	M-MC43-OO01	3/31/2019	MIDDLE CREEK VIA UNNAMED TRIBUTARY	MARAIS DES CYGNES	10290101	50
POMONA, CITY OF	M-MC36-OO01	3/31/2019	MARAIS DES CYGNES RIVER	MARAIS DES CYGNES	10290101	18
SALINE COUNTY SEWER DISTRICT - KIPP	M-SH46-OO02	3/31/2019	GYPSUM CREEK VIA WEST BRANCH GYPSUM CREEK VIA UNNAMED TRIBUTARY	SMOKY HILL	10260008	44
LANE, CITY OF	M-MC19-OO01	3/31/2019	POTTAWATOMIE CREEK VIA UNNAMED TRIBUTARY	MARAIS DES CYGNES	10290101	51
USD #362 PRAIRIE VIEW SCHOOL	M-MC18-OO02	3/31/2019	ELM CREEK VIA UNNAMED TRIBUTARY	MARAIS DES CYGNES	10290102	40
BURLINGAME, CITY OF	M-MC07-OO01	3/31/2019	DRAGOON CREEK VIA SWITZLER CREEK	MARAIS DES CYGNES	10290101	80
MINNEAPOLIS, CITY OF	M-SO27-OO02	3/31/2019	LINDSEY CREEK VIA UNNAMED TRIBUTARY	SOLOMON	10260015	1
PALCO, CITY OF	M-SO30-OO02	3/31/2019	SPRING CREEK VIA UNNAMED TRIBUTARY	SOLOMON	10260013	817
RUSSELL, CITY OF	M-SH31-OO02	5/31/2019	FOSSIL CREEK VIA UNNAMED TRIBUTARY	SMOKY HILL	10260006	13
MORAN, CITY OF	M-MC25-OO01	6/30/2019	MARMATON RIVER VIA UNNAMED TRIBUTARY	MARAIS DES CYGNES	10290104	12
MOUND CITY, CITY OF	M-MC26-OO01	6/30/2019	LITTLE SUGAR CREEK	MARAIS DES CYGNES	10290102	33
LUCAS, CITY OF	M-SA08-OO02	6/30/2019	SALINE RIVER VIA WOLF CREEK	SALINE	10260010	12
PLEASANTON, CITY OF	M-MC35-OO01	6/30/2019	MARAIS DES CYGNES RIVER VIA MUDDY CREEK	MARAIS DES CYGNES	10290102	46

FACILITY NAME	PERMIT NUMBER	EXPIRATION DATE	RECEIVING STREAM	BASIN	HUC8	SEGMENT or LAKE PROJECT NAME CODE
PARKER, CITY OF	M-MC34-OO01	6/30/2019	NORTH FORK SUGAR CREEK VIA GOODRICH CREEK VIA UNNAMED TRIBUTARY	MARAIS DES CYGNES	10290102	39
PRINCETON, CITY OF	M-MC38-OO01	6/30/2019	MARAIS DES CYGNES RIVER VIA MIDDLE CREK	MARAIS DES CYGNES	10290101	50
SCRANTON MWTP	M-MC44-OO01	6/30/2019	DRAGOON CREEK VIA UNNAMED TRIBUTARY	MARAIS DES CYGNES	10290101	27
NATOMA, CITY OF	M-SA10-OO01	6/30/2019	SALINE RIVER VIA PARADISE CREEK	SALINE	10260009	7
BEVERLY, CITY OF	M-SA01-OO01	6/30/2019	SALINE RIVER VIA UNNAMED TRIBUTARY	SALINE	10260010	3
HARVEYVILLE, CITY OF	M-MC16-OO01	6/30/2019	DRAGOON CREEK	MARAIS DES CYGNES	10290101	27
GREELEY, CITY OF	M-MC14-OO01	6/30/2019	SOUTH FORK POTTAWATOMIE CREEK	MARAIS DES CYGNES	10290101	67
ELLSWORTH, CITY OF	M-SH07-OO01	6/30/2019	SMOKY HILL RIVER VIA OAK CREEK	SMOKY HILL	10260006	5
LOUISBURG - PLANT #2	M-MC20-OO02	6/30/2019	SOUTH WEA CREEK VIA UNNAMED TRIBUTARY	MARAIS DES CYGNES	10290102	20
BRONSON, CITY OF	M-MC06-OO01	6/30/2019	MARMATON RIVER VIA UNNAMED TRIBUTARY	MARAIS DES CYGNES	10290104	12
HILLSDALE IMPROVEMENT DISTRICT	M-MC60-OO01	6/30/2019	TEN MILE CREEK	MARAIS DES CYGNES	10290102	25
LOUISBURG MWTP #1 (NORTH)	M-MC20-OO01	6/30/2019	MARAIS DES CYGNES RIVER VIA SOUTH WEA CREEK VIA UNNAMED TRIBUTARY	MARAIS DES CYGNES	10290102	20
MELVERN MWTP	M-MC23-OO01	6/30/2019	MARAIS DES CYGNES RIVER VIA FROG CREEK VIA UNNAMED TRIBUTARY	MARAIS DES CYGNES	10290101	42
MILTONVALE MWTP	M-SH27-OO01	6/30/2019	CHAPMAN CREEK	SMOKY HILL	10260008	4
DELPHOS, CITY OF	M-SO11-OO02	6/30/2019	SOLOMON RIVER	SOLOMON	10260015	12
MARQUETTE	M-SH25-OO01	7/31/2019	SMOKEY HILL RIVER	SMOKY HILL	10260008	15

FACILITY NAME	PERMIT NUMBER	EXPIRATION DATE	RECEIVING STREAM	BASIN	HUC8	SEGMENT or LAKE PROJECT NAME CODE
USD #288 CENTRAL HEIGHTS	M-MC43-OO02	8/31/2019	POTTAWATOMIE CREEK VIA SAC BRANCH CREEK VIA NORTH FORK SAC BRANCH CREEK	MARAIS DES CYGNES	10290101	9054
GYPSUM, CITY OF	M-SH15-OO02	9/30/2019	GYPSUM CREEK	SMOKY HILL	10260008	18
OSBORNE, CITY OF	M-SO29-OO02	9/30/2019	SOUTH FORK SOLOMON RIVER	SOLOMON	10260014	3
ARCADIA, CITY OF	M-MC03-OO01	9/30/2019	COX CREEK VIA UNNAMED TRIBUTARY	MARAIS DES CYGNES	10290104	324
ESKRIDGE, CITY OF	M-MC09-OO01	9/30/2019	DRAGOON CREEK	MARAIS DES CYGNES	10290101	27
FULTON, CITY OF	M-MC12-OO01	9/30/2019	LITTLE OSAGE RIVER	MARAIS DES CYGNES	10290103	3
OSAGE CITY, CITY OF	M-MC29-OO01	9/30/2019	SALT CREEK	MARAIS DES CYGNES	10290101	29
QUENEMO, CITY OF	M-MC39-OO01	9/30/2019	MARAIS DES CYGNES RIVER	MARAIS DES CYGNES	10290101	30
REDFIELD, CITY OF	M-MC42-OO01	9/30/2019	MARMATON RIVER VIA UNNAMED TRIBUTARY	MARAIS DES CYGNES	10290104	12
SAVONBURG, CITY OF	M-NE60-OO01	9/30/2019	CANVILLE CREEK VIA UNNAMED TRIBUTARY	NEOSHO	11070205	16
PLAINVILLE, CITY OF	M-SA14-OO02	9/30/2019	PARADISE CREEK VIA UNNAMED TRIBUTARY	SALINE	10290009	7
ASSARIA, CITY OF	M-SH02-OO01	9/30/2019	SMOKY HILL RIVER	SMOKY HILL	10260008	13
TESCOTT MWTP	M-SA17-OO01	9/30/2019	SALINE RIVER	SALINE	10260010	3
SUNDOWNER WEST MEADOWS	M-SA20-OO01	9/30/2019	MULBERRY CREEK VIA UNNAMED TRIBUTARY	SALINE	10260010	21
OGDEN, CITY OF	M-KS51-OO02	9/30/2019	KANSAS RIVER VIA DRY BRANCH CREEK	KANSAS	10270101	6
KINCAID	M-MC17-OO01	9/30/2019	NORTH FORK LITTLE OSAGE RIVER VIA UNNAMED TRIBUTARY	MARAIS DES CYGNES	10290103	220
RANTOUL, CITY OF	M-MC40-OO01	9/30/2019	MARAIS DES CYGNES RIVER	MARAIS DES CYGNES	10290101	3

FACILITY NAME	PERMIT NUMBER	EXPIRATION DATE	RECEIVING STREAM	BASIN	HUC8	SEGMENT or LAKE PROJECT NAME CODE
LINN VALLEY, CITY OF	M-MC67-OO01	9/30/2019	MIDDLE CREEK VIA LINN VALLEY LAKE	MARAIS DES CYGNES	10290102	42
MC CRACKEN, CITY OF	M-SH26-OO02	10/31/2019	SMOKY HILL RIVER VIA BIG TIMBER CREEK	SMOKY HILL	10260006	27
WILSON, CITY OF	M-SH40-OO02	10/31/2019	SMOKY HILL RIVER VIA WILSON CREEK	SMOKY HILL	10260006	40
READING, CITY OF	M-MC41-OO01	10/31/2019	MARAIS DES CYGNES RIVER VIA UNNAMED TRIBUTARY	MARAIS DES CYGNES	10290101	37
FONTANA, CITY OF	M-MC10-OO01	10/31/2019	UNNAMED TRIBUTARY TO MARAIS DES CYGNES	MARAIS DES CYGNES	10290102	16
BLUE MOUND, CITY OF	M-MC05-OO02	10/31/2019	LITTLE OSAGE RIVER VIA IRISH CREEK	MARAIS DES CYGNES	10290103	202
ADMIRE, CITY OF	M-MC01-OO01	10/31/2019	ONE HUNDRED FORTY-TWO MILE CREEK VIA HILL CREEK	MARAIS DES CYGNES	10290101	71
QUINTER, CITY OF	M-SA15-OO01	10/31/2019	COYOTE CREEK VIA UNNAMED TRIBUTARY	SALINE	10260009	1061
ALLEN, CITY OF	M-MC02-OO01	10/31/2019	HILL CREEK VIA UNNAMED TRIBUTARY	MARAIS DES CYGNES	10290101	71
WILLIAMSBURG, CITY OF	M-MC50-OO02	10/31/2019	EAST BRANCH TEQUA CREEK VIA MILL CREEK	MARAIS DES CYGNES	10290101	1589
KDOT - FRANKLIN CO. REST AREA	M-MC31-OO02	10/31/2019	MIDDLE CREEK VIA PAYNE CREEK	MARAIS DES CYGNES	10290101	50
SPRING HILL, CITY OF (LAGOON)	M-MC45-OO01	11/30/2019	BULL CREEK VIA TEN MILE CREEK VIA SWEETWATER CREEK	MARAIS DES CYGNES	10290102	49
BENNINGTON, CITY OF	M-SO06-OO02	11/30/2019	SOLOMON RIVER VIA SAND CREEK	SOLOMON	10260015	4
GORHAM, CITY OF	M-SH10-OO01	12/31/2019	BIG CREEK VIA WALKER CREEK VIA UNNAMED TRIBUTARY	SMOKY HILL	10260007	2
LINCOLN, CITY OF	M-SA07-OO02	12/31/2019	SALINE RIVER	SALINE	10260010	5
DOWNS, CITY OF	M-SO12-OO02	12/31/2019	NORTH FORK SOLOMON RIVER VIA UNNAMED TRIBUTARY	SOLOMON	10260012	5

FACILITY NAME	PERMIT NUMBER	EXPIRATION DATE	RECEIVING STREAM	BASIN	HUC8	SEGMENT or LAKE PROJECT NAME CODE
KENSINGTON, CITY OF	M-SO21-OO02	12/31/2019	NORTH FORK SOLOMON RIVER VIA CEDAR CREEK VIA MIDDLE CEDAR CREEK	SOLOMON	10260012	19
ULYSSES, CITY OF	M-CI22-OO04	12/31/2019	FRAZIER LAKE ON NORTH FORK CIMARRON RIVER	CIMARRON	10260012	19
ANDERSON CO S. D. #1 - WELDA	M-MC53-OO01	12/31/2019	CEDAR CREEK VIA UNNAMED TRIBUTARY	MARAIS DES CYGNES	10290101	66
LINN CO. SD #1 - CENTERVILLE	M-MC64-OO01	12/31/2019	BIG SUGAR CREEK VIA SUGAR CREEK	MARAIS DES CYGNES	10290102	42
WESTPHALIA, CITY OF	M-MC49-OO01	12/31/2019	POTTAWATOMIE CREEK VIA CHERRY CREEK VIA UNNAMED TRIBUTARY	MARAIS DES CYGNES	10290101	74
WAVERLY, CITY OF	M-MC47-OO01	12/31/2019	ROCK CREEK VIA UNNAMED TRIBUTARY	MARAIS DES CYGNES	10290101	43
OVERBROOK, CITY OF	M-MC32-OO01	12/31/2019	POMONA RESERVOIR VIA VALLEY BROOK CREEK	MARAIS DES CYGNES	10290101	LM028001
PRESCOTT, CITY OF	M-MC37-OO02	12/31/2019	LITTLE OSAGE RIVER VIA LABERDIE CREEK VIA EAST LABERDIE CREEK	MARAIS DES CYGNES	10290103	13
LA CYGNE, CITY OF	M-MC18-OO01	12/31/2019	MARAIS DES CYGNES RIVER	MARAIS DES CYGNES	10290102	15
GLEN ELDER, CITY OF	M-SO18-OO01	12/31/2019	SOLOMON RIVER VIA LIMESTONE CREEK	SOLOMON	10260015	18
OBERLIN, CITY OF	M-UR17-OO02	12/31/2019	SAPPA CREEK	UPPER REPUBLICAN	10250011	4
BROOKVILLE, CITY OF	M-SA02-OO01	12/31/2019	WEST SPRING CREEK	SALINE	10260010	25
WAKEENEY, CITY OF	M-SH38-OO02	12/31/2019	BIG CREEK VIA UNNAMED TRIBUTARY	SMOKY HILL	10260007	7

FACILITY NAME	PERMIT NUMBER	EXPIRATION DATE	RECEIVING STREAM	BASIN	HUC8	SEGMENT or LAKE PROJECT NAME CODE
MILFORD, CITY OF	M-LR17-OO01	3/31/2020	REPUBLICAN RIVER (MILFORD RESERVOIR)	LOWER REPUBLICAN	10250017	LM019001
OLSBURG, CITY OF	M-BB18-OO01	3/31/2020	TUTTLE CREEK RESERVOIR VIA CARNAHAN CREEK VIA BOOTH CREEK VIA UNNAMED TRIBUTARY	BIG BLUE	10270205	LM021001
BUTLER CO. S.D #17 (BEAUMONT)	M-WA23-OO01	3/31/2020	WALNUT RIVER VIA HICKORY CREEK VIA NORTH BRANCH OF HICKORY CREEK	WALNUT	11030018	9012
MANKATO, CITY OF	M-LR16-OO02	3/31/2020	REPUBLICAN RIVER VIA MIDDLE BUFFALO CREEK	LOWER REPUBLICAN	10250017	9037
WHITING, CITY OF	M-KS81-OO01	3/31/2020	NEGRO CREEK VIA UNNAMED TRIBUTARY	KANSAS	10270103	43
NETAWAKA, CITY OF	M-KS49-OO01	3/31/2020	DELAWARE RIVER VIA STRAIGHT CREEK VIA SPRING CREEK VIA UNNAMED TRIBUTARY	KANSAS	10270103	42
HOME CITY SEWER DIS. 1 - MARSHALL CO.	M-BB27-OO01	3/31/2020	BIG BLUE RIVER VIA SPRING CREEK VIA UNNAMED TRIBUTARY	BIG BLUE	10270205	19
VERMILLION, CITY OF	M-BB20-OO01	3/31/2020	BLACK VERMILLION RIVER	BIG BLUE	10270205	14
MARYSVILLE, CITY OF	M-BB13-OO02	3/31/2020	BIG BLUE RIVER	BIG BLUE	10270205	20
GREENLEAF, CITY OF	M-BB08-OO01	3/31/2020	COON CREEK VIA UNNAMED TRIBUTARY	BIG BLUE	10270207	23
BLUE RAPIDS, CITY OF	M-BB04-OO01	3/31/2020	BIG BLUE RIVER	BIG BLUE	10270205	17
COURTLAND, CITY OF	M-LR09-OO01	3/31/2020	REPUBLICAN RIVER VIA BEAVER CREEK VIA UNNAMED TRIBUTARY	LOWER REPUBLICAN	10250017	45
CORNING, CITY OF	M-KS94-OO01	3/31/2020	VERMILLION CREEK	KANSAS	10270102	18
JEFFERSON CO. SD #7 & 8 (LAKE RIDGE)	M-KS56-OO04	3/31/2020	PERRY LAKE VIA UNNAMED TRIBUTARY	KANSAS	10270103	LM029001
ALMA, CITY OF	M-KS01-OO01	3/31/2020	MILL CREEK VIA UNNAMED TRIBUTARY	KANSAS	10270102	27
DELIA, CITY OF	M-KS10-OO01	3/31/2020	KANSAS RIVER VIA SALT CREEK	KANSAS	10270102	88

FACILITY NAME	PERMIT NUMBER	EXPIRATION DATE	RECEIVING STREAM	BASIN	HUC8	SEGMENT or LAKE PROJECT NAME CODE
RILEY, CITY OF	M-KS62-OO02	3/31/2020	KANSAS RIVER VIA WILDCAT CREEK	KANSAS	10270101	2
RANDOLPH, CITY OF	M-BB19-OO01	6/30/2020	TUTTLE CREEK RESERVOIR VIA FANCY CREEK VIA UNNAMED TRIBUTARY	BIG BLUE	10270205	LM021001
FRANKFORT, CITY OF	M-BB07-OO01	6/30/2020	BLACK VERMILLION RIVER	BIG BLUE	10270205	11
CENTRALIA, CITY OF	M-BB05-OO01	6/30/2020	BLACK VERMILLION RIVER VIA UNNAMED TRIBUTARY	BIG BLUE	10270205	14
LAKE WABAUNSEE IMP. DIST.	M-KS92-OO02	6/30/2020	KS RIVER/MILL CRK/EAST BRANCH MILL CRK	KANSAS	10270102	693
MORGANVILLE, CITY OF	M-LR18-OO01	6/30/2020	REPUBLICAN RIVER/ DRY CREEK	LOWER REPUBLICAN	10250017	1369
CLIFTON, CITY OF	M-LR06-OO01	6/30/2020	REPUBLICAN RIVER	LOWER REPUBLICAN	10250017	9
BUTLER CO. S.D. #09 (ROSALIA)	M-WA19-OO01	6/30/2020	HARRISON CREEK VIA UNNAMED TRIBUTARY	WALNUT	11030017	8
SILVER LAKE, CITY OF	M-KS69-OO01	6/30/2020	KANSAS RIVER VIA ENSIGN CREEK	KANSAS	10270102	11
LAKIN, CITY OF	M-UA24-OO01	6/30/2020	ARKANSAS RIVER VIA UNNAMED TRIBUTARY	UPPER ARKANSAS	11030001	3
KDOT - WABAUNSEE CO. REST AREA I-70	M-KS57-OO02	6/30/2020	MILL CREEK	KANSAS	10270102	27
GOFF, CITY OF	M-KS21-OO01	6/30/2020	SPRING CREEK VIA UNNAMED TRIBUTARY	KANSAS	10270103	42
USD #335 JACKSON HTS. SCHOOLS	M-KS23-OO02	6/30/2020	STRAIGHT CREEK VIA UNNAMED TRIBUTARY	KANSAS	10270103	28
BAILEYVILLE IMPROVEMENT DISTRICT #1	M-BB26-OO02	6/30/2020	BLACK VERMILLION RIVER VIA NORTH FORK BLACK VERMILLION RIVER VIA UNNAMED TRIBUTARY	BIG BLUE	10270205	15
USD #345 SEAMAN SENIOR HIGH SCHOOL	M-KS72-OO18	6/30/2020	SOLDIER CREEK VIA HALFDAY CREEK VIA UNNAMED TRIBUTARY	KANSAS	10270102	97

FACILITY NAME	PERMIT NUMBER	EXPIRATION DATE	RECEIVING STREAM	BASIN	HUC8	SEGMENT or LAKE PROJECT NAME CODE
WHITEWATER, CITY OF	M-WA16-OO02	9/30/2020	WALNUT RIVER VIA WEST BRANCH WHITEWATER RIVER	WALNUT	11030017	25
KDOT - GREENWOOD CO. REST AREA (K-96)	M-WA23-OO02	9/30/2020	SOUTH BRANCH LITTLE WALNUT RIVER VIA UNNAMED TRIBUTARY	WALNUT	11030018	34
OAKLEY, CITY OF	M-SH29-OO02	9/30/2020	NORTH BRANCH HACKBERRY CREEK VIA UNNAMED TRIBUTARY	SMOKY HILL	10260005	5
LEON, CITY OF	M-WA11-OO02	9/30/2020	LITTLE WALNUT RIVER	WALNUT	11030018	13
AUBURN, CITY OF	M-KS03-OO02	9/30/2020	WAKARUSA RIVER VIA UNNAMED TRIBUTARY	KANSAS	10270104	31
ONAGA, CITY OF	M-KS53-OO01	9/30/2020	VERMILLION CREEK VIA HISE CREEK	KANSAS	10270102	43
WHEATON, CITY OF	M-KS79-OO01	9/30/2020	CLEAR FORK OF THE BLACK VERMILLION RIVER	KANSAS	10270205	9
LITTLE RIVER, CITY OF	M-LA10-OO02	9/30/2020	LITTLE ARKANSAS RIVER	LITTLE ARKANSAS	11030012	14
AXTELL, CITY OF	M-BB01-OO01	9/30/2020	BIG BLUE RIVER VIA NORTH FORK BLACK VERMILLION RIVER	BIG BLUE	10270205	15
HANOVER, CITY OF	M-BB10-OO02	9/30/2020	LITTLE BLUE RIVER	BIG BLUE	10240207	2
WATERVILLE, CITY OF	M-BB22-OO01	9/30/2020	LITTLE BLUE RIVER	BIG BLUE	10270207	1
WASHINGTON, CITY OF	M-BB21-OO01	9/30/2020	MILL CREEK VIA PLUM CREEK	BIG BLUE	10270207	16
SUMMERFIELD, CITY OF	M-BB23-OO01	9/30/2020	BLACK VERMILLION RIVER VIA ROBIDOUX CREEK	BIG BLUE	10270205	16
TERRA HEIGHTS - RILEY CO.	M-BB25-OO05	9/30/2020	BIG BLUE RIVER VIA UNNAMED TRIBUTARY	BIG BLUE	10270205	2
BELVUE, CITY OF	M-KS05-OO01	9/30/2020	KANSAS RIVER VIA LOST CREEK VIA UNNAMED TRIBUTARY	KANSAS	10270102	60
HAVENSVILLE, CITY OF	M-KS22-OO01	9/30/2020	SPRING CREEK VIA STRAIGHT CREEK	KANSAS	10270102	48
HOYT, CITY OF	M-KS25-OO01	9/30/2020	WEST FORK MUDDY CREEK	KANSAS	10270102	93
MAYETTA, CITY OF	M-KS40-OO01	9/30/2020	SOUTH CEDAR CREEK VIA UNNAMED TRIBUTARY	KANSAS	10270103	9032
MCFARLAND, CITY OF	M-KS41-OO01	9/30/2020	MILL CREEK VIA PAW PAW CREEK	KANSAS	10270102	75

FACILITY NAME	PERMIT NUMBER	EXPIRATION DATE	RECEIVING STREAM	BASIN	HUC8	SEGMENT or LAKE PROJECT NAME CODE
ROSSVILLE, CITY OF	M-KS64-OO01	9/30/2020	CROSS CREEK	KANSAS	10270102	12
SOLDIER, CITY OF	M-KS70-OO01	9/30/2020	SOLDIER CREEK	KANSAS	10270102	9009
SHAWNEE CO. M.S.D. #2-INDIAN CRK	M-KS72-OO24	9/30/2020	INDIAN CREEK VIA UNNAMED TRIBUTARY	KANSAS	10270102	1367
WESTMORELAND, CITY OF	M-KS75-OO01	9/30/2020	EAST FORK ROCK CREEK	KANSAS	10270102	22
ATLANTA, CITY OF	M-WA02-OO01	9/30/2020	LOWER DUTCH CREEK VIA UNNAMED TRIBUTARY	WALNUT	11030018	20
DOUGLASS, CITY OF	M-WA07-OO03	9/30/2020	WALNUT RIVER	WALNUT	11030018	10
ELBING, CITY OF	M-WA08-OO01	9/30/2020	WHITEWATER RIVER VIA HENRY CREEK	WALNUT	11030017	33
BENTON, CITY OF	M-WA04-OO01	12/31/2020	WEST BRANCH WHITEWATER RIVER VIA UNNAMED TRIBUTARY	WALNUT	11030017	24
CUBA, CITY OF	M-BB06-OO01	12/31/2020	SOUTH FORK MILL CREEK	BIG BLUE	10270207	31
BURRTON, CITY OF	M-LA02-OO01	12/31/2020	KISIWA CREEK VIA NORTH BRANCH KISIWA CREEK	LITTLE ARKANSAS	11030012	15
EMMETT, CITY OF	M-KS16-OO01	12/31/2020	CROSS CREEK	KANSAS	10270102	12
TOWANDA, CITY OF	M-WA14-OO02	12/31/2020	WHITEWATER RIVER VIA UNNAMED TRIBUTARY	WALNUT	11030017	18
EVEREST, CITY OF	M-KS18-OO01	12/31/2020	OTTER CREEK VIA UNNAMED TRIBUTARY	KANSAS	10270103	41
UDALL, CITY OF	M-WA15-OO01	12/31/2020	WALNUT RIVER VIA STEWART CREEK VIA UNNAMED TRIBUTARY	WALNUT	11030018	28
CLYDE, CITY OF	M-LR07-OO01	12/31/2020	REPUBLICAN RIVER	LOWER REPUBLICAN	10250017	13
USD #450 SHAWNEE HEIGHTS JR-SR HIGH	M-KS72-OO14	12/31/2020	WHETSTONE CREEK VIA LAKE JIVARO VIA UNNAMED TRIBUTARY	KANSAS	10270102	LM075001
PAXICO, CITY OF	M-KS57-OO01	12/31/2020	MILL CREEK VIA MULBERRY CREEK	KANSAS	10270102	77
JEFFERSON CO SD #2 - INDIAN RIDGE	M-KS56-OO05	12/31/2020	PERRY LAKE VIA UNNAMED TRIBUTARY	KANSAS	10270103	LM029001

FACILITY NAME	PERMIT NUMBER	EXPIRATION DATE	RECEIVING STREAM	BASIN	HUC8	SEGMENT or LAKE PROJECT NAME CODE
MAPLE HILL, CITY OF	M-KS39-OO01	12/31/2020	MILL CREEK VIA UNNAMED TRIBUTARY	KANSAS	10270102	27
POTWIN, CITY OF	M-WA12-OO01	12/31/2020	WHITEWATER RIVER VIA BRUSH CREEK VIA UNNAMED TRIBUTARY	WALNUT	11030017	21
BEATTIE, CITY OF	M-BB03-OO01	12/31/2020	ROBIDOUX CREEK VIA WOLF CREEK	BIG BLUE	10270205	16
LEONARDVILLE, CITY OF	M-KS35-OO01	12/31/2020	WILDCAT CREEK VIA UNNAMED TRIBUTARY	KANSAS	10270101	2
LINWOOD, CITY OF	M-KS36-OO01	12/31/2020	STRANGER CREEK VIA NINE MILE CREEK	KANSAS	10270104	15
MERIDEN, CITY OF	M-KS43-OO01	12/31/2020	MUDDY CREEK VIA UNNAMED TRIBUTARY	KANSAS	10270102	2
CHAUTAUQUA, CITY OF	M-VE06-OO01	3/31/2021	TURKEY CREEK	VERDIGRIS	11070106	
JEFFERSON CO. S.D. #6 LAKE SHORE ESTATE	M-KS56-OO06	3/31/2021	PERRY LAKE VIA UNNAMED TRIBUTARY	KANSAS	10270103	LM029001
OSKALOOSA, CITY OF	M-KS54-OO01	3/31/2021	SLOUGH CREEK VIA UNNAMED TRIBUTARY	KANSAS	10270103	9
SEVERY, CITY OF	M-VE34-OO01	3/31/2021	SALT CREEK	VERDIGRIS	11070102	14
EDNA, CITY OF	M-VE12-OO01	3/31/2021	DEER CREEK	VERDIGRIS	11070103	51
MOUND VALLEY, CITY OF	M-VE28-OO01	3/31/2021	PUMPKIN CREEK VIA UNNAMED TRIBUTARY	VERDIGRIS	11070103	28
CEDAR VALE, CITY OF	M-VE05-OO01	3/31/2021	CANEY RIVER VIA CEDAR CREEK	VERDIGRIS	11070106	30
RANSOM, CITY OF	M-UA34-OO01	3/31/2021	WALNUT CREEK VIA BAZINE DRY CREEK	UPPER ARKANSAS	11030008	9