

COCONINO COUNTY

**STORMWATER
MANAGEMENT PROGRAM
(SWMP)**

**Small Municipal Separate Storm Sewer (SMS4)
General Permit (AZG2002-002)**

**Public Works/Community Development
Hydrology Section
March 10, 2003
(Revised March 27, 2013)
(2nd Revision October 17, 2014)
(3rd Revision September 2015)**

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Introduction

Coconino County Stormwater Management Plan (“SWMP”)

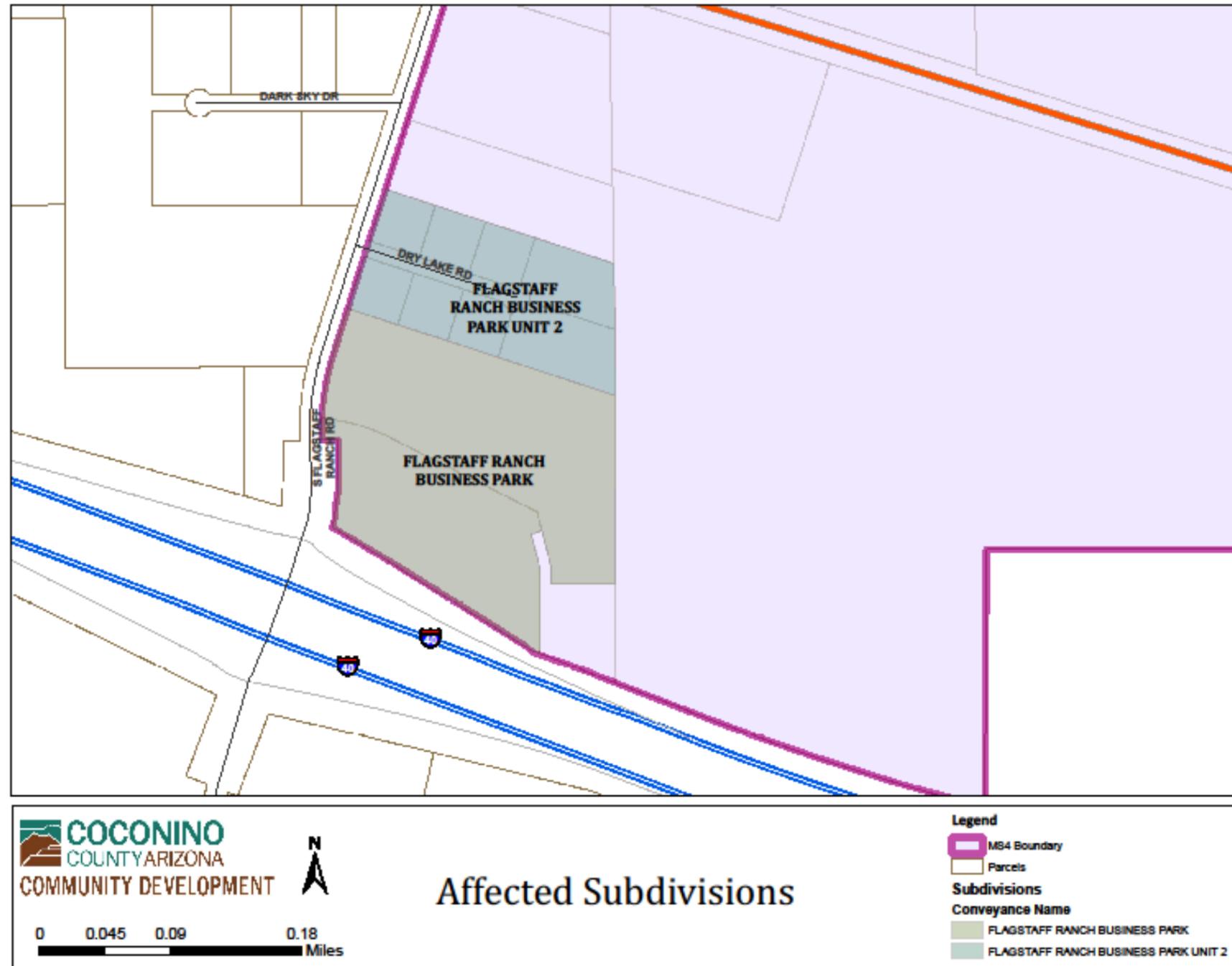
This SWMP constitutes Coconino County’s (“County”) compliance with ADEQ General Permit AZG2002-002 (“General Permit”) for the discharge of stormwater into and from the County’s Small Municipal Separate Storm Sewer Systems (“SMS4s”). The County seeks to discharge under the aforementioned permit, and has completed the Notice of Intent (“NOI”) and this SWMP in accordance with Part III and Part V of the General Permit. The County intends to fully implement the conditions in this SWMP no later than June 1, 2015. To accomplish the enforcement of this SWMP, the County Board of Supervisors adopted the County Stormwater Quality and Runoff Control Ordinance (“Stormwater Ordinance”) on May 13, 2014.

The County evaluated the permit requirements for the six Minimum Control Measures (“MCM”) specified in Part V.B. of the general permit. Based on that review, the County selected Best Management Plans (“BMP”)s for each MCM the County believes will accomplish the goal of reducing pollution from stormwater runoff to the maximum extent practicable (“MEP”). The SWMP identifies measurable goals for MCM implementation and establishes the County Hydrologist responsible for this program.

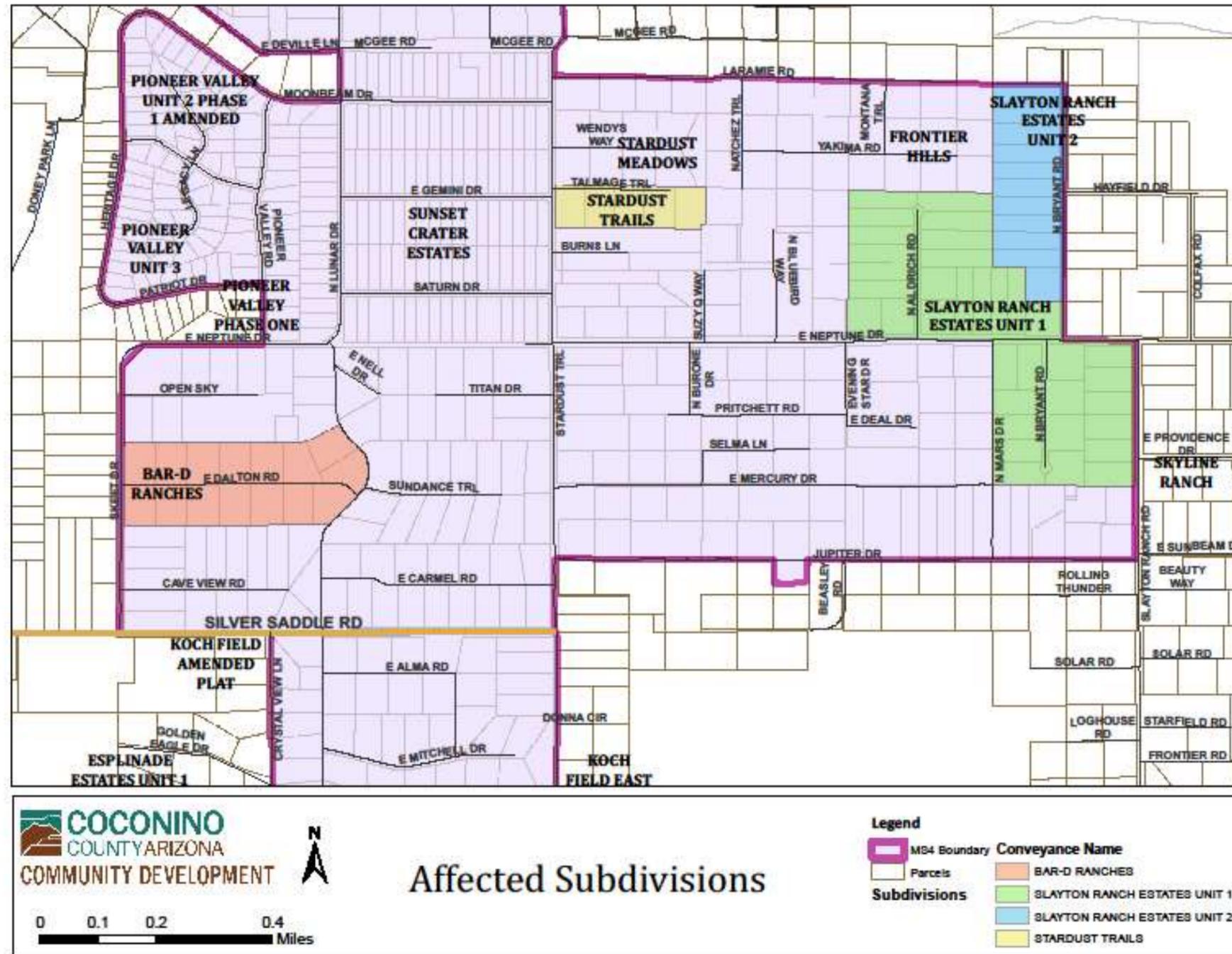
Background

The Flagstaff Urbanized Area is a fast-growing community of ±72,000 (2010 Census), consisting mostly of residential areas and businesses with limited industry. The County SMS4 areas depicted below (Flagstaff Ranch and Doney Park) include the unincorporated, county-maintained conveyance areas within the 2010 Flagstaff Urbanized Area, which were platted before ADEQ was authorized to implement the AZPDES program (December 5, 2002).

County SMS4 Locations



FLAGSTAFF RANCH SMS4



DONEY PARK SMS4

Stormwater Management Plan

This SWMP details the processes designed to achieve the following measurable goals. The County will keep systems in place and maintain records adequate to demonstrate compliance. Progress on the following goals will be reported each year in the annual report. The SWMP outreach BMPs listed below will run the full term of the permit. Where optional (i.e., ‘menu’) BMP choices are provided, the county may choose between options during each specific year of the permit without modification of the permit. The county will implement each of the following MCMs.

A. MCM - Public Education and Outreach

Measurable Goals

This section describes the public education and outreach to at least one (1) target group on one (1) of the BMP’s listed below every year of the permit.

<p>Target Groups</p> <ul style="list-style-type: none"> ☞ County Residents (“CR”) ☞ Homeowner Associations (“HOA”) ☞ Apartment Managers (“AM”) ☞ Schools (“Sch.”) 	<p>Forum</p> <ul style="list-style-type: none"> ☞ Coconino County Fair (Fair) ☞ County Newsletter (News) ☞ County Facilities (in-house) ☞ Stormwater Website (Web) ☞ Mass Flyer Mailings (Mail)
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BMP	Target Group	Forum	Update (mo-yr.)	Approximate # of participants
Adopt and provide access to a Stormwater Ordinance to enforce construction, post-construction and illicit discharge stormwater control requirements ¹	CR, HOA, AM, Sch.	Web	Apr-14	1142 ³
Distribute information on the potential water quality impacts of application of pesticides, herbicides and fertilizer ²	CR, HOA, AM, Sch.	Web	TBD	TBD
Provide access to information on the importance of cleaning up and properly disposing of pet waste to protect water quality	CR, HOA, AM, Sch.	Web	TBD	TBD
Discuss the importance for reporting spills, dumping, and illicit discharges	CR, HOA, AM, Sch.	Web	TBD	TBD
Host a “Town Hall” type meeting to discuss spill prevention, proper handling and disposal of toxic and hazardous materials	CR, HOA, AM, Sch.	In house	TBD	TBD

Notes: 1. <http://www.coconino.az.gov/index.aspx?nid=1090>
 2. http://water.epa.gov/polwaste/nps/upload/2005_4_29_nps_Ag_Runoff_Fact_Sheet.pdf
 3. 2014 Unique pageviews on <http://www.coconino.az.gov/index.aspx?nid=1090>.

Measurable Goals

This section describes the public education and outreach to at least one (1) target group on one (1) of the BMP’s listed below every year of the permit.

<p>Target Groups</p> <ul style="list-style-type: none"> ☞ Homebuilders (HB) ☞ Engineers (EN) ☞ Architects (AR) ☞ County Stormwater Staff (CSS) 	<p>Forum</p> <ul style="list-style-type: none"> ☞ Coconino County Fair (Fair) ☞ Stormwater Website (Web) ☞ Mass Flyer Mailings (Mail) ☞ Presentation at County Facilities (in-house)
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BMP	Target Group	Forum	Update	Approximate # of participants
Distribute flyers on stormwater requirements and stormwater management practices for construction sites	HB, EN, AR, CSS	Mail	TBD	TBD
Illicit discharges and proper management of non-stormwater discharges	HB, EN, AR, CSS	Web, Mail	TBD	TBD
Spill prevention, proper handling of toxic and hazardous materials, and measures to contain and minimize discharges to the SMS4	HB, EN, AR, CSS	Web, Mail,	TBD	TBD
Stormwater management practices, pollution prevention plans, and facility maintenance procedures	HB, EN, AR, SI	In-house	TBD	TBD
Distribute educational materials on stormwater runoff and residential stormwater management practices		Fair	Sep-14	50

B. MCM - Public Involvement and Participation

Measurable Goals – Outreach

The County will implement one (1) of the following topics listed below every year of the permit.

<p>Target Groups</p> <ul style="list-style-type: none"> ☞ Homebuilders (HB) ☞ Engineers (EN) ☞ Architects (AR) ☞ County Stormwater Staff (CSS) 	<p>Forum</p> <ul style="list-style-type: none"> ☞ Coconino County Fair (Fair) ☞ Stormwater Website (Web) ☞ Mass Flyer Mailings (Mail) ☞ Presentation at County Facilities (in-house) ☞ Neighborhood Watch Meeting (NWM) ☞ Adopt-a-wash program (Adopt)
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BMP	Target Group	Forum	Update	Approximate # of participants
Provide the opportunity to involve the public in the county’s stormwater management program and to encourage public participation in monitoring and reporting spills, discharges, or dumping within their communities once per year.		NWM	TBD	TBD
Provide the public an opportunity to participate in the county’s stormwater management program, such as voluntary litter control activities. Maintain and support program as a regular ongoing activity.		Adopt	TBD	TBD
Provide the public with a household hazardous waste program to facilitate proper disposal of used oil, antifreeze, pesticides, herbicides, paints, and other hazardous and toxic materials by city residents (such as scheduled household hazardous waste collection events or operation of full-time disposal facilities).		County Fair	TBD	TBD

Measurable Goals – Outreach

The County will implement the following topics every year of the permit.

BMP	Target Group	Forum	Update	Approximate # of participants
Publicize a reporting system to facilitate and track public spill reports, discharges or dumping to the SMS4.		Neighborhood watch groups meetings		
Provide public accessibility and feedback to the SWMP		Stormwater web site		

C. MCM – Illicit Discharge Detection and Elimination (IDDE)

The section details the components and implementation of the IDDE program to include the following elements:

Measurable Goals – IDDE Outreach to Identify County SMS4 Areas and Inspection Outfalls

The County SMS4 areas depicted above (Flagstaff Ranch and Doney Park) include the unincorporated, county-maintained conveyance areas within the 2010 Flagstaff Urbanized Area. This program includes updating the County SMS4 areas via coordination all target groups on every topic listed below every year of the permit.

<p>Target Groups</p> <ul style="list-style-type: none"> ADEQ Stormwater & General Permits (ADEQ) City of Flagstaff Stormwater Department (COF) EPA Region 9 NPDES Permits Office (EPA)
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Topics	Forum	Update	Target Group	Approximate # of participants
Provide documentation regarding the County SMS4 areas.	Meetings, Teleconferences, emails	Oct - Dec-14	ADEQ ¹ , EPA ² , COF ³	±7
Provide documentation that the County neither owns nor operates any of the conveyances in the following county islands depicted on the previous County SWMP: three discrete SMS4s at Empire and Colony Trailer Courts, one SMS4 off of Railhead Avenue, seven discrete SMS4s in Mobile Haven. Note the City of Flagstaff's approved IDDE program provides outfall monitoring that includes runoff from these islands.	Meetings, Teleconferences, emails	Oct - Dec-14	ADEQ ¹ , EPA ² , COF ³	±7
Perform a risk assessment of the facilities and activities within the County SMS4's, which will define the most likely associated pollutants and the potential quantities of such pollutants. County resources and/or consultants will be utilized to map flow conveyance within the SMS4s and identify discharge points.	Site Visits	Ongoing	ADEQ, EPA	-
Inspect wash reaches and outfall points immediately adjacent to commercial establishments and residential areas within their SMS4 jurisdictions. Wash reaches within the individual SMS4s identified in Table 1.0 as numbers 1, 2, 4-8 will be prioritized as wash inspection areas.	Site Visits	Ongoing	ADEQ, EPA, COF	-

Notes: 1. ADEQ interface included meetings and teleconferences with Christopher Henninger and Nicole Coronado in October 2014; 2. EPA interface included teleconferences with Eugene Bromley in October & December 2014; 3. COF interface included meetings and correspondence with Malcolm Alter and Eileen Hamlin in October 2014

Measurable Goals – IDDE Internal Training

The County will provide annual new employee training and refresher training for existing employees directly involved with stormwater management activities every two (2) years.

Target Groups
County Stormwater Staff (CSS)
Coconino County Public Works Staff (PW)
Building Inspectors (BI)

Topics	Forum	Update	Target Group	Approximate # of participants
SWPPP Inspection Training	County Facilities	Dec-14	SI, BI, PW	13
SMS4 Coordination Efforts	County Facilities	Dec-14	SI, BI, PW	6
Illicit discharge detection, De Minimis discharges, and other sources of non-stormwater discharges (i.e., field screening procedures, sampling methods, field measurements, etc.)	County Facilities		SI, BI, PW	
Identifying and eliminating illicit discharges; and practices for reporting non-stormwater discharges to appropriate personnel.	County Facilities		SI, BI, PW	

Measurable Goals – IDDE Enforcement

The County will maintain this program utilizing one (1) target group on one (1) of the topics listed below every year of the permit.

Target Groups	
General Public (GP)	Building Inspectors (BI)
Stormwater Inspectors (SI)	Business Owners
Coconino County Public Works Staff (PW)	

Topics	Forum	Update	Target Group	Approximate # of participants
The County will utilize public volunteers and county staff in the channel reach inspections for identifying any illicit discharges.	Adopt-a-wash program, Bi-annual inspections	Ongoing	GP	-
If a significant illegal discharge is identified, the County will make every reasonable attempt to identify the source of the pollutant and will notify the offender(s) of their responsibility for cleaning or paying for the cleaning of the identified wash reach or conveyance.	Bi-annual inspections, Stormwater Hotline	Ongoing	Business Owners, SI, PW, BI	-
If trash is the only pollutant and it can't be tied to a specific source, county staff will remove it. If a source is identified, the source will be approached concerning removal of the trash.	Bi-annual inspections	Ongoing	Business Owners, SI, PW, BI	-
Operators of business facilities identified in the County SMS4 will be asked what products they're manufacturing or using, whether they have an AZPDES permit, and/or whether they have contacted ADEQ regarding permit coverage under the multi-sector stormwater program.	Bi-annual inspections	Ongoing	Business Owners	-
Develop procedures for handling complaints and will initiate an investigation unless there is indication that an emergency response is warranted. Prepare annual reports quantifying complaints received, noting the type of complaint, summarizing the investigation response times, and any itemize enforcement actions taken.	Bi-annual inspections	Dec-08	GP, Business Owners, SI, PW, BI	-
Develop IDDE inspection criteria to be followed and will maintain a database to document inspection dates, locations, inspection results, and any follow-up actions.	County Facilities	Jun-15	SI	-

D. MCM – Construction Site Runoff Control

The section of the SWMP details the components and implementation of the Construction Site Runoff Control program to include the following elements:

Measurable Goals – Monitoring Construction Site Runoff to the Maximum Extent Possible

The County will maintain this program utilizing one (1) target group on one (1) of the topics listed below every year of the permit

Target Groups	
General Public (GP)	Building Inspectors (BI)
Stormwater Inspectors (SI)	Business Owners
Coconino County Public Works Staff (PW)	Engineers

Topics	Forum	Update	Target Group	Approximate # of participants
Researched and reviewed existing construction stormwater ordinances (at cities and counties) to determine the structure, content, and enforcement procedures used.	County Facilities	Dec-07		
Encouraged public input into the Stormwater Ordinance development	County Facilities	May-14		
Developed and adopted a Stormwater Ordinance addressing construction site stormwater runoff and pollution control criteria and enforcement.	County Facilities	May-14		
The Stormwater Ordinance will be incorporated and implemented into the County engineering design and construction standards.	County Facilities	Mar-14		
Pursuant to Chapter 6 of the Stormwater Ordinance, the County will undertake construction site inspections that emphasize erosion and sediment control, the control and proper disposal of construction wastes, and site stabilization at the conclusion of the construction.	County Facilities	May-14		
The County will research technical guidance measures for the maintenance and control of erosion and sediment, as well as other strategies to control construction site waste.	County Facilities	Dec-07		
Develop a checklist for SWPPP completeness that is consistent and inclusive of the Stormwater Ordinance language, specific to construction site runoff and water quality control. The checklist will incorporate the checklist items specified in ADEQ’s Construction General Permit.	County Facilities	Dec-07		
All construction projects that will disturb one acre or more within County SMS4s will be required to show proof of an approved NOI, and submit for the County’s review and approval, a SWPPP that addresses the items from the Construction General Permit Guidance checklist that are relevant to the construction project.	County Facilities	May-14		
The County will conduct pre-construction inspections of construction sites to verify that the necessary BMPs have been constructed and properly installed and maintained.	Project Site	May-14	GP, SI, BI	
All construction sites within County SMS4’s that disturb at least one acre as well as those that are part of a larger common plan of development that disturbs at least one acre, will be required to install BMPs. The BMPs will at minimum control the potential sources of pollution associated with each project.	County Facilities	Mar-14		
The County will maintain a database containing site locations, dates of site inspections, adequacy and maintenance of BMP controls, and any enforcement actions taken.	County Facilities	Mar-15		

E. MCM – Post-Construction Runoff Control

The section of the SWMP details the components and implementation of the county’s Post-Construction Runoff Control program to include the following elements:

Measurable Goals – Monitoring Post-Construction Site Runoff

The County will maintain this program utilizing one (1) target group on each of the topics listed below every year of the permit.

Target Groups
Homebuilders (HB)
Stormwater Inspectors (SI)

Topics	Forum	Update	Target Group	Approximate # of participants
Enforced methods or designs must be shown to work in Flagstaff’s climate and soils.	County Facilities	ongoing	SI	-
Selected or proposed designs must work well within limited spaces, where slopes vary from level to steep, and where maintenance frequency and costs are considered.	County Facilities	ongoing	SI	-
Review site plans and enforce long-term BMP strategies as authorized in the Stormwater Ordinance.	County Facilities	ongoing	SI	-
During pre-construction meetings, the County will educate developers about long-term maintenance and BMP requirements.	County Facilities	ongoing	HB, SI	-
The County has the ordinance authority to enforce and ensure compliance if post-development controls are not constructed as designed, and/or fail to minimize runoff impacts to water quality	County Facilities	ongoing	SI	-

Measurable Goals – Monitoring Post-Construction Site Runoff: Additional

The County will maintain this program utilizing each of the topics listed below every year of the permit.

Plan
The County will evaluate regional methods or designs used to control post-construction runoff time of concentration, peak flows, and water quality impacts. The County will also evaluate existing BMPs in the Flagstaff area to determine which designs and site conditions are successful. From these evaluations, the County has developed post-construction runoff control criteria to be incorporated in the County design standards.
The Stormwater Ordinance includes a section on post-construction runoff and water quality control to address runoff from new or redevelopment projects. The Stormwater Ordinance authorizes the County to require the installation of BMPs that will minimize long term runoff impacts on water quality. The Stormwater Ordinance requires use of an approved list of non-structural and structural BMPs, and provides for post-construction or post-NOT site inspections.
The County will initiate an inspection program, based on performance objectives, for the approved structural or nonstructural BMP controls, prior to the filing of NOTs by operators. The inspection program will ensure that the controls are constructed as planned, and the site is stabilized for the long term. As an enforcement measure, the inspection program will be a part of the post-construction runoff and water quality control language within the Stormwater Ordinance.
The County will update its design standards to include allowable controls for the long-term protection of water quality. Through county pre-application meetings and pre-site development meetings, input from the general public and contractors, will be encouraged regarding post-construction BMPs. Education about the Stormwater Ordinance and the updated design standards will be provided to the general public, developers, contractors, and architects through the Public Involvement/Participation and Public Education and Outreach Programs. The County will also provide written materials and copies of the Stormwater Ordinance at the County Community Development office.

F. MCM – Pollution Prevention & Good Housekeeping for County Operations

The section of the SWMP details the components and implementation of the county’s Pollution Prevention and Good Housekeeping for County Operations program to include the following elements:

Target Groups
Stormwater Inspectors (SI)
Coconino County Public Works Staff (PW)
Building Inspectors (BI)

Measurable Goals – Monitoring Pollution Prevention and Good Housekeeping for County Operations

The County will maintain this program utilizing one (1) target group on one (1) of the topics listed below every year of the permit

Topics	Forum	Update	Target Group	Approximate # of participants
To model pollution prevention/ good housekeeping, the County Public Works Department recycles batteries, burns their used oil to heat their facility, land farms material on which diesel spills have occurred, and double encases fuel tanks.	Public Works Facilities	Dec-07	SI, PW, BI	-
Revisions to the County Pollution Prevention Plan will focus on minimizing pollution and erosion/ sediment transport during maintenance on county roads, streets, and drainage ditches.	Public Works Facilities	Aug-11	SI, PW, BI	-
Annual in-house training will include pollution prevention measures for county inspectors and road maintenance personnel.	Public Works Facilities	Dec-13	SI, PW, BI	-
As the County conducts road drainage ditch repair and clean out, any measurable excess material produced will be transported back to the County yard to be stored, sieved, and reused on road or shoulder repairs, when needed	Public Works Facilities	Dec-07	SI, PW, BI	-
The County will encourage trash clean- up of roadway shoulders and drainage ways for selected SMS4s, through the Public Outreach and Involvement Program.	Public Works Facilities	Dec-07	SI, PW, BI	-

Measurable Goals – Monitoring Pollution Prevention and Good Housekeeping for County Operations – Additional Information

The County will maintain this program utilizing each of the topics listed below every year of the permit.

Plan
The following municipal operations impacted by this operation and maintenance program are the Coconino County Department of Public Works and the Coconino County Community Development Department
Annual employee training will include aspects of the revised County Pollution Prevention Plan developed by county staff.

Qualifying State or Local Program

The County has developed new best management practices in response to the need for a municipal stormwater discharge permit. The County is not aware of any qualifying local or state programs that would address the requirements of the SMS4 General Permit.

Sharing Responsibility

The County will have the responsibility to implement all measures within this SWMP. The County may partner with the City of Flagstaff on some aspects of the public education and involvement; however, this in no way implies any responsibility of the city for the implementation of the County SWMP.

Reviewing and Updating the SWMP

During each permit term, the County will review and evaluate the implementation status and effectiveness of each SWMP component or combination of components. The County will revise the SWMP as needed, and will notify ADEQ of revisions, explaining how the changes will better achieve the goals of the management practice.

Monitoring

The County will evaluate program compliance, the appropriateness of identified BMPs, and progress towards achieving identified measurable goals. The County's discrete SMS4s drain into the Rio de Flag and Oak Creek. At present, a total maximum daily load has not been established for these receiving streams. Neither the Rio de Flag, nor its confluent reach of the Little Colorado River is listed as impaired water, and neither is on Arizona's 303(d) list. AZDEQ and EPA are still in the process of establishing TMDLs for Oak Creek, which is listed as an impaired water body. Monitoring on the part of the County within its SMS4s will only involve visual and qualitative analyses, except in situations described in Table 3.1, part V.B.3.f.

Annual Reports

The County submitted an annual report to ADEQ on September 28, 2004, for the time period between March 30, 2003, and June 30, 2004. From 2005 forward, the County submitted annual reports to ADEQ by September 28, for the respective preceding period of July 1 through June 30. The County will continue to report on the program element information compiled and collected as required in part V.G. of the permit impaired water body. Monitoring on the part of the County within its SMS4s will only involve visual and qualitative analyses, except in situations described in Table 3.1, part V.B.3.f.