



Chandler • Arizona
Where Values Make The Difference

City of Chandler

Small Municipal Separate Storm Sewer System Annual Report

July 1, 2010 through June 30, 2011

August 31, 2011



Chandler + Arizona
Where Values Make The Difference

August 31, 2011

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

RE: City of Chandler Small MS4 Annual Report: July 1, 2010 – June 30, 2011

Please find enclosed one (1) copy of the City of Chandler's Small Municipal Separate Storm Sewer System (MS4) Annual Report for the reporting period July 1, 2010 through June 30, 2011. Also, enclosed is a check in the amount of \$7,500 as payment for the annual fee. The City of Chandler looks forward to your comments and a continuing effort to address stormwater quality. Should you have questions, please don't hesitate to call me at (480) 782-3503.

Sincerely,

Dave Verhelst
Stormwater Program Coordinator
City of Chandler

Cc: Dan Cook, Transportation Manager
Cc: R.J. Zeder, Transportation & Development Director

Small MS4 Annual Report Form

Please refer to the attached instructions as you prepare your annual report.

A. General Information

Name of MS4: City of Chandler

Contact Name: Dave Verhelst

Telephone Number: (480)782-3503 Email Address: david.verhelst@chandleraz.gov

Annual Report Period: July 1, 2010 through June 30, 2011

SWMP Modifications and 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 <input type="checkbox"/> | NO <input checked="" type="checkbox"/> |
| 2. The MS4 has annexed lands. | YES <input checked="" type="checkbox"/> | NO <input type="checkbox"/> |
| 3a. The MS4 discharges directly to an impaired water. | YES <input type="checkbox"/> | NO <input checked="" type="checkbox"/> |
| 3b. A water within 10 miles of the MS4's jurisdiction has been identified as impaired. | YES <input type="checkbox"/> | NO <input checked="" type="checkbox"/> |
| 4a. The MS4 discharges directly to water for which a TMDL has been established. | YES <input type="checkbox"/> | NO <input checked="" type="checkbox"/> |
| 4b. A TMDL has been established for a water within 10 miles of the MS4's jurisdiction. | YES <input type="checkbox"/> | NO <input checked="" type="checkbox"/> |
| 5. The MS4 has conducted analytical monitoring of stormwater quality. | YES <input type="checkbox"/> | NO <input checked="" type="checkbox"/> |
| 6. The MS4 is relying on another government entity to satisfy some permit obligations. | YES <input type="checkbox"/> | NO <input checked="" type="checkbox"/> |

Section B – Part 1: No changes have been made to the SWMP since the last annual report.

New Best Management Practices:

No new best management practices have been implemented during the reporting period. ADEQ has not requested that changes to the City’s SWMP were necessary.

Updated/Changed Best Management Practices

No best management practices have been changed or updated during the reporting period.

Section B – Part 2: The City Has Annexed Lands

During the reporting period, the City of Chandler annexed 66.51 acres of land. The 16 annexations include undeveloped and former agricultural properties and County rights-of-way. A map has been included detailing the location of the properties annexed. If necessary during and post development, the following BMPs will be implemented in these areas:

- Public Meetings
- Stormwater System Map
- Plan Review
- Spill Prevention and Detection
- Grading and Drainage Permits
- Construction Site Inspections
- Construction Stormwater Handbook
- Property Owner’s Manual
- Storm Drainage System Technical Design Manual
- Final and One-Year Warranty Inspections
- Street Cleaning
- Illegal Dumping Response

FY 2010-2011 ANNEXATIONS

Ordinance Number	Adoption Date	Effective Date	Annexed Acreage	Location	Parcel #
4172	6/24/2010	7/24/2010	5.27	Northwest Corner of Riggs Road and Riggs Ranch Road	30355008D
4232	7/26/2010	8/26/2010	1.88	Northeast Corner of Willis Road and the Consolidated Canal	30329007A
4221	9/16/2010	10/16/2010	39.00	South of the Southwest Corner of Basha Road and Ocotillo Road	30348003P, 30348003V, 30348003S, 30348004L
4250	9/16/2010	10/16/2010	0.99	Certain County Rights-of-Way on Cooper Road from Flintlock Way to Willis Road	N/A
4250	9/16/2010	10/16/2010	0.30	Certain County Rights-of-Way on Cooper Road from Flintlock Way to Willis Road	N/A
4251	9/16/2010	10/16/2010	1.59	Certain County Rights-of-Way on McQueen Road from Pecos Road to Willis Road	N/A
4251	9/16/2010	10/16/2010	3.02	Certain County Rights-of-Way on McQueen Road from Pecos Road to Willis Road	N/A
4256	9/30/2010	10/30/2010	0.77	Riggs Road-Right-of-Way West of Riggs Ranch Road	N/A
4260	9/30/2010	10/30/2010	1.31	Certain County Rights-of-Way on Arizona Avenue between Queen Creek Road and Ocotillo Road and Ocotillo Road and Queen Creek Road East of Arizona Avenue	N/A
4260	9/30/2010	10/30/2010	3.85	Certain County Rights-of-Way on Arizona Avenue between Queen Creek Road and Ocotillo Road and Ocotillo Road and Queen Creek Road East of Arizona Avenue	N/A
4260	9/30/2010	10/30/2010	0.45	Certain County Rights-of-Way on Arizona Avenue between Queen Creek Road and Ocotillo Road and Ocotillo Road and Queen Creek Road East of Arizona Avenue	N/A
4266	12/6/2010	1/5/2011	0.46	Southwest Corner of Ocotillo Road and the Consolidated Canal	30346004H
4259	10/25/2010	11/24/2010	1.65	Certain County Rights-of-Way on McQueen Road between Germann Road and Queen Creek Road	N/A
4259	10/25/2010	11/24/2010	0.96	Certain County Rights-of-Way on McQueen Road between Germann Road and Queen Creek Road	N/A
4265	11/15/2010	12/15/2010	3.35	Certain County Rights-of-Way Along Gilbert Road North of Queen Creek Road and Queen Creek Road East of Gilbert Road	N/A
4296	5/12/2011	6/11/2011	1.66	South of the Southeast Corner of Cooper Road and Ocotillo Road	30344010M
		Total	66.51		

C. Stormwater Management Program Status. Provide the status of every BMP and measurable goal in your SWMP as described in the instructions.

TABLE 1

Minimum Control Measure(s)	BMP	Measurable Goal (steps to measure progress)	New or Revised	Start Date	Implementation Status/ Frequency/ Achievement Date (completed, in progress, not started)
Public Education and Outreach	Newsletter Articles	2010 Annual Drinking Water Quality Report including information on stormwater runoff and pollution prevention was distributed via mail to approximately 99,599 households in June 2011. CityScope Newsletter articles "Common household chemicals should be disposed of properly" (October-November 2010) "Only rain in the storm drain" (December 2010-January 2011), "Pool draining reminders" (April-May 2011), were distributed via mail to approximately 68,000 households, with another 1,000 copies distributed at various public outlets. Copies of above are included in Appendix A.		May 2003	Completed. Newsletter articles such as the City's annual drinking water quality report and other City sponsored newsletters will continue and will be distributed to residents by bulk mail or in utility bills and to City employees.
Public Education and Outreach	Storm Water Brochure	Brochures may be included in new resident packets and distributed at City kiosk at Chandler Fashion Square Mall, City libraries, and handed out at City events, various neighborhood meetings, HOA board meetings and special events. Distributed 728 brochures during last reporting period. Copy of brochure included in Appendix B.		August 2003	Completed. Distribution of brochures at City locations, events and meetings will continue. Distribution will be tracked during the next reporting period.
Public Education / Public Involvement	Storm Water Webpage	Developed webpage on City website. 5,011 visits to the webpage, with 5,800 page views reported. Copies of webpage content included in Appendix C.		August 2003	Completed. Website will be periodically updated with new information. Site visits and page views will continue to be tracked during the next reporting period.

TABLE 1 (continued)

Minimum Control Measure(s)	BMP	Measurable Goal (steps to measure progress)	New or Revised	Start Date	Implementation Status/ Frequency/ Achievement Date (completed, in progress, not started)
Public Education	Storm Water Signage	20 signs purchased. No signs were installed during reporting period.		January 2004	Completed. Signs will be produced and installed in City retention basins when appropriate. Installation and location will be tracked during the next reporting period.
Public Education / Public Involvement	Storm Drain Placards	6,000 cast aluminum placards were originally purchased. 946 placards were installed during the reporting period.		July 2003	Completed. Installation and/or replacement of placards on storm drain inlets will continue and will be tracked during the next reporting period. 400 more placards were purchased during the reporting period. Placards are replaced when necessary and have been added to scupper inlets.
Public Education	Landscape and Lawn Care	Assist in the management of irrigation runoff. 41 new residential low water use landscape installations, 59 low water use landscape conversions and 38 irrigation timer rebates.		March 2003	Completed. Conversions and timer rebates will continue as funding allows. Conversions and rebates will be tracked during the next reporting period.
Public Education / Public Involvement	Conservation Calendar	Held 4 th grade Environmental Art Contest. Created calendar and poster incorporating the winning artwork. 3,500 calendars and 300 posters were printed and distributed in December 2010 to January 2011. 1,046 entries from 41 schools were received in March 2011. Artwork is displayed on the City's waste and recycling trucks and on City websites and posted at City Library's. Calendar included in Appendix D.		August 2003	Completed. The conservation calendar will continue and will be distributed to schools and City events. Art contest and calendar production will continue as funding allows.
Public Education / Public Involvement	Classroom Presentations	No invites from teachers during this reporting period.		May 2004	Completed. Classroom presentations will continue to be available and encouraged.

TABLE 1 (continued)

Minimum Control Measure(s)	BMP	Measurable Goal (steps to measure progress)	New or Revised	Start Date	Implementation Status/ Frequency/ Achievement Date (completed, in progress, not started)
Public Education / Public Involvement	Hamilton High School Science Fair	Approximately 4,000 spectators and 1,500 participants attended the fair. Discussed storm water pollution prevention and related information through use of STORM display boards and other information. Distributed 112 rain gauges, 147 magnetic clips, 125 brochures, 235 wristbands, 112 key chains and 158 Bags-on-Board dispensers.		February 2004	Completed. The City expects to participate in the next Hamilton High Science Fair in February 2012. Distribution and tracking of attendees and program promotional items will be tracked during the next reporting period.
Public Education	STORM Membership	STORM website (www.azstorm.org) with stormwater related information. Display boards illustrating the difference between sanitary and storm sewers and pollution prevention are utilized at public events. Radio public service announcements and development and distribution of promotional items were completed. The STORM Annual Report is included in Appendix E.		March 2003	Completed. The City will continue yearly membership with Stormwater Outreach for Regional Municipalities (STORM) as funding allows.
Public Education	Rain gauges	133 rain gauges with "Please...only rain in the storm drain", city website address and contact information were distributed at City attended events. These events included the Hamilton High School Science Fair and 1st Annual SunBird Going Green Expo.		April 2005	Completed. Distribution of rain gauges will continue as funding allows. Distribution will be tracked during next reporting period. The City purchased 1,000 rain gauges during FY 10/11 to be distributed at future public education and outreach events.
Public Education	Public Works @ Work, City cable show	A storm water pollution prevention video segment aired 2 times per week for a total of 104 times. A storm water message slide "Keep Your Drinking Water Safe" aired throughout the year on the Channel 11 bulletin board. The message aired over 1,000 times. Copies of the video PSA and slide are included in Appendix F.		March 2005	Completed. Video segments and messages are updated and will be aired. Number of airings will be tracked during the next reporting period.

TABLE 1 (continued)

Minimum Control Measure(s)	BMP	Measurable Goal (steps to measure progress)	New or Revised	Start Date	Implementation Status/ Frequency/ Achievement Date (completed, in progress, not started)
Public Participation	Public Meetings	No public meetings associated with Capital Improvement Projects involving stormwater drainage improvements were conducted. Appendix G.		June 2003	Completed. Public meetings associated with Capital Improvement Projects will continue and will be documented during the next reporting period.
Public Participation/Illicit Discharge Detection and Elimination	Storm Water Pollution Hotline	Phone number identified on City website and brochures and promotional items distributed. Residents can call with storm water related issues or concerns. Approximately 32 calls were received.		November 2004	Completed. The City will continue to track calls during the next reporting period.
Illicit Discharge Detection and Elimination	Storm Water System Map	Collect as-built information on storm drain system, identify new system components		March 2003	Completed. The City will continue to collect data and update data from as-built information, site inspections, etc.
Illicit Discharge Detection and Elimination	Storm Drain Video	Video storm drains for illicit connections and infrastructure condition. 514 feet of storm drain video inspected.		May 2005	Completed. The City will continue to utilize video services to inspect storm drains, connections and laterals when necessary.
Illicit Discharge Detection and Elimination/Post-Construction Stormwater Management	Plan Review	Plan reviews are completed to catch any illicit connections from wastewater discharge into the stormwater system.		March 2003	Completed. The City will continue plan review for any illicit connections from wastewater discharge into the stormwater system.
Illicit Discharge Detection and Elimination/Pollution Prevention Good Housekeeping	Spill Prevention and Containment	Prevention/containment of debris, materials and spills potentially entering the storm drain system. A total of 247 incidents/spills were responded to and resolved. The Streets Division responded to 236 calls associated with spills or debris clean-up. Environmental Management staff responded to 11 calls during the reporting period. Summaries of the spills and incidents responded to and spill response forms are included in Appendix H.		March 2003	Completed. The City will continue to report incidents/spills responded to during the next reporting period.
Illicit Discharge Detection and Elimination	Dry Weather Field Screening	Six discharge points were inspected. Arrowhead and Denver Basins were inspected weekly. Inspection forms are included in Appendix I.		March 2003	Completed. The City will continue field screening inspections and completion of inspection forms.

TABLE 1 (continued)

Minimum Control Measure(s)	BMP	Measurable Goal (steps to measure progress)	New or Revised	Start Date	Implementation Status/ Frequency/ Achievement Date (completed, in progress, not started)
Construction Site Runoff Control	Grading and Drainage Permits	A grading and drainage permit is required for new projects. These detail the City's requirements for runoff control. 160 permits were issued during the reporting period. A list of the Grading and Drainage Permits issued is included in Appendix J.		March 2003	Completed. The number of permits issued will be tracked during the next reporting period.
Construction Site Runoff Control	Construction Site Inspections	Sites are inspected for infractions to the Grading and Drainage Permit, State, County and/or City regulations and Standards. 17 final inspections were completed. 68 erosion and sediment control inspections were completed. A copy of the final inspection list and stormwater site inspection list are included in Appendix K.		March 2003	Completed. The number of inspections will be tracked during the next reporting period.
Construction Site Runoff Control	Construction Storm Water Handbook	City of Chandler Unified Development Manual is Available through the City's website. Provides a single source for construction site BMPs, sediment control, permit applications, inspections, and non-stormwater and water management issues. 4,750 visits to the webpage, with 1,133,488 page views reported. There were 124 visits and 874 page views associated with the City of Chandler Manual on Stormwater Quality Protection.		August 2003	Completed February 2005. Site visits and page views will continue to be tracked during the next reporting period.
Post Construction Storm Water Management	Property Owner Manual	Property Owner's Manual provides a means to inform property owners about stormwater management, pollution prevention and maintenance requirements. Copy of Manual included in Appendix L.		November 2004	Completed February 2005. Manual will be updated when necessary. The manual is distributed to Home Owner's Associations and other private property owners.

TABLE 1 (continued)

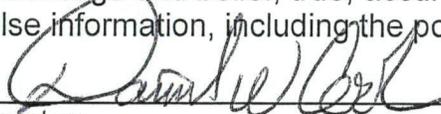
Minimum Control Measure(s)	BMP	Measurable Goal (steps to measure progress)	New or Revised	Start Date	Implementation Status/ Frequency/ Achievement Date (completed, in progress, not started)
Post Construction Storm Water Management	Storm Drainage System Technical Design Manual	The manual outlines the design and policy for hydrology design, street drainage, storm drains, basins, and disposal of storm water and maintenance standards. Available as part of Unified Development Manual.		March 2003	Completed. Manual is reviewed and updated as needed.
Post Construction Storm Water Management	One-year Warranty Finals	A one-year warranty inspection is completed for developments and redevelopments to ensure that structures are constructed and operating properly. 18 one-year warranty inspections were completed. A copy of the one-year warranty List is included in Appendix K.		March 2003	Completed. The number of inspections will be tracked during the next reporting period
Pollution Prevention and Good Housekeeping	Street Cleaning	68,782 total miles of streets were swept with 2,128 tons of material removed.		March 2003	Completed. The City will continue street sweeping and will report miles and tonnage of material removed during the next reporting period.
Pollution Prevention and Good Housekeeping	Illegal Dumping / Illicit Discharge Response	57 illegal dumping calls were received and abated. Summary Report Included in Appendix M.		March 2003	Completed. Number of calls responded to and abated will be tracked during the next reporting period.
Pollution Prevention and Good Housekeeping	Employee Training	169 employees attended training sessions associated with pollution prevention. Topics included; stormwater management program awareness, municipal stormwater pollution prevention, illicit discharge detection and elimination, dust control and hazardous spills response. The above mentioned sessions included 4 City Departments that comprised 15 Divisions. Report included in Appendix N.		March 2003	Completed. Employee training will continue and will be tracked and reported during the next reporting period.

TABLE 1 (Continued)

Minimum Control Measure(s)	BMP	Measurable Goal (steps to measure progress)	New or Revised	Start Date	Implementation Status/ Frequency/ Achievement Date (completed, in progress, not started)
Pollution Prevention and Good Housekeeping	Cleaning Catch Basins and Outfalls	11,037 catch basins, scuppers and inlets inspected. 1,403 catch basins and laterals, scuppers, spillways, inlets and outlets were cleaned. Arrowhead and Denver Basin Pump Stations were inspected weekly. A summary of work completed is Included in Appendix O.		March 2003	Completed. The number of inspections and structures maintained will be tracked during the next reporting period.
Pollution Prevention and Good Housekeeping	Hazardous Material Storage	107 employees received training for 8-hour HazWOpER refresher. 0 employees received 40-hour HazWOpER certification. Report included in Appendix N.		March 2003	Completed. The City will continue tracking HazWOpER training.
Pollution Prevention and Good Housekeeping	Household Hazardous Waste Collection Facility	Approximately 2,100 residents dropped off 169,700 pounds of material that was recycled or properly managed for disposal. Approximately 131,042 pounds of such material was recycled.		March 2003	Completed. The City will continue tracking participation and material collected.

C. 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.



 Signature

9-30-11

 Date

Daniel W Cook

 Name (printed)

Transportation Manager

 Title