



**Maricopa County
Environmental Services Department
Quality and Compliance Division
Stormwater Quality Program**



Environmental Services
Department

AZPDES Phase II FY2013 Annual Report

August 2013

Introduction

Since 2003 Maricopa County has invested significant resources to regulate stormwater pollution and to provide surface water protection. The Maricopa County Board of Supervisors was authorized to operate the Municipal Separate Storm Sewer System (MS4) under the Phase II Arizona Pollution Discharge Elimination System (AZPDES) permit AZG2002-002 on December 19, 2007; the required Stormwater Management Program (SWMP) was approved on November 25, 2009. This is the fifth annual report that has been issued since the SWMP has been adopted, and each year the County strives to integrate the iterative process of review and perfection into all related permit compliance activities. It is the County's intent to continue the stormwater pollution prevention efforts, to protect environmental quality for the benefit of the citizens, and to be a leader in the local community in all actions and activities related to environmental quality.

The annual report form authored by the Arizona Department of Environmental Quality (ADEQ) has been a good tool for reporting activities performed under this permit. ADEQ has indicated that the form contains a suggested format for an annual report; therefore, using this document as a guide, the County has altered the items and format to provide an alternative method of representing Maricopa County activities. This updated format provides the information requested on the suggested annual report form as well as information that may be used by the County for the future of the program. Please accept this updated format with the following information:

- Part A, "General Information", including the technical and billing contact for this permit.
- Part B, "Additional Information"
- Part C.a., "Stormwater Management Program Status", including the following columns:

MCM	Minimum Control Measure - The six MCMs listed in Part V.B. of the permit.
BMP	Best Management Practice activities in the Stormwater Management Program agreed upon through direction of the State on November 25, 2009
Measurable Goal	Achievable goals in the Stormwater Management Program agreed upon through direction of the State on November 25, 2009
New or Revised	Place an X in this column if the BMP or measurable goal is new or revised, such as replacement with another BMP, addition of a new measurable goal, or revision of a start date, etc. Briefly explain the change to the SWMP in the "Implementation Status" column.
Start Date	The scheduled start date (month and year) for each measurable goal. Enter the actual start date of the activity or program.
Implementation Status/Frequency/Achievement	This column is for enumerating the compliance activities performed during the reporting period and may include the actual number of activities, percent reached, or frequencies performed. Additionally, it may indicate comments on the implementation status (such as "completed", "in progress", or "not started"), notes on permit compliance status, or an explanation for any BMP for which a zero (0) has been reported. If an activity is in progress, but has an expected end or completion date, indicate the expected achievement date.
Responsible Entity	The department or division in the municipality responsible for performing this activity.
Documentation	List the documentation used to support the reported number, status, and/or achievement date.

- Part C.b., "Stormwater Management Program Changes", including changes that are to be added to the program. This includes new or altered BMPs or minor SWMP changes found to be lacking during the program year. These BMPs or minor SWMPs will be implemented immediately in the next reporting period. Additionally, significant SWMP changes will be added here as a formal request to ADEQ for approval.
- Part D, "Certification"
- Part E, " Attachment"

AZDEQ Phase II MS4 Annual Report Form

A. General Information

Permittee:	Maricopa County Board of Supervisors
Permit number:	AZG2002-002
County:	Maricopa County
Annual Report Period:	FY2013: 07/01/2012 - 06/30/2013
Annual Report due date:	09/30/2013
Responsible Authority:	John Kolman
Title:	Director
Section:	Environmental Service Department, Office of the Director
Address:	1001 N. Central Ave., Suite 401, Phoenix, AZ 85004
Telephone Number:	(602) 506-4847
Email Address:	jkolman@mail.maricopa.gov
Technical Contact:	Robert van den Akker
Title:	Stormwater Program Supervisor
Section:	Environmental Services Department, Quality & Compliance Division, Stormwater Quality Program
Address:	1001 N. Central Ave., Suite 401, Phoenix, AZ 85004
Telephone Number:	(602) 506-6944
Email Address:	rvandenakker@mail.maricopa.gov
Billing Contact:	Diane Cabanillas
Title:	Finance Manager
Address:	1001 N. Central Ave., Suite 400, Phoenix, AZ 85004
Telephone Number:	(602) 506-6703

B. Additional Information. Attach a brief explanation if you check "yes" to any of the following statements.

1. Changes have been made or are proposed to the SWMP since the last annual report, including changes in response to ADEQ's review.	YES	X	NO
2. The MS4 has annexed lands.	YES		NO X
3. Impaired Waters			
a. The MS4 discharges directly to an impaired water.	YES		NO X
b. Impaired waters within 10 miles of the MS4's jurisdiction.	YES	X	NO
4. TMDLs			
a. The MS4 discharges directly to water for which a TMDL has been established.	YES		NO X
b. A TMDL has been established for surface waters within 10 miles of the MS4's jurisdiction.	YES		NO X
5. The MS4 has conducted analytical monitoring of stormwater quality.	YES		NO X
6. The MS4 is relying on another government entity to satisfy some permit obligations.	YES		NO X

*See Attachment

C.a. Stormwater Management Program Status:

MCM	BMP	Measurable Goal	New or Revised	Start Date	Implementation Status / Frequency / Achievement	Responsible Entity	Documentation
1. Public Education and Outreach							
	1.1 Develop and distribute educational materials						
	Distribute at least 500 pamphlets annually			12/2006	Completed and ongoing	ESD	Minimum Control Measures FY13.xlsx
	Number of pamphlets distributed			12/2006	2,228 pamphlets	ESD	Public Education-revised.accdb Fact Sheets Brochures Coloring books
					The County provides a variety of educational materials to the public that are considered "pamphlets" including bookmarks, brochures, fact sheets, and coloring books. These materials are distributed in a variety of events including special events, public buildings, and over the internet. The number reported includes all educational materials on all stormwater pollution prevention topics.		
					In addition, the County has distributed 21,369 promotional items with educational information and stormwater pollution prevention slogans including Frisbees, magnetic clips, pencils, pens, pet waste containers, and more.		
	Website activity			12/2006	685,002 Page views 42,707 Downloads	ESD	Minimum Control Measures FY13.xlsx Public Education-revised.accdb
					This is the total page views and downloads for all Stormwater related websites within the County. These downloads also include 371 Stormwater Regulation downloads.		
	1.2 Public education radio campaign on stormwater						
	PSA aired for at least 4 weeks			12/2006	Performed annually	STORM	STORM Annual Report: FY2013.pdf
	PSA aired timeframe			12/2006	1 Radio Campaign	STORM	

MCM	BMP	Measurable Goal	New or Revised	Start Date	Implementation Status / Frequency / Achievement	Responsible Entity	Documentation
					<p>Radio Campaign: The STORM radio ad campaign included a PSA regarding swimming pool discharges and ran on 8 radio stations from June 3, 2013 to June 30, 2013 (4 weeks). Cume (cumulative audience) persons reached were: 1,307,900 (age 12+), 1,218,800 (age 18+) and 742,900 (age 25-54). The campaign included 134 (30 second) paid spots, plus 82 (30 second), 4 (15 second) and 6 (10 second) "bonus" spots. A Community Service interview was aired on one of the participating stations. The cost of the campaign was \$5,021.65. The campaigns were aired in English and Spanish. The PSAs are posted on the website at http://www.azstorm.org/radio-psa/.</p> <p>Also through STORM, the County has collaborated on one movie campaign. This movie theater campaign ran from December 14, 2012 to January 10, 2013 (4 weeks) to correspond to the winter rain season. The digital advertising slides ran for 15 seconds prior to each movie. The slides were shown at 7 AMC theaters throughout the Phoenix metropolitan area, showing on 131 movie screens averaging 5 movies per day. That tallies to 655 movies per day, 4,585 movies per week and 18,340 movies over the 4 week campaign. Based upon historical movie admission rates, it is estimated that the campaign was shown to approximately 680,000 people. STORM expended</p>		

MCM	BMP	Measurable Goal	New or Revised	Start Date	Implementation Status / Frequency / Achievement	Responsible Entity	Documentation
		Estimate of population reached			\$5,000 for the movie theater campaign in FY 2013. Measures of effectiveness for this program have proven elusive. Replacement methods of outreach with measurable goals are being sought in place of this SWMP activity.		
				12/2006	3,200,000 accumulated total estimated population reached for all public service announcement events.	STORM	
1.3 Maintain and update the Maricopa County Stormwater Website							
		Website maintained with the SWMP and NOI		12/2006	Completed and updated annually The County has 11 pages on the Stormwater website dedicated to the program. These pages have links to a large number of downloads and resources for business, construction, citizens and students. The SWMP and NOI are located on the main program web page.	ESD	http://www.maricopa.gov/stormwater Minimum Control Measures FY13.xls download_tracking-FY13.pdf
		SWMP and NOI website activity		12/2006	40,073 Downloads This includes data recorded from July 2012 - March 2013. Data recording did not occur for April through June 2013 due to web page analytic system errors. This is the number of downloads recorded for the SWMP and NOI only.	ESD	
2. Public Involvement / Participation							
2.1 Provide various vehicles of communication to the general public for feedback to the County							
		Provide 500 surveys annually		12/2009	Completed and ongoing	ESD	Minimum Control Measures FY13.xlsx
		Number of surveys provided		12/2009	1,100 The outreach program provided 1100 surveys this year (compared to the 10,000 in previous years).	ESD	FY2013 Survey Report.pdf

MCM	BMP	Measurable Goal	New or Revised	Start Date	Implementation Status / Frequency / Achievement	Responsible Entity	Documentation
		Survey responses received		12/2009	422	ESD	
		2.2 Develop a Stormwater Stakeholder Workshop					
		Stakeholder workshop(s) held		12/2009	1	ESD	Minimum Control Measures FY13.xlsx Advisory Re: Stormwater Quality Program Regulation.pdf
		Number of attendees		12/2009	5	ESD	
		2.3 Establish stormwater related contests for school children and local communities					
		Minimum of one contest per year		12/2009	Completed and ongoing	ESD	Minimum Control Measures FY13.xlsx http://www.maricopa.gov/EnvSvc/QC/StormWater/pdf/2013winners.pdf
		Number of contests		12/2009	1	ESD	
		Number of submittals		12/2009	175	ESD	
		Number of participating schools		12/2009	9	ESD	
		Public/Private Collaboration	X	8/2011	1	ESD	
					In FY 2011, Maricopa County Environmental Services Department, Stormwater Quality Program entered into a partnership with Recreational Equipment Incorporated (REI) for a poster contest. REI has proven to be an excellent community partner because the company's stewardship priorities (Encourage the active conservation of nature, Inspire the responsible use and enjoyment of the outdoors, Enhance the		

MCM	BMP	Measurable Goal	New or Revised	Start Date	Implementation Status / Frequency / Achievement	Responsible Entity	Documentation
					<p>natural world and our communities through responsible business practices) align with the goals of the Stormwater Program. Additionally, the company focuses its activities on the Stormwater Program's core audience - citizens that enjoy the outdoors.</p> <p>This partnership has continued in FY12 and 13. REI has served as the main sponsor of the Program's Stormwater Pollution Awareness Poster Contest, providing the first prize for each of the contest's two entry categories. The contest encouraged children in 3rd-6th grade to submit original artwork posters based on the theme "Clean Water, I Can Help." Over 170 posters were submitted and judged based on artwork, originality, and message conveyance. The winning entrants were presented with prizes and a special award certificate at a Maricopa County Board of Supervisors meeting.</p> <p>In addition to sponsoring the poster contest, Stormwater Program brochures are on display at REI's two valley retail stores.</p>		
3. Illicit Discharge Detection and Elimination							
	3.1 Identification of illicit discharges through an inspection program						
	Storm sewer system map with location of outfalls and receiving WoUS			12/2009	<p>In Progress, expected achievement date 12/2015</p> <p>Although the County completed the review for outfalls in the Urbanized Unincorporated Area (UUA) in May of 2012, the UUA was also altered by the completion of the 2010 Census Bureau map update. This map update has caused the permit jurisdiction area to almost double in size, from 82 square miles to 152 square miles. Because of this new area the County is now unaware of the total number of outfalls that exist in the new permitted</p>	ESD	GIS map and inventory

MCM	BMP	Measurable Goal	New or Revised	Start Date	Implementation Status / Frequency / Achievement	Responsible Entity	Documentation
					jurisdiction. Per the SWMP, the County has reviewed and updated policies and procedures for outfall investigations and continues to perform outfall inspections. Once the entire UUA has been inspected, the County will begin the SWMP-required inspections of 20% of all outfalls each year for the duration of the permit term. The review of the UUA prior to the 2010 Census Bureau update required a full three years to complete; it is estimated that the complete inspection of the new UUA will require the same amount of time to complete. It is anticipated that the outfall investigation project may be completed in December of 2015.		
		Illicit discharge improper disposal detection and elimination program		12/2009	Completed and ongoing	ESD	SOPs for the SWQP
		Illicit discharge improper disposal detection and elimination citation		12/2009	0 Citations Although no citations were issued, 2 discharges were documented for violations to the Stormwater Quality Regulation, and 35 inspections were documented against food establishments for possible pollutant discharge violations against the Maricopa County Health Code. All documented violations were addressed by the responsible parties, and no enforcement action was needed.	ESD FCD	FY13-EH-inspections_and_violations.pdf GIS Map Inspection_spreadsheet_v11.5 - Admin Review.xlsx
		Staff performing inspections (at least one staff)		12/2009	3 The Stormwater Quality Program has 3 fulltime inspectors.	ESD	Environmental Services SWQP Contact list
		Percent of outfalls inspected for FY2012 (Minimum 20 Percent annually)		12/2009	50% (estimate)	ESD	GIS maps
		Percent of outfalls inspected in total		12/2009	100% of the UUA as defined by the 2000 Census had been inspected in the prior reporting year,		

MCM	BMP	Measurable Goal	New or Revised	Start Date	Implementation Status / Frequency / Achievement	Responsible Entity	Documentation
					FY12, but the May 2012 update from the US Census Bureau altered the Urbanized Area and doubled the coverage area of our permit. Maricopa County continues with its commitment to address this new jurisdictional area, and inspections are in progress with a completion date expected in December 2015.		
		3.2 Implement a complaint response program					
		Complaints received		12/2009	222 Including 169 from MCDOT, 23 from FCD, and 30 from ESD.	ESD MCDOT FCD	ESD - ACCELA database report. MCDOT 6-1 office phone line report
		Enforcement actions taken		12/2009	0 No compliant investigations resulted in or were escalated to enforcement action regarding discharges that entered the MS4.	ESD MCDOT FCD	FCD inspection reports
		Average Complaint Response time(days) (≤ 15 days)		12/2009	100%	ESD MCDOT FCD	
		Complaint type(s)		12/2009	Wash water discharge, construction without BMPs, road debris, illegal dumping, pool water discharges, erosion, and hazardous material response.	ESD MCDOT FCD	
		3.3 Educate businesses and the general public about hazards associated with illegal discharges to storm sewer systems					
		Distribute 5,000 Pamphlets annually		12/2009	Completed and ongoing	ESD	Minimum Control Measures FY13.xlsx
		Number of pamphlets distributed		12/2009	54,378 This is a cumulative number of illicit discharge materials distributed as well as web information downloaded.	ESD	Public Education-revised.accdb
		4 Construction Site Stormwater Runoff Control					
		4.1 Establish an enforcement mechanism to require erosion and sediment controls at construction sites ≥ 1 acre					
		Rules established		12/2009	Completed	ESD	MARICOPA

MCM	BMP	Measurable Goal	New or Revised	Start Date	Implementation Status / Frequency / Achievement	Responsible Entity	Documentation
		Rules drafted		12/2009	0	ESD	COUNTY STORMWATER QUALITY MANAGEMENT AND DISCHARGE CONTROL REGULATION C 88 09 008 7 00 05/06/2009
		Newly established rules		12/2009	Completed	ESD	
4.2 Review and update Maricopa County construction site BMP Manual							
		Research BMPs for Vol. III 2009 update		12/2009	Completed	FCD	ErosionControlManualDraft.pdf http://www.fcd.maricopa.gov/Pub/manuals/downloads/ErosionControlManualDraft.pdf
		Additional updates or changes made		12/2009	The final edition of the Erosion Control Manual was issued July of 2012. Note: the pdf (portable document format) document available on the internet is entitled "draft" as that was the title of the document that was accepted by the board.	FCD	
4.3 Review plans and permit applications							
		Implement plan review process		12/2009	Completed	ESD	
		Staff performing plan review		12/2009	1	ESD	
		Number of permit applications reviewed		12/2009	12	ESD	Construction Database.accdb
4.4 Establish a stormwater inspection program							
		Number of Stormwater inspections		12/2009	19	ESD	Construction Database.accdb
		Problems observed		12/2009	0 No problems with BMP installation were noted during this reporting year.	ESD	
		Enforcement actions taken		12/2009	0 No enforcement actions were taken during this reporting period.	ESD	
4.5 Establish a complaint response program							
		Number of construction complaints received		12/2009	1	ESD	ACCELA Automation

MCM	BMP	Measurable Goal	New or Revised	Start Date	Implementation Status / Frequency / Achievement	Responsible Entity	Documentation
		Type of construction complaints		12/2009	Dirt in the road	ESD	
		Construction compliant response times (≤15 days)		12/2009	1 business day	ESD	
		Enforcement actions taken on construction sites		12/2009	0 No construction sites required enforcement action.	ESD	
4.6 Provide educational information on the County's Stormwater Website							
		Active web pages for construction		12/2009	3	ESD	
		Number of webpage hits		12/2009	54,163 pre-construction web page views Of these we page views, 907 actually involved a pre-construction application download.	ESD FCD	Minimum Control Measures FY13.xls fy13 pageviews.pdf
5 Post construction Stormwater Management in New Development and Redevelopment							
5.1 Develop and adopt technical guidance materials							
		Review and develop technical guidance		12/2009	Completed and ongoing	ESD	Minimum Control Measures FY13.xls
		Available on County Website		12/2009	Completed and ongoing	ESD	
		Distribute guidance materials annually (Minimum 500)		12/2009	Completed and ongoing	ESD	
		Number of materials distributed		12/2009	1227 post-construction application downloads	ESD	Public Education-revised.accdb
		Method of distribution		12/2009	Internet pages views and web information downloads.	ESD	fy13 pageviews.pdf
5.2 Review plans and permit applications							
		Implement plan review process		12/2009	Completed	ESD	
		Staff person for plan review		12/2009	1	ESD	
		Number of permit applications reviewed		12/2009	3	ESD	Construction Database.accdb
5.3 Conduct construction site inspections							
		Establish stormwater inspection program		12/2009	Completed		
		Number of Inspections performed		12/2009	3 Post-construction inspections	ESD	Construction Database.accdb
		Number of Violations observed		12/2009	0	ESD	
		Number of Corrective actions required		12/2009	0	ESD	
		Number of Enforcement actions		12/2009	0	ESD	

MCM	BMP	Measurable Goal	New or Revised	Start Date	Implementation Status / Frequency / Achievement	Responsible Entity	Documentation
		performed			No violations were observed, no corrective actions were required, and no enforcement actions were performed during this reporting period.		
5.4 Create and distribute educational materials for the development community							
		Create and publish educational materials for development		12/2011	Completed and ongoing	ESD	Minimum Control Measures FY13.xls
		Distribute 500 annually		12/2011	Completed and ongoing	ESD	Fact Sheet Brochure
		Number distributed		12/2011	1317 handouts and website downloads 53,749 post-construction web page views The 1317 includes a total of 986 handouts at events, and 331 website downloads.	ESD	Public Education-revised.accdb fy13 pageviews.pdf
6 Pollution Prevention/Good Housekeeping for Municipal Operations							
6.1 Maintain a regular street sweeping program							
		Maintain a regular street sweeping program		12/2009	Completed and ongoing	MCDOT	
		Number of miles swept		12/2009	757 miles (Total miles swept County wide by MCDOT 6084 miles)	MCDOT	Maps and schedule of areas that are swept Sweeper Data
		Frequency of sweeping		12/2009	16 week frequency for arterial streets, 8 week for residential and 2 week for special cycle streets	MCDOT	Hard copy maps of areas swept and contract billing schedule
6.2 Evaluate County facilities with regards to pollution prevention practices							
		Number of County facilities inspected/yr (Minimum 20%/yr)		12/2011	191 (39% of the County facilities)	ESD MCDOT EQSR	Minimum Control Measures FY13.xls
		Total number of facilities		12/2011	486		Monthly inspection forms for the daily inspections at ESQR
		Number of Inspections		12/2011	1299 This number includes EQSR inspections of 4 facilities with varying levels of inspections that occur daily, monthly, quarterly, and annually		Inspection_spreadsheets_v11.5 - Admin

MCM	BMP	Measurable Goal	New or Revised	Start Date	Implementation Status / Frequency / Achievement	Responsible Entity	Documentation
		Recommendations for change (Minimum 2/yr)			(1108), and the Stormwater Quality Program inspections of County operations (191).		Review.xlsx
				12/2011	3		
6.3 Development of a centralized, County-wide employee education and training program regarding pollution prevention							
		Number of educational workshops (Minimum 2/yr)		12/2009	84	AQ EQSR ESD FACILITIES FLOOD MCDOT P&D PARKS RISK SO WRR	Public Education-revised.accdb
		Number of staff trained		12/2009	727 employees 389 employees in classroom settings and 338 employees through on-line training.		Minimum Control Measures FY13.xls

C.b. Stormwater Management Program Changes

For the removal of SWMPs Provide:

- i. Analysis of ineffective or infeasible SWMP(including cost prohibitive),*
- ii. Expectations on the effectiveness of the replacement practice*
- iii. Analysis of why the replacement practice is expected to achieve the goals of the replaced practice*

MCM	BMP	Measurable Goal	Modification Type: BMP or Measurable Goal (MG)	Start Date	Explanation	Responsible Entity	Documentation
2	2.3	Public/Private Collaboration	MG	8/2011	Addition: The County has reported participation with private businesses for the annual poster contest, but has never reported the number of participants, nor considered participant activity to be a measurable goal. It is the County's intent to involve the public in every avenue possible, and to ensure education and outreach activities meet the needs and are relevant to the population. Documenting and reporting this information as a measurable goal is of benefit to overall program evaluation.	ESD	

D. Certification (40 CFR 122.22)

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.



Signature
John Kolman
Name (printed)

9/9/13

Date

Director
Title

E. Attachment

Acronyms

AQ	Maricopa County Air Quality Department
EQSR	Maricopa County Equipment Services Department
ESD	Maricopa County Environmental Services Department
FACILITIES	Maricopa County Facilities Department
FLOOD	Maricopa County Flood Control Department
MCDOT	Maricopa County Department of Transportation
P&D	Maricopa County Planning and Development Department
PARKS	Maricopa County Parks Department
RISK	Maricopa County Risk Management Department
SO	Maricopa County Sheriff's Office
WoUS	Water of the United States
WRR	Maricopa County Waste Resources and Recycling
STORM	STormwater Outreach for Regional Municipalities
SWQP	Stormwater Quality Program

Instructions (From the official report form)

Regulated Municipal Separate Storm Sewer Systems (MS4s) must submit annual reports to Arizona Department of Environmental Quality (ADEQ) for each year of the permit term. In compliance with the MS4 General Permit, an MS4 must annually review its Stormwater Management Program (SWMP) in conjunction with the preparation of the annual report. This document is a suggested format for annual reporting.

Submit a signed copy of your annual report no later than September 30 of each year to:

Arizona Department of Environmental Quality
 Surface Water Section/ Stormwater & General Permits Unit (5415A-1)
 1110 West Washington Street
 Phoenix, AZ 85007

Additional Information

B.1. Changes have been made or are proposed to the SWMP since the last annual report, including changes in response to ADEQ's review.

YES X NO

Regarding B.1.:
 Please see part C.b above for minor BMP changes to the SWMP.

B.3.b. Impaired waters within 10 miles of the MS4's jurisdiction. YES X NO

- Regarding B.3.b.:*
- The Salt River, Gila and Hassayampa Rivers are impaired for Chlordane, DDT, and Toxaphene. All of these chemicals have been banned and are no longer used. The EPA has directed that a TMDL is needed but has not been established. The regular use of these chemicals has been with agriculture, and the authority over agricultural practices is with ADEQ. These waterbodies do not receive a direct discharge from the County UUA.**

- Canyon Lake is impaired for Dissolved Oxygen. This waterbody does not receive a direct discharge from the County UUA.
- Chaparral Park Lake is impaired for Dissolved Oxygen and E. Coli. This waterbody does not receive a direct discharge from the County UUA.
- Alvord Park Lake is impaired for un-ionized Ammonia; no TMDL's have been established. This waterbody does not receive a direct discharge from the County UUA.
- Cortez Park Lake is impaired for Dissolved Oxygen and pH. No TMDL's have been established. This waterbody does not receive a direct discharge from the County UUA.
- Lake Pleasant is impaired for Mercury due to Mercury in fish. No TMDL's have been established. This waterbody does not receive a direct discharge from the County UUA.

*The UUA has recently been updated. It is currently speculated that the MS4 discharges within 10 miles of these surface waters, but further field verification is required.

**The chemicals of concern, Organochlorines, originally used widely as insecticides beginning in the 1940's, are runoff/leaching agents for stormwater and surface water pollution, and have been implicated by federal agencies as a significant health related concern for citizens and the environment. They strongly bind to soils and the sediments of waterbodies, and it is believed they gradually evaporate to the air where they are slowly broken down by sunlight.

1. Chlordane, or chlordan, is an organochlorine insecticide. It was banned in 1983, but is very persistent in the environment and may remain in soils for 20 - 30 years before it breaks down. It was used to control insects on crops. Chlordane is very stable in the environment.
2. DDT (dichlorodiphenyltrichloroethane) is an organochlorine insecticide. It was banned in 1972 but is persistent in the environment, taking between 12 to 15 years or more to break down and commonly causes fish consumption advisories. Its uses include combating malaria, typhus, and the other insect-borne human diseases and for insect control in crop and livestock production.
3. Toxaphene, also known as camphechlor, chlorocamphene, polychlorocamphene, and chlorinated camphene, is an organochlorine insecticide. It was banned by the EPA in 1982. Relatively nontoxic to bees, toxaphene was used to control insects on cotton, corn, fruit, vegetables, and small grains as well as to protect livestock from such pests as lice, fleas, ticks, mange, and scab mites. Persistent in nature, it remains in soil for up to 14 years.

* Information obtained from the WHO, USEPA, and ATSDR Toxicological Profile

Assessment*

Maricopa County continues to perform permit compliance activities that have the goal of reducing the discharge of pollutants to the maximum extent practicable, and the County remains diligent to make each activity measurable while evaluating its effectiveness each year.

The measurable goals for the public outreach minimum control measure and public involvement and participation minimum control measure have included counting the number of people that are contacted and the amount of information that has been distributed to the public. With these goals, the measure of effectiveness has been to have a high number of pollution prevention materials distributed, to count the number of individuals reached, and to obtain survey results from as large a population as possible. This survey program continues to provide a foundation for direction for the next fiscal year of outreach activity by establishing an annual knowledge baseline of our core audience.

The measurable goals for the illicit discharge detection and elimination minimum control measure have included a proactive inspection program in which the County documents inspection activities, the results of findings, the number

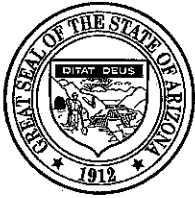
of enforcement actions, the number of complaints received and responded to, and the amount of education provided to potential pollutant sources in the jurisdiction. The overall purpose of this activity is to increase the amount of staff and citizens that are knowledgeable on stormwater pollution prevention thereby creating a significant presence for pollution prevention in the field. With these goals, the measure of effectiveness has been a high number of inspections, a high number of outreach activities, recording the number of complaints, and ensuring our complaint contact information is well distributed throughout the region.

The measurable goals for the pre-construction plan review and inspections minimum control measure and post-construction plan review and inspections minimum control measure have been to count the rules established, the number of plans reviewed, the number of inspections performed, and the number of enforcement actions taken. With these goals, the measure of effectiveness has been to ensure that every pre and post construction activity in our jurisdiction is reviewed and inspected, and that ongoing inspections continue to ensure best management practices are used for the duration of the construction process and properly installed for the life of the system.

The measurable goals for pollution prevention/good housekeeping for municipal operations minimum control measure have been to ensure the County operations are remaining free of illicit discharges to the storm system, and have been to include the miles of streets swept, the number of municipal facilities inspected, and the number of training activities provided to County staff. With these goals, the measure of effectiveness has been to ensure street sweeping occurs, to inspect as many municipal facilities as possible, and to provide training to as many applicable staff as feasible.

Through the numbers and activities documented in this annual report, the County believes the progress and activities represented herein prove an effective program has been established, and meets permit compliance requirements. The County intends to continue these Stormwater Management Programs.

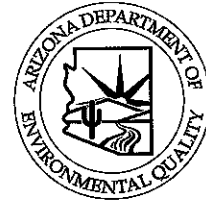
*Per part H.1.a of Permit AZG2002-002 ..."include...an assessment of the appropriateness of the identified best management practices"



Janice K. Brewer
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

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Henry R. Darwin
Director

October 25, 2013

Robert van den Akker,
Stormwater Program Supervisor
Maricopa County Environmental Services Department
1001 N. Central Avenue
Phoenix, AZ 85007

Re: Maricopa County 2013 Annual MS4 Stormwater Report

Dear Mr. van den Akker:

The Arizona Department of Environmental Quality (ADEQ) received the Maricopa County 2013 Annual MS4 Stormwater Report on September 9, 2013 and the reporting period of July 1, 2012 through June 30, 2013. The Department has reviewed the report and determined that it substantially complies with the Arizona Pollution Discharge Elimination System General Permit for Discharge from Small Municipal Separate Storm Sewer System to Waters of the United States (Permit No. AZG2002-002). Please continue to implement and update the SWMP as required by the permit.

Overall, the County's annual report is well organized, thorough and informative. The Department would like to offer a suggestion to help improve the program. Since the pollutants of concern identified, organochlorines, tend to both tightly bind to and persist in soil for long periods the County may want to institute a plan to identify and also prioritize construction site locations that would require additional effort by the operator, such as increased inspections, larger buffers to waterways, or the use of layered BMPs to further limit the possibility of the site's soil being transported into the waterways since they would likely have a high potential for contributing to the impairment.

As an example, a GIS map layer could be created which identifies and delineates areas with various buffer sizes based on the impairment potential. Each areas buffer size would be created and tied to areas known to have historical use of organochlorines and then prioritized based on both the general gradient to the nearest surface water and the distance to it, as well as a list of required BMPs for that zone the operator must institute. If the construction site location is identified as one within a buffer zone, then the site would require these additional BMPs based on the zone to ensure protection against the transportation of site soil.

The Department appreciates the County's effort in meeting the six minimum control measures, and looks forward to continuing to work with the County throughout permit implementation in order to achieve program objectives. Please contact me if you have any questions regarding the Phase II MS4 Program either by phone to (602)771-4449, or by email to eed@azdeq.gov.

Sincerely,

Eileen Dunn
Stormwater and General Permits Unit
Surface Water Section

Cc: Mindi Cross, ADEQ
SWG13: 072