## **CITY OF** UHLAND **STORMWATER MANAGEMENT PROGRAM**

Permit Renewal 2019

prepared for:



prepared by:



engineers | architects | surveyors

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## **EXECUTIVE SUMMARY**

Small Municipal Separate Storm Sewer Systems (MS4) located in the State of Texas may discharge directly to surface water in the state only according to monitoring requirements and other conditions set forth in Texas Pollution Discharge Elimination System (TPDES) General Permit No. TXR040000, rules of the Texas Commission on Environmental Quality (TCEQ), laws of the State of Texas, and other Orders of the TCEQ.

The City of Uhland has prepared this Stormwater Management Program (SWMP) in accordance with the requirements of the General Permit and submitted the required Notice of Intent (NOI) in accordance with Part II, Section E of the General Permit.

The SWMP addresses the Minimum Control Measures (MCMs), also known as Best Management Practices (BMPs) as required by TXR040000 and provides for the measurement of the accomplishments of the MCMs/BMPs. Records of the MCM/BMP measurements will be provided to the TCEQ each year in the annual report.

The purpose of the following is to outline Uhland's program to develop, implement, and enforce a stormwater management program administered through the TPDES. The goal is to reduce the discharge of pollutants to the maximum extent practicable, to protect water quality, and to satisfy the appropriate requirements of the Texas Commission on Environmental Quality (TCEQ) Phase II program under the provisions of Section 402 of the Clean Water Act (CWA) and Chapter 26 of the Texas Water Code (TWC).

### PART I – DEFINITIONS

*Best Management Practices (BMPs)* – Schedules of activities, prohibitions of practices, maintenance procedures, structural controls, local ordinances, and other management practices to prevent or reduce the discharge of pollutants. BMPs also include treatment requirements, operating procedures, and practices to control runoff, spills or leaks, waste disposal, or drainage from raw material storage areas.

*Catch Basins* – Storm drain inlets and curb inlets to the storm drain system. Catch basins typically include a grate or curb inlet that may accumulate sediment, debris, and other pollutants.

*Classified Segment* – A water body that is listed and described in Appendix A or Appendix C of the Texas Surface Water Quality Standards, at 30 Texas Administrative Code (TAC) §307.10.

*Clean Water Act (CWA)* – The Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972, Pub. L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483 and Pub. L. 97-117, 33 U.S.C.1251 et. seq.

*Common Plan of Development or Sale* – A construction activity that is completed in separate stages, separate phase, or in combination with other construction activities. A common plan of development or sale is identified by the documentation for the construction project that identifies the scope of the project, and may include plats, blueprints, marketing plans, contracts, building permits, a public notice or hearing, zoning requests, or other similar documentation and activities.

*Construction Activity* – Soil disturbance, including clearing, grading, excavating, and other construction related activities (e.g., stockpiling of fill material and demolition); and not including routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site (e.g., the routine grading of existing dirt roads, asphalt overlays of existing roads, the routine clearing of existing right-of-ways, and similar maintenance activities).

*Small Construction Activity* is construction activity that results in land disturbance of equal to or greater than one (1) acre of and less than five (5) acres of land. Small construction activity also includes the disturbance of less than one (1) acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than one (1) and less than five (5) acres of land.

*Large Construction Activity* is construction activity that results in land disturbance of equal to or greater than five (5) acres of land. Large construction activity also includes the disturbance of less than five (5) acres of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than one (1) and less than five (5) acres of land.

*Construction Site Operator* – The entity or entities associated with a small or large construction project that meet(s) either of the following two criteria:

- a) The entity or entities that have operational control over construction plans and specifications (including approval of revisions) to the extent necessary to meet the requirements and conditions of this general permit; or,
- b) The entity or entities that have day-to-day operational control of those activities at a construction site that are necessary to ensure compliance with a stormwater pollution prevention plan for the site or other permit conditions (for example they are authorized to direct workers at a site to carry out activities required by the Stormwater Pollution Prevention Plan (SWP3) or comply with other permit conditions).

*Control Measure* – Any BMP or other method used to prevent or reduce the discharge of pollutants to water in the state.

*Conveyance* – Curbs, gutters, man-made channels and ditches, drains, pipes, and other constructed features designed or used for flood control or to otherwise transport stormwater runoff.

*Discharge* – When used without a qualifier, refers to the discharge of stormwater runoff or certain non-stormwater discharges as allowed under the authorization of this general permit.

*Final Stabilization* – A construction site where either of the following conditions are met:

- a) All soil disturbing activities at the site have been completed and a uniform (for example, evenly distributed, without large bare areas) perennial vegetative cover where a density of 70 percent of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.
- b) For individual lots in a residential construction site by either:
  - 1. The homebuilder completing final stabilization as specified in condition a) above; or,
  - 2. The homebuilder establishing temporary stabilization for an individual lot prior to the time of transfer of the ownership of the home to the buyer and after informing the homeowner of the need for, and benefits of, final stabilization.
- c) For construction activities on land used for agricultural purposes (for example pipelines across crop or range land), final stabilization may be accomplished by returning the disturbed land to its preconstruction agricultural use. Areas disturbed that were not previously used for agricultural activities, such as buffer strips immediately adjacent to a surface water and areas which are not being returned to their preconstruction agricultural use must meet the final stabilization conditions of condition a) above.
- d) In arid, semi-arid, and drought-stricken areas only, all soil disturbing activities at the site have been completed and both of the following criteria have been met:
  - 1. Temporary erosion control measures (e.g. degradable rolled erosion control product) are selected, designed, and installed along with an appropriate seed base to provide erosion control for at least three years without active maintenance by the operator; and,
  - 2. The temporary erosion control measures are selected, designed, and installed to achieve 70 percent vegetative coverage within three years.

*General Permit* -A permit issued to authorize the discharge of waste into or adjacent to water into the state for one or more categories of waste discharge within a geographical area of the state or the entire state as provided by Texas Water Code (TWC) §26.040.

*Groundwater Infiltration* – For the purposes of this permit, groundwater that enters a municipal separate storm sewer system (including sewer service connections and foundation drains) through such means as defective pipes, pipe joints, connections, or manholes.

*High Priority Facilities* – High priority facilities are facilities with a high potential to generate stormwater pollutants. These facilities must include, at a minimum, the MS4 operator's maintenance yards, hazardous waste facilities, fuel storage locations, and other facilities where chemicals or other materials have a high potential to be discharged in stormwater. Among the factors that must be considered when giving a facility a high priority ranking are: the amount of urban pollutants stored at the site, the identification of improperly stored materials, activities that must not be performed outside (for example, changing automotive fluids, vehicle washing), proximity to water bodies, proximity to sensitive aquifer recharge features, poor housekeeping practices, and discharge of pollutant(s) of concern to impaired water(s).

*Illicit Connection* – Any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.

*Illicit Discharge* – Any discharge to a municipal separate storm sewer that is not entirely composed of stormwater, except discharges pursuant to this general permit or a separate authorization and discharges resulting from emergency firefighting activities.

*Impaired Water* - A surface water body that is identified on the latest approved CWA §303(d) List or waters with an EPA approved or established total maximum daily load (TMDLs) that are found on the latest EPA approved Texas Integrated Report of Surface Water Quality for CWA Sections 305(b) and 303(d) which lists the category 4 and 5 water bodies.

*Indicator Pollutant* – An easily measured pollutant, that may or may not impact water quality that indicates the presence of other stormwater pollution.

*Industrial Activity* – Any of the ten (10) categories of industrial activities included in the definition of "stormwater discharges associated with industrial activity" as defined in 40 Code of Federal Regulations (CFR) §122.26(b)(14)(i)-(ix) and (xi).

*Maximum Extent Practicable (MEP)* – The technology-based discharge standard for municipal separate storm sewer systems (MS4s) to reduce pollutants in stormwater discharges that was established by the CWA §402(p). A discussion of MEP as it applies to small MS4s is found in 40 CFR §122.34.

*MS4 Operator* – For the purpose of this permit, the public entity, or the entity contracted by the public entity, responsible for management and operation of the small municipal separate storm sewer system that is subject to the terms of this general permit.

*Municipal Separate Storm Sewer System (MS4)* – A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

a) Owned or operated by the U.S., a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over the disposal of sewage, industrial wastes, stormwater, or other wastes, including

special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under the CWA §208 that discharges to surface water in the state;

- b) That is designed or used for collecting or conveying stormwater;
- c) That is not a combined sewer; and,
- d) That is not part of a publicly owned treatment works (POTW) as defined in 40 CFR §122.2.

*Notice of Change (NOC)* – A written notification from the permittee *to* the Executive Director providing changes to information that was previously provided to the agency in a notice of intent.

*Notice of Intent (NOI)* – A written submission to the executive director from an applicant requesting coverage under this general permit.

*Notice of Termination (NOT)* - A written submission to the Executive Director from a permittee authorized under a general permit requesting termination of coverage under this general permit.

*Outfall* – A point source at the point where a small MS4 discharges to waters of the U.S. and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels, or other conveyances that connect segments of the same stream or other waters of the U.S. and are used to convey waters of the U.S. For the purpose of this permit, sheet flow leaving a linear transportation system without channelization is not considered an outfall. Point sources such as curb cuts; traffic or right-or-way barriers with drainage slots that drain into open culverts, open swales or an adjacent property, or otherwise not actually discharging into waters of the U.S. are not considered an outfall.

*Permittee* – The MS4 operator authorized under this general permit.

*Permitting Authority* – For the purposes of this general permit, the TCEQ.

*Point Source* – (Definition from 40 CFR §122.22) Any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff.

Pollutant(s) of Concern – (Definition from 40 CFR §122.32(e)(3)) For the purpose of this permit, includes biochemical oxygen demand (BOD), sediment or a parameter that addresses sediment (such as total suspended solids (TSS), turbidity, or siltation), pathogens, oil and grease, and any pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from an MS4.

*Redevelopment* – Alterations of a property that changed the "footprint" of a site or building in such a way that there is a disturbance of equal to or greater than one (1) acre of land. This term does not include such activities as exterior remodeling, routine maintenance activities, and linear utility installation.

*Small Municipal Separate Storm Sewer System (small MS4, MS4 or System)* – A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

- a) Owned or operated by the U.S., a state, city, town, borough, county, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under CWA §208;
- b) Designed or used for collecting or conveying stormwater;
- c) Which is not a combined sewer;
- d) Which is not part of a publicly owned treatment works (POTW) as defined in 40 CFR §122.2; and,
- e) Which was not previously regulated under a National Pollutant Discharge Elimination System (NPDES) or a Texas Pollutant Discharge Elimination System (TPDES) individual permit as a medium or large municipal separate storm sewer system, as defined in 40 CFR §122.26(b)(4) and (b)(7).

This term includes systems similar to separate storm sewer systems at military bases, large hospitals or prison complexes, and highways and other thoroughfares. This term does not include separate storm sewers in very discrete areas, such as individual buildings. For the purpose of this permit, a very discrete system also includes storm drains associated with certain municipal offices and education facilities serving a nonresidential population, where those storm drains do not function as a system, and where the buildings are not physically interconnected to a small MS4 that is also operated by that public entity.

*Stormwater and Stormwater Runoff* – Rainfall runoff, snow melt runoff, and surface runoff and drainage.

*Stormwater Associated with Construction Activity* – Stormwater runoff from an area where there is either a large construction or a small construction activity.

*Stormwater Management Program (SWMP)* – A comprehensive program to manage the quality of discharges from the municipal separate storm sewer system.

#### Small MS4 General Permit - TPDES General Permit TXR.040000

Surface Water in the State – Lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, wetlands, marshes, inlets, canals, the Gulf of Mexico inside the territorial limits of the state (from the mean high water mark (MHWM) out 10.36 miles into the Gulf), and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or unnavigable, and including the beds and banks of all water courses and bodies of surface water, that are wholly or partially inside or bordering the state or subject to the jurisdiction of the state; except that waters in treatment systems which are authorized by state or federal law, regulation, or permit, and which are created for the purpose of waste treatment are not considered to be water in the state.

*Total Maximum Daily Load (TMDL)* – The total amount of a substance that a water body can assimilate and still meet the Texas Surface Water Quality Standards.

*Traditional Small MS4* – A small MS4 that can pass ordinances and have the enforcement authority to enforce the stormwater management program. An example of traditional MS4s include cities.

*Urbanized Area (UA)* – An area of high population density that may include multiple small MS4s as defined and used by the U.S. Census Bureau in the 2000 and the 2010 Decennial Census.

*Waters of the United States* – (According to 40 CFR § 122.2) Waters of the United States or waters of the U.S. means:

- a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- b) All interstate waters, including interstate wetlands;
- c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds that the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
  - 1. Which are or could be used by interstate or foreign travelers for recreational or other purposes;
  - 2. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or,
  - 3. Which are used or could be used for industrial purposes by industries in interstate commerce;
- d) All impoundments of waters otherwise defined as waters of the United States under this definition;
- e) Tributaries of waters identified in paragraphs (a) through (d) of this definition;
- f) The territorial sea; and,
- g) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act (CWA) are not waters of the U.S. This exclusion applies only to manmade bodies of water which neither were originally created in waters of the U.S. (such as disposal area in wetlands) nor resulted from the impoundment of waters of the U.S. Waters of the U.S. do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding the CWA jurisdiction remains with the EPA.

## PART II - INTRODUCTION

#### FEDERAL REGULATIONS

The first NPDES permits regulated direct discharges from non-municipal industrial facilities and stated that the discharge of pollutants to waters of the United States from any point source (such as a sewage treatment plant or industrial facility) was effectively prohibited, unless that discharge was in compliance with a National Pollutant Discharge Elimination (NPDES) permit. In 1977, the Clean Water Act (CWA) was established to define the discharge limits for 65 priority pollutants and extended permit requirements to municipal wastewater treatment facilities.

After the passage of the CWA, the US EPA conducted studies and compiled information into the National Urban Runoff Program (NURP), a comprehensive document that linked water quality problems to stormwater pollutants runoff from non-point sources (such as agricultural and urban area). As a result of the finding by the NURP, the Water Quality Act of 1987 amended Section 402(p) of the Clean Water Act. The amendments to Section 402(p) of the Clean Water Act further expanded the NPDES program to include non-point source discharges, such as stormwater runoff.

The permitting of stormwater discharges was to be implemented into two phases. Phase I, promulgated in 1990, required NPDES permits from stormwater discharges from certain industrial categories, large construction sites (more than five acres of land disturbance), and storm sewer systems of medium and large municipalities (populations exceeding 100,000). Phase II, published in 1999, increased the regulated industrial categories and required permitting of small construction sites (between one and five acres of disturbance) and storm sewer systems of small municipalities including Level I which is defined as serving a population of less than 10,000 within an urbanized area.

#### PHASE II STORMWATER REGULATIONS

The Texas Commission on Environmental Quality (TCEQ) is responsible for implementing a comprehensive program to enforce Phase I and Phase II elements of the NPDES program on a state level. Under Phase II, a Municipal Separate Storm Sewer System (MS4) that is fully or partially located within an urbanized area, as determined by the 2000 or 2010 Decennial Census, or a MS4 that is designated by TCEQ as having a significant impact on water quality, must obtain a Texas Pollution Discharge Elimination System (TPDES) Municipal Separate Storm Sewer Systems (MS4s) permit and prepare a Stormwater Management Program (SWMP).

## PART III -STORMWATER MANAGEMENT PROGRAM

#### PURPOSE AND SCOPE

The City of Uhland has developed this stormwater management program (SWMP) in accordance with the requirements of the Texas Pollutant Discharge Elimination System (TPDES) General Permit No. TXR040000.

This stormwater management program (SWMP) has been developed to prevent pollution in storm drainage systems to the maximum extent practicable, with control measures being phased in during the 5-year permit term. Existing stormwater programs and activities were supplemented with new best management practices (BMPs) to fulfill the requirements of each of the minimum control measures (MCMs) including:

- Public education and outreach on stormwater impacts;
- Public involvement/participation;
- Illicit discharge detection and elimination;
- Construction site stormwater runoff control;
- Post-construction stormwater management in new development and redevelopment; and
- Pollution prevention/good housekeeping for municipal operations.

#### PROGRAM DEVELOPMENT

Reducing or eliminating stormwater runoff pollution is the primary purpose of the City of Uhland's Stormwater Management Program. Effective management of stormwater runoff will provide for improvement in the quality of the receiving water bodies, the conservation of water resources, and the protection of public health. In order to develop Uhland's Stormwater Management Program, the following steps were taken:

Step 1: Determine Applicability

According to the TPDES General Permit requirements, because the City of Uhland is located within an urbanized area, as determined by the 2000 Decennial Census by the U.S. Bureau of Census, the City is responsible for obtaining coverage under the permit and developing a stormwater management program (SWMP). The City of Uhland's SWMP covers those areas incorporated in the City.

#### Step 2: Form a Stormwater Pollution Prevention Team (SWPPT)

A Stormwater Pollution Prevention Team (SWPPT), consisting of designated personnel at the City, was organized to help identify existing information or activities, management programs, fiscal resources, and associated elements regarding stormwater discharges useful in developing the SWMP.

#### Step 3: Assess Non-Stormwater Discharges

In accordance with the requirements of the General Permit, the following non-stormwater discharges were assessed by the members of the SWPPT in order to determine whether they are known to be significant contributors of pollutants to the City's water bodies:

- a) Water line flushing;
- b) Runoff or return flow from landscape and irrigation, lawn irrigation, and other irrigation utilizing potable water, groundwater, or surface water sources;
- c) Discharges from potable water sources;
- d) Diverted stream flows;
- e) Rising ground waters and springs;
- f) Uncontaminated ground water infiltration;
- g) Uncontaminated pumping ground water;
- h) Foundation and footing drains;
- i) Air conditioning condensation;
- j) Water from crawl space pumps;
- k) Individual residential vehicle washing;
- I) Flows from wetlands and riparian habitats;
- m) De-chlorinated swimming pool discharges;
- n) Street wash water;
- Discharges or flows from fire-fighting activities (fire-fighting activities do not include washing of trucks, run-off of water from training activities, test water from fire suppression systems, and similar activities), and
- p) Other similar occasional incidental non-stormwater discharges.

Non-stormwater discharges from the list above were discussed by members of the SWPPT to ascertain if any known, significant, water quality impacts were created as a result of the discharge. There is no knowledge of adverse impacts to the City's water quality from any of the listed discharges.

Step 4: Select Best Management Practices (BMPs)

The requirements for each MCM have been fulfilled with the development of various best management practices (BMPs). Measurable goals and a schedule of their implementation have been developed for each BMP. The BMPs, their measurable goals, and corresponding implementation schedules can be found in the following pages.

#### Menu of BMPS

In accordance with TPDES General Permit requirements, the City of Uhland's SWMP addresses each of the following minimum control measures (MCMs):

- Public education, outreach, and involvement on stormwater impacts;
- Illicit discharge detection and elimination;
- Construction site stormwater runoff control;
- Post-construction stormwater management in new development and redevelopment; and
- Pollution prevention/good housekeeping for municipal operations.

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#### Impaired Water Bodies

Stormwater runoff from City of Uhland MS4 drains to Plum Creek (Segment 1810). The most recent EPA-approved Texas Integrated Report for Clean Water Act Sections 305(b) and 303(d) list (2014) was reviewed. Plum Creek is listed as impaired due to bacteria. It was categorized as Category 4b, meaning other control requirements are reasonably expected to result in the attainment of all standards. The following BMPs will be implemented to address impairment for bacteria:

- Septic System Inspections (ID-5)
- Illicit Discharge Detection and Elimination Program (ID-1)
- Illegal Dumping (ID-7)
- Utility Bill Insert (PE-1)

Each of these BMPs is detailed in later sections of this SWMP.

### PROGRAM MANAGEMENT

The specific objectives or goals of each BMP will be used to track the progress and effectiveness of reducing or eliminating pollutants in the stormwater runoff. This SWMP will be reviewed annually and updated as necessary. Any changes will be reflected in the annual report.

In conjunction with preparation of the annual report, the EPA approved 303(d) list and the Texas Integrated Report of Surface Water Quality for CWA Section 305(b) and 303(d) will be reviewed for listing of any impaired waters within the permitted area.

#### Measurable Goal Evaluation Process

Implementation of each BMP will be tracked as appropriate during each permit year in order to provide documentation of the BMP activities. The measurable goals for each BMP will be evaluated on an annual basis.

Multiple city employees will be responsible for implementing, tracking, and evaluating the various BMPs.

#### Participating Entities

The City of Uhland is a member of the Capitol Area Planning Council of Governments (CAPCOG). Some BMPs may utilize programs developed by the CAPCOG to help meet the requirements of the General Permit.

#### MCM-1: PUBLIC EDUCATION, OUTREACH, AND INVOLVEMENT

#### **General Permit Requirements:**

- (a) Public Education and Outreach
  - A public education program must be developed and implemented to distribute educational materials to the community or conduct equivalent outreach activities that will be used to inform the public. The MS4 operator may determine the most appropriate sections of the population at which to direct the SWMP. The MS4 operator must consider the following groups and the SWMP shall provide justification for any listed group that is not included in the program:
    - Residents
    - Visitors;
    - Public service employees;
    - Businesses;
    - Commercial and industrial facilities; and
    - Construction site personnel.

The outreach must inform the public about the impacts pollution in stormwater run-off can have on water quality, hazards associated with illegal discharges and improper disposal of waste, and steps that they can take to reduce pollutants in stormwater run-off.

The MS4 operator must document activities conducted and materials used to fulfill this control measure. Documentation shall be detailed enough to demonstrate the amount of resources used to address each group. This documentation shall be retained in the annual reports required by the general permit.

- 2) If permittee has a public website, the permittee shall post its SWMP and the annual reports or a summary of annual report on the permittee's website. The SMWP must be posted no later than 30 days after the approval date, and the annual report no later than 30 days after the due date.
- (b) Public Involvement
  - 1) The MS4 operator must, at a minimum, comply with any State and local public notice requirements when implementing a public involvement/participation program. The program must be developed to include opportunities for a wide variety of constituents within the MS4 area to participate in the stormwater management program (SWMP) development and implementation.

#### Stormwater Management Program:

The City will post this SWMP and the annual reports (or a summary of annual reports) on the city's website as required by the General Permit.

The City has developed BMPs to educate and involve the public.

#### **Best Management Practices:**

The following BMPs have been selected for MCM-1:

- PE-1: Utility Bill Insert
- PE-2: Published Articles
- PE-3: Post SWMP and Annual Reports
- PE-4: Elected Official Education
- PE-5: Contractor Education
- PE-6: Public Notice of Meetings
- PE-7: Publish Notice
- PE-8: Clean-ups

Each BMPs measurable goals, responsible party and corresponding implementation schedules can be found in the following tables.

BMP FOR MCM-1	UTILITY BILL INSERT	PE-1
Responsible	Description:	
<b>Party:</b> City Administrator	Include educational flyers with information relating to stormwater issues and/or public participation opportunities in the solid waste bills. For residents who do not receive a bill from the City, the same information will be posted on the City's web page. Topics related to reducing bacteria discharging (such as proper pet disposal, fats, oils and grease clogging sanitary sewer lines and resulting in overflows) from residences will be included.	
Applicability:	Rationale:	
Residents	All residents who receive city trash collection, receive a bill from the city each month. Because they are distributed to the majority of the residential and commercial population, inserts are commonly used to inform the public about issues affecting the Uhland community.	
Year(s) of Implementation:	Measurable Goals:	
Years 1, 2, 3, 4 and 5 To be completed by December 31 of each implementation year.	<ul> <li>Include one educational flyer as a utility bill ins mailed to 100% of the city utilizes customers.</li> </ul>	sert each year
	<ul> <li>Post at least 1 educational flyer on the city annually.</li> </ul>	y's web page
	<ul> <li>Document dates for 100% of mailings and posting</li> </ul>	ngs.

BMP FOR MCM-1	PUBLISHED ARTICLES	PE-2
Responsible Party: City Administrator	<b>Description:</b> Include articles relating to stormwater issues in th <i>Press.</i>	ie Hays Free
Applicability: Residents	<b>Rationale:</b> The <i>Hays Free Press</i> is mailed to most of the residents and businesses in the Uhland community. Therefore, articles on stormwater issues would be an effective way to educate the community.	
Year(s) of Implementation:	Measurable Goals:	
Years 1, 2, 3, 4 and 5 To be completed by December 31 of each implementation year.	<ul> <li>Include one article per year in <i>Hays Free Press</i> publication).</li> <li>Document 100% of the published article dates a</li> </ul>	(or similar and topics.

BMP FOR MCM-1	POST SWMP AND ANNUAL REPORTS	PE-3
Responsible Party: City Administrator	<b>Description:</b> Post SWMP and annual reports on the c www.cityofuhland.com.	ity's website,
Applicability: Residents Year(s) of Implementation:	Rationale: The city's website is available and accessible by the general public in the Uhland community. Therefore, posting would be an effective way to provide information to the community. Measurable Goals:	
Years 1, 2, 3, 4 and 5 To be completed by December 31 of each implementation year.	<ul> <li>Post SWMP on the city's website no later than 3 the approval date.</li> <li>Post each annual report or a summary of the an the city's website no later than 30 days after the report.</li> <li>Document 100% of the of posting on city's website</li> </ul>	0 days after nual report to due date the site.

BMP FOR MCM-1	ELECTED OFFICAL EDUCATION	PE-4
Responsible Party:	Description:	
City Administrator	Provide city council with annual updates on the cit	y's Svivip.
Applicability:	Rationale:	
Public Service Employees	The City of Uhland operates under a Council-Administrator form of government. The city council is the governing legislative body; its members are the community's decision makers. City Council sets policies, approves budgets, determines tax rates, and passes ordinances and resolutions to govern the City. Therefore, it is important that city staff provide the council with updates on the city's SWMP.	
Year(s) of Implementation:	Measurable Goals:	
Years 1, 2, 3, 4 and 5	<ul> <li>Provide annual updates on the city's SWMP to t</li> </ul>	he City Council.
To be completed by December 31 of each implementation year.	<ul> <li>Document when city council is provided with SW</li> </ul>	/MP updates.

BMP FOR MCM-1	CONTRACTOR EDUCATION	PE-5
Responsible Party:	Description:	
City Administrator	Provide educational materials to construction sit stormwater issues as it relates to construction runoff control and post- construction stormwater new development and redevelopment areas.	e contractors on site stormwater management in
Applicability:	Rationale:	
Construction Site Personnel	By providing contractors with educational mater SWMP, the city can help improve compliance v sediment control programs thereby insuring properly installed and maintained by the contractor	ials on the city's with erosion and that BMPs are or.
Year(s) of Implementation:	Measurable Goals:	
Years 2 and 4	<ul> <li>Provide educational materials to 100% of the contract of the cont</li></ul>	onstruction
To be completed by December 31 of each	contractors every other year.	
implementation year.	<ul> <li>Document number and type of materials made contractors.</li> </ul>	available to

BMP FOR MCM-1	PUBLIC NOTICE OF MEETINGS	PE-6
Responsible Party: City Administrator	<b>Description:</b> Provide public notice for meetings relating to stor and/or public participation opportunities.	rmwater issues
Applicability: Public Involvement Public Participation	<b>Rationale:</b> The City of Uhland city council meetings are subject to state and local public notice requirements, which meet TCEQ minimum requirements for public involvement/participation.	
Year(s) of Implementation:	Measurable Goals:	
Years 1, 2, 3, 4 and 5 To be completed by December 31 of each implementation year.	<ul> <li>Verify that 100% of city council meetings public notice requirements and include that annual reports to the TCEQ.</li> <li>Maintain copies of public notices.</li> </ul>	s comply with information in

BMP FOR MCM-1	PUBLISH NOTICE	PE-7
Responsible Party: City Administrator	<b>Description:</b> Publish notice of the Executive Director's preliminary determination on the NOI and SWMP after receiving written instructions from the TCEQ's Office of Chief Clerk. This notice must be published at least once in the newspaper of largest circulation m the county containing the largest resident population. This notice shall provide opportunity for the public to submit comments on the NOI and SWMP and shall allow the public to request a public meeting. A public meeting will be held if the TCEQ determines that there is significant public interest.	
Applicability: Public Involvement/ Participation	<b>Rationale:</b> Part of the TXR04000 Municipal Separate Storm System (MS4) General Permit requirements (Part	Sewer II. D. 12).
Year(s) of Implementation:	Measurable Goals:	
During the year that City of Uhland is notified by the TCEQ Office of Chief Clerk to publish the public notice	<ul> <li>Publish public notice of the Executive Director's determination in the newspaper within 30 days notified by the TCEQ Office of Chief Clerrinformation about public comment and public request.</li> <li>Maintain documentation of public notice.</li> </ul>	s preliminary s after being rk, including olic meeting

BMP FOR MCM-1	CLEANUPS	PE-8
Responsible Party: City Administrator	<b>Description:</b> Continue to work in conjunction with Keep Plum Creek Beautiful (KPCB) to host litter cleanup events. The mission is to educate and engage residents of the City of Uhland to take greater responsibility for enhancing their community environment.	
Applicability:	Rationale:	
Public Involvement/ Participation	Cleanup events are an effective way to improve habitat, water quality, and aesthetics. To maintain water quality, cleanup efforts must be recurring.	
	A cleanup allows concerned citizens to become directly in in water pollution prevention. Through media coverage publicity efforts, cleanups help educate members community about the importance of water quality. As a our waterways are cleaner, volunteers feel a set accomplishment, and the community is better informed.	
Year(s) of Implementation:	Measurable Goals:	
Years 1, 2, 3, 4 and 5	<ul> <li>Host a cleanup event at least once per year.</li> </ul>	
To be completed by December 31 of each implementation year.	<ul> <li>Document number of participants and estimate litter and debris removed.</li> </ul>	ed pounds of

#### MCM-2: ILLICIT DISCHARGE DETECTION AND ELIMINATION

#### General Permit Requirements:

a) Program Development

The SWMP must be developed to establish a program to detect and eliminate illicit discharges to the MS4. The program must include the manner and process to be used to detect and address non-stormwater discharges, including illegal dumping to the MS4 system. To the extent allowable under state and local law, an ordinance or other regulatory mechanism must be utilized to prohibit and eliminate illicit discharges.

The Illicit Discharge Detection and Elimination Program must include:

- (1) An up-to-date MS4 map;
- (2) Methods for informing and training MS4 field staff;
- (3) Procedures for tracing the source of an illicit discharge;
- (4) Procedures for removing the source of illicit discharge
- b) Allowable Non-Stormwater Discharges

Non-stormwater flows listed in Part II Section C and Part VI Section B of the General Permit do not need to be considered by the MS4 operator as an illicit discharge requiring elimination unless the operator of the MS4 or the executive director identifies the flow as a significant source of pollutants to the MS4.

In lieu of considering non-stormwater sources on a case-by-case basis, the MS4 operator may develop a list of common and incidental non-stormwater discharges that will not be addressed as illicit discharges requiring elimination. If developed, the listed sources must be reasonably expected to be insignificant sources of pollutants either because of the nature or the conditions that have been established by the MS4 operator prior to accepting the discharge to the MS4. All local controls and conditions established for these discharges must be described in the SWMP and any changes from the initial SWMP must be included in the annual report described in Part IV.B.2. of the General Permit.

#### c) MS4 Map

An up-to-date map must be developed and must include the following:

- The location of all MS4 outfalls that are operated by the city and that discharge into waters of the U.S.;
- The location and name of all surface waters that receive discharges from the MS4 outfalls; and
- Any additional information needed by the permittee to implement the SWMP.
- d) Education and Training

Implement a method for informing and training field staff that may observe or come into contact with an illicit discharge or illicit connection as part of their normal job responsibilities.

e) Public Reporting

Publicize and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from the MS4. Provide central contact point to receive reports.

City of Uhland SWMP

f) Procedures for Responding to Illicit Discharges and Spills

Develop and maintain on-site procedures for responding to illicit discharges and spills

g) Source Investigation and Elimination

Conduct investigations to identify and locate the source of illicit discharges and require corrective action by the responsible party.

h) Inspections

Conduct inspections in response to complaints and conduct follow-up inspections to ensure corrective measures have been implemented by the responsible party.

#### Stormwater Management Program:

The City will develop, implement and enforce an IIDE program to detect and eliminate illicit discharges into the MS4. The IIDE program will include an up-to-date MS4 map, training, and procedures for tracing and eliminating sources.

#### Best Management Practices:

The following BMPs have been selected for MCM-2:

- ID-1: IIDE Program
- ID-2: IIDE Discharge Ordinance
- ID-3: IIDE Discharge Plan Review
- ID-4: IIDE Discharge Investigations
- ID-5: Septic System Inspections
- ID-6: Household Hazardous Waste
- ID-7: Illegal Dumping
- ID-8: MS4 Map
- ID-9: IDDE Training

Each BMPs measurable goals, responsible party and corresponding implementation schedules can be found in the tables.

BMP FOR MCM-2	ILLICIT DISHARGE DETECTION AND ELIMINATION (IIDE) PROGRAM	ID-1
Responsible Party: Code Compliance Officer	<b>Description:</b> Develop an illicit discharge detection and eliminat establish adequate legal authority to prohibit illicit assess and prioritize potential areas, pollutants, o concern; to coordinate existing resources; to mechanism to track activities; and to establish mea	ion program to discharges; to or behaviors of o establish a isurable goals.
Applicability: Illicit Discharge Detection and Elimination	Rationale: Sources of illicit discharges in urban areas are seemingly ever-present. All urban municipalities ca establishing a comprehensive program to addre stormwater discharges, including reporting hotlines procedures. Establishing a strong municipal prog policies and procedures will ensure that individua addressed consistently. It will also help establis cases where discharges result from criminal neglig	numerous and an benefit from as these non- s and response ram with clear al incidents are sh evidence in ence.
Year(s) of Implementation:	Measurable Goals:	
Year 2 To be completed by December 31 of the implementation year.	Develop IDDE program goals and implementatio	on strategies.
Years 3, 4 and 5 To be completed by December 31 of each implementation year.	<ul> <li>Implement IDDE program.</li> <li>Document 100% of the IDDE inspection and 100 enforcement action taken</li> </ul>	)% of

BMP FOR MCM-2	ILLICIT DISCHARGE ORDINANCE	ID-2
Responsible	Description:	
<b>Party:</b> City Administrator	Develop an Ordinance to prohibit and eliminate illicit discharges. Revise Ordinance as needed to meet the requirements of TPDES General Permit No. TXR.040000.	
City Council	An essential element of the ordinance is the grantin inspect properties in the city that are suspecte contaminated discharges into the stormwater conv The ordinance also provides for the establishment actions for noncompliance.	ng of authority to ed of releasing eyance system. of enforcement
Applicability:	Rationale:	
Illicit Discharge Detection and Elimination	TPDES General Permit No. TVR04000, Part III (A) an ordinance or other regulatory mechanism be ut and eliminate illicit discharges.	(3) requires that ilized to prohibit
Year(s) of Implementation:	Measurable Goals:	
Year 2 To be completed by December 31 of the implementation year.	• Develop ordinance	
Years 3, 4 and 5 To be completed by December 31 of each implementation year.	<ul> <li>Document 100% of inspections of eliminate illicit actions taken</li> </ul>	t discharges and

BMP FOR MCM-2	ILLICIT DISCHARGE PLAN REVIEW	ID-3
Responsible Party: City Administrator City Engineer	<b>Description:</b> Continue Uhland's existing program of review development plans for the detection and elimination connections to the stormwater conveyance system	wing site on of illicit m.
Applicability: Illicit Discharge Detection and Elimination	<b>Rationale:</b> The enforcement of construction codes are through plan review, permit issuance and inspection. Plan review can help to detect and connections to the stormwater conveyance syste are implemented in the field.	accomplished construction eliminate illicit m before they
Year(s) of Implementation:	Measurable Goals:	
Years 1, 2, 3, 4 and 5 To be completed by December 31 of each implementation year.	• Document 100% of the number of plans review	ved.

BMP FOR MCM-2	ILLICIT DISCHARGE INVESTIGATIONS	ID-4
<b>Responsible Party:</b> Designated Representative	<b>Description:</b> The City of Uhland will attempt to identify and eliminate the source of illicit discharges. Dye testing, smoke testing and/or video inspection of the sanitary sewer system may be utilized, in addition to visual observation, to determine the source of any discharge. Once identified, the city will attempt to eliminate the illicit discharge using enforcement authority granted by local ordinances.	
Applicability: Illicit Discharge Detection and Elimination	<b>Rationale:</b> An illicit discharge is any discharge to a municipal storm sewer that is not entirely composed of stormwater, except discharges pursuant to the general permit or a separate authorization and discharges resulting from emergency firefighting activities. TPDES General Permit No. TXR.040000, requires illicit discharges be effectively detected and eliminated.	
Year(s) of Implementation:	Measurable Goals:	
Year 2 To be completed by December 31 of the implementation year.	<ul> <li>Develop written procedures describing the basi inspections in response to complaints and conc investigations.</li> </ul>	s for conducting Jucting follow-up
Years 3, 4 and 5 To be completed by December 31 of each implementation year.	<ul> <li>Document 100% of all illicit discharge investigations conducted.</li> <li>Document 100% of the follow-up investigations to ensure corrective action by responsible party.</li> </ul>	

BMP FOR MCM-2	SEPTIC SYSTEMS INSPECTIONS	ID-5
Responsible Party:	Description:	
Designated Representative	Continue inspection of on-site septic systems (OSSF) in an attempt to reduce sanitary sewer overflows and septic system failure. The City of Uhland is responsible for enforcing minimum standards for the design, construction, installation, and operation of OSSFs. Inspection and enforcement shall be aimed at preventing septic systems from failing and detect and require land owners to correct existing systems that are failing.	
Applicability:	Rationale:	
Illicit Discharge Detection and Elimination	Septic systems treat household wastes because there is no public sewers available for the residents of Uhland. Septic system failures can be minimized by implementation of rule enforcement that govern design, construction, installation and operation.	
Year(s) of Implementation:	Measurable Goals:	
Years 1, 2, 3, 4 and 5 To be completed by December 31 of each implementation year.	<ul> <li>Document 100% of inspection and required of OSSF.</li> </ul>	d maintenance

BMP FOR MCM-2	HOUSEHOLD HAZARDOUS WASTE	ID-6
Responsible Party:	Description:	
City Administrator	Initiate a household hazardous waste (HHW) collection program or encourage residents to take wastes to an acceptable waste collection site.	
Applicability:	Rationale:	
Non-Stormwater Discharges and illegal Dumping	Residential hazardous materials that can no longer be used become house hazardous waste (HHW). Hazardous materials are found in almost every home. HHW includes hazardous materials such as household cleaners, paints, paint thinners, motor oils, gasoline, and pesticides. HHW and other hazardous materials that are not handled properly at home can be dangerous, especially to young children and pets. In addition, when HHW is not disposed of properly, it can be dangerous for people and the environment. A household hazardous waste collection program provides residents with a responsible way to dispose of their hazardous materials and help to deter illegal dumping	
Year(s) of Implementation:	Measurable Goals:	
Years 1, 2, 3, 4 and 5 To be completed by December 31 of each implementation year.	<ul> <li>Conduct at least 1 HHW event a year</li> <li>Document the number of households that u household hazardous waste collection prog</li> </ul>	tilize the ram each year.

BMP FOR MCM-2	ILLEGAL DUMPING	ID-7
Responsible Party: Code Compliance	<b>Description:</b> Continue to utilize and enforce local and state law regarding illegal dumping activities. In the City of Uhland, illegal dumping regulations are enforced by code compliance department personnel.	
Applicability:	Rationale:	
Non-Stormwater Discharges and illegal Dumping	Illegal dumps and waste dumped illegally down storm drains can impair water quality. Runoff from dumpsites contains chemicals that can contaminate wells and surface water used as sources of drinking water. Substances disposed of directly into the storm drains can also lead to water quality impairment. Therefore, it is important to attempt to reduce illegal dumping activities through enforcement of local and state law.	
Year(s) of Implementation:	Measurable Goals:	
Years 1, 2, 3, 4 and 5 To be completed by December 31 of each implementation year.	• Document 100% of all investigations conducted to illegal dump sites and waste dumped illegally or drains.	each year related lown storm

BMP FOR MCM-2	MS4 MAP	ID-8
Responsible	Description:	
Party:	Create and maintain a map containing:	
City Administrator	<ul> <li>The location of all MS4 outfalls that are on city and that discharge into waters of the location and name of all surface water discharges from the MS4 outfalls; and</li> <li>Any additional information needed by the implement the SWMP.</li> </ul>	perated by the U.S.; ers that receive ne permittee to
Applicability:	Rationale:	
Non-Stormwater Discharges and Illegal Dumping	Map is required by general permit. Map can us potential areas for illicit discharge.	ed to identify
Year(s) of Implementation:	Measurable Goals:	
Year 2	Create MS4 map.	
To be completed by December 31 of the implementation year.		
Years 3, 4 and 5	<ul> <li>Add 100% of new stormwater sewer infrastructure and r</li> </ul>	
To be completed by December 31 of each implementation year.	outfalls to MS4 map annually.	

BMP FOR MCM-2	IDDE TRAINING	ID-9
Responsible Party:	<b>Description:</b> Train field staff on detection and reporting of illicit discharge and illicit connection	
Applicability: Non-Stormwater Discharges and illegal Dumping	<b>Rationale:</b> Certain field staff may observe or come into contact with an illicit discharge or illicit connection as part of their normal job responsibilities. Proper training will help to identify, report, and eliminate illicit discharges and illicit connections.	
Year(s) of Implementation:	Measurable Goals:	
Years 2 and 4 To be completed by December 31 of each implementation year.	<ul> <li>Conduct at least 1 training class for field s observe or come into contact with an illicit disc connection as part of their normal job responsibi</li> <li>Maintain 100% of training program materials ar list.</li> </ul>	taff that may harge or illicit lities. nd attendance

#### MCM-3 – CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

#### General Permit Requirements:

The MS4 operator, to the extent allowable under State and local law, must develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to the small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre or if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more of land. The program must include the development and implementation of an ordinance or other regulatory mechanism, as well as sanctions, to ensure compliance to the extent allowable under state, federal, and local law, to require erosion and sediment control.

The permittee shall assess their current program elements and implement new elements, as necessary, to continue reducing the discharge of pollutants from the MS4 to the maximum extent practical (MEP). The following are the requirements of the general permit.

(a) Requirements for construction site contractors to, at a minimum:

- 1) implement appropriate erosion and sediment control BMPs;
- 2) stabilize soils of disturbed areas immediately whenever any clearing, grading, excavating or other earth disturbing activities have permanently ceased on any portion of the site;
- design, install, implement and maintain effective BMPs to minimize the discharge of pollutants to the small MS4.
- 4) As an alternative to 1-3 above, all permittees shall ensure that all small and large construction activities discharging to the MS4 have developed and implemented a stormwater pollution prevention plan in accordance with TPDES Construction General Permit (CGP) TXR150000.

(b) Control waste such as discarded building materials, concrete truck washout water, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality.

(c) The MS4 operator must develop procedures for:

- 1) site plan review which incorporate consideration of potential water quality impacts;
- 2) receipt and consideration of information submitted by the public; and
- 3) site inspection and enforcement of control measures to the extent allowable under state and local law.

(d) The MS4 operator must develop and implement procedures for inspecting large and small construction projects.

(e) All permittees shall implement a method for informing or training all the permittee's field staff that may perform construction site inspections or respond to stormwater construction related water quality complaints.

#### Stormwater Management Program:

Uhland will develop, implement, and enforce a program for construction activities resulting in a land disturbance of one acre or more in order to reduce pollutants in any stormwater runoff to Uhland. This will include construction activity that is part of a larger common plan of development, or sale, that would disturb one acre or more. However, it will not cover small construction activities where the TCEQ has waived the permitting requirements for stormwater discharges.

City of Uhland SWMP

For construction sites that result in a land disturbance greater than or equal to one acre, and including construction activities that are part of a larger common plan of development or sale that would disturb one acre or more, a stormwater pollution prevention plan (SWP3) in accordance with TPDES Construction General Permit TXR150000 will be required to be incorporated into the construction plans by the engineer/architect.

To the extent allowable under State and local law, an ordinance will be passed to require erosion and sediment controls, and sanctions will be enforced to ensure compliance. This ordinance will require that construction site contractors implement appropriate erosion management practices and sediment control BMPs, as well as control of waste like discarded building materials, concrete truck washout water, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality.

Uhland will develop procedures for site plan review, which will incorporate consideration of potential water quality impacts, receive and consider information submitted by the public, and include site inspections and enforcement of control measures.

#### Best Management Practices:

The following BMPs have been selected for MCM-3:

- C-1: Erosion and Sediment Control Ordinance
- C-2: Construction Plan Review
- C-3: Construction Site Inspection and Review
- C-4: City Inspector Training
- C-5: Design Standards

Each BMPs measurable goals, responsible party and corresponding implementation schedules can be found in the tables.

BMP FOR MCM-3	EROSION AND SEDIMENT CONTROL ORDINANCE	C-1	
Responsible	Description:	L	
Party: City Administrator	Utilize existing ordinances and/or other regulatory mechanic Iministrator enforce stormwater pollution prevention regulations construction, including requiring construction site contract implement erosion and sediment control BMPs and to waste at the construction site.		
	Revise ordinances as needed and/or adopt new ordinances as necessary to requirements of TPDES General Permit No TXR040	o enforce the 0000.	
Applicability:	Rationale:		
Construction Site Stormwater Runoff Control	Erosion and sedimentation from construction sites can lead to reduced water quality and other environmental problems. Phase II municipalities must implement a stormwater management program that includes a component for controlling erosion and sediment on construction sites disturbing at least one acre including those that are part of a larger common plan of development. Municipalities must establish the appropriate legal authority to accomplish this.		
Year(s) of Implementation:	Measurable Goals:		
Years 1, 2, 3, 4 and 5	Conduct inspection of 100% of active construction	sites to ensure	
To be completed by December 31 of each implementation year.	that the contractor is complying with the requireme erosion and sediment control BMPs, to control was construction site and develop a SWP2 as required Construction General permit	nts to implement ste at the I by TXR150000	

BMP FOR MCM-3	CONSTRUCTION PLAN REVIEW	C-2
Responsible	Description:	
Party: City Engineer	Continue Uhland's existing program of rev development plans for water quality consideratio sediment and erosion control for construction sites require a copy of the Construction Site Notice or No for construction sites regulated under the TPDES General Permit.	viewing site ns, including . Continue to otice of Intent Construction
Applicability:	Rationale:	
Construction Site Stormwater Runoff Control	The purpose of construction site runoff control pollutants in stormwater runoff from constructi Phase II Final Rule requires the operator of municipality to "have procedures for site pla construction plans that consider potential water qua The site plan required by Phase II must address sediment controls as well as controls for "other was	is to reduce on activities. a regulated n review of ality impacts". e erosion and te" at the site.
Year(s) of Implementation:	Measurable Goals:	
Years 1, 2, 3, 4 and 5	• Document 100% of the number of plans reviewed	d.
To be completed by December 31 of each implementation year.	<ul> <li>Document100% of the number of Construction Si Notice of Intents Received.</li> </ul>	ite Notices and

BMP FOR MCM-3	CONSTRUCTION SITE INSPECTION AND ENFORCEMENT	C-3
<b>Responsible</b> <b>Party:</b> City Building Official City Engineer	<b>Description:</b> Review construction site erosion control and stormwater pollution prevention inspection procedures. Revise procedures as necessary to meet the requirements of TPDES General Permit No. TXR04000. Conduct construction site inspections for compliance with stormwater regulations and city code. Enforce as necessary.	
Applicability: Construction Site Stormwater Runoff Control	Rationale: Construction sites lacking adequate stormwater contribute significant amounts of sediment to stream reduce the water quality impacts of active construction regulations require that many construction project maintain appropriate erosion and sediment com- management, and housekeeping BMPs. In additi- regulations require many municipalities to implement control runoff from construction sites. These reg- reviewing construction plans, conducting site in enforcing control measures necessary to minimiz- impacts.	er controls can ns and lakes. To on sites, NPDES acts install and trol, stormwater on, the NPDES ent programs to ulations include nspections, and ze water quality
Year(s) of Implementation:	Measurable Goals:	
Year 1 To be completed by December 31 of each implementation year.	<ul> <li>Document review and revisions to construction s inspection procedures.</li> </ul>	ite
Years 2, 3, 4 and 5 To be completed by December 31 of each implementation year.	<ul> <li>Document 100% of the number of inspections a</li> </ul>	nd actions taken.

BMP FOR MCM-3	CITY INSPECTOR TRAINING	C-4
Responsible	Description:	
Party: City Building Official	Provide municipal construction site erosion control regular training. All city construction site erosion co will be trained at a minimum of once every three (3) construction site erosion control inspectors will b twelve (12) months of their start date.	inspectors with ontrol inspectors years. New city e trained within
Applicability:	Rationale:	
Construction Site Stormwater Runoff Control	The construction site inspector's primary role is to ensure that all relevant precautions are taken to prevent pollutants and sediment in stormwater from impacting local waterways. An inspector must also determine the adequate of stormwater quality control measures. Therefore, municipal stormwater staff conducting inspections should receive training on regulatory requirements, BMPs, inspections, and enforcement.	
Year(s) of	Measurable Goals:	
Years 1, 2, 3, 4 and 5	<ul> <li>Provide at least 1 training class for city construction</li> </ul>	on inspectors
To be completed by December 31 of each implementation year.	<ul> <li>Document 100% of the inspector training classes</li> </ul>	conducted .

BMP FOR MCM-3	DESIGN STANDARDS	C-5
Responsible	Description:	
Party: City Administrator City Building Official City Engineer	Utilize the city's design standards to control waste a design and installation of BMPs used during construct that result in a land disturbance of greater than or acre or that are part of a larger common plan of desale that would disturb one acre or more of land manual as necessary to enforce the requirement General Permit No. TRR040000. The city's design standards manual establishes minimum standards for the design and construction improvements.	nd govern the ction activities equal to one evelopment or d. Revise the ts of TPDES s appropriate tion of public
Applicability:	Rationale	
Construction Site Stormwater Runoff Control	Development can alter landscapes by increasing im (i.e. roofs, driveways, parking lots) and chang patterns, thereby increasing the volume and velocity the site. Increased volume leads to degradation of re- and increases in the occurrence of flooding. Sto developed impervious areas can also contain pollutants that are detrimental to water quality, such nutrients, road salts, heavy metals, pathogenic petroleum hydrocarbons. Considering water quality in the design process can provide long-term water quality	perviousness ing drainage of runoff from ceiving waters rmwater from a variety of as sediment, bacteria, and impacts early uality benefits.
Year(s) of	Measurable Goals:	
Years 1, 2, 3, 4 and 5 To be completed by December 31 of each implementation year.	<ul> <li>Review of design standards manual annually</li> </ul>	

# MCM-4: POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

#### **General Permit Requirements:**

To the extent allowable under State and local law, the MS4 operator must develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one area of land, including projects less than one acre that are part of a larger common-plan of development or sale that would result in disturbance of one or more acres, that discharge into the MS4. The program must ensure that controls are in place that would prevent or minimize water quality impacts. The permittee shall:

- 1) Develop and implement strategies which include a combination of structural and/or non-structural BMPs appropriate for the community;
- 2) Use an ordinance or other regulatory mechanism to address post-construction runoff from new development or redevelopment projects to the extent allowable under State and local law; and
- 3) Ensure adequate long-term operation and maintenance of BMPs.

#### Stormwater Management Program:

The City of Uhland will develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre of land (including smaller sites that are part of a larger common plan of development). The City will do this through the development of an ordinance to address post-construction runoff, the development and implementation of structural and non-structural BMPs appropriate for their community, and procedures to ensure adequate long-term operation and maintenance to reduce pollutant impacts to stormwater.

#### **Best Management Practices:**

The following BMPs have been selected for MCM-4:

- PC-1: Post Construction Ordinance
- PC-2: Post Construction Plan Review
- PC-3: Design Standards

Each BMPs measurable goals, responsible party and corresponding implementation schedules can be found in the following tables.

BMP FOR MCM-4	POST-CONSTRUCTION ORDINANCE	PC-1
Responsible	Description:	
<b>Party:</b> City Building Official City Engineer	Utilize existing ordinances and/or other regulatory menforce requirements regarding post-construction new development and redevelopment projects least one acre including those that are part of a lar plan of development. Revise ordinances as ne adopt new ordinances as necessary to requirements of TPDES General Permit No TXR040	echanisms to runoff from disturbing at rger common eeded and/or enforce the 0000.
Applicability:	Rationale:	
Post-Construction Stormwater Management	A vital step in controlling the harmful effects of development on urban water quality is managing post-construction stormwater runoff. Land development creates roads, sidewalks, parking lots, rooftops and other impervious surfaces that can have detrimental effects on aquatic systems. Impervious cover has been linked with stream warming and the loss of aquatic biodiversity in urban areas. Stormwater runoff from impervious areas can contain sediment, nutrients, road salts, heavy metals, bacteria, petroleum hydrocarbons, and other pollutants detrimental to water quality. The goal of a stormwater management ordinance for post- construction runoff is to limit .surface runoff volumes and reduce water runoff pollutant loadings.	
Year(s) of Implementation:	Measurable Goals:	
Years 1, 2, 3, 4 and 5	<ul> <li>Record applicable ordinances.</li> </ul>	
To be completed by December 31 of each implementation year.	<ul> <li>Document annual review of ordinances.</li> <li>Maintain record of 100% of enforcement actions</li> </ul>	

BMP FOR		
MCM-4	POST-CONSTRUCTION PLAN REVIEW	PC-2
Responsible	Description:	
Party:	Continue Uhland's existing program of reviewing site	
City Administrator	development plans for water quality considerations, including post-construction runoff from new development and	
City Building Official	redevelopment projects disturbing at least one acre including those that are part of a larger common plan of development.	
City Engineer		
Applicability	Rationale:	
Post-Construction Stormwater Management	Development can alter landscapes by increasing imperviousness (i.e. roofs, driveways, parking lots) and changing drainage patterns, thereby increasing the volume and velocity of runoff from the site. Increased volume leads to degradation of receiving waters and increases in the occurrence of flooding. Stormwater from developed impervious areas can also contain a variety of pollutants that are detrimental to water quality, such as sediment, nutrients, road salts, heavy metals, pathogenic bacteria, and petroleum hydrocarbons. Considering water quality impacts early in the design process can provide long-term water quality benefits.	
Year(s) of Implementation:	Measurable Goals:	
Years 1, 2, 3, 4 and 5	• Document 100% of the number of plans reviewe	d.
To be completed by December 31 of each implementation year.		

BMP FOR		
MCM-4	DESIGN STANDARDS	PC-3
Responsible	Description:	
Party: City Building Official City Engineer	Utilize the city's design standards to govern the design ar installation of permanent BMPs used to control stormwater rund from new development and redevelopment projects that distu greater than or equal to one acre or that are part of a larg common plan of development or sale that would disturb one ac or more of land. Revise the manual as necessary to enforce the requirements of TPDES General Permit No. TRR040000. The city's design standards establish appropriate minimus standards for the design and construction of pub- improvements.	
Applicability:	Rationale:	
Post- Construction Stormwater Runoff Control	Development can alter landscapes by imperviousness (i.e. roofs, driveways, parking changing drainage patterns, thereby increasing the velocity of runoff from the site. Increased volue degradation of receiving waters and increases in the of flooding. Stormwater from developed imperviou also contain a variety of pollutants that are detrime quality, such as sediment, nutrients, road salts, h pathogenic bacteria, and petroleum hydrocarbons. water quality impacts early in the design process long-term water quality benefits. The Owner shall be required to be responsible for to care and maintenance of the permanent BMPs exce BMP is located within a public easement or right of	increasing g lots) and e volume and me leads to e occurrence us areas can ental to water eavy metals, Considering can provide the long term ept where the way.
Year(s) of Implementation:	Measurable Goals:	
Years 1, 2, 3, 4 and 5 To be completed by December 31 of each implementation year.	<ul> <li>Inspect 25% of privately owned Post-Construction Runoff Controls annually</li> </ul>	n Stormwater

# MCM-5: POLLUTION PREVENTION AND GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

#### **General Permit Requirements:**

A section within the SWMP must be developed to establish an operation and maintenance program, including an employee training component that has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

1) Permittee-Owned Facilities and Control Inventory

Permittees shall develop and maintain an inventory of facilities and stormwater controls that it owns and operates within the regulated area of the small MS4. The inventory must include all applicable permit numbers, registration numbers and authorizations for each facility or controls. The inventory must be available for review by the TCEQ.

Examples of municipal operations and municipally owned areas include, but are not limited to:

- Composting facilities;
- Equipment storage and maintenance facilities;
- Fuel storage facilities;
- Solid waste and hazardous waste handling and transfer facilities;
- Material storage yards;
- Pesticide storage facilities;
- Buildings, including schools, libraries, police stations, fire stations; and office buildings;
- Parking lots;
- Golf courses;
- Swimming pools;
- Public works yards;
- Recycling facilities;
- Salt storage facilities;
- Street repair and maintenance sites;
- Vehicle storage and maintenance yards; and
- Structural stormwater controls.
- 2) Training and Education

A training program must be developed for all employees responsible for municipal operations subject to the pollution prevention/good housekeeping program. The training program must include training materials "directed at preventing and reducing stormwater pollution from municipal operations. Materials may be developed, or obtained from the EPA, states, or other organizations and sources. Examples or descriptions of training materials being used must be included in the SWMP.

3) Disposal of Waste

Waste removed from the MS4 and waste that is collected as a result of maintenance of stormwater structural controls must be properly disposed.

4) Contractor Requirements and Oversight

Contractors hired by the permittee to perform maintenance activities on permittee-owned facilities must be contractually required to comply with all of the stormwater control measures, good housekeeping practices, and facility-specific stormwater management operating procedures.

The permittee shall provide oversight of contractor activities to ensure that contractors are using appropriate control measures and standard operating procedures. Oversight procedures must be maintained on-site and made available for inspection by the TCEQ.

5) Municipal Operations and Municipal Activities

The MS4 shall:

- a. Evaluate operation and maintenance (O&M) activities for their potential to discharge pollutants in stormwater from their own operations.
- b. Identify pollutants of concern that could be discharged from above O&M activities.
- c. Develop and implement a set of pollution prevention measures that will reduce the discharge of pollutants in stormwater from O&M activities.
- d. Inspect pollution prevention measures. All pollution prevention measures implemented at permittee-owned facilities must be visually inspected to ensure they are working properly. The permittee shall develop written procedures that describes the frequency of inspections and how they will be conducted. A log of inspections must be maintained and made available for review to the TCEQ upon request.
- 6) Structural Controls

If BMPs include structural controls, maintenance of the controls must be performed by the permittee and consistent with maintaining the effectiveness of the BMP. The permittee shall develop written procedures that define the frequency of inspections and how they will be conducted.

#### Stormwater Management Program:

The City of Uhland will develop and maintain an inventory of facilities and stormwater controls that it owns and operates within the regulated area.

The City of Uhland will develop and implement an operation and maintenance program that has the goal of preventing or reducing pollutant runoff from municipal operations. The City will do this through the adoption and implementation of stormwater management policies and procedures that protect stormwater quality yet continuing to deliver public services at the current level. A good housekeeping training program for city employees will be developed.

The municipal operations that are subject to the operation, maintenance or training program developed under the conditions of good housekeeping/pollution prevention MCM include:

- Park and open space maintenance;
- Street, road, or highway maintenance;
- Fleet and building maintenance;
- Stormwater system maintenance;
- New construction and land disturbances;

- Municipal parking lots;
- Vehicle and equipment maintenance and storage yards;
- Waste transfer stations; and
- Salt/sand storage locations.

The City of Uhland does not own or operate any industrial activities that are subject to TPDES industrial stormwater regulations.

Structural Control Maintenance activities, schedules and inspection procedures will be identified and incorporated into the SWMP at that time as appropriate. If BMPs include structural controls, the city will develop written procedures that define the frequency of inspections and how they will be conducted.

Dredge soil, accumulated sediment and floatables collected through the implementation of the storm sewer cleaning activities and other routine city operations will be properly disposed of. Disposal of such materials will be tracked in conjunction with tracking efforts for the implementation of the individual BMPs.

Contractors hired by the city to perform maintenance activities on city-owned facilities will be required to comply with stormwater control measures, good housekeeping practices, and facility-specific stormwater management operating procedures. Procedures for contractor oversight will be developed.

#### **Best Management Practices:**

The following BMPs have been selected for MCM-5:

- GH-1: Inventory of Facilities
- GH-2: Equipment Maintenance
- GH-3: Employee Training
- GH-4: Material Management
- GH-5: Operation and Maintenance Activities

Each BMPs measurable goals, responsible party and corresponding implementation schedules can be found in the following tables.

BMP FOR MCM-5	INVENTORY OF FACILITIES	GH-1
Responsible	Description:	
Party:	City will develop and maintain an inventory of facilities and stormwater controls that it owns and operates within the regulated area including all applicable permit numbers, registration numbers and authorizations for each facility or controls.	
City Administrator		
Applicability:	Rationale:	
Pollution Prevention/ Good Housekeeping	Maintaining a list of city-owned facilities will assist City to identify potential pollutants and develop best management practices and stormwater controls aimed at reducing pollutants in stormwater runoff.	
Year(s) of Implementation:	Measurable Goals:	
Year 1	Develop list of city-owned facilities	
Years 2, 3, 4 and 5	<ul> <li>Review list of city-owned facilities annually</li> </ul>	
To be completed by December 31 of each implementation year.		

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BMP FOR MCM-5	EQUIPMENT MAINTENANCE	GH-2
Responsible	<b>Description:</b> City employees are responsible for the repair and maintenance of the city fleet, including a comprehensive preventive maintenance program to protect the city's investment in machinery and equipment. Current operations and infrastructure will be reviewed, and changes will be made as necessary to ensure compliance with stormwater regulations.	
<b>Party:</b> City Administrator		
Applicability:	Rationale:	
Pollution Prevention/ Good Housekeeping	Common activities at municipal maintenance shops include parts cleaning, vehicle fluid replacement, and equipment replacement and repair. Automotive maintenance facilities are considered to be stormwater "hot spots". Hot spots are areas that generate significant loads of hydrocarbons, trace metals, and other pollutants that affect the quality of stormwater. For this reason, automotive maintenance facilities' discharges to storm and sanitary sewer systems are highly regulated.	
Year(s) of Implementation:	Measurable Goals:	
Year 1	None	
Year 2 To be completed by December 31 of each implementation year.	<ul> <li>Perform an assessment of existing equipr operations and infrastructure.</li> </ul>	nent service
Year 3 To be completed by December 31 of each implementation year.	<ul> <li>Develop a management and implementation plan and/or non-structural controls</li> </ul>	ו for structural
Years 4 and 5 To be completed by December 31 of each implementation year.	<ul> <li>Implement the plan. Document 100% of action annual</li> </ul>	ו taken

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BMP FOR MCM-5	EMPLOYEE TRAINING	GH-3
Responsible	Description:	1
<b>Party:</b> City Administrator	Develop a program to educate city employees whose work functions could impact stormwater runoff. The program will include general information about stormwater-related issues as well as specific information on the city's stormwater management program, with an emphasis on illicit discharge detection and elimination and good housekeeping.	
Applicability:	Rationale:	
Public Service Employee Education	Municipal employee training programs should be designed to teach staff about potential sources of stormwater contamination and ways to minimize the water quality impact of municipal activities. This will increase the likelihood that receiving water and the storm drain system will be protected from inadvertent discharges and spills. Very often, municipal staff members are residents as well, and improving municipal employee's awareness may reduce residential impacts and increase reporting of illicit discharges, dumping, and spills. Also, because municipalities expect residents and business owners to practice pollution prevention and good housekeeping, municipal employees should set an example for the rest of the community to follow.	
Year(s) of Implementation:	Measurable Goals:	
Year 1 To be completed by December 31 of each implementation year.	<ul> <li>Develop an employee training program.</li> <li>Conduct at least one (1) employee training progra</li> </ul>	m.
Years 2, 3, 4 and5 To be completed by December 31 of each implementation year.	<ul> <li>Conduct at least one (1) employee training program each year.</li> <li>Maintain training attendance records for 100% of conducted classes.</li> </ul>	

BMP FOR MCM-5	MATERIAL MANAGEMENT	GH-4
Responsible	Description:	
<b>Party:</b> City Administrator	Develop a material management program, including invent controls, good housekeeping practices and spill prevention a response procedures.	
Applicability:	Rationale:	
Pollution Prevention/ Good Housekeeping	Responsible management of common chemicals, such as fertilizers, solvents, paints, cleaners, and automotive products can significantly reduce polluted runoff. Proper management reduces the likelihood of accidental spills and ensures proper cleanup and disposal of wastes should a spill occur thereby the likelihood that these materials would end up in stormwater runoff. In addition, health and safety conditions at the facility will improve.	
Year(s) of Implementation:	Measurable Goals:	
Years 1 and 2	• None	
To be completed by December 31 of each implementation year.		
Year 3	<ul> <li>Develop a plan for responsible material management, including inventory controls and housekeeping practices.</li> </ul>	
To be completed by December 31 of the implementation year.		
Years 4 and 5	<ul> <li>Implement material management plan.</li> </ul>	
To be completed by December 31 of each implementation year.	<ul> <li>Conduct inspections of pollution prevention measures and maintain a log for 100% of the inspections.</li> </ul>	

BMP FOR MCM-5	EVALUATE O&M ACTIVITIES	GH-5
Responsible Party:	<b>Description:</b> Evaluate operation and maintenance (O&M) activities for potential to discharge pollutants in stormwater.	
City Administrator		
Applicability:	Rationale:	
Pollution Prevention/ Good Housekeeping	Responsible management of common chemicals, such as fertilizers, solvents, paints, cleaners, and automotive products can significantly reduce polluted runoff. Proper management reduces the likelihood of accidental spills and ensures proper cleanup and disposal of wastes should a spill occur thereby the likelihood that these materials would end up in stormwater runoff. In addition, health and safety conditions at the facility will improve.	
Year(s) of Implementation:	Measurable Goals:	
Year 1	• None	
Year 2 To be completed by December 31 of the implementation year.	<ul> <li>Evaluate road and parking lot maintenance and maintenance to identify pollutants of concern tha discharged in stormwater.</li> </ul>	right of way at could be
Year 3 To be completed by December 31 of the implementation year	<ul> <li>Develop pollution prevention measures that will discharge of pollutants in stormwater.</li> </ul>	reduce the
Years 4 and 5 To be completed by December 31 of each implementation year.	<ul> <li>Conduct visual inspections of pollution preventio</li> <li>Maintain a log of 100% of the inspections.</li> </ul>	on measures