



**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 Cowskin Creek Wichita, Kansas to Belle Plaine, Kansas

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. 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
Cowskin Cr	1103001314	Total Phosphorus
Cowskin Cr	1103001313	Total Phosphorus
Dry Cr	1103001315	Total Phosphorus
Cowskin Cr	1103001312	Total Phosphorus
Dry Cr	1103001316	Total Phosphorus
WVC Floodway	110300139010	Total Phosphorus
WVC Floodway	110300139011	Total Phosphorus
WVC Floodway	110300139001	Total Phosphorus
Big Slough	1103001311	Total Phosphorus
WVC Floodway	11030013456	Total Phosphorus
Cowskin Cr	1103001310	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 the 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 Jared Schmalstieg, of my staff, at (913) 551-7688.

Sincerely,

Jeffery Robichaud
Director
Water Division

Enclosure

cc: Michelle Probasco, KDHE

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



**Cowskin Creek Wichita to Belle Plaine
KS**

Total Phosphorus

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	1103001301
State	KS
Document Name	KS Cowskin Creek TP
Basin(s)	Middle Arkansas-Slate
HUC(s)	110300130102, 110300130103, 110300130104, 110300130105, 110300130302, 110300130304
Water body(ies)	Cowskin Creek from Wichita to Belle Plaine and WVC Floodway
Tributary(ies)	Dry Cr, WVC Floodway, Big Slough
Number of Segments	11
Number of Segments for Protection 303(d)(3)	0
Causes	Total Phosphorus

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 the 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 the 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 the EPA, revised TMDL documents were submitted as emailed attachments on February 18, 2021 and March 5, 2021. The EPA approves this latest and final 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 pollutant, total phosphorus, is validated and identified through assessment and data. The current (2000-2019) median TP concentration for waterbodies covered by the TMDL document range from 0.226 to 0.478 mg/L. The stream chemistry stations (SC) SC730, SC288, and SC702 were all listed as impaired for TP. The main stem water quality limited segments and tributaries listed in the TMDL document are impaired for the following uses: Special and 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 conditions from 2000 to 2019 and Phase I and II TP milestones for Cowskin Creek from Wichita to Belle Plaine. (Table 16 in the TMDL document)

Station	Current Condition (2000-2019)	Phase I		Phase II	
	Median TP (mg/L)	TP Milestone (mg/L)	TP Reduction (%)	TP Milestone (mg/L)	TP Reduction (%)
Cowskin Creek at Wichita (SC730)	0.420	0.200	52	0.130	69
Cowskin Creek in Wichita-Valley Center Floodway (SC288)	0.226	0.200	11	0.130	42
Cowskin Creek near Belle Plaine (SC702)	0.478	0.200	58	0.130	73

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.

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 locations within the stream segments but are assessed at 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.

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 (LC) for the stations are given below in Table 2, and in the TMDL document in Tables 28-30:

Table 2: TMDL Daily Load at Median Flow

TMDL Daily Load – Phase II at median flow						
Targeted Pollutant		Total phosphorus (TP)				
Station	Load Capacity (LC) (lbs/day)	Wasteload Allocation (WLA) (lbs/day)	Reserve Wasteload Allocation (lbs/day)*	MS4 Allocation (lbs/day)*	Reserve MS4 Allocation (lbs/day)*	Load Allocation (lbs/day)*
Cowskin Creek at Wichita (SC730)	4.5	4.5	0*	0*	0*	0*
Cowskin Creek in Wichita-Valley Center Floodway (SC288)	7.6	7.6	0*	0*	0*	0*
Cowskin Creek near Belle Plaine (SC702)	2.4	2.4	0*	0*	0*	0*

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

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. Table 2 of the TMDL document lists the designated uses by waterbody. There are 11 water body segments included in the TMDL document. The designated uses include special and expected aquatic life use, primary and secondary contact recreation, domestic water supply, food procurement, groundwater recharge, industrial, irrigation, and livestock watering. See Table 2 in the TMDL document for the list of designated uses of each stream segment.

The TMDL document identifies the impaired uses as special and 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 identified the EPA approved numeric water quality standards for dissolved oxygen and pH. In Kansas' Water Quality Standards at K.A.R. 28-16-28e(e), which states that the dissolved oxygen criterion is 5 mg/L. In Kansas' Water Quality Standards at K.A.R. 28-16-28e(e) Tables of Numeric Criteria, specific numeric criteria for pH is that artificial sources of pollution shall not cause the pH of any surface water outside of a zone of initial dilution to be below 6.5 and above 8.5.

TMDLs for each monitoring station are given in Tables 28-30 in 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.

The 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 the 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, the 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 17 in the TMDL document with the monitoring site in the stream segment to which they discharge. Appendix A of this Decision Document lists the permits and permit numbers in the watershed. Table 3 below is a summary of the number of each type of NPDES permitted facility (Non-CAFO) in the watershed. There are 25 permitted facilities (Non-CAFO) identified.

Table 3: Types of NPDES permitted facilities in the TMDL watershed (Non-CAFO).

Type of NPDES permitted facility	Number of permitted facilities in watershed
Nondischarging lagoon	6
Concrete Plant	5
Industrial pretreatment	1
Discharging lagoon	2
Mechanical WWTF	5
Industrial dischargers	6

Per the TMDL document, livestock and waste management systems consists of 21 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.

Within Sedgwick and Sumner county, there are a total of 4,216 water diversions. The main source of water (64% of diverted water in 2017) is groundwater. Diverted water systems in the two counties are primarily for irrigation and municipal purposes.

On-site waste treatment systems were estimated as 178 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 (59%) has soil with very high permeability. Run off from the watershed is primarily expected at rates in excess of 3.43 inches per hour. The range of soil permeability in the watershed is 0.01 to 13 in/hr, but overall, the watershed is in the category of extremely high soil permeability.

Background sources of phosphorus are located in the landscape and in the soil profile. Terrestrial and aquatic biota also contribute to phosphorus loadings.

The total population of Sedgwick county was 498,365 in the 2010 U.S. census, which is a 10% increase from what was recorded in the 2000 U.S. census. The total population of Sumner county was 24,132 in the 2010 U.S. census, which is a 7% decrease from what was recorded in the 2000 U.S. census.

Table 4: Land Use Table (Table 21 in the TMDL document) from 2011 National Land Cover Database in Little Blue TMDL watershed.

Open Water	Developed	Barren	Forest	Grassland	Cultivated Crops	Wetlands
2%	22%	0%	2%	19%	54%	1%

There are six Municipal Separate Storm Sewer System (MS4) permits within the watershed. The MS4 permits are listed in Appendix A of this decision document.

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 median 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 (median concentrations).

Phase II maximum daily load at median flow (in pounds per day) is listed in Table 2 of this decision document, and Tables 28-30 in the TMDL document. The LCs are calculated at monitoring stations, but the targeted TP concentrations apply at all points in the segments covered by the TMDL document.

The 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 design flow of each facility where possible and likelihood of its being a source of TP. Industrial flows without design flows use current mean discharge rates based on available DMR data. For facilities not expected to contribute, their WLAs are set to zero. A future growth reserve wasteload allocation is also included in these calculations.

The facility by facility WLAs are given in Table 27 of the TMDL document and the sum of the WLAs by monitoring station and flow exceedance are given in Tables 28-30.

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

SC Station	WLA	Reserve WLA*	MS4 Allocation*	Reserve MS4 Allocation*	Sum WLA
SC730	4.5	0*	0*	0*	4.5
SC288	7.6	0*	0*	0*	7.6
SC702	2.4	0*	0*	0*	2.4

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

The WLAs identified in the TMDL document are established to attain and maintain water quality standards.

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. LAs are

calculated as the remainder of the LC after the allocations to the WLA and the MOS.

Phase II maximum daily LA at median flow (in pounds per day) is listed in Table 6 below, and in Tables 28-30 in the TMDL document.

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

SC Station	LA*
SC730	0*
SC288	0*
SC702	0*

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

The TMDL document has identified all known nonpoint sources of TP in the watershed.

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.

The MOS for the 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 at levels 42 to 73 percent lower than those which have been shown compatible with that use.

The 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. The use of a median target for TP and sestonic chlorophyll-a also integrates loading into the biological response.

The 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 document was posted for public review on November 23, 2020 and a public hearing was held both in-person and virtually on December 9, 2020. The public comment period was open from November 19, 2020 to December 23, 2020. No comments were received from the public.

The 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 the EPA does not approve the monitoring plan submitted by the state, the EPA acknowledges the state's efforts. The 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 SC730, SC288, and SC702 for future water quality monitoring. Biological monitoring is to continue at site SB346 and possibly at additional stations within the Cowskin Creek TMDL Watershed.

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 the 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. The 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. This 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-901, 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 to geographic areas of the high priority in implementation.

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

Appendices

Appendix A: Facilities in TMDL watershed*

Permittee	Facility Type	NPDES Permit Number	Daily Wasteload Allocation (lbs/day)*	Wasteload Allocations (lbs/year)*
USD #267 St. Marks Elementary School	Non-discharging Lagoon	KSJ000469	*	*
Andale Ready Mix, Inc	Concrete Plant	KSG110069	0	0
CMC Plant 3 - Wichita S. 135th West	Concrete Plant	KSG110049	0	0
Sharpline Converting	Non-contact Cooling	KS0089753	0.004	1
Evergy - Gordon Evans Energy Center	Non-contact Cooling	KS0000604	0.118	69
Element, LLC	Non-contact Cooling and Process Water	KS0081329	2.78	1,015
City of Andale	Discharging Lagoon	KS0092223	2.17	793
City of Colwich	Discharging Lagoon	KS0090956	3.12	1,140
City of Goddard	Mechanical WWTP	KS0098485	6.68	2,439
City of Wichita #3 Wastewater Plant	Mechanical WWTP	KS0095681	16.7	6,098
Arkema Inc.	Non-discharging Lagoon	KSJ000513	*	*
Garvey Industrial Park	Non-discharging Lagoon	KSJ000515	*	*
H.M. Dunn Aerospace	Non-discharging Lagoon	KSJ000131	*	*
Occidental Chemical Corporation - Wichita Plant	Non-discharging Lagoon	KSJ000514	*	*
Wilks Underground Utilities, LLC	Non-discharging Lagoon	KSJ000216	*	*
Carlson Products, LLC	Industrial Pretreatment	KSP000086	*	*
CMC - Northshore Plant	Concrete Plant	KSG110019	0	0
CMC Plant 5 - Portable Wichita Plant	Concrete Plant	KSG110280	0	0
Learjet Groundwater Remediation Project	Groundwater Remediation	KS0094781	0.002	1
Occidental Chemical Corporation - Groundwater Remediation Project	Groundwater Remediation	KS0096903	0.047	17

Cessna Aircraft (Mid-Continent)	Non-contact Cooling and Groundwater Remediation	KS0000485	0.008	3
City of Maize	Mechanical WWTP	KS0092258	4.18	1,525
City of Wichita - Mid-continent Plant 5	Mechanical WWTP	KS0097489	25.1	9,147
R.A. Ruud & Son, Inc. - Haysville	Concrete Plant	KSG110035	0	0
City of Haysville	Mechanical WWTP	KS0090921	16.7	6,098
City of Goddard	MS4	KSR410043	0**	0**
City of Maize	MS4	KSR410017	0**	0**
City of Haysville	MS4	KSR410006	0**	0**
City of Wichita	MS4	KS0091049	0**	0**
KDOT - Wichita	MS4	KSR410012	0**	0**
Sedwick County	MS4	KSR410032	0**	0**
	CAFO	A-ARSG-BA01	0	0
	CAFO	A-ARSG-BA04	0	0
	CAFO	A-ARSG-BA18	0	0
	CAFO	A-ARSG-LA01	0	0
	CAFO	A-ARSG-M003	0	0
	CAFO	A-ARSG-M023	0	0
	CAFO	A-ARSG-M027	0	0
	CAFO	A-ARSG-M030	0	0
	CAFO	A-ARSG-M031	0	0
	CAFO	A-ARSG-M033	0	0
	CAFO	A-ARSG-M040	0	0
	CAFO	A-ARSG-M041	0	0
	CAFO	A-ARSG-M042	0	0
	CAFO	A-ARSG-S012	0	0
	CAFO	A-ARSG-B005	0	0
	CAFO	A-ARSG-BA05	0	0
	CAFO	A-ARSG-BA09	0	0
	CAFO	A-ARSG-BA10	0	0
	CAFO	A-ARSG-BA11	0	0
	CAFO	A-ARSG-BA17	0	0
	CAFO	A-ARSG-BA22	0	0

Definitions: CAFO permit numbers are state-issued permits

*The non-discharging lagoons are all prohibited from discharging, their systems do not monitor for TP, and are not expected to contribute to the TP impairment in the watershed. Total phosphorus discharges from the industrial pretreatment facilities are accounted for in the NPDES permits for the respective facility receiving their discharge. Therefore, each are not assigned a wasteload allocation.

**MS4 flows higher than median flow have allocations for these categories.