

Stormwater Management Program

The logo consists of a stylized mountain range. The left side is a blue outline of a mountain peak, and the right side is a solid green shape representing a mountain base or a valley.

Sierra Vista

Updated August 2022

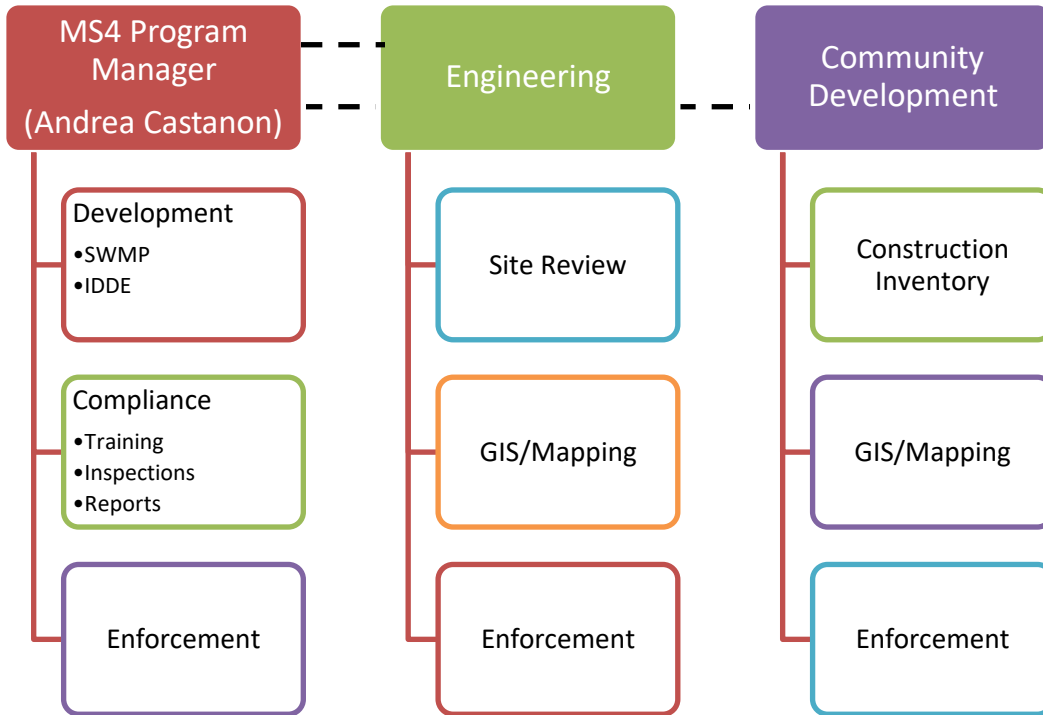
Table of Contents

Record of SWPPP Revisions	i
Pollution Prevention Team	ii
Introduction.....	iii
Stormwater Management Program	iii
1. Public Education and Outreach on Stormwater Impacts	1
TABLE 1 Public Education and Outreach: BMPs and Measurable Goals (Permit 6.4.1)	1
Public Education and Outreach: Plan.....	2
2. Public Involvement/Participation	3
TABLE 2 Public Involvement/Participation: BMPs and Measurable Goals	3
Public Involvement/Participation: Additional Information: Plan	4
3. Illicit Discharge Detection and Elimination	5
TABLE 3 Illicit Discharge Detection and Elimination: BMPs and Measurable Goals	5
Illicit Discharge Detection and Elimination: Additional Information: Plan	6
4. Construction Site Stormwater Runoff Control	7
TABLE 4 Construction Site Stormwater Runoff Control: BMPs and Measurable Goals	7
Construction Site Stormwater Runoff Control: Plan.....	8
5. Post Construction Stormwater Management in New Development and Redevelopment	9
TABLE 5 Post Construction Stormwater Management in New Development and Redevelopment: BMPs and Measurable Goals	9
Post Construction Stormwater Management in New Development and Redevelopment: Plan	10
6. Pollution Prevention/Good Housekeeping for Municipal Operations	11
TABLE 6 Pollution Prevention/Good Housekeeping for Municipal Operations: BMPs and Measurable Goals	11
Pollution Prevention/Good Housekeeping for Municipal Operations: Plan	12
Qualifying State or Local Program.....	13
Sharing Responsibility	13
Receiving Waters.....	13
SWMP/IDDE Program Evaluation and Identifying Program Success	13
Mapping	13
Annual Reports	13
Appendix A - Jurisdictional Boundaries Map	14

Record of SWPPP Revisions

Revision Date	Individual Making Changes	Summary of Changes to SWPPP
July 2021	Andrea Castanon	<ul style="list-style-type: none"> ▪ Add Record of SWPPP Revisions ▪ Add Org Chart ▪ Update Receiving Waters
August 2021	Andrea Castanon	<ul style="list-style-type: none"> ▪ Add SWMP/IDDE Program Evaluation and Identifying Program Success section (p. 13) ▪ Add details to IDDE program, establishing follow-up screening schedule (p. 6) ▪ Update Mapping section (p. 13)

Pollution Prevention Team



Introduction

The purpose of this Stormwater Management Program (SWMP) is to comply with Arizona Department of Environmental Quality's (ADEQ's) general permit (AZG2016-002) for the discharges of stormwater from the City's Municipal Separate Storm Sewer System (MS4). See Appendix A for a jurisdictional map. The City desires to discharge under that permit and thus has completed this updated SWMP in accordance with Part 5 of the permit. The City intends to fully implement the conditions in this SWMP in accordance with ADEQ's revised permit.

Stormwater Management Program

The City has evaluated the permit requirements for the six minimum control measures specified in Part 6 of the general permit. Based on that review, the City has selected best management practices (BMPs) for each control measure to accomplish the goal of reducing pollution from stormwater runoff to the maximum extent practicable (MEP). The City has identified dates by which implementation of each BMP will begin, targeted completion dates for full implementation of each BMP, measurable goals and responsible parties for each action.

The action plan is broken down by control measure.

At the end of each year, the MS4 Program Manager will review and evaluate the components of the program and update and adjust them as deemed necessary.

1. Public Education and Outreach on Stormwater Impacts

TABLE 1 Public Education and Outreach: BMPs and Measurable Goals (Permit 6.4.1)

<i>Measurable Goal</i>	<i>Start Date</i>	<i>End Date</i>	<i>Responsible Party*</i>
Hotline			
Develop/maintain a community hotline for public reporting	7/15	Continuous	Comm. Dev/Neighborhood Officer
Identify MS4 Program Manager to review and respond	7/15	Continuous	Director - PW
Stormwater Pollution Prevention Brochures			
Develop stormwater pollution prevention literature (bilingual)	7/16	Continuous	MS4 Program Manager
Distribute the stormwater literature	7/17	Continuous	MS4 Program Manager
Develop and distribute ads/literature once a year (via different media)	7/17	Continuous	MS4 Program Manager
Workshops/Demonstrations/Training			
Develop 2 workshops geared toward school aged children	7/17	6/18	MS4 Program Manager
Host/facilitate workshops twice, annually	7/17	6/20	MS4 Program Manager
Develop training for residential and commercial developers	7/16	Continuous	MS4 Program Manager
Facilitate training for developers twice, annually	7/17	Continuous	MS4 Program Manager
Educational Materials			
Establish a library of printed materials for display and circulation in public areas	7/16	Continuous	MS4 Program Manager
Stormwater Website			
Develop/maintain City's stormwater web page	7/16	Continuous	MS4 Program Manager with assistance from PAO
Create a Kids' corner/school resource center	7/17	Continuous	
Storm Drain Stenciling			
Develop and administer storm drain stenciling program			MS4 Program Manager

* Link to table: [Goals tables.xlsx](#)

Public Education and Outreach: Plan

Permit section 6.4.1 OBJECTIVE: The permittee shall implement an education program that includes educational goals based on stormwater issues of significance within the MS4 area. The program shall include a focus on pollutants of concern for impaired and TMDL waters, and priority waters that receive a discharge from the MS4. The ultimate objective of a public education program is to increase knowledge and change behavior of the public so that pollutants in stormwater are reduced.

The City of Sierra Vista is a fast-growing city with approximately 15,000 households and 1,000 businesses. An MS4 Program Manager has been identified to aid in the development of an education and outreach program which will be presented to various targeted audiences made up of school groups, residential and commercial developers/operators, restaurants, service stations, homeowners associations, and other groups/organizations representative of the character and make-up of the community. The purpose is to educate and inform the City's population of the hazards and repercussions of improper disposal of various household and/or construction chemicals and waste, pet waste, gasoline spills, sedimentation, erosion, etc.

The education and outreach will be conducted by a variety of methods. These methods may include in-service training programs; distribution of brochures; newspaper articles; workshops and activities and events. They will be conducted by City staff; members of the City Council; and other volunteer groups, organizations and individuals within the community.

The storm drain stenciling program presents a clear and consistent message to the residents of Sierra Vista. The City of Sierra Vista will be responsible for ordering the storm drain markers and maintaining the maps and lists identifying the areas which have been marked. Additionally, the City of Sierra Vista will update their standard specification for storm drain inlets, requiring the placement of a marker on all new inlets.

To measure the success and impact of the education and outreach efforts, the MS4 Program Manager will develop a stormwater public awareness survey to be administered to the various targeted audiences at the beginning, during, and at the end of the permit term.

Documents and information relevant to the MS4 program will be made available to the public online, on the City's webpage, or by contacting the MS4 Program Manager at the City's Public Works Department at 520-458-5775, ext 8521.

2. Public Involvement/Participation

TABLE 2 Public Involvement/Participation: BMPs and Measurable Goals

<i>Measurable Goal</i>	<i>Start Date</i>	<i>End Date</i>	<i>Responsible Party*</i>
Community Hotline			
Develop/maintain a stormwater hotline	7/16	Continuous	Comm. Dev/Neighborhood Officer
Establish/maintain a response procedure for complaints	7/17	Continuous	MS4 Program Manager/Comm Dev.
Establish a Volunteer Corps			
Revamp/administer/maintain adopt a wash program	7/18	Continuous	Comm. Dev/Neighborhood Officer
Promote participation in rainfall monitoring network			MS4 Program Manager

* Link to table: [Goals tables.xlsx](#)

Public Involvement/Participation: Additional Information: Plan

Permit section 6.4.2 OBJECTIVE: The permittee shall provide opportunities to engage the public to participate in the review and implementation of the permittee's SWMP.

The City of Sierra Vista is home to approximately 44,000 people. The City has long-established procedures for making the public aware of involvement and participation opportunities within the community. These opportunities are published in posted notices, newspapers, and/or listed on the City webpage. Generally, the City business meetings are open to the public, and the public can attend and voice comments on the proceedings. All relevant public comments are considered.

The City will continue to provide opportunities for public involvement through programs such as Adopt-a-Wash, rain gauge monitoring and the implementation of a community hotline. Participation in these programs will be open to the general public, local schools, businesses, homeowners' associations, or any interested group who may wish to participate.

The Adopt-a-Wash program actively engages the public in illicit discharge detection and provides a remedy for removing debris and other pollutants from the washes. The City will recognize the volunteer organizations in various ways.

Citizens may participate in the rainfall monitoring network specified in Table 2.1. The data collected through this network will be used for a variety of applications, including watershed management activities.

The use of a community hotline will also be implemented to aid in preventing illegal dumping and stormwater pollution. The hotline will provide a method through which Sierra Vista's residents may report illegal dumping into storm drains, dry weather discharges, or other instances of stormwater pollution or concerns. When a report is filed, City staff will be alerted to the receipt of the complaint and will be responsible for documenting it, reviewing the information and responding in accordance with City policy within a two week period. Appropriate responses may include: providing information, inspection, documentation, and enforcement as outlined in the City's ordinance 2008-017, passed 10/9/08.

Once these programs are established they will continue through the permit period.

3. Illicit Discharge Detection and Elimination

TABLE 3 Illicit Discharge Detection and Elimination: BMPs and Measurable Goals

<i>Measurable Goal</i>	<i>Start Date</i>	<i>End Date</i>	<i>Responsible Party*</i>
Industrial/Business Connections			
Develop a plan to identify illicit industrial/business discharges	7/16	Continuous	MS4 Program Manager
Establish/maintain an inspection procedure for new developments	7/16	Continuous	MS4 Program Manager
Establish/maintain a response procedure for complaints	7/16	Continuous	MS4 Program Manager
Identify Illegal Connections			
Establish/maintain a priority ranking for detecting illicit discharges	7/16	Continuous	MS4 Program Manager
Establish field inspection and documentation procedures	7/16	Continuous	MS4 Program Manager
Perform/maintain mapping of storm drain system	7/15	6/20	Engineering
Institute/maintain mandatory inspections for new projects	7/17	Continuous	Eng./Comm. Dev.
Wastewater Connections to Storm Drain System			
Establish/maintain an inspection procedure for both illicit connections and good housekeeping practices, as well as appropriate penalties for violations	7/16	Continuous	MS4 Program Manager
Illegal Dumping			
Create/distribute educational materials about illegal dumping	7/16	Continuous	MS4 Program Manager/ Code Enforcement
Monitor known dumping sites and post warnings	7/15	Continuous	Code Enforcement

* Link to

table: [Goals tables.xlsx](#)

Illicit Discharge Detection and Elimination: Additional Information: Plan

Permit section 6.4.3 OBJECTIVE: The permittee shall implement an IDDE program to systematically find and eliminate sources of non-stormwater to and from its municipal separate storm sewer system and to implement procedures to prevent illicit connections and discharges.

The IDDE program outlines the City's responsibilities, processes procedures, and enforcement actions and authority regarding illicit discharges into and from the MS4.

The City will annually identify new industrial businesses with Standard Industrial Classification (SIC) Codes requiring Multi-Sector General Permit (MSGP) permit coverage. Reports will be pulled annually from the Business Licensing Department to verify if any applicable industrial facilities have applied for new business licenses. The City will include a list of sites and facilities contacted throughout the year that may require AZPDES permit coverage in the annual report.

Annual training on the IDDE components and how to detect, inspect and document illicit discharges will be given to City staff involved in the IDDE program. Regular inspections will be performed to identify and correct improper and/or illegal discharges to the storm drain system. Citizens will also have the ability to report incidences of illicit discharges.

Visual monitoring will be an essential component of the City's illicit detection program and will occur as follows.

- Dry weather monitoring of random and/or problematic locations--quarterly
- Stormwater Discharge Monitoring - five outfalls, representative of its stormwater discharges, minimum of two monitoring events during each wet season

If a discharge is determined to be hazardous, the City of Sierra Vista Fire Department will mitigate the emergency and a hazardous waste contractor will remediate the site. If a discharge is *not* hazardous and found to be illicit, enforcement procedures will begin.

Once an area is identified as requiring further investigation, that area will be added to a tracking spreadsheet and an illicit connection or illicit discharge inspection will be performed. The area/facility will be monitored bi-weekly until it is complying and no longer discharging.

If a plumbing fixture is found to be connected to the storm sewer, or discharging to either surface water or the ground, the facility will be informed of the violation. The facility will then be given a time frame in which to respond to the violation. Following this period, the fixtures will be retested. If the connection has not been corrected, further disciplinary action may be taken.

The general housekeeping practices of a public facility will also be examined during an inspection. Issues such as the proper storage of hazardous materials and the proper disposal of wastewater from cleaning will be reviewed with facility operators in order to help eliminate potential sources of pollutants entering the storm drain system.

4. Construction Site Stormwater Runoff Control

TABLE 4 Construction Site Stormwater Runoff Control: BMPs and Measurable Goals

<i>Measurable Goal</i>	<i>Start Date</i>	<i>End Date</i>	<i>Responsible Party*</i>
SWPPP Checklist			
Develop/maintain a SWPPP Checklist	7/16	Continuous	MS4 Program Manager
Distribute SWPPP Checklist to developers	7/16	Continuous	MS4 Program Manager
Construction Site Inspections			
Train inspectors on SWPPP requirements	7/16	Continuous	MS4 Program Manager
Inspect construction sites for SWPPPs and BMPs	7/18	Continuous	Trained inspectors
Construction Plan and SWPPP Review			
Review plans and SWPPPs	7/16	Continuous	MS4 Program Manager

* Link to table: [Goals tables.xlsx](#)

Construction Site Stormwater Runoff Control: Plan

Permit section 6.4.4 OBJECTIVE: Minimize or eliminate pollutant discharges to the MA4 from construction activities disturbing one (1) or more acres of land, including sites less than one (1) acre that are part of a common plan of development or sale.

In accordance with this stormwater management program and the Arizona Department of Environmental Quality Small MS4 General Permit the City of Sierra Vista requires a Stormwater Pollution Prevention Plan (SWPPP) be prepared for construction on any disturbance more than one acre. The program also requires a SWPPP for sites disturbing less than one acre if that disturbance is part of a larger, common plan of development or sale that will ultimately disturb one acre or more, regardless of if the construction activities occur at different times. The City of Sierra Vista has developed a best management guide for construction, home repair, and general contractor industries. The guide is included in the Site Plan Pre-Submittal Application packet, available at Community Development and on the City's website. Also part of the Site Plan Pre-Submittal application packet is ZONE CODE discharge w/o AZPDES permit

As part of the City's Construction Site Stormwater Runoff Program all staff who conduct activities related to implementing the program will receive proper training. Trained City inspectors will perform regular inspections of the inventoried construction activities, based on site prioritization, to ensure the BMPs specified in the contractor's SWPPP are being implemented. The City will develop an Enforcement Response Plan and implement it before September 2018. This will lay out the actions of the inspectors in the event a construction site is determined out of compliance. The public is also able to report potential violations using the community hotline. All public reports will be investigated and handled in accordance with the City's ERP and ordinances.

5. Post Construction Stormwater Management in New Development and Redevelopment

TABLE 5 Post Construction Stormwater Management in New Development and Redevelopment: BMPs and Measurable Goals

<i>Measurable Goal</i>	<i>Start Date</i>	<i>End Date</i>	<i>Responsible Party*</i>
Post-Construction Ordinance			
Enforcement	7/16	Continuous	MS4 Program Manager
Development Education Program			
Develop/maintain a post-construction runoff control check list	7/16	Continuous	MS4 Program Manager/Trained inspectors
Develop/distribute/maintain post-construction BMP information materials	7/16	Continuous	MS4 Program Manager

* Link to table: [Goals tables.xlsx](#)

Post Construction Stormwater Management in New Development and Redevelopment: Plan

Permit section 6.4.5 OBJECTIVE: Permittees shall implement and enforce a program to address post-construction stormwater runoff from new development and redevelopment projects that disturb one or more acres of land (or less than one acre if part of a common plan of development) that discharge into the permittee's MS4.

Uncontrolled, post-construction runoff has a significant impact upon water resources and the health, safety and general welfare of the community and diminishes the public enjoyment and use of natural resources. Specifically, uncontrolled post-construction runoff can:

1. Degrade physical stream habitat by increasing stream bank erosion, increasing streambed scour, diminishing groundwater recharge, diminishing stream base flows and increasing stream temperature.
2. Diminish the capacity of streams to support fish, aquatic life, recreational and water supply uses by increasing pollutant loading of sediment, suspended solids, nutrients, heavy metals, bacteria, pathogens and other urban pollutants.
3. Alter wetland communities by changing wetland hydrology and by increasing pollutant loads.
4. Reduce the quality of groundwater by increasing pollutant loading.
5. Threaten public health, safety, property and general welfare by overtaxing storm sewers, drainageways, and other minor drainage facilities.
6. Threaten public health, safety, property and general welfare by increasing major flood peaks and volumes.
7. Undermine floodplain management efforts by increasing the incidence and levels of flooding.

The City of Sierra Vista will implement and enforce a program to address stormwater runoff from the new and redevelopment projects meeting the program criteria. The program will include a site plan review process and inventory system, ensuring a long-term operation and functionality of the post construction stormwater BMPs.

6. Pollution Prevention/Good Housekeeping for Municipal Operations

TABLE 6 Pollution Prevention/Good Housekeeping for Municipal Operations: BMPs and Measurable Goals

<i>Measurable Goal</i>	<i>Start Date</i>	<i>End Date</i>	<i>Responsible Party*</i>
Municipal Training Program			
Identify stormwater topics for municipal employees	7/16	N/A	MS4 Program Manager
Develop/maintain a training program	7/17	Continuous	MS4 Program Manager
Train municipal staff	7/15	Continuous	MS4 Program Manager
Automobile Maintenance			
Enforce proper disposal practices	7/16	Continuous	Fleet Administrator
Evaluate and update maintenance procedures	7/17	Continuous	Fleet Administrator
Employee training to explain pollution prevention methods	7/15	Continuous	Fleet Administrator
Vehicle Washing			
Wash municipal vehicles at the vehicle wash facility	7/15	Continuous	Public Works
Map municipal operations center storm drain locations	7/16	6/17	MS4 Program Manager
Illegal Dumping Control			
Continue household hazardous waste drop off events	7/15	Continuous	Refuse Supervisor
Schedule special waste pickups	7/15	Continuous	
Train city personnel on proper handling	7/15	Continuous	
Street Sweeping			
Continue to evaluate street sweeping program	7/15	Continuous	Streets Supervisor
Continue to sweep city streets	7/15	Continuous	Streets Employees
Provide training to street sweeper operators	7/15	Continuous	Streets Supervisor
Storm Drain System Cleaning			
Determine storm drain cleaning schedule	7/16	Continuous	Streets Supervisor
Maintain storm drain system	7/15	Continuous	Streets
Provide training on proper storm drain cleaning methods	7/17	Continuous	MS4 Program Manager
Used Oil Recycling			
Recycle used motor oil from the City's fleet vehicles	7/15	Continuous	Fleet Administrator
Hazardous Material Storage			
Evaluate City hazardous material storage procedures	7/16	Continuous	MS4 Program Manager
Update procedures to minimize contact with stormwater	7/17	Continuous	MS4 Program Manager
Store hazardous materials according to proper procedures	7/18	Continuous	All Departments
Materials Management			
Develop a materials inventory of commonly used products	7/17	6/18	Section Supervisors
Evaluate alternative materials	7/18	6/19	MS4 Program Manager
Train City staff on proper handling and tracking of materials	7/15	Continuous	PW Management Analysts
Stormwater Basin and Drywell Management on City Properties			
Create an inventory of City owned basins	6/15	6/17	Eng./Streets

* Link to table: [Goals tables.xlsx](#)

Pollution Prevention/Good Housekeeping for Municipal Operations: Plan

Permit section 6.4.6 OBJECTIVE: The permittee shall implement an operations and maintenance program that includes a training component and has a goal of preventing or reducing pollutant runoff and protecting water quality from municipal operations that are not subject to industrial stormwater permitting under Arizona's Multi-Sector General Permit (MSGP).

The City of Sierra Vista has a public works facility, ~~Environmental Operations Park and an airport facility,~~ all subject to industrial stormwater permitting under Arizona's Multi-Sector General Permit. The MS4 Program Manager will implement an operations and maintenance program-- including a training component to address the proper use, storage and disposal of chemicals and other best practices relating to general, good housekeeping procedures for all other City owned facilities, parks and open spaces.

Qualifying State or Local Program

The City has developed new best management practices in response to the need to apply for a municipal stormwater discharge permit. The City is not aware of any qualifying local or state programs that would adequately address the requirements of the Small MS4 General Permit.

Sharing Responsibility

The City will have the responsibility to implement all measures within this SWMP.

Receiving Waters

The City storm sewer system drains off the land into the washes that flow north and west to east between the Huachuca Mountains and the (north flowing) San Pedro River, and Soldier Creek. At this time, a Total Maximum Daily Load (TMDL) has not been established for these receiving waters. Also, neither are listed on Arizona's 303(d) list. Therefore, the City will not sample and analyze the discharge from the small MS4.

SWMP/IDDE Program Evaluation and Identifying Program Success

As part of the annual report process the City will review the SWMP and IDDE programs and evaluate the status and effectiveness of each component or combination of components, including mapping. The City will determine how the either/both programs need to be revised, if at all. If revision is necessary, the City will notify ADEQ of the proposed revisions with an explanation of why the current practice is ineffective and why the replacement is expected to achieve the goals of the management practice.

Mapping

Engineering, Community Development and IT departments maintain the MS4 mapping by incorporating record drawing information from developments and correcting existing features as needed. The MS4 mapping updates are performed in ArcGIS. All known MS4 outfalls (size and material) will be added/updated to the MS4 mapping.

Annual Reports

Starting in 2017, the City will submit annual reports by September 30 of each year for the preceding period of July 1 through June 30. The City will report on the information required in section 8.3 of the permit.

Appendix A - Jurisdictional Boundaries Map

