MIDVALE
In the Middle of Everything

MIDVALE CITY

STORMWATER MANAGEMENT PLAN

July 2020
(revised July 2021)

MIDVALE CITY
STORM WATER MANAGEMENT PLAN
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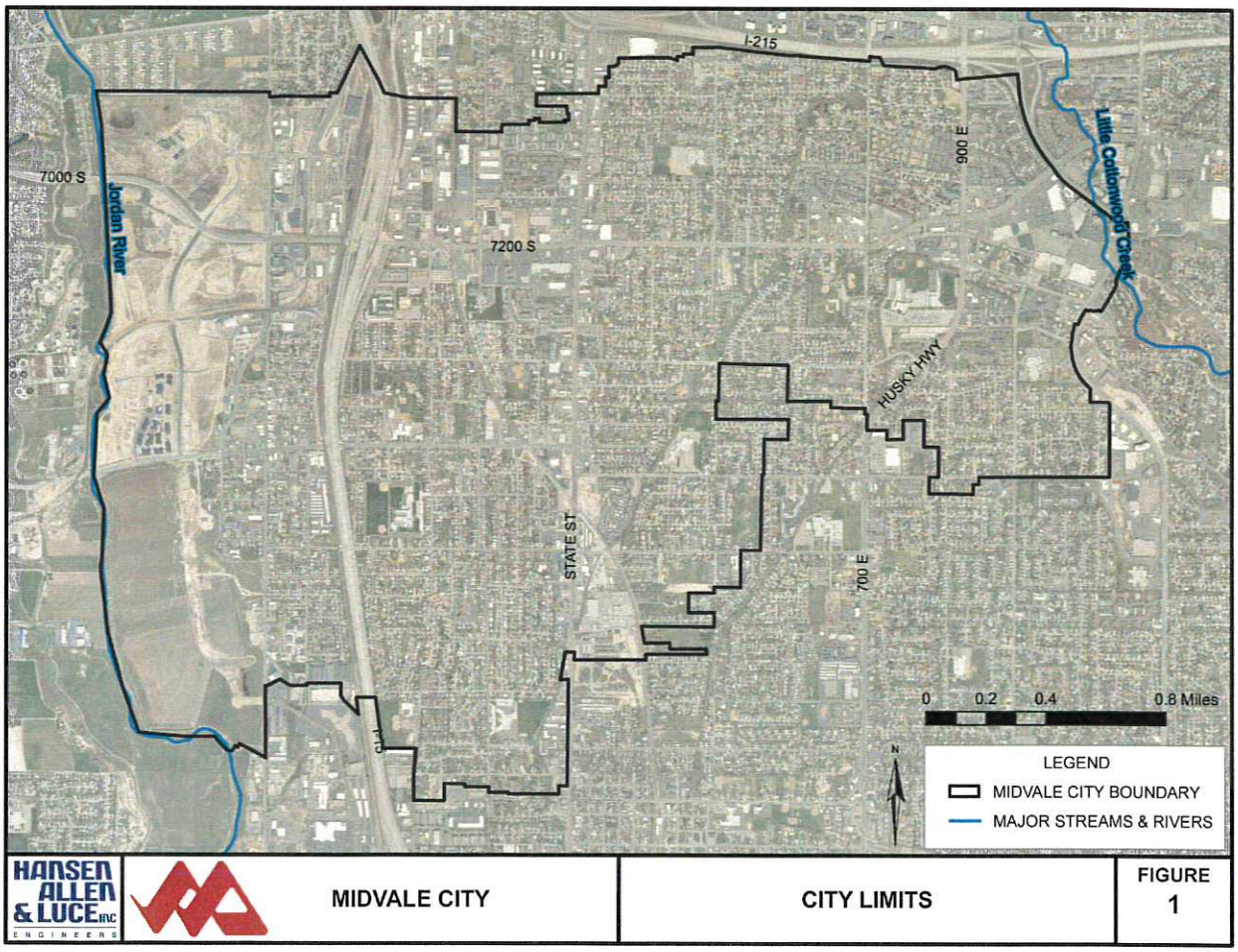
MIDVALE CITY
STORM WATER MANAGEMENT PLAN OVERVIEW

PURPOSE

This Storm Water Management Plan (SWMP) will be implemented to limit, to the maximum extent practicable, the discharge of pollutants from the Midvale City (the City) storm drain system. The development and implementation of this SWMP is to fulfill requirements under the **State of Utah UPDES Permit No. UTS000001** Authorization to Discharge Municipal Storm Water, Section II, in accordance with Section 402(p)(3)(B) of the Federal Clean Water Act, and the State Storm Water Regulations *(UAC R317-8-3.8).* The current permit became effective on February 26, 2020.

Salt Lake County (the County) received a UPDES Phase I Storm Water Discharge Permit in 1995. The permit includes 14 municipalities within Salt Lake County under the Phase II storm water regulations. Salt Lake County is an urban community within the Salt Lake Valley. The valley is a terminal valley that drains to the Great Salt Lake. The main conveyance system in the valley is the Jordan River that flows from Utah Lake to the Great Salt Lake. The Great Salt Lake is a terminal system. See Figure 1 for Midvale City boundaries.



WATER QUALITY CONCERNS

The lower Jordan River was first listed as impaired in the 2004 303(d) list. Upper Jordan River segments and additional pollutants of concern were added in the 2006 303(d) list. Segments of the Jordan River have been found to be impaired and are not meeting the State's water quality standards. Parameters not complying with State standards for the Jordan River classification include dissolved oxygen (DO), total dissolved solids (TDS), and temperature. The TDS and temperature impairments have been shown to be due to natural causes. The DO impairment exists at certain times in the lower reaches of the Jordan River (below 2100 South).

A Jordan River Total Maximum Daily Load (TMDL) Water Quality Study – Phase 1 has been completed (July 1, 2013). The Jordan River TMDL study found that the key parameter of concern is dissolved oxygen and the key pollutant of concern is total organic matter. Midvale City is included in the list of regulated point source pollutants under the Stormwater Phase II Permit. The proposed phased TMDL strategy includes Phase II (2018) Characterization of organic matter and water quality response and best management practices Implementation; Phase III (2018 – 2023): Best Available Technology (BAT) Design, implementation of stormwater capital improvements, and begin implementation strategy in revised TMDL; and Phase IV (2023 – 2028): Construction upgrades for point sources to meet WLAs, meet all DO water quality standards.

"Point sources (including stormwater) account for 53 percent of the OM load to the lower Jordan River, versus 47 percent for nonpoint sources. Sources upstream of 2100 South account for 55 percent of the OM load, versus 45 percent from downstream sources. These load estimates represent the best information currently available and could change during future phases of the TMDL study as additional data is collected and analyzed." (p. S-3, Jordan River TMDL Phase 1, 2013).

"Based on this model [the TMDL study QUAL2Kw model] and its assumptions, point sources upstream and downstream of 2100 South will have to reduce their loads by 39 and 42 percent respectively. Nonpoint sources upstream and downstream of 2100 South will have to reduce their loads by 27 and 54 percent respectively." (p. S-3, Jordan River TMDL Phase 1, 2013).

"A phased approach is recommended "where available data only allow for 'estimates' of necessary load reductions" (EPA 2006). This approach "is limited to TMDLs that for scheduling reasons need to be established despite significant data uncertainty and where the state expects that the loading capacity and allocation scheme will be revised in the near future as additional information is collected" (EPA 2006)." (p. S-4, Jordan River TMDL Phase 1, 2013).

Therefore a key goal of the Midvale City Stormwater Management Plan is to reduce the organic matter and VSS (volatile suspended solids) in storm water to the maximum practicable extent through the implementation of best management practices.

SWMP COORDINATION

Agency: Midvale City Corporation

Contact: Mr. Keith Ludwig, City Engineer, Phone: (801) 567-7258

6.8.1. & 3. *Certification*. Any person signing documents under this Part shall make the following certification:
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signed: Keith Ludwig

Dated: 7-28-21

STAFFING AND RESOURCE ALLOCATIONS

Responsibility for implementation of the storm water management program is divided between the City and the County. For the City, most of the work is performed by the Public Works Department with some of the work being performed by the Community and Economic Development Department. The City entered into an agreement entitled, "*Interlocal Cooperation Agreement between Salt Lake County and Midvale City for UPDES Co-Permit*", which delegates some responsibilities to the County.

Management and oversight of the City's responsibilities under the storm water management program is funded through the City's storm water utility. The revenue source for the work performed by the County is an ad valorem property tax that is assessed County-wide.

PROGRAM SUMMARY

This SWMP has been developed to meet the terms of the UPDES permit and consists of the six minimum control measures established by the EPA for Phase II storm water discharges. Implementation of these control measures is expected to result in significant reductions of pollutants discharged into receiving waters. These six control measures are addressed in separate chapters.

Each control measure consists of BMPs necessary for proper storm water management. The BMPs include specific tasks to meet the objective of that particular control measure. A total of 15 BMPs are included in this SWMP and will be completely implemented by the end of the permit term. This SWMP is intended to be a living document with BMPs added or deleted as BMPs arise or other BMPs are found to be ineffective. Schedules for implementing the BMPs are provided along with each minimum control measure.

Chapter One – Public Education and Outreach Program

The Public Education and Outreach Program in this SWMP promotes increasing public and professional awareness of water quality concerns and BMPs that may be implemented to protect storm water quality.

Midvale City is a Co-Permittee with Salt Lake County and Salt Lake County is responsible for the multimedia approach required in 4.2.1 of the General Permit.

1. Community/Residential and Business Program
2. Salt Lake County Storm Water Coalition

Chapter Two – Public Involvement/Participation Program

This measure is intended to provide opportunities for the public to play an active role in both the development and implementation of the storm water management program. An active community is important to the success of the program. The BMPs in this chapter not only serve to involve the public, but also serve to educate the public on storm water issues. The BMPs in this chapter include:

3. Public Involvement/ Participation

Chapter Three – Illicit Discharges and Improper Disposal Program

This measure is intended to minimize illicit discharges into the storm drain system. Illicit discharges are discharges other than storm water. Storm drain systems are not designed to accept, convey, or discharge non-storm water flows. Eliminating illicit discharges helps prevent pollutants from entering receiving waters. The BMPs in this chapter include:

4. Storm Drain System Map
    - Prepare GIS mapping of high priority areas
    - Develop SOPs for tracing, characterizing, and ceasing illicit discharges
5. Dry Weather Screening Program
    - Investigate suspect outfalls
    - Report findings

Chapter Four – Construction Site Storm Water Runoff Control Program

This measure is intended to minimize polluted storm water runoff from construction activities. Construction activities can contribute significant levels of sediment to storm water runoff if erosion and sediment controls are not implemented. The BMPs in this chapter include:

6. Construction Site Program Development
7. Construction Site Program Implementation

Chapter Five – Long-Term Storm Water Management in New Development and Redevelopment (Post-Construction Storm Water Management)

This measure is intended to minimize the impact to storm water quality caused by development and redevelopment. The increase in impervious areas caused by development can cause an increase in the type and quantity of pollutants in storm water runoff. Prior planning and design to minimize pollutants in runoff from these areas is an important component to storm water quality management. The BMPs in this chapter include:

8. Post-Construction Program Development
9. Post-Construction Program Implementation
10. Post-Construction Program Maintenance

Chapter Six – Pollution Prevention/Good Housekeeping Program

This measure is intended to ensure a reduction in the amount and type of storm water pollutants by establishing routine activities in the operation and maintenance of municipal operations that affect storm water runoff. Setting particular guidelines for source controls and materials management is an important component to storm water quality management. The BMPs in this chapter include:

11. Inventory of City Owned or Operated Facilities
12. Standard Operating Procedures and Training
13. Inspections and Assessments

CHAPTER ONE

PUBLIC EDUCATION AND OUTREACH PROGRAM

The Public Education and Outreach Program in this SWMP promotes increasing public and professional awareness of water quality concerns and BMPs that may be implemented to protect storm water quality.

Midvale City is a Co-Permittee with Salt Lake County and Salt Lake County is responsible for the multimedia approach required in 4.2.1 of the General Permit. The following goals are to meet the requirements of 4.2.1.2 and 4.2.1.3 of the General Permit.

COMMUNITY/RESIDENTIAL and BUSINESS PROGRAM

Objective: Reduce pollutants to receiving waters through increased public awareness of problems and solutions. Discourage discharge of pollutants to the storm water system and receiving waters through enforcement actions taken against violators. Reduce the impact to water quality through timely clean-up actions.

Permit Requirement: 4.2.1.2 and 4.2.1.3 – Public Education and Outreach
4.2.3.1 – Illicit Discharges and Improper Disposal

Prohibitions against water quality impacts associated with illicit discharges and improper disposal of waste.

- Prepare flyers for distribution at Harvest Days, City offices, and City website. Document the number of flyers prepared and distributed.

Leaf Bag Collection Program

- Continue the leaf bag distribution and collection program.

Goals and Assessment: The table below represents measurable goals for this BMP to be implemented and assessed during the permit term. The purpose of measurable goals is to gauge permit compliance and program effectiveness following the schedule identified.

Year	Task/Goal	Assessment	Lead Entity/Funding
2020-2025*	Provide information to General Public of prohibitions against and water quality impacts associated with illicit discharges and improper disposal	Track # of hits on website. Track # of mailers & flyers distributed annually. Change messages on website and electronic signage quarterly.	SWMP Coordinator & SW Inspector/ Stormwater Utility
2020-2025*	Provide information to Businesses and Institutions of prohibitions against and water quality impacts associated with illicit discharges and improper	Track total # of mailers sent out to businesses yearly.	SWMP Coordinator & SW Inspector/ Stormwater Utility

Year	Task/Goal	Assessment	Lead Entity/Funding
	disposal		
2020-2025*	Leaf Bag Collection Program/Facilitate the Leaf Bag Collection Program	Track # of bags delivered. Assess the current program and determine what changes need to be implemented	SWMP Coordinator & SW Manager/Storm Water Utility

* Fiscal year July to July

SALT LAKE COUNTY STORM WATER COALITION

Objective: Increase public and professional awareness of storm water quality concerns with consistent and combined marketing methods.

Permit Requirement: 4.2.1 – Public Education and Outreach

Description of Tasks: Continue coordinating and participating in the Coalition for the purpose of providing further education and training for professionals and municipal employees about storm water quality.

Salt Lake County Storm Water Coalition: The Coalition is a group of various local agencies whose purpose is reducing the load of pollutants entering the storm drains and receiving waters, and enforcing the appropriate regulations. The Coalition meets monthly to coordinate storm water program development, coordinate new educational materials and programs, and inform all of its members of new regulations or storm water workshops

CHAPTER TWO

PUBLIC INVOLVEMENT/PARTICIPATION PROGRAM

The Public Involvement/Participation Program section of this SWMP addresses the importance of public involvement in the protection of storm water. Community participation provides for broader public support, shorter implementation schedules, a broader base of expertise, and the development of important relationships with other community and government programs.

PUBLIC INVOLVEMENT / PARTICIPATION

Objective: Provide opportunities for public involvement in the development and implementation of the storm water management program. Provide additional opportunities for public awareness of the problems and solutions regarding storm water.

Permit Requirement: 4.2.2. – Public Involvement/Participation

Description of Tasks:

Make the SWMP document available to the public for review and comment through the City website.

Goals and Assessment: The table below represents measurable goals for this BMP to be implemented and assessed during the permit term. The purpose of measurable goals is to gauge permit compliance and program effectiveness following the schedule identified.

Year	Task/Goal	Assessment	Lead Entity/Funding
2021-2025*	Place the SWMP document on the City website and update as required.	Record date SWMP document was placed on the website and track when updates where made.	SW Inspector/ Stormwater Utility

* Fiscal year July to July

CHAPTER THREE

ILLICIT DISCHARGES AND IMPROPER DISPOSAL PROGRAM

The Illicit Discharges and Improper Disposal Program section of this SWMP addresses non-storm water flows that are discharged to receiving waters through storm water conveyance systems. The program implements BMPs to assist in the identification of illicit discharges and elimination of these discharges from the system. This program will also focus on prevention of new illicit discharges to the storm water system by means of education, regulations, and a spill prevention and response program.

This program will also be integrated with the Public Education and Outreach program to promote awareness of the importance of protecting the storm water system from illicit discharges and their impact to receiving waters. The following BMPs describe implementation tasks and assessment tasks to be completed by the City and the County for the Illicit Discharges and Improper Disposal Program.

STORM DRAIN SYSTEM MAP

Objective: Identify intake and discharge areas of the storm water system.

Permit Requirement: 4.2.3.1 – Illicit Discharges and Improper Disposal

Description of Tasks: Update existing storm drain system map as necessary

> Storm Drain System Map: Maintain current map in order to determine the source and extent of dry weather flows, and the particular receiving waters these flows may affect. The map will be updated as necessary, follow-up action on dry weather flows will be documented.

Goals and Assessment: The table below represents measurable goals for this BMP to be implemented and assessed during the permit term. The purpose of measurable goals is to gauge permit compliance and program effectiveness following the schedule identified.

Year*	Task/Goal	Assessment & Measurable Goal	Lead Entity/Funding
2020-2025*	Storm Drain System Map/ Maintain existing map by adding outfalls & pipes as discovered	Update yearly. Document revisions. Record # of outfalls found.	SWMP Coordinator & GIS Manager/Storm Water Utility

* Fiscal year July to July

ORDINANCE

Ordinance 13.16.100 prohibits discharge of all but stormwater, surface drainage, subsurface drainage, groundwater, roof runoff, cooling water or nonpolluted water to the storm drain system. Refers to the City's Stormwater quality standards (Ord. 6/15/2004O-23 § 1 (part), 2004). Midvale City cooperates with SLVHD for enforcement.

DRY WEATHER SCREENING PROGRAM

With the current permit, the City will take over responsibility for dry weather screening.

Objective: Identify and eliminate illicit discharges into the storm drain system. Dry weather screening will be conducted on a minimum of 20% of all identified outfalls each year during the 5-year permit term.

Permit Requirement: 4.2.3.1. – Illicit Discharges and Improper Disposal

Description of Tasks: Continue the Dry Weather Screening Program designed to detect and address illicit discharges.

> Mapping of Potential Illicit Discharge Sources: Prepare mapping of Industrial Storm Water Permit holders, sewer mapping and other sources of information to assist in identification of the potential illicit discharge source.
>
> Dry Weather Screening Program: The Dry Weather Screening Program consists of inspecting each of the major and minor outfalls that discharge to County facilities once during the permit term. The Dry Weather Screening Program provides a framework for field screening the outfalls to identify suspected outfalls as a basis for initiating more detailed drainage area investigations. In addition, the storm drain system map is continually updated to reflect field conditions as appropriate. All activities conducted under the Dry Weather Screening Program will be documented.
>
> Investigations and Enforcement: Any dry weather flows that are identified are traced to their source. The City will investigate illicit connections or illegal discharges within the City's boundary. Investigations or enforcement actions will be documented.

Goals and Assessment: The table below represents measurable goals for this BMP to be implemented and assessed during the permit term. The purpose of measurable goals is to gauge permit compliance and program effectiveness following the schedule identified.

Year	Task/Goal	Assessment & Measurable Goal	Lead Entity/Funding
2020-2025*	Update GIS mapping of high priority areas to assist in identification of illicit discharges.	Record high risk areas and inspect on a yearly basis.	SWMP Coordinator & SW Inspector /Storm Water Utility
2020-2022	Develop SOPs for tracing the source of an illicit discharge. Develop SOPs for characterizing the nature and threat posed by any illicit discharge. Develop standard operating procedures for ceasing the illicit discharge.	Implement SOPs for illicit discharge source tracing, threat characterization, and ceasing. Implementation documentation.	Engineering Manager & SWMP Coordinator/Storm Water Utility
2020-	Dry Weather Screening	Document findings of	SWMP Coordinator &

Year	Task/Goal	Assessment & Measurable Goal	Lead Entity/Funding
2025*	Program/ Continue Dry Weather Screening Program sampling all outfalls Midvale City to County facilities once during the permit term	screening program, number of outfalls visited and number of outfalls with suspected conditions. Visit minimum of 20% of the outfalls each year.	SW Inspector/Storm Water Utility
2020-2025*	Investigation/ Investigate any suspect outfalls that exhibit evidence of illicit discharge	Document any investigation efforts and findings	SWMP Coordinator & SW Division Manager/ Storm Water Utility
2020-2025*	Enforcement/ Report findings to SLVHD to take actions toward eliminating illicit discharges	Document enforcement actions taken	SLVHD/ County General Fund

* Fiscal year July to July

CHAPTER FOUR

CONSTRUCTION SITE STORM WATER RUNOFF CONTROL PROGRAM

The Construction Site Storm Water Runoff Control Program section of this SWMP addresses water quality concerns for construction sites greater than or equal to one acre. Polluted storm water runoff from construction sites often flows to storm drains and into receiving waters. This runoff can contribute more sediment to receiving waters than would be deposited naturally. The resulting sediment deposition can cause physical, chemical, and biological harm to receiving waters. The BMPs described in this section include a construction site program designed to reduce pollutants in storm water runoff from construction activities. This program includes procedures for construction site plan review, site inspections, public reporting, and notification of specific requirements to all construction site owners or operators.

This program will also be integrated with other facets of the storm water management program to provide information and up to date BMPs to the public. The following BMPs describe implementation tasks and assessment tasks to be completed by the City for the Construction Site Storm Water Runoff Control Program.

CONSTRUCTION SITE PROGRAM DEVELOPMENT

Objective: Reduce erosion, sediment transportation, and other pollution caused by construction activities.

Permit Requirement: 4.2.4. – Construction Site Storm Water Runoff Control

Description of Tasks: Develop a program with requirements for construction operators to use erosion and sediment controls and maintain appropriate structural and non-structural BMPs to reduce pollutants discharged during construction activities. Construction activities are defined as activities that change the volume or peak flow discharge rate of rainfall runoff from the land surface. This may include grading, cutting, scraping, excavating, placing fill materials, paving, construction, substantial removal of vegetation, or any activity which exposes soils or rock or involves the diversion or piping of any natural or man-made watercourse.

The program requires the submittal of a Storm Water Pollution Prevention Plan (SWPPP) for each development prior to commencing grading operations. The SWPPP will include an erosion control plan. The erosion control plan is intended to prevent erosion during the construction phase by implementing various erosion control measures as appropriate. The control of construction waste debris at the site that may cause adverse impacts to water quality will be a part of the SWPPP. This program will include procedures for plan review, site inspections, public reporting, and contractor education.

> Ordinance: The City will adopt an ordinance that regulates storm water runoff from construction activities. The ordinance will include requirements for SWPPPs, site plan reviews, inspections, and enforcement.

Storm Water Pollution Prevention Plan: A SWPPP must be submitted for review and approval prior to commencing grading operations. A SWPPP is intended to prevent erosion during the construction phase by implementing various erosion control measures as appropriate. Such measures may include temporary silt or sediment fences, sediment traps and detention ponds, temporary and permanent vegetation, etc.

Site Plan Reviews: Procedures will be developed for the Community and Economic Development Department to review site plans for BMPs during construction. Site plan review will include assessing construction phasing, limiting the disturbed area, materials management, and temporary erosion and sediment controls. Consideration for proper operation and maintenance of control measures will be incorporated into the plan review process. Once final site plan approval has been given, a preconstruction meeting will be scheduled prior to the commencement of any work on the site.

Inspections: Procedures to incorporate BMP inspections into grading and building inspections will be developed. Site inspections and enforcement of erosion control measures at construction sites will help to deter infractions. Procedures will include steps to identify priority sites for inspection and enforcement based on the nature and extent of the construction activity, topography, characteristics of soil, and receiving water quality. Regular inspections by qualified personnel will help to ensure erosion and sediment controls are operating properly and to identify problem areas. Procedures for follow-up activities will be developed.

Enforcement: Enforcement procedures will be followed.

Public Reporting Program: The public can play a crucial role in identifying instances of noncompliance. Public reporting can provide important assistance in preventing storm water pollution during construction activities. Procedures for public reporting will be coordinated with the City and the SLVHD.

Owner/Operator Notification: Making construction owners/operators aware of UPDES permit requirements for construction activities will be beneficial in minimizing storm water pollutant runoff from such sites.

Goals and Assessment: The table below represents measurable goals for this BMP to be implemented and assessed during the permit term. The purpose of measurable goals is to gauge permit compliance and program effectiveness following the schedule identified.

Year*	Task/Goal	Assessment & Measurable Goal	Lead Entity/Funding
2020 - 2025	Program development/ Schedule preconstruction meetings for all development projects	Keep a record of preconstruction meeting with an attendance log	Engineering Project Manager/ Storm Water Utility
2020 - 2025	Program Development/ Ensure requirements for SWPPP preparation are followed	Document SWPPP review and preparation	SWMP Coordinator/ Storm Water Utility

Year*	Task/Goal	Assessment & Measurable Goal	Lead Entity/Funding
2020 - 2025	Site Plan Review/ Revise site plan review procedures as required	Follow site plan review procedures and document any findings	SWMP Coordinator, City Engineer & SW Inspector/ Storm Water Utility
2020 - 2025	Site Inspections/ Identify priority sites for inspections	Document priority sites	SWMP Coordinator/ Storm Water Utility
2020 - 2021	Enforcement/ Revise enforcement policies as needed	Document enforcement action taken	SWMP Coordinator & SW Inspector/ Storm Water Utility
2020 - 2021	Public Reporting/ Revise public reporting procedures as needed	Document all calls recieved	SWMP Coordinator & SW Inspector/ Storm Water Utility
2020 - 2025	Owner/Operator Notification/ Follow procedures for notification of UPDES permit requirements	Document procedures for notification of UPDES permit requirements	SW Coordinator/ Storm Water Utility

* Fiscal year July to July

CONSTRUCTION SITE PROGRAM IMPLEMENTATION

Objective: Implement procedures developed in the Program Development BMP. These procedures will help to decrease pollutants conveyed to the storm drain system from construction sites.

Permit Requirement: 4.2.4. – Construction Site Storm Water Runoff Control

Description of Tasks: Implement procedures for plan review, inspections, enforcement, public reporting, and UPDES owner/operator notification. Implementation of these procedures will serve to minimize water quality impacts caused by construction activities. The site plan review includes requirements for operators to control other wastes such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste that may adversely impact water quality.

Plan Review: Review plans as developed. The intent of plan reviews is to ensure appropriate erosion and sediment controls are incorporated during construction activities.

Site Inspections: Perform site inspections to ensure proper installation and maintenance of storm water controls.

Enforcement: Pursue enforcement actions to minimize impacts to storm water quality.

Public Reporting Program: Pursue public reporting procedures and coordinate with the SLVHD.

Owner/Operator Notification: Follow notification procedures for owners/operators of all UPDES permit requirements for construction activities. The owner/operator will submit an NOT to the UDEQ. Once this is done the NeTCGP will notify the City that the NOT was submitted and the City will then inspect the site for stabilization, removal of temporary BMP's, cleanliness, and long term storm water installations.

Goals and Assessment: The table below represents measurable goals for this BMP to be implemented and assessed during the permit term. The purpose of measurable goals is to gauge permit compliance and program effectiveness following the schedule identified.

Year*	Task/Goal	Assessment & Measurable Goal	Lead Entity/Funding
2020-2025	Plan Review/ Follow plan review and approval process	Document suggestions made on plans. Document types of BMPs implemented	SWMP Coordinator, SW Inspector & City Engineer/ Storm Water Utility/General fund
2020-2025	Site Inspections/ Follow site inspection procedures	Document inspections and findings using Utilisync.	SWMP Coordinator & SW Inspector/ Storm Water Utility
2020-2025	Enforcement/ Follow enforcement procedures	Document enforcement actions taken	SWMP Coordinator & Code Enforcement Officer/ Storm Water Utility & General Fund
2020-2025	Public Reporting/ Follow public reporting procedures	Document all public reports and any follow-up action taken using Utilisync	SWMP Coordinator & SW Inspector/ Storm Water Utility
2020-2025	Owner/Operator Notification/ Follow notification procedures	Document notifications issued	SWMP Coordinator & SW Inspector/ Storm Water Utility

* Fiscal year July to July

CHAPTER FIVE

LONG-TERM STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT (POST-CONSTRUCTION STORM WATER MANAGEMENT)

The Post-Construction Storm Water Management in New Development and Redevelopment addresses the importance of storm water runoff management in new development and redevelopment projects. This includes land disturbances of greater than or equal to one acre and projects less than one acre that are part of a larger common plan of development or sale. Substantial impacts of post-construction runoff are caused by an increase in the type and quantity of pollutants in storm water runoff. The BMPs described in this section of this SWMP include the development of structural and non-structural storm water runoff strategies and the development of post-construction programs that consider water quality impacts of new development and redevelopment projects in the comprehensive land use master planning process.

"The objective of this control measure is for the hydrology associated with new development to mirror the pre-development hydrology of the previously undeveloped site or to improve the hydrology of a redeveloped site and reduce the discharge of storm water." (UPDES UTS000001 4.2.5.)

This program will also be integrated with the Construction Site Storm Water Runoff Control Program of the SWMP to provide information and up-to-date BMPs to the end user. The following BMPs describe implementation tasks and assessment tasks to be completed by the City for the Post-Construction Storm Water Management in New Development and Redevelopment Program.

POST-CONSTRUCTION PROGRAM DEVELOPMENT

Objective: Reduce the discharge of pollutants from areas of new development and redevelopment after construction is completed.

Permit Requirement: 4.2.5. – Post-Construction Storm Water Management in New Development and Redevelopment

Description of Tasks: Manage the Post-Construction program with requirements for post-construction runoff controls. Post-construction storm water management in areas undergoing new development or redevelopment is necessary because runoff from these areas has been shown to significantly affect receiving waters. There are two types of impacts from post-construction runoff. One is from an increase in the type and quality of pollutants in storm water runoff. The other is from the increase in the quantity of storm water itself. Prior planning and design to minimize pollutants in post-construction storm water discharges is an effective approach to storm water quality management. (4.2.5.2.2.) Documentation on how the requirements of the ordinance or other regulatory mechanism will protect water quality and reduce the discharge of pollutants to the City storm drain system. Documentation shall include:

- How long-term storm water BMPs were selected;
- The pollutant removal expected from the selected BMPs; and
- The technical basis which supports the performance claims for the selected BMPs.

General Plan, Land Development Code: Addressing the water quality impacts of new development and redevelopment in the land use planning process by implementing structural and non-structural BMPs will help to prevent many storm water quality problems. This is a cost-effective mechanism for improving storm water quality. The following BMPs will be evaluated for water quality, flood control, and aesthetic value:

Non-Structural BMPs	Structural BMPs
Buffer Strips	Retention/Infiltration Ponds
Riparian Zone Preservation	Detention Ponds
Minimization of Disturbed Area	Vegetated Swales
Minimization of Imperviousness	Oil/Grit Separators
Maximization of Open Space	In-Line Detention

The program shall include a process to evaluate and implement a Low Impact Development (LID) approach which encourages the implementation of structural BMPs, where practicable, that infiltrate, evapotranspire or harvest and use storm water from the site to protect water quality.

The Bingham OU2 and OU1 areas are regulated by EPA separately and are required to not implement any features that promote infiltration.

Structural BMP Maintenance: Procedures will be implemented to ensure adequate long-term operation and maintenance of structural storm water controls for water quality purposes. Proper operation and maintenance of the control measures will help to minimize pollutants in storm water runoff. Funding alternatives for operation and maintenance plans will be evaluated.

Retrofit existing developed sites that are adversely impacting water quality. (4.2.5.3.3)

1. Identify areas which have a high potential for impacting water quality. Criteria for area selection will include: proximity to waterbody, proximity to sensitive ecosystem or protected area, hydrologic condition of the receiving water body, and upcoming sites that could be further enhanced by retrofitting storm water controls.
2. Select appropriate BMPs for implementation in the selected areas. The retrofit plan shall be developed to emphasize controls that infiltrate, evapotranspire or harvest and use storm water discharges. The plan shall include a ranking of control measures to determine those best suited for retrofitting as well as those that could later be considered for retrofitting.

Develop and define specific hydrologic methods for calculating runoff volumes and flow rates. (4.2.5.2.1)

1. All new development projects meeting the applicable threshold, to manage rainfall on-site, and prevent the off-site discharge of runoff associated with precipitation total is greater than or equal to 80 percent of all storms events over a given period of record. If not feasible, a rational must be provided for the use of alternative design criteria. This water quality volume-based methodology will reduce the runoff form a site from the small frequently occurring storms which have a strong negative cumulative impact on receiving water quality.

2. Redevelopment projects meeting the applicable threshold that increase the impervious surface by greater than 10%, shall manage rainfall on-site, and prevent the off-site discharge of the net increase in the volume associated with the precipitation from all rainfall events less that or equal to the 80th percentile rainfall event.

Adopt and implement procedures for site plan review.

1. Review Storm Water Pollution Prevention Plans (SWPPPs) for, at a minimum, all new development and redevelopment sites that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, to ensure that the plans include long-term storm water management measures that meet the requirements of this minimum control measure.

Develop procedures for site inspection and enforcement of post-construction storm water control measures. (4.2.5.5) Include provisions for both construction-phase and post-construction access for City inspection of storm water control measures on private properties that discharge to the City's storm drainage system to ensure that adequate maintenance is being performed.

Goals and Assessment: The table below represents measurable goals for this BMP to be implemented and assessed during the permit term. The purpose of measurable goals is to gauge permit compliance and program effectiveness following the schedule identified.

Year*	Task/Goal	Assessment & Measurable Goal	Lead Entity/Funding
2020 - 2021	Produce a Storm Water Guidance Manual for use by developers, contractors and the general public	Document manual preparation and completion	Storm Water Inspector/ Storm Water Utility
2020 - 2022	General Plan and Land Development Code/ Assess the Plan and Code for applicable BMPs in the planning process	Document findings	SWMP Coordinator & Planning Director/ General Fund
2020 - 2025	Structural BMP Maintenance/ Follow procedures to establish long-term operation and maintenance responsibilities	Assess procedures. Documentation of procedures to establish maintenance responsibilities.	SW Inspector/ Strom Water Utility
2020 - 2025	Retrofit/ Identify existing developed sites that are adversely impacting water quality	Document identified sites	SW Inspector/ Storm Water Utility
2020 – 2025	Retrofit/ develop retrofit plan for each identified site.	Document BMP ranking and selected retrofit plans.	SW Inspector/ Storm Water Utility
2020 – 2025	Retrofit/ develop schedule for implementation.	Document implementation schedule.	SW Inspector/ Storm Water Utility
2020 – 2021	Hydrologic Methods/ Implement into development-	Document hydrologic methods selection process	SWMP Coordinator/ Storm Water Utility

Year*	Task/Goal	Assessment & Measurable Goal	Lead Entity/Funding
	redevelopment reviews the 80th percentile retention requirements	and requirements.	

*Fiscal year July to July

POST-CONSTRUCTION PROGRAM IMPLEMENTATION

Objective: Reduce the discharge of pollutants from areas of new development and redevelopment after construction is completed.

Permit Requirement: 4.2.5. – Post-Construction Storm Water Management in New Development and Redevelopment

Description of Tasks: Implement the Post-Construction Program identified in the Program Development BMP. Review Storm Water Pollution Prevention Plans (SWPPPs) for, at a minimum, all new development and redevelopment sites that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, to ensure that the plans include long-term storm water management measures that meet the requirements of this minimum control measure.

Goals and Assessment: The table below represents measurable goals for this BMP to be implemented and assessed during the permit term. The purpose of measurable goals is to gauge permit compliance and program effectiveness following the schedule identified.

Year*	Task/Goal	Assessment and Measurable Goal	Lead Entity/Funding
2021	Structural BMP Maintenance/ Implement procedures to establish long-term operation and maintenance responsibilities	Inspect 20% annual and document results	SW Inspector/ Storm Water Utility
2020 - 2025	Structural BMP Maintenance/ Review SWPPPs	Review SWPPPs for 100% of all projects which disturb greater than 1 acre.	SWMP Coordinator/ Storm Water Utility
2021	Site Plan Review Procedures/ implement review procedures.	Document implementation.	SWMP Coordinator/ Storm Water Utility
2020 - 2025	Site Plan Review	Review 100% of site plans submitted for compliance with current storm water requirements. Document findings.	SWMP Coordinator & SW Inspector/ Storm Water Utility
2020 - 2025	Staff training.	Document training held. Dates, course descriptions, and names of staff attendance.	Engineering Division & Public Works Dept/ Storm Water Utility

* Fiscal year July to July

POST-CONSTRUCTION PROGRAM MAINTENANCE

Objective: Follow procedures to ensure adequate long-term operation and maintenance of storm water controls to reduce storm water pollution.

Permit Requirement: 4.2.5. – Post-Construction Storm Water Management in New Development and Redevelopment

Description of Tasks: Follow Post-Construction Maintenance procedures to minimize pollutants in storm water runoff following construction activities. This program will require the establishment of maintenance responsibility for each development. Some options to consider are: the developer or homeowner associations could provide continuing maintenance, or a special service district could be formed to provide continued maintenance.

1. Maintain an inventory of all post-construction structural storm water control measures installed and implemented at new development and redeveloped sites that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale. This inventory shall include both public and private sector sites located within the City's service area.

Goals and Assessment: The table below represents measurable goals for this BMP to be implemented and assessed during the permit term. The purpose of measurable goals is to gauge permit compliance and program effectiveness following the schedule identified.

Year*	Task/Goal	Assessment and Measurable Goal	Lead Entity/Funding
2021	Post-Construction Maintenance/maintain inventory of post-construction control measures installed	Update inventory as new projects are completed	SW Inspector/ Storm Water Utility
2020 - 2025	Post-Construction Maintenance/ Continue implementing procedures	Document maintenance activities	SW Inspector/ Storm Water Utility

* Fiscal year July to July

CHAPTER SIX

POLLUTION PREVENTION/GOOD HOUSEKEEPING PROGRAM FOR MUNICIPAL OPERATIONS

The Pollution Prevention/Good Housekeeping Program of this SWMP addresses routine activities in the operation and maintenance of drainage systems, roadways, parks and open spaces, and other municipal operations to reduce pollutants entering the storm drain system. The BMPs are divided into four categories: inventory and assessment, standard operating procedures (SOPs) and training, and inspections.

The following BMPs describe implementation tasks and assessment tasks to be completed by the City for the Pollution Prevention/Good Housekeeping Program.

DEVELOP AND MAINTAIN INVENTORY OF CITY OWNED OR OPERATED FACILITIES

Objective: Reduce potential pollutants to all receiving waters by identifying potential sources, identifying potential for discharge of pollutants, and identification of "high priority" facilities.

Permit Requirement: 4.2.6 – Pollution Prevention/Good Housekeeping for Municipal Operations

Description of Tasks: Develop inventory and pollution potential assessments.

Inventory (4.2.6.1.): Develop and keep current an inventory of all City owned or operated potential high priority facilities. Annually review the inventory and update as necessary.

Assessment (4.2.6.2): Assess the inventory of City owned or operated facilities for potential for discharge to storm water the following typical urban pollutants: sediment, nutrients, metals, hydrocarbons (e.g., benzene, toluene, ethylbenzene and xylene), pesticides, chlorides, organic matter, trash, and other additional pollutants that could be found in storm water discharges from the facility. Add the description of the assessment process and findings to this SWMP document.

Idenfication of "high-priority" facilities (4.2.6.3): Based on the results of the above assessment, identify those facilities or operations that have a high potential to generate storm water pollutants. "Among the factors that shall be considered in giving a facility a high priority ranking is the amount of urban pollutants stored at the site, the identification of improperly stored materials, activities that shall be performed outside (e.g., changing automotive fluids), proximity to waterbodies, poor housekeeping practices, and discharge of pollutant(s) of concern to impaired water(s)." Provide water quality control measures and BMP's at all high priority sites designed to target the specific pollutants associated with the site. Monitor these control measures and BMP's regularly to verify that they are functioning properly. All control measures, BMP's and monitoring schedules will be included within this SWMP.

Development of SWPPP for "high-priority" sites (4.2.6.4): Prepare and implement a SWPPP for all high priority sites outlining measures to prevent pollutants entering the storm drain system from each of these sites.

Goals and Assessment: The table below represents measurable goals for this BMP to be implemented and assessed during the permit term. The purpose of measurable goals is to gauge permit compliance and program effectiveness following the scheduled identified.

Year	Task/Goal	Assessment	Lead Entity/Funding
2021	Inventory/ Develop inventory of City facilities	Document inventory	Engineering Manager & Public Works Dept/ General Fund
2020 - 2025	Inventory/ Annually review the City facilities inventory and update as needed.	Document annual review and inventory updates.	Engineering Manager/General Fund
2021	Inventory/ Assess City facilities for potential to discharge pollutants.	Add the assessment and findings to the SWMP document.	Engineering Manager/General Fund
2021	Inventory/ Identify "high-priority" City owned facilities.	Add the list of "high-priority" facilities to the SWMP document.	SWMP Coordinator & Operations Superintendent/ Storm Water Utility & General Fund
2021	Prepare SWPPP for each "high-priority" site.	Add the SWPPP's to the SWMP document.	SWMP Coordinator & Operations Superintendent/ Storm Water Utility & General Fund

* Fiscal year July to July

STANDARD OPERATING PROCEDURES (SOPs) AND TRAINING

Objective: Reduce the pollutants reaching the storm drain system by developing SOPs to aid City personnel in assuring that pollutants from City facilities are minimized.

Permit Requirement: 4.2.6 – Pollution Prevention/Good Housekeeping for Municipal Operations.

Description of Tasks: Develop SOPs for each "high priority" facility, develop SOPs for buildings and facilities, material storage areas, heavy equipment storage areas, maintenance areas, parks and open space, vehicle and equipment, roads and parking lots, storm water collection and conveyance system, and other facilities and operations.

Develop SOPs for each "high priority" facility: Develop facility-specific standard operating procedures (SOPs) for each of the "high priority" facilities identified in 4.2.6.3 above. Include BMPs in the SOPs that will protect water quality and reduce the discharge of pollutants to the storm drainage system.

Develop SOPs for buildings and facilities (4.2.6.6): Develop SOPs for City owned or operated buildings and facilities including Spill Prevention Plans, dumpsters and waste management, maintenance activities; and SOPs for keeping areas around the facilities clean to minimize the runoff of pollutants.

Develop SOPs for material storage areas, heavy equipment storage areas, and maintenance areas (4.2.6.6.1 and 4.2.6.6.4): Develop SOPs for each of these facilities in accordance with requirements of the UPDES Permit.

Develop SOPs for parks and open space (4.2.6.6.1): Develop SOPs for the fertilizer storage and use, herbicides, sediment and erosion control, lawn maintenance and landscaping activities, management of trash containers, building maintenance, and cleaning and maintenance of equipment.

Develop SOPs for roads and parking lots (4.2.6.6.2): Develop SOPs and schedule for sweeping streets and City owned parking areas. Develop SOPs for road and parking lot maintenance, repairs, cold weather operations, right-of-way maintenance, and municipally sponsored events such as large outdoor festivals, parades or street fairs.

Develop SOPs for storm water collection and conveyance system (4.2.6.6.3): Develop SOPs for regular inspection, cleaning, and repair of the storm drain system. Prioritize storm drain maintenance with the highest priority areas being maintained at the greatest frequency. Include SOPs for handling and disposal of material removed from the storm drain system.

Develop SOPs to assess the water quality impacts of new proposed structural controls: Develop a process to assess the water quality impacts in the design of all new flood management structural controls that are associated with the City or that discharge to the City's storm drainage system. This process shall include consideration of controls that can be used to minimize the impacts to site water quality and hydrology while still meeting project objectives.

Training: Identify City personnel who have job functions that are likely to impact storm water quality. Provide training to assure that personnel understand the SOPs for their task assignments and help assure an understanding of the ultimate goal of preventing or reducing pollutant runoff.

Annual review of SOPs and Operations: Annually review SOPs for adequacy and applicability. Revise SOPs as needed. Document revised SOPs.

Goals and Assessment: The table below represents measurable goals for this BMP to be implemented and assessed during the permit term. The purpose of measurable goals is to gauge permit compliance and program effectiveness following the schedule identified.

Year	Task/Goal	Assessment	Lead Entity/Funding
2021	SOPs/ Develop SOPs for each "high priority" facility	Document SOP development	Engineering Manager & Storm Water Manager/ Storm Water Utility

Year	Task/Goal	Assessment	Lead Entity/Funding
2020 - 2022	SOPs/ Develop SOPs for buildings and facilities	Document SOP development	Engineering Manager & Fleet-Facilities Manger/Storm Water Utility & Fleet Fund
2020 - 2022	SOPs/ Develop SOPs for material storage areas, heavy equipment storage areas, and maintenance areas	Document SOP development	Engineering Manager & Fleet Manager/Storm Water Utility & Fleet Fund
2020 - 2022	SOPs/ Develop SOPs for parks and open space	Document SOP development	Engineering Manager & Operations Superintendent/ Storm Water Utility & General Fund
2020 - 2022	SOPs/ Develop SOPs for roads and parking lots	Document SOP development	Engineering Manager & Streets Manager/Storm Water Utility & General Fund
2020 - 2022	SOPs/ Develop SOPs for storm water collection and conveyance system	Document SOP development	Engineering Manager & Public Utilities Manager/Storm Water Utility & Water Fund
2020 - 2021	Training/ Identify City staff to be trained. Develop materials and schedule for job specific training.	Document training schedule.	SWMP Coordinator/ Storm Water Utility
2020 - 2025	SOPs/ Perform annual reviews of the SOPs and revise as needed to increase effectiveness and applicability.	Document SOP reviews and revisions.	Engineering Division & Public Works Dept/ Storm Water Utility, General Fund and various enterprise funds

INSPECTIONS and ASSESSMENTS

Objective: Reduce the pollutants to receiving waters by inspecting City storm water systems.

Permit Requirement: 4.2.6. – Pollution Prevention/Good Housekeeping for Municipal Operations.

Description of Tasks: Perform inspections of City owned or operated facilities.

Weekly visual inspections of "high priority" facilities: Using the appropriate SOPs, perform a weekly inspection of "high priority" facilities and track inspections (including deficiencies and corrective actions taken) in a log for each facility.

Quarterly comprehensive inspections of "high priority" facilities: Using the appropriate SOPs, perform a Quarterly comprehensive inspection of "high priority" facilities with specific attention paid to waste storage areas, dumpsters, vehicle and equipment maintenance/fueling areas, material handling areas, and similar pollutant-generating areas. Document findings (including deficiencies and corrective actions taken) in an inspection report for each facility.

Quarterly visual observation of storm water discharge from "high priority" facilities: Visually observe the quality of the storm water discharges from the "high priority" facilities (unless climate conditions preclude doing so, in which case attempt to evaluate the discharges at least four times during the wet season. Document findings (including deficiencies and corrective actions taken) in an inspection report for each facility.

Assess New Flood Management Structural Controls. The City is required (4.2.6.8) to develop and implement a process to assess the water quality impacts in the design of all new flood management structural controls.

Retrofit Existing Developed Sites. If an existing developed site is identified to be adversely impacting water quality, the severity will be decided through determining factors including, but not limited to the following:

- Proximity to a waterbody
- Status of waterbody to improve impaired water bodies and protect unimpaired waterbodies
- Hydrologic condition of the receiving waterbody
- Proximity to sensitive ecosystem or protected area
- Any upcoming sites that could be further enhanced by retrofitting storm water controls

Midvale City will retrofit existing City owned facilities to incorporate controls that infiltrate, evapotranspire or harvest and use storm water, (4.2.6.9).

City Construction Projects. All public projects should include construction and post-construction controls selected and implemented in accordance with Chapter 4 and Chapter 5 of the SWMP (4.2.4 and 4.2.5). Assess implementation in public projects and document with inspection reports.

Goals and Assessment: The table below represents measurable goals for this BMP to be implemented and assessed during the permit term. The purpose of measurable goals is to gauge permit compliance and program effectiveness following the schedule identified.

Year	Task/Goal	Assessment and Measurable Goals	Lead Entity/Funding
2020 – 2025	Inspections/ Monthly visual inspections of "high priority" facilities	Log entries.	Storm Water Manager/ Storm Water Utility
2020 - 2025	Inspections/ Quarterly comprehensive inspections of "high priority" facilities	Document Inspection reports.	Storm Water Manager/ Storm Water Utility

Year	Task/Goal	Assessment and Measurable Goals	Lead Entity/Funding
2020 – 2025	Inspections/ Yearly visual observation of storm water discharge from "high priority" facilities	Document Inspection reports.	Storm Water Manager/ Storm Water Utility
2020 - 2025	Assessments/ Assess water quality impacts of new flood management structural controls	Process description and determination added to the SWMP document.	Engineering Division & Public Works Dept/ Storm Water Utility
2020 - 2021	Assessments/ Assess existing flood management structural controls	Process description and determination added to the SWMP document.	Engineering Division & Public Works Dept/ Storm Water Utility
2020 – 2025	Inspection/ Public construction projects.	Document Inspection reports.	Engineering Manager & Storm Water Manager/ Storm Water Utility

ABBREVIATIONS & ACRONYMS

Best Management Practice (BMP) – Policies or practices that prevent, reduce, or mitigate the impacts of stormwater runoff. These methods can be structural (e.g., devices, ponds) or non-structural (e.g., policies to reduce imperviousness). BMPs classified as "non-structural" are those that rely predominantly on behavioral changes rather than construction in order to be effective. "Structural" BMPs are engineered or constructed to prevent or manage stormwater. BMPs are often further classified into (1) source control BMPs to prevent pollution, (2) water quality BMPs to reduce or prevent pollutants in runoff, (3) flow control BMPs to reduce the volume of stormwater and (4) infiltration BMPs to increase infiltration.

Clean Water Act – Clean Water Act or the Federal Water Pollution Control Act, 33 U.S.C. section 1251 et seq.

Co-permittee – means any operator of a regulated Small MS4 that is applying jointly with another applicant for coverage under this Permit. A Co-Permittee owns or operates a regulated Small MS4 located within or adjacent to another regulated MS4. A Co- Permittee is only responsible for complying with the conditions of this Permit relating to discharges from the MS4 the Co-Permittee owns or operates. See also 40 CFR 122.26(b)(1). **EPA** – United States Environmental Protection Agency

Control Measure -refers to any Best Management Practice or other method used to prevent or reduce the discharge of pollutants to Waters of the State.

Dry weather screening - is monitoring done in the absence of storm events to discharges representing, as much as possible, the entire storm drainage system for the purpose of obtaining information about illicit connections and improper dumping.

Floatables – Plastics and other floating debris (e.g., oil, grease, toilet paper).

General permit – An NPDES permit issued under 40 CFR 122.28 that authorizes a category of discharges under the CWA within a geographical area. A general permit is not specifically tailored for an individual discharger.

Geographic Information System (GIS) – A computer application used to store, view, and analyze geographical information, especially maps (*taken from the American Heritage Dictionary*).

IDDE – Illicit Discharge Elimination and Detection

Illicit Discharge – Any discharge to a municipal separate storm sewer that is not composed entirely of stormwater, except discharges pursuant to a NPDES permit and discharges resulting from fire fighting activities.

Impaired waters - means any segment of surface waters that has been identified by the Division as failing to support classified uses. The Division periodically compiles a list of such waters known as the 303(d) List.

Impervious Surface – A hard surface area that either prevents or retards the entry of water into

the soil mantle as occurs under natural conditions (prior to development), and from which water runs off at an increased rate of flow or in increased volumes. Common impervious surfaces include, but are not limited to, rooftops, walkways, patios, driveways, parking lots, compacted soil, and roadways. "Effective impervious surface" is commonly used to describe impervious surfaces connected to receiving water directly or with a conveyance device (e.g., curbs, pipes, gutters).

Low Impact Development (LID) - is an approach to land development (or re-development) that works with nature to more closely mimic pre-development hydrologic functions. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat storm water as a resource rather than a waste product. There are many practices that have been used to adhere to these principles such as bioretention facilities, rain gardens, vegetated rooftops, rain barrels, and permeable pavements.

Maximum Extent Practicable (MEP) - is the technology-based discharge standard for Municipal Separate Storm Sewer Systems established by paragraph 402(p)(3)(B)(iii) of the Federal Clean Water Act (CWA), which reads as follows: "Permits for discharges from municipal storm sewers shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques, and system, design, and engineering methods, and other such provisions as the Administrator or the State determines appropriate for the control of such pollutants."

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): (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law)...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 section 208 of the Clean Water Act that discharges into waters of the United States. (ii) Designed or used for collecting or conveying stormwater; (iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

National Pollutant Discharge Elimination System (NPDES) – A national program under Section 402 of the Clean Water Act for regulation of discharges of pollutants from point sources to waters of the United States. Discharges are illegal unless authorized by an NPDES permit.

Notice of Violation (NOV) – Enforcement mechanism used to inform regulated entities of noncompliance

Outfall – A point source as defined by 40 CFR 122.2 at the point where a municipal separate storm sewer discharges to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States.

Pollutant of concern (POC) – Any pollutant that has been identified as a cause of impairment in any water body to which the MS4 discharges.

Publicly Owned Treatment Works (POTW) – A treatment works, as defined by Section 212 of

the CWA, that is owned by the state or municipality. This definition includes any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes, and other conveyances only if they convey wastewater to a POTW treatment plant [40 CFR 403.3]. Privately-owned treatment works, Federally-owned treatment works, and other treatment plants not owned by municipalities are not considered POTWs.

Priority construction site - means a construction site that has potential to threaten water quality when considering the following factors: soil erosion potential; site slope; project size and type; sensitivity of receiving waterbodies; proximity to receiving waterbodies; non-storm water discharges and past record of non-compliance by the operators of the construction site.

Redevelopment - is the replacement or improvement of impervious surfaces on a developed site.

Runoff - is water that travels across the land surface, or laterally through the ground near the land surface, and discharges to water bodies either directly or through a collection and conveyance system. Runoff includes storm water and water from other sources that travels across the land surface.

Stormwater – Stormwater runoff, snow melt runoff, and surface runoff and drainage.

Stormwater Management Plan (SWMP) – means a set of measurable goals, actions, and activities designed to reduce the discharge of pollutants from the Small MS4 to the maximum extent practicable and to protect water quality.

SOP - is an acronym for standard operating procedure which is a set of written instructions that document a routine or repetitive activity. For the purpose of this Permit, SOPs should emphasize pollution control measures to protect water quality.

Stormwater Pollution Prevention Plan (SWPPP) – Plan developed to minimize the discharge of pollutants from an industrial site (including construction activities) to the maximum extent practicable using BMPs.

Total Maximum Daily Load (TMDL) – A water quality assessment that determines the source or sources of pollutants of concern for a particular waterbody, considers the maximum amount of pollutants the waterbody can assimilate, and then allocates to each source a set level of pollutants that it is allowed to discharge (i.e., a wasteload allocation).