



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7**

11201 Renner Boulevard
Lenexa, Kansas 66219

Mr. Tom Stiles, Director
Bureau of Water
Kansas Department of Health
and Environment
1000 S.W. Jackson, Suite 420
Topeka, Kansas 66612-1368

Dear Mr. Stiles:

RE: Approval of TMDL document for Little Arkansas River from Alta Mills to Valley Center

This letter responds to the submission from the Kansas Department of Health and Environment, received by the U.S. Environmental Protection Agency, Region 7 on March 5, 2021, of a Total Maximum Daily Load document which contained TMDLs for total phosphorus. Water bodies in this watershed were identified on the 2018 and 2020 Kansas Section 303(d) Lists as impaired by total phosphorus and some segments were impaired by dissolved oxygen. This submission fulfills the Clean Water Act statutory requirement to develop TMDLs for impairments listed on a state's §303(d) list. The specific impairments (water body segments and causes) are:

Water Body Name	WBID	Cause
Little Arkansas R	1103001214	Total Phosphorus
Horse Cr	1103001219	Total Phosphorus
Salt Cr	1103001221	Total Phosphorus
Dry Cr	1103001222	Total Phosphorus
Lone Tree Cr	1103001220	Total Phosphorus
Sand Cr	1103001223	Total Phosphorus
Little Arkansas R	1103001210	Total Phosphorus
Black Kettle Cr	11030012368	Total Phosphorus and Dissolved Oxygen
Little Arkansas R	110300129	Total Phosphorus
Kisiwa Cr	1103001215	Total Phosphorus and Dissolved Oxygen
Little Arkansas R	110300125	Total Phosphorus
Emma Cr	110300126	Total Phosphorus and Dissolved Oxygen
Emma Cr, Middle	110300127	Total Phosphorus and Dissolved Oxygen

Emma Cr, West	110300128	Total Phosphorus and Dissolved Oxygen
Little Arkansas R	110300123	Total Phosphorus
Little Arkansas R	110300121	Total Phosphorus
Jester Cr	110300122	Total Phosphorus
Gooseberry Cr	1103001217	Total Phosphorus
Jester Cr, W Fk	1103001218	Total Phosphorus
Jester Cr, E Fk	110300129002	Total Phosphorus

The EPA has completed its review of the TMDL document and its supporting documentation and information. By this letter, the EPA approves these TMDLs submitted pursuant to CWA 303(d). Enclosed with this letter is the Region 7 TMDL Decision Document which summarizes the rationale for the EPA's approval of the TMDLs. The EPA believes the separate elements of the TMDLs described in the enclosed document adequately address the cause of concern, taking into consideration seasonal variation and a margin of safety.

Although the EPA does not review the monitoring or implementation plans submitted by the state for approval, the EPA acknowledges the state's efforts. The EPA understands that the state may use the monitoring plan to gauge the effectiveness of the TMDL and determine if future revisions are necessary or appropriate to meet applicable water quality standards. The EPA recognizes that technical guidance and support are critical to determining the feasibility of and achieving the goals outlined in these TMDLs. Therefore, the implementation plan in this TMDL document provides information regarding implementation efforts to achieve the loading reductions identified.

The EPA appreciates the thoughtful effort that the KDHE has put into these TMDLs. We will continue to cooperate with and assist, as appropriate, in future efforts by the KDHE to develop TMDLs. If you have any questions, contact Jennifer Kissel, of my staff, at (913) 551-7982.

Sincerely,

Jeffery Robichaud
 Director
 Water Division

Enclosure

cc: Michelle Probasco, KDHE

**United States Environmental Protection Agency
Region 7
Total Maximum Daily Load Approval**



**Little Arkansas River
KS**

Total Phosphorus and Dissolved Oxygen

Jeffery Robichaud
Director
Water Division

Date

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EPA Region 7 TMDL Review

Submittal Date || Initial: 12.28.20 Final: 3.5.21

Approved: Yes

TMDL ID	1103001201
State	KS
Document Name	KS Arkansas River TP and DO
Basin(s)	Little Arkansas
HUC(s)	110300120101, 110300120102, 110300120103, 110300120104, 110300120105, 110300120106, 110300120107, 110300120201, 110300120202, 110300120203, 110300120209, 110300120301, 110300120302, 110300120303, 110300120304, 110300120305, 110300120306, 110300120307, 110300120401, 110300120402, 110300120403, 110300120404, 110300120407, 110300120408, 110300120502
Water body(ies)	Little Arkansas River
Tributary(ies)	Horse Creek, Salt Cr, Dry Cr, Lone Tree Cr
Number of Segments	20
Number of Segments for Protection 303(d)(3)	0
Causes	Total Phosphorus and Dissolved Oxygen

Submittal Letter and Total Maximum Daily Load Revisions

The state submittal letter indicates final TMDL(s) for specific pollutant(s) and water(s) were adopted by the state and submitted to EPA for approval under Section 303(d) of the Clean Water Act [40 CFR § 130.7(c)(1)]. Include date submitted letter was received by EPA, date of receipt of any revisions and the date of original approval if submittal is a revised TMDL document.

The TMDL document was initially submitted by the Kansas Department of Health and Environment to Region 7 of the U.S. Environmental Protection Agency on December 28, 2020. Following comments from EPA, revised TMDL documents were submitted as emailed attachments on February 11, 2021, February 17, 2021, and March 5, 2021. EPA approves this latest version of the TMDL document.

Water Quality Standards Attainment

The targeted pollutant is validated and identified through assessment and data. The water body’s loading capacity for the applicable pollutant is identified and the rationale for the method used to establish the cause-and- effect relationship between the numeric target and the identified pollutant sources is described. The TMDL(s) and associated allocations are set at levels adequate to result in attainment of applicable water quality standards [40 CFR § 130.7(c)(1)]. A statement that the WQS will be attained is made.

The target pollutants, total phosphorus and dissolved oxygen, are validated and identified through assessment and data. The current median TP concentrations for waterbodies covered by the TMDL document range from 0.525 mg/L to 0.880 mg/L. Stream chemistry stations (SC) SC246, SC705, SC703, SC534, and SC282 are all listed as impaired for TP. Monitoring stations SC705, SC703, and SC534 are also listed as impaired for DO.

The main stem water-quality-limited segments and tributaries listed in the TMDL document are impaired for the following uses: Expected aquatic life, contact recreation and domestic water supply. Load capacities are based on TP management milestones and the estimated flow condition in the river.

Table 1: Current total phosphorus (TP) condition from 2000 to 2019 and Phase I and II TP milestones for the Arkansas River watershed (Table 18 in the TMDL document)

	Current Condition (2000-2018)	Phase I		Phase II	
	Median TP (mg/L)	TP Milestone (mg/L)	TP Reduction (%)	TP Milestone (mg/L)	TP Reduction (%)
Little Arkansas River at Alta Mills (SC246)	0.513	0.200	61	0.130	75
Black Kettle Creek near Halstead (SC703)	1.04	0.200	81	0.130	88
Kisiwa Creek near Halstead (SC703)	1.39	0.200	86	0.130	91
Emma Creek near Sedgwick (SC534)	0.574	0.200	65	0.130	77
Little Arkansas River at Valley Center (SC282)	0.558	0.200	64	0.130	77

The goal of the TMDL document will be to achieve the Kansas Surface Water Quality Standards by eliminating excessive primary productivity and impairment to uses. Additionally, the TMDL document establishes TMDLs for DO at these stations: SC705, SC703, and SC535.

The endpoints for successful implementation of the TMDL document will be attaining a Kansas Aquatic Life Use Index score greater than 13, a median sestonic chlorophyll-*a* concentrations less than or equal to 10 µg/L, dissolved oxygen concentrations greater than 5.0 mg/L, dissolved oxygen saturation less than 110%, and values within the range of 6.5 – 8.5 for pH. These endpoints apply at all points in the stream segments but are assessed at regular SC stations.

The TMDL document identifies two phases of TP management milestones to successfully attain the designated uses in the applicable waterbodies. The final phase milestone is a median concentration of 0.130 mg/L.

At median flows, the TMDL per day loading capacities (LC) for the stations are given below in Table 2.

The formula to calculate the TMDL is:

$$\text{TMDL} = \text{LC} = \text{WLA} + \text{LA} + \text{MOS}$$

Where: TMDL = total maximum daily load; LC = loading capacity; WLA = sum of wasteload allocations (point sources); LA = sum of load allocations (nonpoint sources); MOS = margin of safety (to account for uncertainty).

At median flows, the TMDL per day loading capacities for the stations are given below in Table 2 and in the TMDL document in Tables 30-34.

Table 2: TMDL Daily Load at Median Flow for Phase 2

Targeted Pollutant	Total Phosphorus					
	Station	Load Capacity (LC) (lbs/day)	Wasteload Allocation (WLA) (lbs/day)	MS4 Allocation (lbs/day)*	Reserve Wasteload Allocation (lbs/day)*	Load Allocation (lbs/day)
Little Arkansas River at Alta Mills (SC246)		4.14	4.14	-	-	0
Black Kettle Creek near Halstead (SC703)		1.24	1.24	-	-	0
Kisiwa Creek near Halstead (SC705)		4,11	4.11	0*	0*	0
Emma Creek near Sedgwick (SC534)		3.95	3.95	-	-	0
Little Arkansas River at Valley Center (SC282)		6.05	6.05	-	-	0

*Flows higher than median flow have allocations for these categories.

- Not included in TMDL allocations for this station.

The targets in the TMDL document are established at a level necessary to attain and maintain water quality standards.

Designated Use(s), Applicable Water Quality Standard(s) and Numeric Target(s)

The submittal describes applicable water quality standards, including beneficial uses, applicable numeric and/or narrative criteria, and a numeric target. If the TMDL(s) is based on a target other than a numeric water quality criterion, then a numeric expression, site specific if possible, was developed from a narrative criterion and a description of the process used to derive the target is included in the submittal.

The TMDL document included the appropriate narrative criteria applicable to nutrients, and the numeric criteria applicable to DO. Table 1 of the TMDL document lists the designated uses by waterbody. There are 20 water body segments included in the TMDL document. All segments have expected aquatic life and some type of recreational use. See Table 1 in the TMDL document for the full list of designated uses.

The TMDL document identifies the impaired uses as expected aquatic life, contact recreation and domestic water supply.

The TMDL TP management milestones relate the narrative water quality standards for the introduction of plant nutrients into surface waters (Kansas Administrative Regulations (K.A.R.) 28-16-28e(d)(2)(A)), K.A.R. 26-16-28e(d)(3)(D), K.A.R. 28-16-28e(d)(7)(A) and the prohibition of taste and odor producing substances of artificial origin impacting conventional water treatment or that impart an unpalatable flavor to edible aquatic or semi aquatic life or terrestrial wildlife, or that result in noticeable odors in the vicinity of surface waters K.A.R. 28-16-28e(b)(7).

The TMDL document also identifies EPA approved numeric water quality standards for DO and pH. DO is a cause of current impairment at SC705, SC703, and SC534. Specific numeric criteria for DO is that artificial sources of pollution will not cause DO to fall below 5.0 mg/L in surface waters, K.A.R. 28-16-28e(e). In the TMDL document, DO is addressed by controlling phosphorus. Excessive primary production alters DO as the chemical reactions of photosynthesis and respiration change the ambient levels of oxygen and acid-base balance of the water body.

An example TMDL for each monitoring station is given in Tables 30-34 of the TMDL document. The TMDL total phosphorus milestones must be met at all points within the waters. The calculations are made at monitoring stations because that is where the data exists to make these calculations. The load duration curve method uses the concentration milestone and flow to calculate a load.

Pollutant(s) of Concern

A statement that the relationship is either directly related to a numeric water quality standard, or established using surrogates and translations to a narrative WQS is included. An explanation and analytical basis for expressing the TMDL(s) through surrogate measures, or by translating a narrative water quality standard to a numeric target is provided (e.g., parameters such as percent fines and turbidity for sediment impairments, or chlorophyll-a and phosphorus loadings for excess algae). For each identified pollutant, the submittal describes analytical basis for conclusions, allocations and a margin of safety that do not exceed the loading capacity. If the submittal is a revised TMDL document, there are refined relationships linking the load to water quality standard attainment. If there is an increase in the TMDL(s), there is a refined relationship specified to validate that increase (either load allocation or wasteload allocation). This section will compare and validate the change in targeted load between the versions.

There is an established link between the narrative water quality standards and the total phosphorus management milestones. The TMDL document identifies the 25th percentile of total phosphorus medians in the ecoregion in which these water bodies are located as the Phase II milestone.

EPA agrees the milestones as explained will address the narrative and numeric criteria outlined in the TMDL document. Once met, the milestones will attain and maintain water quality standards.

Source Analysis

Important assumptions made in developing the TMDL document, such as assumed distribution of land use in the watershed, population characteristics, wildlife resources and other relevant information affecting the characterization of the pollutant of concern and its allocation to sources, are described. Point, nonpoint and background sources of pollutants of concern are described, including magnitude and location of the sources. The submittal demonstrates all significant sources have been considered. If this is a revised TMDL document any new sources or removed sources will be specified and explained.

In the absence of a national pollutant discharge elimination system permit, the discharges associated with sources were applied to the load allocation, as opposed to the wasteload allocation for purposes of this TMDL document. The decision to allocate these sources to the LA does not reflect any determination by EPA as to whether these discharges are, in fact, unpermitted point source discharges within this watershed. In addition, by establishing these TMDL(s) with some sources treated as LAs, EPA is not determining that these discharges are exempt from NPDES permitting requirements. If sources of the allocated pollutant in this TMDL document are found to be, or become, NPDES-regulated discharges, their loads must be considered as part of the calculated sum of the WLAs in this TMDL document. Any WLA in addition to that allocated here is not available.

The TMDL document identified both point and nonpoint sources of total phosphorus loading.

Point sources are listed in Table 19 of the TMDL document with the monitoring site to which they discharge. Appendix A of this decision document lists the permits and permit numbers in the watershed. A summary of the permitted facility types is below in Table 3 of this decision document. The Little Arkansas River watershed also has one MS4 permit for the City of Hutchinson.

Table 3: NPDES permitted treatment/facility types in the TMDL watershed.

Treatment/Facility Type	Number
Concrete	1
Discharging	6
Discharging Lagoon and Mechanical WWTP	1
Industrial Mechanical WWTP	1
Industrial Pretreatment	2
Mechanical WWTP	3
Non-discharging lagoon	8
Surface Water treatment Plant	1
Surface water treatment plant and discharging lagoon	1

Per the TMDL document, livestock and waste management systems consists of 92 state-certified or state-permitted Animal Feeding Operations and Concentrated Animal Feeding Operations within the Cowskin Creek TMDL watershed. The state has determined there are no Concentrated Animal Feeding Operations (located in the Cowskin Creek watershed) large enough or meeting definitional criteria to require a federal NPDES permit.

Any Concentrated Animal Feeding that does not obtain an NPDES permit must operate as a no-discharge facility. A discharge from an unpermitted Concentrated Animal Feeding Operation is a violation of Section 301 of the Clean Water Act. It is the EPA’s position that all Concentrated Animal

Feeding Operations should obtain an NPDES permit because it provides clarity of compliance requirements. This TMDL decision document does not reflect a determination by the EPA that such facilities do not meet the definition of a Concentrated Animal Feeding Operation nor that the facility does not need to obtain a permit. To the contrary, a Concentrated Animal Feeding Operation that discharges has a duty to obtain a permit. If it is determined that any such operation is a Concentrated Animal Feeding Operation that discharges, any future WLA assigned to the facility must not result in an exceedance of the sum of the WLAs in the TMDL document as approved.

Overall land use consists mostly of cultivated crops (63 percent), and pasture/grassland (26 percent). Cultivated cropland may contribute TP loads to the watershed from fertilizer run off. Table 24 in the TMDL document and Table 4 below has a summary of land use data by percent for the TMDL watershed.

Table 4: Data from the 2011 National Land Cover Database for land cover by percent in the Little Arkansas River Watershed. (Table 24 in the TMDL document)

Land Use (percent)						
Open Water	Development	Barren	Forest	Grassland	Cultivated Crops	Wetlands
1	6	0	3	26	63	1

In the six counties that the TMDL watershed is in, there are 10,000 permitted diversions. The main source of water (86% of diverted water in 2017) is groundwater. The main use for the diverted water in these counties is irrigation.

The total population in the six counties, according to the 2010 U.S. census, was 649,000 and has increased in population by 8% since 2000 (Table 27 in the TMDL document.)

On-site waste treatment systems were estimated as 3,218 septic systems in the watershed using the Spreadsheet Tool for Estimating Pollutant Loads. These systems have an estimated failure rate of 10 - 15 percent.

The majority of the watershed (72%) has soil with very high permeability. Run off from the watershed is primarily expected at rates in excess of 3.43 inches of rainfall per hour. The range of soil permeability in the watershed is 0.01 to 17.3 in/hr, but overall, the watershed is in the category of high soil permeability.

Phosphorus sources can be found throughout the landscape and in terrestrial and aquatic biota. Wildlife can also increase phosphorus loadings.

As submitted, the TMDL document contains a complete listing of all known pollutant sources.

Allocation - Loading Capacity

The submittal identifies appropriate loading capacities, wasteload allocations for point sources and load allocations for nonpoint sources. If no point sources are present, the WLA is stated as zero. If no nonpoint sources are present, the LA is stated as zero [40 CFR § 130.2(i)]. If this is a revised TMDL document the change in loading capacity will be documented in this section. All TMDLs must give a daily number. Establishing TMDL “daily” loads consistent with the U.S. Court of Appeals for the D.C. circuit decision in Friends of the Earth, Inc. v. EPA, et al., No. 05-5015, (April 25, 2006).

The LC is identified at each stream sampling station as part of a load duration curve calculating load based on TP concentration and flow at various flow percentiles of flow exceedance. As loads approach those identified under Phase I, a biological assessment will determine compliance with the narrative nutrient criteria. Presuming one or more of the numeric endpoints are not met at the end of Phase I, Phase II will commence. Analysis has shown that all goals should be met at Phase II loads.

Phase II maximum daily loads at median flow (in pounds per day) are listed in Table 2 of this decision document, and Tables 30-34 in the TMDL document.

The LCs are calculated at monitoring stations, but the targeted TP concentrations apply at all points in the segments cover by this TMDL.

EPA agrees that the LC will attain and maintain water quality standards.

Wasteload Allocation Comment

The submittal lists individual wasteload allocations for each identified point source [40 CFR § 130.2(h)]. If a WLA is not assigned it must be shown that the discharge does not cause or contribute to a water quality standard excursion, the source is contained in a general permit addressed by the TMDL, or extenuating circumstances exist which prevent assignment of individual WLA. Any such exceptions must be explained to a satisfactory degree. If a WLA of zero is assigned to any facility it must be stated as such [40 CFR § 130.2(i)]. If this is a revised TMDL document, any differences between the original TMDL(s) WLA and the revised WLA will be documented in this section.

The WLAs are based on the likelihood of their being a source of TP. For sources not expected to contribute TP, their WLAs are set to zero. Discharging lagoons, the industrial mechanical WWTP and surface water treatment plants are calculated at their currently discharged mean TP concentrations. The TP WLA assigned to the industrial municipal WWTP and the ASR surface water treatment plants are based on current mean flow, though design flow is used if that is unavailable. A reserve WLA has been established for SC703 and SC282 watershed to accommodate growth of the developed area in the watershed.

The facility by facility WLAs are given in Table 29 of the TMDL document and the sum of the WLAs by monitoring station are given in Tables 30-34 of the TMDL document.

Table 5: Phase II WLA at median flow (pounds/day)

SC Station	WLA	Reserve WLA	MS4 Allocation	Reserve MS4 Allocation	Sum WLA
SC246	5.41	-	-	-	5.41
SC705	1.21	-	-	-	1.21
SC703	4.11	-	0*	0*	4.11
SC534	3.95	-	-	-	3.95
SC282	6.05	0*	-	-	6.05

*Flows higher than median flow have allocations for these categories.

- TMDL allocations for this station not included.

Load Allocation Comment

All nonpoint source loads, natural background and potential for future growth are included. If no nonpoint sources are identified, the load allocation must be given as zero [40 CFR §130.2(g)]. If this is a revised TMDL document, any differences between the original TMDL(s) LA and the revised LA will be documented in this section.

The LA is the amount of the pollutant load that is assigned to nonpoint sources and includes all existing and future nonpoint sources, as well as natural background contributions. The LAs are calculated as the remainder of the LC after the allocations to the WLA and the MOS.

The Phase II maximum daily LA at median flow (in pounds per day) are listed in Table 6 below, and in Tables 30-34 of the TMDL document.

Table 6: Phase II LA at median flow (pounds per day)

SC Station	LA
SC246	3.14
SC705	0*
SC703	0*
SC534	0*
SC282	0*

*Flows higher than median flow have allocations for these categories.

Margin of Safety

The submittal describes explicit and/or implicit margins of safety for each pollutant [40 CFR § 130.7(c)(1)]. If the MOS is implicit, the conservative assumptions in the analysis for the MOS are described. If the MOS is explicit, the loadings set aside for the MOS are identified and a rationale for selecting the value for the MOS is provided. If this is a revised TMDL document, any differences in the MOS will be documented in this section.

This MOS for this TMDL document is implicit. This is accounted for in the multiple targets and phased implementation of targets. The TMDL document shows that the Phase I milestones are compatible with meeting the aquatic life use. The Phase II milestones will result in median total phosphorus concentrations 75 to 91 percent lower than current TP concentrations.

EPA agrees that the state has provided MOS to support the TMDL.

Seasonal Variation and Critical Conditions

The submittal describes the method for accounting for seasonal variation and critical conditions in the TMDL(s) [40 CFR § 130.7(c)(1)]. Critical conditions are factors such as flow or temperature which may lead to the excursion of the WQS. If this is a revised TMDL document, any differences in conditions will be documented in this section.

The load duration curve accounts for seasonal variation and critical conditions.

EPA agrees that the state considered seasonal variation and critical conditions during the analysis of this TMDL and the setting of TMDL targets.

Public Participation

The submittal describes required public notice and public comment opportunities and explains how the public comments were considered in the final TMDL(s) [40 CFR § 130.7(c)(1)(ii)].

The public was given the opportunity to provide feedback during the TMDL process through website postings and public hearings. The TMDL was posted for public review on November 23, 2020 and a public hearing was held on December 23, 2020. No comments were received from the public.

EPA agrees that the public has had a meaningful opportunity to comment on the TMDL document.

Monitoring Plan for TMDL(s) Under a Phased Approach

The TMDL identifies a monitoring plan that describes the additional data to be collected to determine if the load reductions required by the TMDL lead to attainment of water quality standards, and a schedule for considering revisions to the TMDL(s) (where a phased approach is used) [40 CFR § 130.7]. If this is a revised TMDL document, monitoring to support the revision will be documented in this section. Although EPA does not approve the monitoring plan submitted by the state, EPA acknowledges the state's efforts. EPA understands that the state may use the monitoring plan to gauge the effectiveness of the TMDLs and determine if future revisions are necessary or appropriate to meet applicable water quality standards.

The TMDL document identified stations SC246 and SC282 for future water quality monitoring. Biological monitoring is to continue at site SB727.

Reasonable Assurance

Reasonable assurance only applies when less stringent wasteload allocation are assigned based on the assumption that nonpoint source reductions in the load allocation will be met [40 CFR § 130.2(i)]. This section can also contain statements made by the state concerning the state's authority to control pollutant loads. States are not required under Section 303(d) of the Clean Water Act to develop TMDL implementation plans and EPA does not approve or disapprove them. However, this TMDL document provides information regarding how point and nonpoint sources can or should be controlled to ensure implementation efforts achieve the loading reductions identified in this TMDL document. EPA recognizes that technical guidance and support are critical to determining the feasibility of and achieving the goals outlined in this TMDL document. Therefore, the discussion of reduction efforts relating to point and nonpoint sources can be found in the implementation section of the TMDL document and are briefly described below.

The states have the authority to issue and enforce state operating permits. Inclusion of effluent limits into a state operating permit and requiring that effluent and instream monitoring be reported to the state should provide reasonable assurance that instream water quality standards will be met. Section 301(b)(1)(C) requires that point source permits have effluent limits as stringent as necessary to meet WQS. However, for wasteload allocations to serve that purpose, they must themselves be stringent enough so that (in conjunction with the water body's other loadings) they meet WQS. This generally occurs when the TMDL(s)' combined nonpoint source load allocations and point source WLAs do not exceed the WQS-based loading capacity and there is reasonable assurance that the TMDL(s)' allocations can be achieved. Discussion of reduction efforts relating to nonpoint sources can be found in the implementation section of the TMDL document.

The TMDL requires reasonable assurances that any less stringent WLA will be met through greater reductions in the LAs. The TMDL does not depend on increased nonpoint source reductions to account for less stringent WLAs.

In addition, the TMDL document identified authorities available to the state to direct the called for reductions.

1. K.S.A 65-164 and 165 empowers the Secretary of KDHE to regulate the discharge of sewage into the waters of the state.
2. K.S.A. 65-171d empowers the Secretary of KDHE to prevent water pollution and to protect the beneficial uses of the waters of the state through required treatment of sewage and established water quality standards and to require permits by persons having a potential to discharge pollutants into the waters of the state.
3. K.S.A 2002 Supp. 82a-2001 identifies the classes of recreation use and defines impairment for streams.
4. K.A.R. 28-16-69 through 71 implements water quality protection by KDHE through the establishment and administration of critical water quality management areas on a watershed basis.
5. K.S.A. 2-1915 empowers the State Conservation Commission to develop programs to assist the protection, conservation, and management of soil and water resources in the state, including riparian areas.
6. K.S.A. 75-5657 empowers the State Conservation Commission to provide financial assistance for local project work plans developed to control nonpoint source pollution.
7. K.S.A. 82a-091, et. Seq. empowers the Kansas Water Office to develop a state water plan directing the protection and maintenance of surface water quality for the waters of the state.
8. K.S.A. 82a-951 creates the State Water Plan Fund to finance the implementation of the *Kansas Water Plan*, including selected WRAPS.
9. The *Kansas Water Plan* provides the guidance to state agencies to coordinate programs intent on protecting water quality and to target those programs of geographic areas of the state for high priority in implementation.

The State Water Fund provides \$12-13 million annually for implementation of water quality and pollutant reduction activities.

Appendix A

Table 7: Facilities in TMDL Watershed Table 29 in the TMDL document – Phase I total phosphorus wasteload allocations for discharging NPDES permitted facilities.

Permittee	Facility Type	Permit Number	WLA lbs/day	WLA lbs/year
City of Geneseo	Discharging Lagoon	KS0098175	0.35	128
City of Inman	Discharging Lagoon	KS0080292	2.21	805
City of Little River	Discharging Lagoon	KS0085758	1.69	618
City of Windom	Discharging Lagoon	KS0051721	0.46	168
City of Buhler	Mechanical WWTP	KS0027553	1.40	512

TP Wasteload Allocation for Little Arkansas River at Alta Mills (SC246)			6.11	2,230
City of Moundridge	Discharging Lagoon and Mechanical WWTP	KS0021008	5.33	1,944
TP Wasteload Allocation for Black Kettle Creek near Halstead (SC705)			5.33	1,944
Wichita ASR Phase I Treatment Plant	Surface Water Treatment Plant – Discharging Lagoon	KS0099392	8.35	3,049
City of Burrton	Discharging Lagoon	KS0049786	2.59	945
TP Wasteload Allocation for Kisiwa Creek near Halstead (SC703)			10.9	3,993
City of Goessel	Discharging Lagoon	KS0081060	1.55	567
AGCO	Industrial Mechanical WWTP	KS0080951	3.74	1,364
City of Hesston	Mechanical WWTP	KS0022799	10.9	3,964
TP Wasteload Allocation for Emma Creek near Sedgwick (SC534)			16.2	5,909
Wichita ASR Phase II	Surface Water Treatment Plant	KS0099694	4.45	1,623
City of Halstead	Mechanical WWTP	KS0026263	3.51	1,281
TP Wasteload Allocation for Little Arkansas River at Valley Center (SC282)			7.96	2,905
TP Sub-watershed Total Wasteload Allocation			46.5	16,973
TP Total Reserve Wasteload Allocation			4.65	1,697
TP Total Wasteload Allocation			51.2	18,670

Table 8: Facilities assigned no WLA

Permittee	Kansas Permit Number	NPDES Permit Number	Treatment/Facility Types
Reno Co. Sewer District #8*	M-AR49-NO08	KSJ000699	Non-discharging Lagoon
Gardenview Mennonite Church*	C-LA06-NO03	KSJ000565	Non-discharging Lagoon
Moridge Manufacturing, Inc**	P-LA12-OO01	KSP008	Industrial Pretreatment

Reno Co. Blue Spruce Sewer District #3 and #10*	M-AR49-NO03	KSJ0453	Non-discharging Lagoon
Victory Village*	C-AR49-NO01	KSJ0599	Non-discharging Lagoon
Cook's Mobile Home Court*	C-LA07-NO01	KSJ000199	Non-discharging Lagoon
MJ's Truck Repair LLC*	C-LA12-NO01	KSJ000566	Non-discharging Lagoon
Excel Industries, Inc.**	P-LA07-IO01	KSP000046	Industrial Pretreatment
Builders Concrete & Supply/Hesston*	I-LA07-PR01	KSG110032	Concrete Plant
KDOT – Harvey Co. Rest Stop*	M-LA13-NO01	KSJ000383	Non-discharging Lagoon
Spring Lakes Resort*	C-LA06-NO02	KSJ00564	Non-discharging Lagoon

*Prohibited from discharging. Facilities not expected to cause or contribute to the TP impairment in the watershed.

**Must meet pretreatment standards. TP discharge is accounted for within the NPDES permit.

Table 9: NPDES Municipal Separate Storm Sewer System Permit in the watershed (Table 20 in the TMDL document).

Permittee	Kansas Permit Number	NPDES Permit Number	Permit Expiration
City of Hutchinson	M-AR49-SN01	KSR440009	October 31, 2021

Table 10: Certified or permitted Animal Feeding Operations and Concentrated Animal Feeding Operations in the Little Arkansas River Watershed. (All CAFOs and AFOs in the watershed are assigned a 0 WLA.) (Table 21 in the TMDL document)

Kansas Permit Number	County	Livestock Type	Livestock Total
Little Arkansas River at Alta Mills (SC246)			
A-ARRC-S007	Rice	Swine	2,700
A-LAHV-BA16	Harvey	Beef	500
A-LAMP-B001	McPherson	Beef	600
A-LAMP-B002	McPherson	Beef	915
A-LAMP-B008	McPherson	Beef	160
A-LAMP-BA01	McPherson	Beef	700
A-LAMP-BA02	McPherson	Beef	250
A-LAMP-BA04	McPherson	Beef	100
A-LAMP-BA05	McPherson	Beef	400

A-LAMP-BA10	McPherson	Beef	20
A-LAMP-BA11	McPherson	Beef	200
A-LAMP-BA12	McPherson	Beef	200
A-LAMP-BA18	McPherson	Beef	147
A-LAMP-BA22	McPherson	Beef	200
A-LAMP-CA01	McPherson	Beef	1,000
A-LAMP-FA01	McPherson	Beef/Chickens	33,000
Little Arkansas River at Alta Mills (SC246) Continued			
A-LAMP-FA03	McPherson	Chickens	27,400
A-LAMP-FA04	McPherson	Turkeys	7,000
A-LAMP-M005	McPherson	Dairy	336
A-LAMP-M028	McPherson	Dairy	310
A-LAMP-S025	McPherson	Swine	2,000
A-LAMP-T001	McPherson	Truckwash	0
A-LARC-B001	Rice	Beef	999
A-LARC-BA01	Rice	Beef	100
A-LARC-MA01	Rice	Dairy	40
A-LARC-S005	Rice	Swine	4,086
A-LARC-S006	Rice	Swine	3,690
A-LARC-T001	Rice	Truckwash	0
A-LARN-BA01	Reno	Beef	30
A-LARN-H002	Reno	Swine	5,400
N-LAMP-6197	McPherson	Dairy	300
Emma Creek near Sedgwick (SC534)			
A-LAHV-B006	Harvey	Beef	200
A-LAHV-B007	Harvey	Beef	300
A-LAHV-BA05	Harvey	Beef	100
A-LAHV-BA08	Harvey	Beef	20
A-LAHV-BA11	Harvey	Beef	200