

Stormwater Management Program

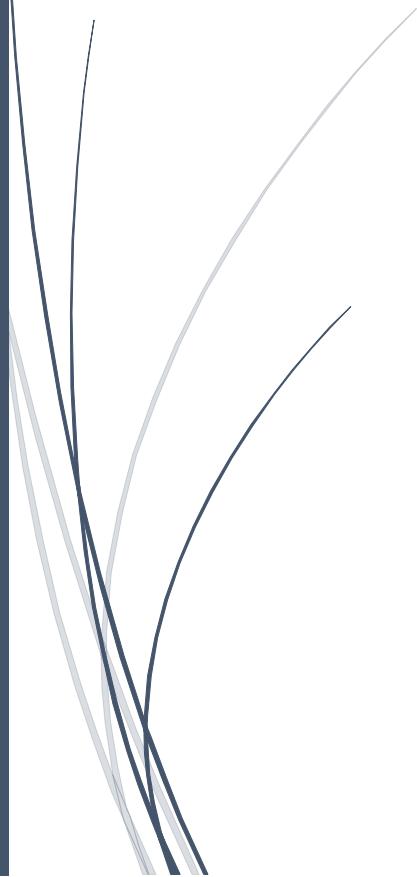


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This program was developed in compliance with the Kansas Water Pollution Control MS4 Permit and Authorization to Discharge under the National Pollutant Discharge Elimination System (NPDES) (Kansas Permit No. M-LA16-SU01 / Federal Permit No. KSR410037).

Introduction

This program outlines goals, which are also considered Best Management Practices (BMPs) in order to mitigate pollutants into stormwater.

Background

On December 8, 1999, the Environmental Protection Agency approved the NPDES Stormwater Regulations, which require small Municipal Separate Storm Sewer Systems (MS4s) to be regulated. The Kansas Department of Health & Environment (KDHE) is the permitting authority and is responsible for developing criteria that MS4 permit holders must comply with under the NPDES Stormwater Management Program. The overall intent of this program is to reduce the discharge of pollutants, protect water quality, and assist in meeting water quality requirements established by KDHE.

The Stormwater Management Program is intended to provide details regarding the implementation of procedures and protocols for stormwater management best practices to various departments of the City of Valley Center. This program also provides guidance in allocating financial resources in an efficient and effective manner consistent with the objectives of the NPDES permit.

In order to assure effective implementation of best practices that are consistent beyond the boundaries of Valley Center, the following areas are addressed in the Stormwater Management Program.

- Public Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Construction Site Stormwater Runoff Control
- Post-Construction Stormwater Management Program
- Pollution Prevention/Good Housekeeping for Municipal Operations
- Total Maximum Daily Load (TMDL) and Principal Pollutants of Concern BMP's

Designation Basis

Under the designation method No.2 40 CFR 123.35 (a)(2)) KDHE considers four factors: 1) population; 2) location; 3) population density; and 4) Total Maximum Daily Loads (TMDL) listing of adjacent stream segments or lakes. Due to the City of Valley Center's location (proximity to the Arkansas River and the Wichita-Valley Center Floodway) and the TMDL factor (due to fecal coliform with the Arkansas River), the City must comply with the MS4s.

Application & Permitting

The City of Valley Center submitted the required Notice of Intent (NOI) for coverage under the Kansas Water Pollution Control General MS4 permit and Authorization to Discharge under NPDES. An updated permit was issued to the City of Valley Center effective November 1, 2019 and expiring October 31, 2024. Among the terms and conditions of the permit is the requirement to submit a Stormwater Management Program to KDHE for approval by February 28, 2021.

Stormwater Management Program Maintenance

The Stormwater Management Program will be reviewed on an annual basis for necessary updates. If the City and/or KDHE determines updates are necessary in order to achieve compliance with the MS4 permit, the Stormwater Management Program will be updated.

Public Education & Outreach

Public education is crucial to the overall successful implementation of the Stormwater Drainage Program. The City is responsible for being a lead in this initiative and for engaging various stakeholders throughout the community. Through educational efforts, more residents can see how their actions have impacts on the overall stormwater quality and what they can do to help with small changes in their everyday activities. The implementation of BMPs for this minimum control measure must result in the accumulation of a minimum of 4 points total on an annual basis for each calendar year 2021 and 2022. The point total requirement increases to 7 points for each calendar year beginning in 2023.

- a) Increase public knowledge and awareness of steps that can be taken to reduce stormwater pollution.
- b) Enhance public employees, businesses, and the general public's knowledge of the 1) hazards associated with illegal discharges to local storm sewers which reach area streams, 2) improper waste disposal implications, and 3) the legal ramifications.
- c) Develop a Public Education and Outreach program which provides a clear and consistent message regarding stormwater issues.
- d) Targeted strategies towards commercial, industrial, institutional entities likely to have significant stormwater impacts.

PEO GOAL #01 – Maintain a Stormwater Webpage for the Permittee

Create/maintain a webpage on the City's website with current information on stormwater guidance and ways to help reduce pollutants that enter the drainage system. Check webpage monthly and document checks and include summaries of changes.

Start Date: January 1, 2021

End Date: Ongoing

Responsible Party: VCPW

Point Value: 2 (3 points in 2021 for implementation)

Goal Measure: Create webpage and maintain with current information. Webpage must be available throughout the year.

PEO GOAL #02 – Distribute Educational Materials

Distribute educational materials (either flyers, brochures, catalog mailings, handouts, or emails) addressing various pertinent stormwater public education topics.

Start Date: January 1, 2021

End Date: Ongoing

Responsible Party: VCPW

Point Value: 2

Goal Measure: The number of materials shall meet or exceed the most recent U.S. Census Bureau decennial housing units for the area (2801). Materials are to be distributed in at least 2 batches ideally in separate seasons (winter, spring, summer, or fall). Document the U.S. Census housing value and the number of materials distributed. Maintain this information and copies of materials on file.

PEO GOAL #03 – Educational Resource Development

Provide educational material annually to at least four groups, including each of the following types: Residents, Business/Institutions, Commercial entities/Developers, and Industrial facilities.

Start Date: January 1, 2023

End Date: Ongoing

Responsible Party: VCPW, Valley Center City Hall/Administrative Staff, and VCCD.

Points Value: 3

Goal Measure: Identify and educate at least four groups/entities from the listed types annually developing topics that are group specific and address activities and/or pollutants of concern. All 4 groups need to be addressed within the year.

Public Involvement & Participation

The public can provide valuable input and assistance to a regulated small MS4's municipal Stormwater Management Program. The city will give the public opportunities to play an active role in both the development and implementation of the program. The implementation of BMPs for this minimum control measure must result in the accumulation of a minimum of 3 points total on an annual basis for each calendar year 2021 and 2022. The point total requirement increases to 6 points for each calendar year beginning in 2023.

PIP GOAL #01: Establish a Citizens Advisory Committee

Host the citizens advisory committee meeting twice yearly and receive comments and guidance from the committee regarding the Stormwater Management Plan. Retain on file copies of the attendance list and minutes of the meetings.

Start Date: January 2023

End Date: Ongoing

Responsible Party: VCPW, VCCH

Point value: 3

Goal Measure: The citizens advisory committee must hold at least two meetings per year.

PIP GOAL #02: Train Public Groups on Illicit Discharge

Train either citizen watch groups, homeowner associations (HOAs), or public service groups to recognize illicit discharge activities and communicate observations to appropriate municipal staff.

Start Date: January 2021

End Date: Ongoing

Responsible Party: VCPW, civic organizations

Point Value: 2

Goal Measure: Provide training or distribute training materials to the group participants at least once annually.

PIP GOAL #03: Pet Waste Disposal Requirements

Enact either an ordinance, a resolution, or other enforceable requirement that requires pet owners or their keepers to immediately and properly dispose of their pet's solid waste deposited at parks or rest areas owned by the permittee.

Start Date: January 2021

End Date: Ongoing

Responsible Party: VCPW

Point Value: 1

Goal Measure: The ordinance or resolution or other enforceable measure shall be enacted, and signs posted informing the public of their obligation at the park. The installation of a pet waste bag dispenser in the public area qualifies as adequate signage.

Illicit Discharge Detection & Removal

An illicit discharge is any discharge into the storm sewer system that is not composed entirely of clean water or stormwater. Most flow during dry weather can be considered an illicit discharge.

Recognizing the adverse effects illicit discharges can have on receiving waters, the Phase II operators are required to implement and enforce an illicit discharge and elimination program. The implementation of BMPs for this minimum control measure must result in the accumulation of a minimum of 5 points total on an annual basis for each calendar year 2021 and 2022. The point total requirement increases to 7 points for each calendar year beginning in 2023.

IDD&P GOAL #01 Inlet/Outfall Inspection and Maintenance

Inspect 2% to 15% of the MS4 system stormwater inlets and/or outfalls within the permit area all conducted within a 12-month period.

Start Date: January 2021

End Date: On going

Responsible Party: VCPW

Point Value: 3 (2% inspected) to 5 (15% inspected)

Goal Measure: Generate a summary report of the inspection including the number of inlets and/or outfalls visually inspected, condition comments, illicit discharges identified and the results of efforts to eliminate illicit discharges.

IDD&P GOAL #02 Pipeline or Open Channel Drainage Inspection

Inspect by televising pipelines or visualization of open channel drainage, 2% to 10% of the MS4 system within the permit area all conducted within a 12-month period to aid in identifying illicit discharges as well as evaluate the condition of the storm sewer lines/drainage channels – ditches.

Start Date: January 2021

End Date: Ongoing

Responsible Party: VCPW

Point Value: 3 (2% inspected) to 5 (10% inspected)

Goal Measure: Generate a summary report of the inspection including the number of linear feet televised, number of linear feet visually inspected, condition comments, illicit discharges identified and the efforts to eliminate illicit discharges.

Construction Site Stormwater Runoff Control

This category is crucial to mitigation of negative impacts on the stormwater system due to vegetation and topsoil being stripped away, making the construction site vulnerable to erosion and sediments entering the areas waterways. Construction sites are also suspect to creating other forms of waste (garbage, chemicals, etc.) that can have negative impacts on the area waterways. The implementation of BMPs for this minimum control measure must result in the accumulation of a minimum of 4 points total on an annual basis for each calendar year 2021 and 2022. The point total requirement increases to 6 points for each calendar year beginning in 2023.

CSSRC GOAL #01: Soil Erosion and Sediment Control

Implement a requirement for Soil Erosion and Sediment Control (SESC) plan for any land disturbance sites which are either equal to or greater than 1 acre or less than 1 acre if part of a larger common plan that in total disturbs one acre or more.

Start Date: January 2021

End Date: On going, progress evaluated annually.

Responsible Party: VCPW Director, City Engineer, VCCD Director, and Legal Counsel

Point Value: 2 (3 points in 2021 for implementation)

Goal Measure: Enact a regulatory ordinance, or other enforceable measure that requires an SESC Plan for all developments disturbing 1 acre or more or for construction activity disturbing less than one acre which is part of a larger development that in total disturbs one acre or more.

CSSRC GOAL #02: Site Plan Review Process

Develop a site plan review process which considers potential water quality impacts which may occur during construction as well as post construction impacts.

Start Date: January 2021

End Date: On going, progress evaluated annually.

Responsible Party: VCPW Director & VCCD Director

Point Value: 2 (3 points in 2021 for implementation)

Goal Measure: Review process must have written guidance for the reviewer. Issuance of a building permit or approval to start construction may not be provided until the site plan has successfully passed the review process. Measures must be included to enforce the installation of water quality BMPs included in the site plan.

CSSRC Goal #03: Control of Construction Site Wastes

Develop written procedures for inspection of construction sites. Develop a Stormwater Construction Site Inspection Guide for use by municipal inspectors.

Start Date: January 2023

End Date: On going, progress evaluated annually.

Responsible Party: VCPW Director & VCCD Director

Point Value: 2 (3 points in 2023 for implementation)

Goal Measure: The procedures document must address the administrative aspects associated with required inspections of construction sites, the issuance of reports, notices of violations, and enforcement actions. The Inspection Guide must provide inspectors guidance on how to conduct a construction site stormwater inspection, the required procedures and guidance on acceptable conditions of various BMPs employed on such sites, enforcement actions and/or reference of cases for enforcement by other municipal staff, guidance on photo log of inspection and inspection checklists for use by the inspector.

Post-Construction Stormwater Management in New Development & Redevelopment Projects

Development of land can have a significant impact on water quality within the area due to many variables. These variables are not limited to natural landscapes being replaced by hard surfaces like roads, parking lots, sidewalks, and roofs. These surfaces provide minimal ability for drainage beneath, therefore increasing the chance of flooding and erosion to carry sediments and pollutants to the area waterways. The following goals were developed in order to help mitigate issues related to these components. The implementation of BMPs for this minimum control measure must result in the accumulation of a minimum of 5 points total on an annual basis for each calendar year 2021 and 2022. The point total requirement increases to 7 points for each calendar year beginning in 2023.

PCSM Goal #01 – Post-Construction Stormwater Design Manual

Develop and adopt a custom design manual for Post-Construction Stormwater Management which specifies several structural BMPs required for new development and re-development construction sites greater than 1 acre or for which there is construction activity disturbing less than one acre and part of a larger development plan disturbing one acre or more.

Start Date: 2021

End Date: On going, progress evaluated annually.

Responsible Party: VCPW Director & City Engineer

Point Value: 3 (4 in 2021 for implementation)

Goal Measure: The design manual shall impose requirements to achieve at least one of the following standards: 1. Retain at least the first .5 inches of precipitation on site and prevent discharge off-site. 2. Through implementation of appropriate BMP(s), reduce the peak stormwater flow rate to equal to or less than prior to the development/re-development project. 3. Other sizing or detention standards generally accepted by design engineers as adequate for the permittee's local standards.

PCSM Goal #02 – Post-Construction Structural/Non-Structural BMP Maintenance

Develop and implement a program to ensure adequate long-term cleaning, operation, and maintenance of all municipally owned or operated structural stormwater BMP facilities.

Start Date: 2023

End Date: On going, progress evaluated annually.

Responsible Party: VCPW Director.

Point Value: 2 (3 in 2023 for implementation)

Goal Measure: The program shall address several different types of these BMP systems. The systems, which are addressed, shall include any type of post-construction BMP system

contained in the MS4. The program shall include a detailed in a written document and made available to all pertinent maintenance staff.

PCSM Goal #03 – BMP Inspection and Maintenance Program

Develop and implement a plan for the inspection and maintenance of permittee owned structural BMPs to ensure long-term operation of said BMPs.

Start Date: 2021

End Date: On going, progress evaluated annually.

Responsible Party: VCPW Director

Point Value: 2 (3 in 2021 for development and implementation)

Goal Measure: Inspect at least 10% of the structural BMPs on an annual basis and complete identified maintenance in the same year.

Pollution Prevention / Good Housekeeping for Municipal Operations

The Pollution Prevention/Good Housekeeping for municipal operation element requires development, implementation, evaluation and modification as necessary, of a program that considers pollution prevention and good housekeeping measures for municipal facility, operation and maintenance activities. This element requires operators to examine and subsequently alter their own actions to help ensure a reduction in the amount and type of pollution that:

- a) Collects on streets, parking lots, open spaces, storage and vehicle maintenance areas and is discharged into local waterways; and
- b) Results from actions such as environmentally damaging land development and flood management practices or poor maintenance of storm sewer systems.

The implementation of BMPs for this minimum control measure must result in the accumulation of a minimum of 4 points total on an annual basis for each calendar year 2021 and 2022. The point total requirement increases to 6 points for each calendar year beginning in 2023.

PP/GHMO Goal #01 – Street Sweeping Program

Implement a program for street sweeping in which the street sweepings are collected and disposed of properly or recycled/reused if possible.

Start Date: 2021

End Date: On going, progress evaluated annually.

Responsible Party: VCPW Director

Point Value: 2

Goal Measure: At least 10% of all paved streets shall be swept. A log shall be maintained listing the street segments which are swept, dates of sweeping and where sweepings are disposed of or where the material was sent to be recycled and/or reused.

PP/GHMO Goal #03 – Stormwater Inlet Inspection and Cleaning

Implement a program to inspect stormwater inlets to identify illicit discharges and clean drop inlets of accumulated debris.

Start Date: 2023

End Date: On going, progress evaluated annually.

Responsible Party: VCPW

Point Value: 1 for 5% inspected and 2 for 10% inspected.

Goal Measure: Inspect 5% to 10% of all inlets annually.

PP/GHMO Goal #04 – Storm Sewer Map

Develop, implement, and keep updated an online storm sewer map accessible to the public.

Start Date: 2021

End Date: On going, progress evaluated annually.

Responsible Party: VCPW, VCCH

Point Value: 2

Goal Measure: The map shall cover the entire MS4 within the permit area and include all MS4 lines. Both pipe and open drainage (i.e. ditches) and shall illustrate all impaired waterways (i.e. 303(d) listed and TMDL listed streams/rivers) with an indication of the listed impairment.

Total Maximum Daily Load (TMDL) & Principal Pollutants of Concern BMPs

The Total Maximum Daily Load (TMDL) is the maximum allowable quantity of a pollutant that can be discharged to a stream system while not exceeding water quality criteria set by KDHE and the EPA. The Lower Arkansas River passing through Valley Center was listed by KDHE as a body of water to be reviewed. The implementation of BMPs for this minimum control measure must result in the accumulation of a minimum of 4 points total on an annual basis for each calendar year 2021 and 2022. The point total requirement increases to 6 points for each calendar year beginning in 2023.

TMDL Goal #01 – Pet Waste Control

Install pet waste stations which include a glove/bag dispenser with signage and waste to encourage pet waste disposal at parks, trails, rest areas or other public lands owned by the permittee.

Start Date: 2021

End Date: On going, progress evaluated annually.

Responsible Party: VCPW Director

Point Value: 1

Goal Measure: At least one pet waste station shall be installed at the selected park, trail, rest area or other public land. The station (s) shall include signage which encourages proper pet waste disposal/cleanup and a waste can.

TMDL Goal #02 – Pet Waste Disposal Brochure

Develop a pet waste disposal brochure or flyer document to educate the public about animal waste contamination of stormwater. The document encourages pet owners to pick up their pet's waste. Alternatively, post the document on social media or the municipal website.

Start Date: 2021

End Date: On going, progress evaluated annually.

Responsible Party: VCPW Director

Point Value: 1

Goal Measure: Brochures or flyers are to be posted in various public buildings and distributed to the public throughout the year. The number of documents shall equal or exceed the most recent decennial housing units. Documents posted to the website shall be posted for at least six months in the year. Documents posted to social media shall be posted six times within the year.

TMDL Goal #03 – Stormwater Outfall Inspections

Inspect at least 10% of all known MS4 outfalls for dry weather discharges either annually or twice per year to identify potential illicit discharges.

Start Date: 2021

End Date: On going, progress evaluated annually.

Responsible Party: VCPW Director

Point Value: 3 to 5 (if illicit discharges are detected and eliminated)

Goal Measure: Complete inspection of at least 10% of all known MS4 outfalls either annually or twice per year during dry weather periods. If dry weather discharge is found, follow-up with investigation to determine if a portion or all the discharge is illicit. Document the findings and initiate efforts to eliminate any identified illicit discharges.

TMDL Goal #04 – Only Rain Down the Drain

Distribute "Only Rain Down the Drain" door hangers or similar document.

Start Date: 2023

End Date: On going, progress evaluated annually.

Responsible Party: VCPW

Point Value: 2

Goal Measure: Distribute enough documents to equal or exceed the most recent decennial housing unit number. The document may be distributed in any fashion and at any time throughout the year. Alternately, the document may be posted to social media (at least 3 times in the year) or posted on the municipal website for a minimum of three months in the year.