



Phase II MS4 Program

Annual Report

Year 8

July 1, 2015 to June 30, 2016



Public Works

Project Development

700 North Main Street Las Cruces, New Mexico 88001

[http://www.las-cruces.org/departments/public-works/project-development/storm water](http://www.las-cruces.org/departments/public-works/project-development/storm-water)

Table of Contents

| | |
|--|----|
| Table of Contents | 2 |
| Table of Figures | 3 |
| MS4 Annual Report Permit Information | 4 |
| U.S. Census, 2013 Las Cruces Population..... | 5 |
| Annexation Map..... | 6 |
| Las Cruces Urbanized Area Map and Storm Drain System | 7 |
| Overview..... | 8 |
| Signature of Permittee..... | 11 |
| MCM #1. Public Education and Outreach..... | 12 |
| BMP 1.1 Revise and Update Materials as Needed | 12 |
| BMP 1.2 Community Events | 13 |
| BMP 1.3 Billboard and Public Service Announcements | 14 |
| BMP 1.4 Schedule school presentations as feasible | 14 |
| BMP 1.5 Distribute Brochures with Business Registration..... | 14 |
| BMP 1.6 SWPPP Workshop for Codes Enforcement Officers | 14 |
| BMP 1.7 Education Material Dispenser at City Hall (Public Works) | 14 |
| BMP 1.8 DVD for Employee Training and Public Education..... | 14 |
| BMP 1.9 Watershed-Based Education for Potential Bacteria Sources/Use Questionnaires at Presentations/Collect and Monitor Floatables | 15 |
| MCM #2 Public Participation and involvement | 16 |
| BMP 2.1 Public Notices..... | 16 |
| BMP 2.2 and 2.3 City of Las Cruces Public Works, Engineering Services Storm Water Web Page and Report Line | 16 |
| BMP 2.4 Great American Cleanup April 9, 2016..... | 16 |
| MCM #3. Illicit Discharge Detection and Elimination..... | 16 |
| BMP 3.1 and 3.2 Map outfalls, storm drains, arroyos, laterals and other storm water facilities that transport or temporarily hold storm water. | 17 |
| BMP 3.3 Ordinance to remove/correct illicit discharges..... | 18 |
| BMP 3.4 Accept Hazardous Waste at the City’s Recycling Center | 18 |
| BMP 3.5 Design and Construct New Sewers as Funds Allow | 18 |
| MCM #4. Construction Site Storm Water Runoff Control..... | 19 |
| BMP 4.1 Review erosion and sediment control plans | 19 |
| BMP 4.2 and 4.3 Inspection and Enforcement/Public Reports of Construction Problems | 19 |
| MCM #5. Post-Construction Storm Water Management in New Development and Redevelopment | 20 |
| BMP 5.1 Structural BMPs | 20 |
| BMP 5.2 Open Space Program | 20 |
| BMP 5.3 Include Evaluation of Water Quality in Design Contracts | 21 |
| BMP 5.4 and 5.5 Continue Operation and Maintenance Program/LID Conference | 21 |
| MCM #6. Pollution Prevention/Good Housekeeping for Municipal Operations | 22 |
| BMP 6.1 Implement Good Housekeeping Procedures/Train Employees in Good Housekeeping Procedures..... | 22 |
| BMP 6.2 Hazard Communication Program | 22 |

| | |
|--|----|
| BMP 6.3 Municipal Training..... | 22 |
| BMP 6.4 Require City applicators to be appropriately licensed..... | 22 |
| Appendix A: Recycling Data..... | 23 |
| Appendix B: Great American Cleanup Data..... | 24 |
| Appendix C: Water Conservation..... | 25 |
| Appendix D: Storm Water Reporting Data..... | 26 |
| Appendix E: Media Distribution..... | 28 |
| Appendix F: Low Impact Development, GI, and Rainwater Harvesting Workshop..... | 30 |
| Appendix G: MS4 Cooperative Group Meetings..... | 31 |

Table of Figures

| | |
|--|----|
| Figure 1: Population of the City of Las Cruces from the U.S. Census Bureau..... | 5 |
| Figure 2: CLC annexation history by decade..... | 6 |
| Figure 3: CLC urbanized area map and storm drain system..... | 7 |
| Figure 4: Updated storm drain marker symbols inform citizens of codes violations for dumping..... | 12 |
| Figure 5: CLC staff model storm water and watershed activities to students..... | 13 |
| Figure 6: Frenger Basin Map..... | 17 |
| Figure 7: KLCB Clean-Up Events 3 Year Comparison..... | 24 |
| Figure 8: MS4 Calls..... | 26 |
| Figure 9: MS4 3 Year Trend for code violations..... | 27 |
| Figure 10: Outreach and educational material from 2012 to 2016..... | 28 |
| Figure 11: Outreach and educational material distributions from July 1, 2015 to June 30, 2016..... | 29 |
| Figure 12: Low-Impact Development flyer..... | 30 |

MS4 Annual Report Permit Information

A. Permittee Information

Permit Number: NMR040000

Permittee: City of Las Cruces

Mailing Address: 700 North Main Street

City, State and Zip Code: Las Cruces, New Mexico 88001

Have any areas been added to the MS4 due to annexation or other legal means?

No

B. Reporting Period July 1, 2015 to June 30, 2016

C. Program Areas (Attachments)

As an attachment, address each of the following items for each of the six program areas (public education, public participation/involvement, illicit discharge detection and elimination, construction, post-construction, and good housekeeping for municipal operations.) The status of each program area must be addressed, even if the program area was completed and fully implemented in the previous reporting year.

U.S. Census, 2013 Las Cruces Population

<http://las-cruces.maps.arcgis.com/apps/LocalPerspective/index.html?appid=728a88c8e743499c9eb18eaa14c4fa0e>

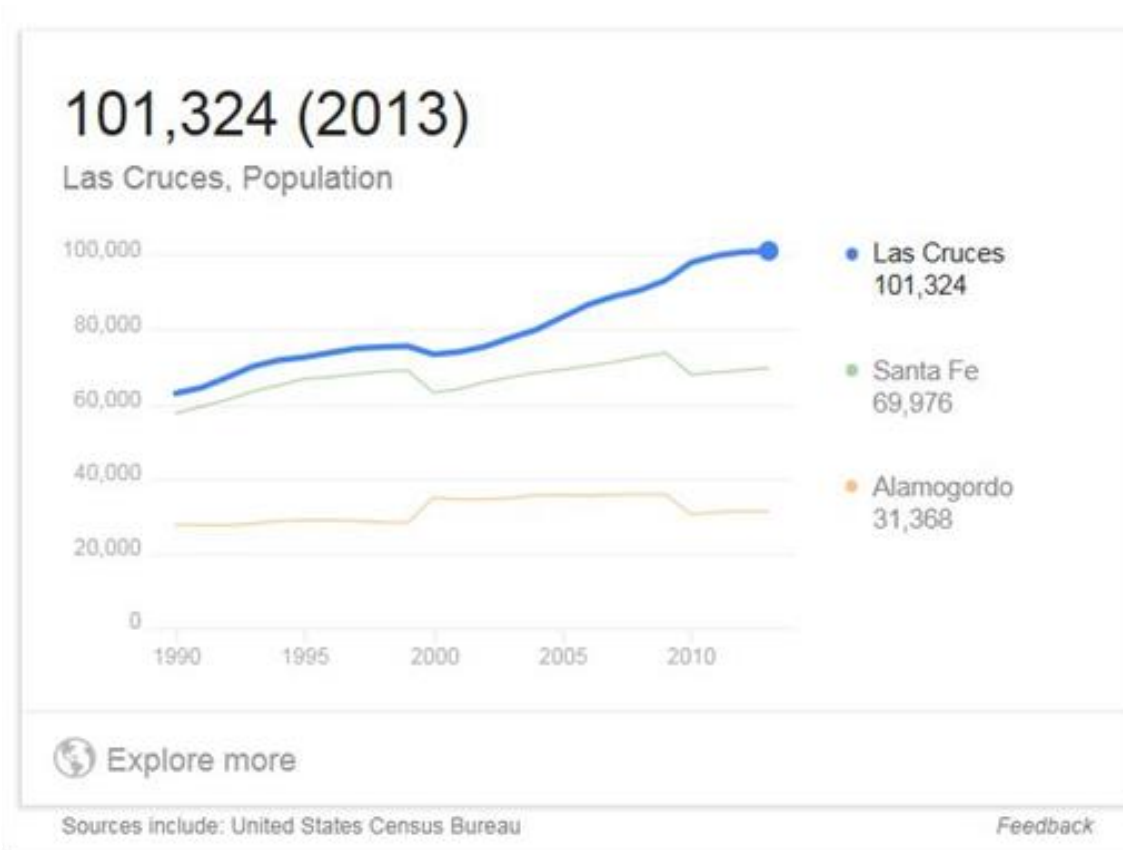


Figure 1: Population of the City of Las Cruces from the U.S. Census Bureau

Annexation Map

<http://las-cruces.maps.arcgis.com/apps/MapTools/index.html?appid=ed0cb1036e0e46c082de26328251ba05>

Las Cruces Annexation History by Decade

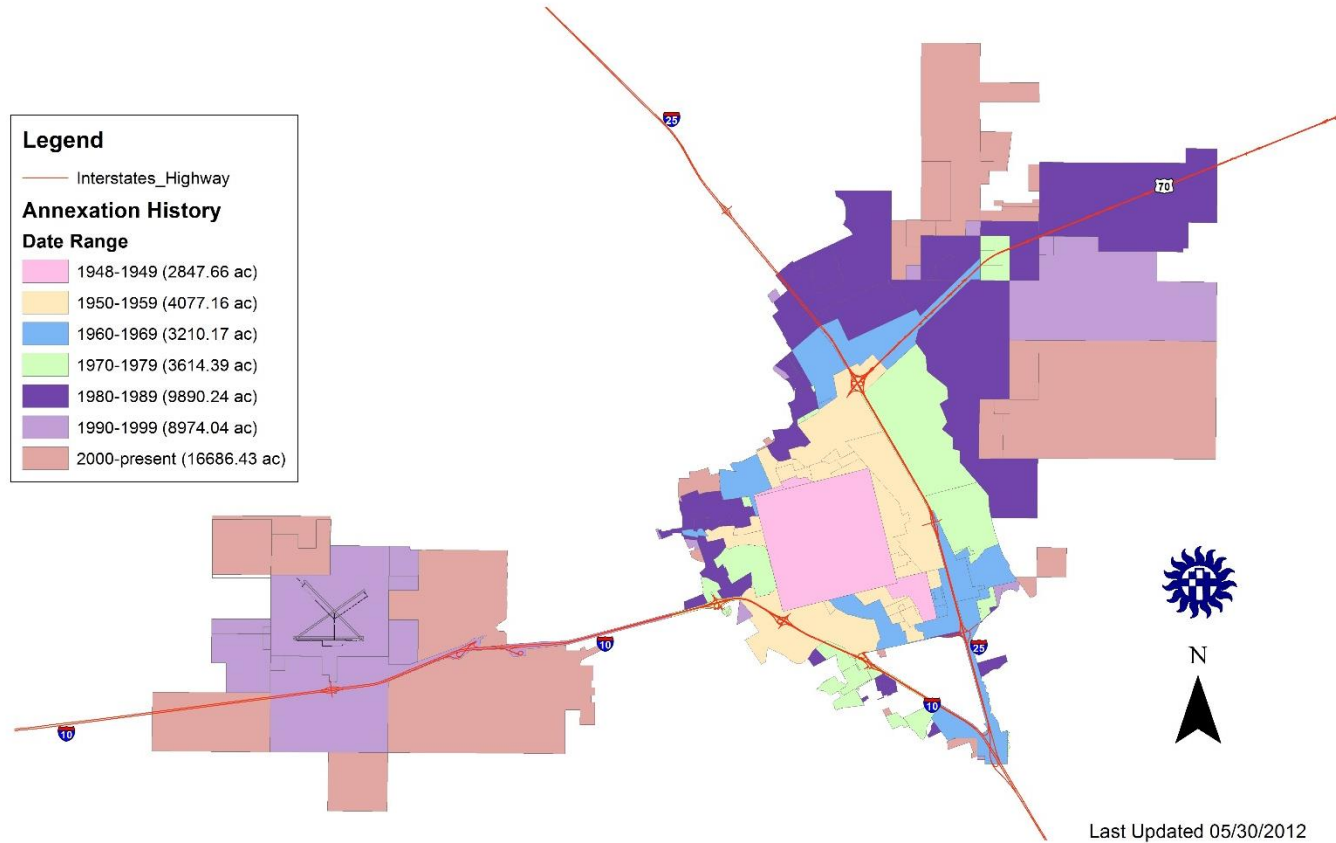


Figure 2: CLC annexation history by decade

Las Cruces Urbanized Area Map and Storm Drain System

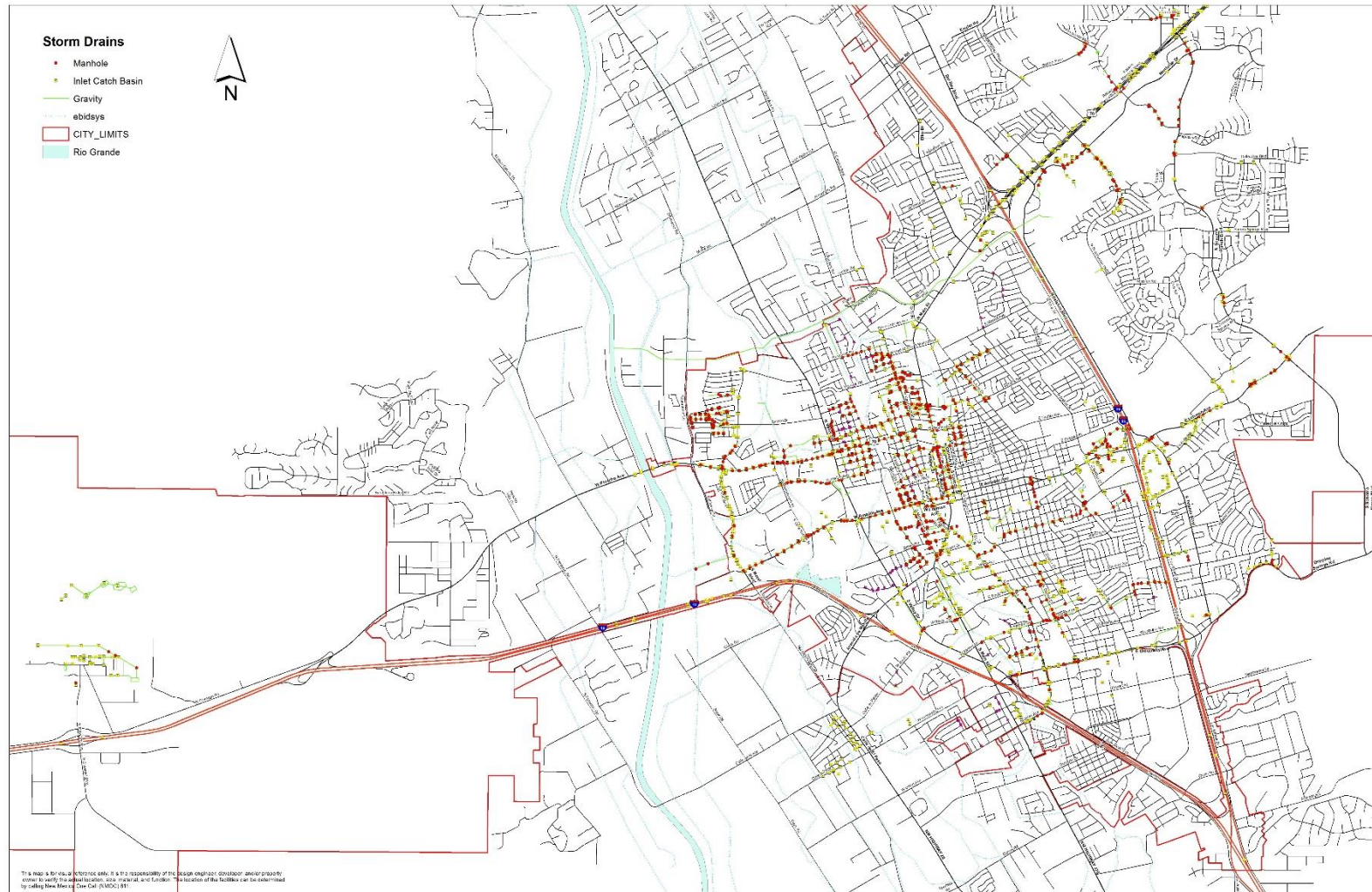


Figure 3: CLC urbanized area map and storm drain system

Overview

The City must show measurable goals and improvement in six minimum areas. Record of these results and improvements will be the responsibility of each city department. Each control measure is listed below with the corresponding 1st year tasks (BMP) and the status of the BMP.

1. Implementation Status

A. General Summary

This past year, the City of Las Cruces has continued to carry out the activities and goals of the Storm Water Management Plan (SWMP).

The plan was submitted in compliance with the Environmental Protection Agency's (EPA) Phase II Storm Water Final Rule (64 FR 68722, 8Dec99) to improve storm water quality in accordance with the Clean Water Act of 1972. The five-year program will serve to develop, implement, and enforce a storm water management program designed to reduce the discharge of pollutants to the maximum feasible extent possible. The EPA has identified six minimum control measures which must be specifically addressed within this plan. These six minimum areas are listed below and involve several City departments. This report documents the results of the eighth year's efforts.

- 1) Public Education and Outreach on Storm Water Impacts
- 2) Public Participation and Involvement
- 3) Illicit Discharge Detection and Elimination
- 4) Construction site Storm Water Runoff Control
- 5) Post-Construction Storm Water Management in New Development/Redevelopment
- 6) Pollution Prevention/Good Housekeeping for Municipal Operations

B. Program elements changed or refined since previous report or permit application.

Include a summary of any changes made in accordance with Part 5.5 of the permit.

There are no changes to the Storm Water Management Plan since the city revised the Storm Water Management Plan in 2009.

C. Status of Measurable Goals

i. The measurable goals completed during the reporting period

See summaries under later MCM sections.

ii. An explanation for any measurable goals scheduled for completion during the reporting period that were not completed. (Any modified goals/deadline should be listed in item 5, below.)

See summaries under later MCM sections.

2. Overall compliance with permit conditions.

a. Assessment of the appropriateness of the identified BMPs.

Factors to consider in determining appropriateness include, but are not limited to, effectiveness for local population, pollution sources, receiving water concerns, and integration with local management procedures.

b. Progress towards achieving the statutory goal of reducing the discharge of pollutants to the Maximum Extent Practicable (MEP). Include a general discussion on your assessment of the program effectiveness at protecting water quality.

3. Results of information collected and analyzed, if any, during the reporting period, including any monitoring data used to assess the success of the program at reducing the discharge of pollutants to the MEP.

Discharge monitoring is not a requirement under the permit. However, if you did collect any monitoring data for storm water discharges within your jurisdiction, or if any program element included data collection of some sort, you must submit a short summary of the information and any analysis completed. Examples of data sources include survey/polling results, miles of riverbank cleaned up, number of hits on a website before and after a public education campaign, etc. (Data recorded under Item 1.c, Measurable Goals, does not need to be repeated here.)

Water quality sampling program was performed by the Paso del Norte Watershed Council. The following is a Brief Overview of Sampling Strategy. At each site, samples were taken in triplicate or quadruplicate and E. coli was enumerated using the EPA-approved m Coli-blue method. When samples had greater than 200 E. coli / 100mL, E. coli colonies were shipped to the IEH labs for source track analyses. The sources of between 5 and 20 E. coli were identified from each sample date, and between 62 and 127 E. coli isolates were source-identified from each of the four sample sites. Source track data is reported as the percent identified for each source from the total numbers of E. coli that were source-tracked from each sample. - Data Summary 3/18/12 - Dr. Geof Smith (See website for complete sampling results and data)

<http://www.pdnwc.org/>

4. Brief summary of storm water activities you plan to undertake during the next reporting cycle (including an implementation schedule).

Provide a short summary based on your existing Storm Water Management Program implementation schedule. If any changes are planned from the original descriptions provided in the application or previous reports, they should be summarized in Item 5. The activities for the next reporting cycle will stay the same. We plan to adopt municipal code revisions and prepare for the upcoming permit. For the next reporting cycle, we plan to add additional weather stations and begin a basic storm water monitoring program and flood hazard warning system. Continued efforts with GIS establishing a comprehensive database that documents storm drainage facilities and infrastructure is another important activity that is ongoing. City staff have been meeting with other MS4 managers within the urbanized area to discuss and prepare for the next Lower Rio Grande permit. Possible collaboration on program elements such as storm water sampling and education and outreach have been discussed. City staff will continue to meet with other MS4 managers on a monthly basis to discuss options for watershed based planning.

5. Proposed changes to the program area.

a. Changes to BMPs

b. Changes to Measurable Goals

See revisions indicated in following MCM sections.

6. Statement, if not included in previous reports or application that you are relying on another government entity to satisfy some of your permit obligations (if applicable)

Another entity may be relied on to perform requirements of your MS4 permit. However, as the permittee, you remain liable for compliance with the terms of the permit if the requirements are not fulfilled. You must complete this Annual Report for the geographic areas covered under your permit, for all program areas, even if one or more program elements is being performed by another entity. (However, if you are performing a program element for another permittee, you do not need to include that activity in this report.)

The City of Las Cruces will continue being a major stakeholder with the Paso del Norte Watershed Council in the areas of water quality monitoring/sampling and applying best management practices, education, outreach, and watershed health management.

7. A summary of the number and nature of inspections and formal enforcement actions performed.

Site-specific information may also be included, but is not required. (Information recorded under Item 1.c, Measurable Goals, does not need to be repeated here.)

See Appendix D.

8. Documentation on compliance with public access, review, and comment provision of Part 1.3 of the permit.

Describe when and how the public had the opportunity to review and comment on the Annual Report and Storm Water Management Program. Summarize any public comments and your response to those comments.

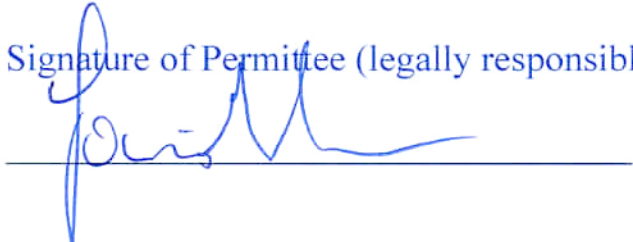
A public notice will be sent out to two media sources as well as be posted on the storm water web page for viewing. Comments are encouraged.

http://www.las-cruces.org/departments/public-works/project-development/storm_water

Signature of Permittee

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 of Permittee (legally responsible person)

A handwritten signature in blue ink, appearing to read "Louis Grijalva", is written over a horizontal blue line.

Date Signed:

June 6, 2016

Name & Title (printed):
Louis Grijalva, P.E.
Interim Public Works Director
City of Las Cruces

MCM #1. Public Education and Outreach

BMP 1.1 Revise and Update Materials as Needed

New for this permit cycle are storm drain markers. These UV weather resistant markers will be applied to storm drain catch basins around the city. The markers let citizens know that it is a violation of the City's storm water ordinance to dump anything down a storm drain.



Figure 4: Updated storm drain marker symbols inform citizens of codes violations for dumping.

BMP 1.2 Community Events

The City of Las Cruces participated in the Water Festival, April 14, 2016 to promote storm water pollution prevention and watershed education for 3rd and 4th graders. Students learned about water resources topics with hands-on interactive booths. Attendance was approximately 600 students. An interactive watershed model and a floodplain riverine model were used to illustrate how storm water travels.



Figure 5: CLC staff model storm water and watershed activities to students.

BMP 1.3 Billboard and Public Service Announcements

No billboards or PSAs were implemented during this permit cycle.

BMP 1.4 Schedule school presentations as feasible

See BMP 1.2.

BMP 1.5 Distribute Brochures with Business Registration

Brochures with BMPs for commercial businesses are included with registration.

BMP 1.6 SWPPP Workshop for Codes Enforcement Officers

No training was provided during this permit cycle.

BMP 1.7 Education Material Dispenser at City Hall (Public Works)

Brochures and educational materials are provided at the reception area to Public Works on the second floor of City Hall. 700 North Main Street.

BMP 1.8 DVD for Employee Training and Public Education

Several DVD videos are used for training municipal employees, school children and the general public. Videos titles include: *Ground Control, SWPPP for Construction Sites* by Excal Visual, *From Sea to Summit, A Journey through the Watershed* by Surfrider Foundation and *After the Storm* by the Weather Channel.

BMP 1.9 Watershed-Based Education for Potential Bacteria Sources/Use Questionnaires at Presentations/Collect and Monitor Floatables

The Paso del Norte Watershed Council produced a factsheet titled, Bacteria in the Rio Grande Basin which is used to educate the public about E. coli in the watershed. This factsheet is given out at public events and is made available at City Hall, Public Works Department.

MCM #2 Public Participation and involvement

BMP 2.1 Public Notices

Advertisements were placed in the Las Cruces Sun News and The Las Cruces Bulletin for a 60-day comment period concerning the revised Storm Water Management Plan. The City's Storm Water Management Plan (NOI) revisions and Monitoring Assessment Plan are available on the City's storm water website at the following address: <http://www.las-cruces.org/stormwater>

The Annual Report was not presented to the Las Cruces City Council during this cycle.

BMP 2.2 and 2.3 City of Las Cruces Public Works, Engineering Services Storm Water Web Page and Report Line

The Storm Water Pollution Prevention homepage was developed to give citizens access to important documents, such as the SWMP, the storm water ordinance, the storm water design standards and construction site compliance information, and a citizen report line.

<http://www.las-cruces.org/departments/public-works/project-development/stormwater>

BMP 2.4 Great American Cleanup April 9, 2016

Keep America Beautiful Great American Cleanup is a community event held every year. Other clean-up events and programs include: Trek for Trash, Toss no Mas and Adopt-A-Spot. More information about these city community clean-up events and programs can be found at the following web site address: <http://www.las-cruces.org/departments/parks-and-recreation/parks/community-wellness/keep-las-cruces-beautiful>



MCM #3. Illicit Discharge Detection and Elimination

BMP 3.1 and 3.2 Map outfalls, storm drains, arroyos, laterals and other storm water facilities that transport or temporarily hold storm water.

The City of Las Cruces Public Works Project Development section is working with a consultant to develop an updated, geospatially linked storm water database. This database will integrate with the City's new asset management system Lucity™, which will house essential information of storm drains' such as physical locations, types, sizes, and depths.

As the City maps the storm water infrastructure within City limits, City engineers can perform more accurate hydraulic modeling and analysis of the existing system and plan future storm water and street construction to avoid flooding. Additionally, this data will enable the City Project Development Storm Water Team to more precisely monitor and inspect the existing storm water system, which must be maintained to ensure the City's compliance with the Environmental Protection Agency's Municipal Separate Storm Sewer System (MS4) permit.

The first phase of the data collection process encompassed what is called the Frenger Basin.

The boundaries of this basin extend from University Avenue on the south to Montana Avenue on the north. The eastern boundary is delineated by Interstate 25 to just west of Main Street. Now that

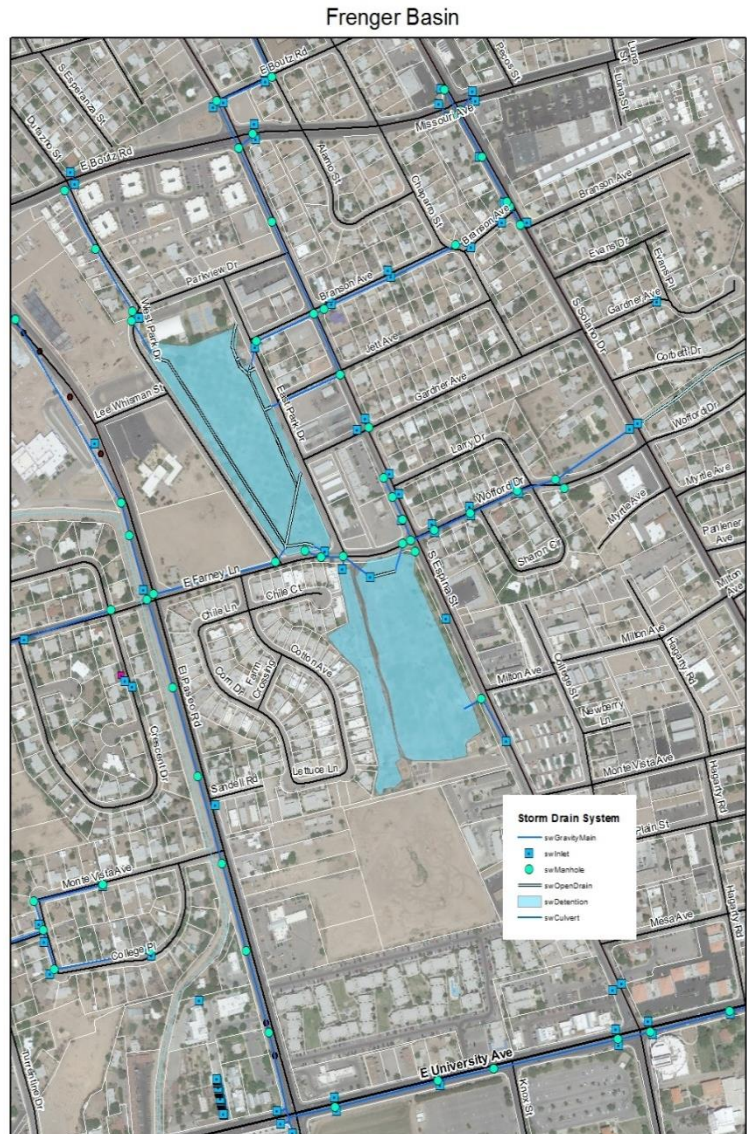


Figure 6: Frenger Basin Map

this first phase has been completed, Phase 2 will extend to Lohman Avenue to the north under contract with the same consultant.

Storm water is a powerful and often unexpected force, but with the City's new Lucity™ integrated, GIS enabled storm water database, the City of Las Cruces will continue to protect lives, property, and essential infrastructure, no matter the weather.

BMP 3.3 Ordinance to remove/correct illicit discharges

The City's Utilities, Environmental Services section manage four programs that include: regulatory compliance, environmental programs and projects, laboratory services, and pollution prevention. Industrial Inspectors that are responsible for detecting and correcting illicit discharges work in the pollution prevention program area. The pollution prevention team includes backflow prevention, grease interceptor, and industrial pretreatment programs.

BMP 3.4 Accept Hazardous Waste at the City's Recycling Center

The City accepts household hazardous waste at its Recycling Center which is located at 2855 W. Amador Avenue. <http://www.scswa.net/household-hazardous-waste-hhw/>

BMP 3.5 Design and Construct New Sewers as Funds Allow

A septic tank ID and prioritization study was done in 2007 in order to establish a listing of all septic tanks still in use within the City. The City of Las Cruces identified an estimated 1880 parcels located within the existing City limits that are on septic tank systems and not served by the City's wastewater collection and treatment system. The City is using GIS software to record, track and update septic system information.

MCM #4. Construction Site Storm Water Runoff Control

BMP 4.1 Review erosion and sediment control plans

The City of Las Cruces requires an erosion control plan for construction activities to adhere to the construction general permit. The erosion control plan is a required under City Design Standards (Sec. 32-104. Specific analysis requirements section D.) City Ordinance, Article III, Storm Water Management, Sec. 34-125 Purpose,

BMP 4.2 and 4.3 Inspection and Enforcement/Public Reports of Construction Problems

The City of Las Cruces recently assigned a Codes Enforcement Officer specifically to inspect and enforce the City's Erosion and Dust ordinance for construction activity. Inspection log books for field observations and for enforcement escalation procedures were created to track construction site storm water compliance. Citizen calls concerning erosion, sediment, dust, and any storm water pollution problems are handled by a visit from the Codes Enforcement Officer and the MS4 Storm Water Managing Technician. The City's website also has a report line listed on the storm water website under resources/construction. <http://www.las-cruces.org/departments/community-development/building-and-development-services/construction-pollution-prevention>

MCM #5. Post-Construction Storm Water Management in New Development and Redevelopment

BMP 5.1 Structural BMPs

The Las Cruces Constructed Wetlands project in collaboration with the Army Corps of Engineers. Under the authority of Section 1135 of the Water Resources Development Act of 1986, the U.S. Army Corps of Engineers (Corps) with collaboration with the City of Las Cruces finished the 1st phase of the Las Cruces Dam Environmental Restoration Project in the spring of 2014. The total Project area includes the restoration of 72 acres of Chihuahuan Desert Arroyo Riparian habitat, 3.6 acres of playa habitat, 6.35 acres of Cottonwood-Willow Riparian habitat, and the construction of two one-acre emergent wetland cells. The proposed action also includes the implementation of recreational features such as new trail systems, improvements to existing trails, pedestrian crossings, interpretative signage, and wildlife viewing blinds. The City of Las Cruces Utilities Department provided reclaimed wastewater infrastructure (Purple pipe) for supplementing the wetland and riparian areas. Without this infrastructure the constructed wetland could not function year round in the arid southwest. The LC Dam restoration project meets the criteria of multi-use, open space while incorporating many green infrastructure methods. The goal is to slow down storm water runoff from major arroyo systems, the Alameda and the North & South Las Cruces Arroyos. Once the wetland and riparian areas are established they will function as both a filter and sediment trap that will help mitigate storm water pollution and also prevent sediment transfer to the dam.

BMP 5.2 Open Space Program

(Information gathered from the Las Cruces Park & Recreation Department, Parks & Recreation Master Plan & Park Impact Fee Update)

The City of Las Cruces' vision is to establish a community which is supportive and pursues the furtherance of the quality of life residents and visitors envision and desire. In support of this vision, the City should endeavor to create a built environment which is compatible with and communicates sensitivity to the natural environment. The design and layout of our City should:

- Effectively promote compatibility among differing land uses;
- Preserve desirable vistas/views and open space as appropriate;
- Allow for efficient travel through the use of adequate transportation routes;
- Communicate through building and landscape design, aesthetic quality and established Southwest architectural vernacular and heritage, whether through traditional or contemporary expressions;
- Promote the creation of safe neighborhoods that offer affordable housing opportunities for all socio-economic groups;

- Convey a unified planning strategy with adjacent communities; and finally,
- Provide opportunities for growth in all vital economic sectors of our community in order to
- sustain the types of services needed to preserve and strengthen community vitality.

The 2005 Strategic Plan identified 25 core goals in five major categories of focus including affordable housing, economic development, infrastructure, natural resources and public safety. Specific objectives included establishing a regional open space authority, developing a regional open space master plan, updating the parks, recreation and open space master plan, and assessing opportunities to preserve open space for informal, recreational, aesthetical, agricultural and natural uses.

A Vision: Open Space and Trail System for Doña Ana County (2005)

Prepared by the Citizens’ Task Force for Open Space Preservation, this Vision document outlines an interconnected open space and trail system for Doña Ana County designed to conserve and enhance the natural and cultural heritage of the region. The Vision describes the components of the open space and trail system and provides implementation recommendations. To the extent possible, the Vision document builds upon existing protected areas, planned projects or agency plans that have already been approved.

BMP 5.3 Include Evaluation of Water Quality in Design Contracts

No evaluation of water quality in design contracts were implemented during this reporting cycle.

BMP 5.4 and 5.5 Continue Operation and Maintenance Program/LID Conference

Water quality evaluations have not yet been implemented into the design contracts. The operation and maintenance program is ongoing. An LID workshop titled *Low-Impact Development, Green Infrastructure & Rainwater Harvesting* was given on December 2nd and 3rd, 2016.

MCM #6. Pollution Prevention/Good Housekeeping for Municipal Operations

BMP 6.1 Implement Good Housekeeping Procedures/Train Employees in Good Housekeeping Procedures

Safety and Good housekeeping procedures are handled by the Risk Management Section.
<http://www.las-cruces.org/departments/risk-management>

BMP 6.2 Hazard Communication Program

Currently, each department within the City tracks their employee training history and notifies the employee when it is time to renew certifications or take refresher courses. **Training for is employees are tracked using Munis software by Tyler technologies.**

BMP 6.3 Municipal Training

Training is offered to municipal employees on an as needed basis. For example, when the new 2012 Construction General Permit was released in February, training was given to employees to notify them of changes and new regulatory requirements. Training will also be offered to municipal employees involved with construction storm water compliance as well as any changes or revisions to the City's storm water ordinance.

BMP 6.4 Require City applicators to be appropriately licensed

All City workers that apply pesticides, fertilizers, and herbicides are licensed by the New Mexico Department of Agriculture (NMDA) Pesticide Compliance Section. Parks & Recreation does not track the locations and amount of pesticides, herbicides, and fertilizers used. Only the amounts purchased and used are documented. Ideally, locations and quantity of chemicals should be documented using existing GIS technology for data input and reporting.

Appendix A: Recycling Data

<http://www.scswa.net/>

Curbside recycling for CLC in 2015 generated 6,896 tons of single-stream recyclables.

Storm Water Pollution Prevention Plan

South Central Solid Waste Authority (SCSWA) owns and operates the Amador Avenue Transfer Station (Transfer Station) and operates the Amador Recycling Center (Recycling Center). The operations at both of these facilities are considered industrial activities that have the potential to impact storm water quality. Therefore, these facilities are required to have a National Pollutant Discharge Elimination System (NPDES) permit. SCSWA has applied for coverage under the Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activity (MSGP) (effective June 4, 2015). This Storm Water Pollution Prevention Plan (SWPPP) is required by the MSGP and its purpose is to describe SCSWA's program for complying with all of the requirements in the MSGP.

Storm Water Pollution Prevention Plan for Amador Avenue Transfer Station is available [here](#).

Storm Water Pollution Prevention Plan for Corralitos Landfill is available [here](#).

Storm Water Pollution Prevention Plan for County Collection/Convenience Centers is available [here](#).

Appendix B: Great American Cleanup Data

<http://www.las-cruces.org/departments/parks-and-recreation/parks/community-wellness/keep-las-cruces-beautiful>



Figure 7: KLCB Clean-Up Events 3 Year Comparison

Appendix C: Water Conservation

<http://www.las-cruces.org/departments/utilities/water-conservation>

Las Cruces Utilities (LCU) replaced the old landscaping with a new demonstration garden utilizing low water use plants, trees, and turf. The demonstration garden also includes smart irrigation controllers to increase the efficiency of applied water. CLC Water Conservation staff have been collaborating with CLC Parks Department staff to help them meet CLC water restrictions within CLC parks and medians. In addition, irrigation management training has been provided to Parks Department personnel and adjustments have been made to some irrigation schedules, helping to reduce evapotranspiration. LCU has also enhanced its enforcement of the CLC water conservation ordinance with LCU water conservation interns that investigate tips provided on the water waste hotline.

LCU has seen changes from the 2013 baseline of 1,128,778,677 gallons of non-revenue water. The current non-revenue water use has decreased to 942,475,424 gallons, translating into a 19.1% decrease. The CLC hydrant flushing policy now requires metering where previously it was estimated by time and estimated flow. Additional metering from well start-up and shut-down flushing will be implemented during 2016 to further reduce non-revenue water. Meter audits continue to find and replace meters that are found to be registering inaccurately.

LCU will be taking its first Advanced Metering Infrastructure (AMI) project to the LCU Board at the June meeting for approval. This AMI Pilot Project Fixed Network will be in the East Mesa region of Las Cruces. LCU will be installing approximately 1,600 new water meters with Encoder Receiver Transmitters (ERTs). The data collected by the ERTs will be relayed via repeaters that will send the data to an information cloud. LCU will be able to download the data and immediately bill the customers. In addition, the analytics software can be used to determine if the customer has a leak and follow up with the customer to get it corrected. LCU will also be acquiring Mesa Development Water System and release a contract to install approximately 300 all new water meters with ERTs. These new meters and ERTs will be able to send data to the fixed network of the pilot area as well.

Appendix D: Storm Water Reporting Data

The following graph illustrates the violations of the City’s storm water ordinance (Article III, Storm Water Management, Sec. 34-125) during the reporting year.

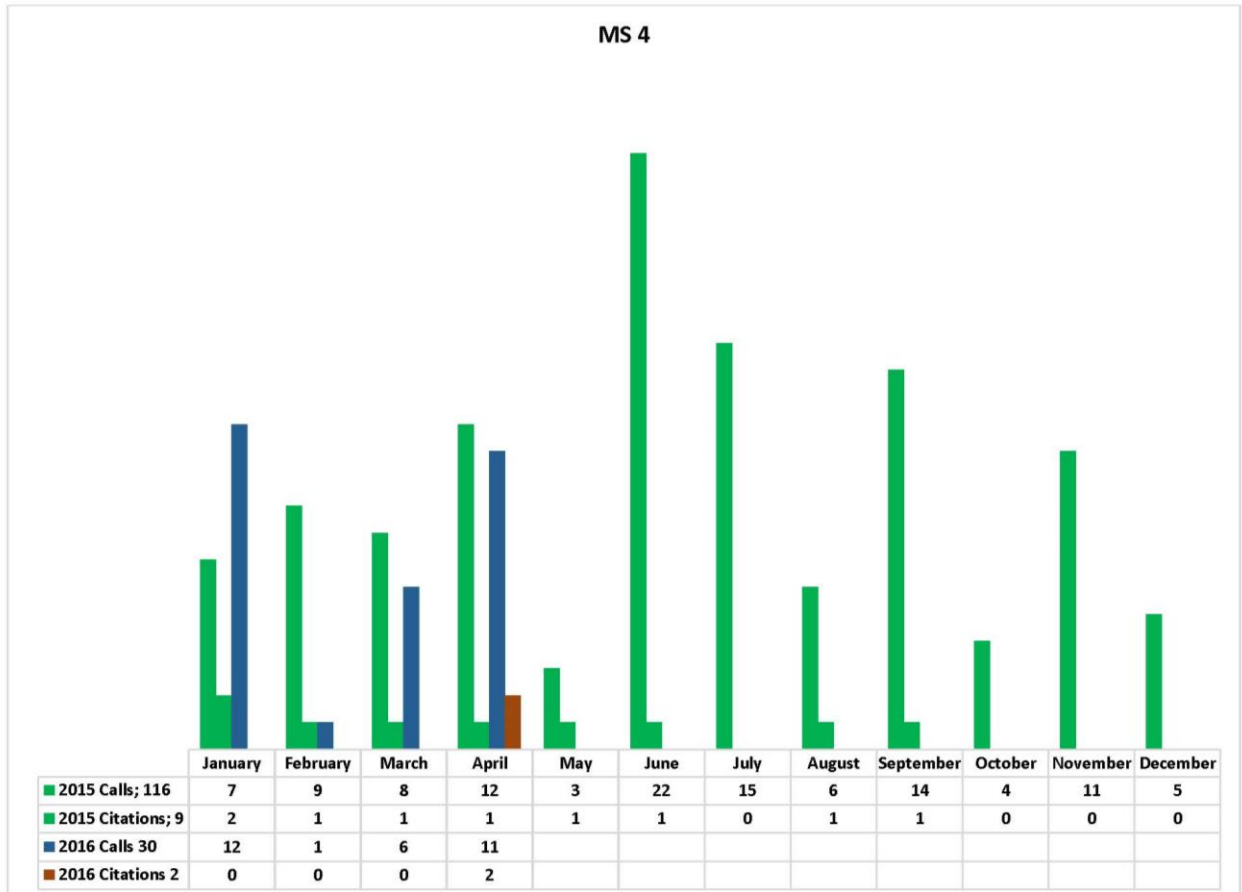


Figure 8: MS4 Calls

The following graph illustrates the violations of the City’s storm water ordinance (Article III, Storm Water Management, Sec. 34-125) over a three-year period.

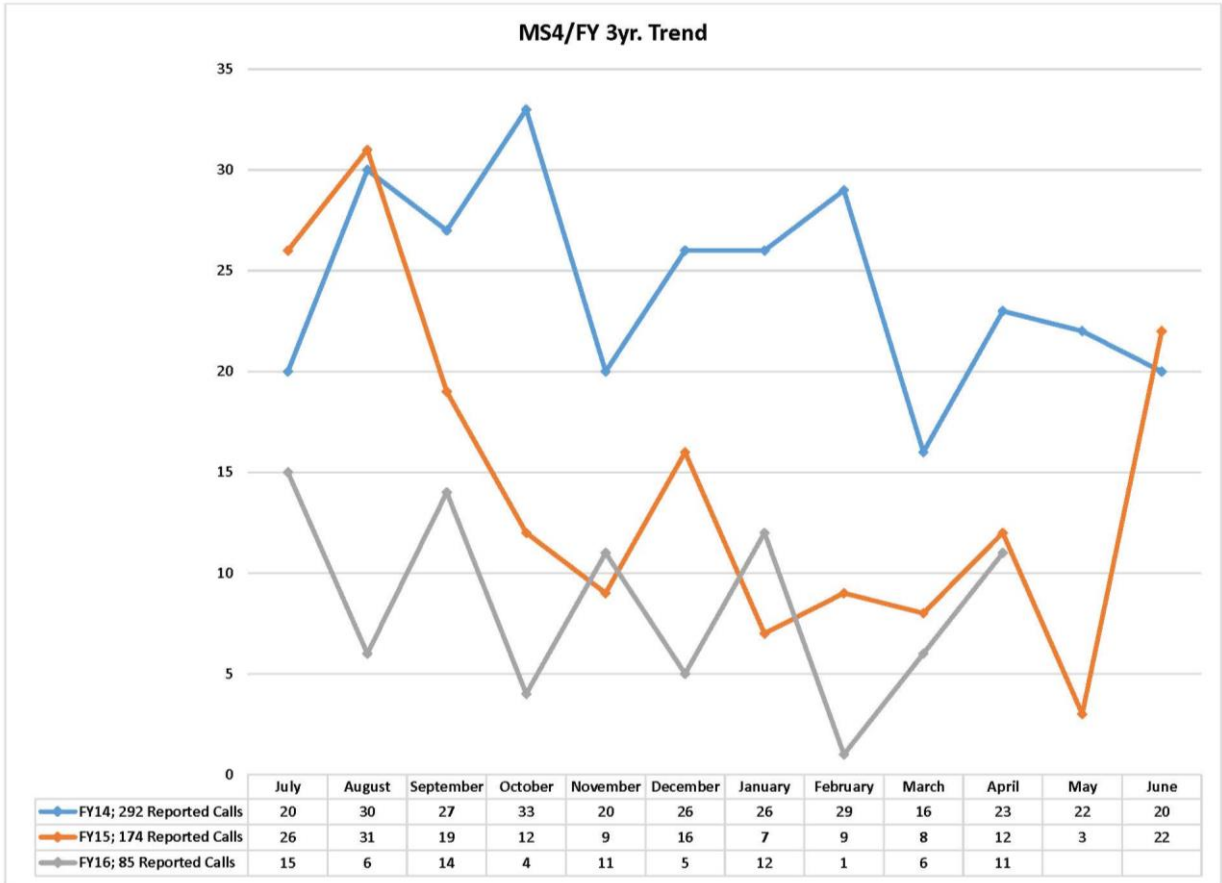


Figure 9: MS4 3 Year Trend for code violations

Appendix E: Media Distribution

The following graph illustrates the media distribution of educational and outreach materials from 2012 to 2016.

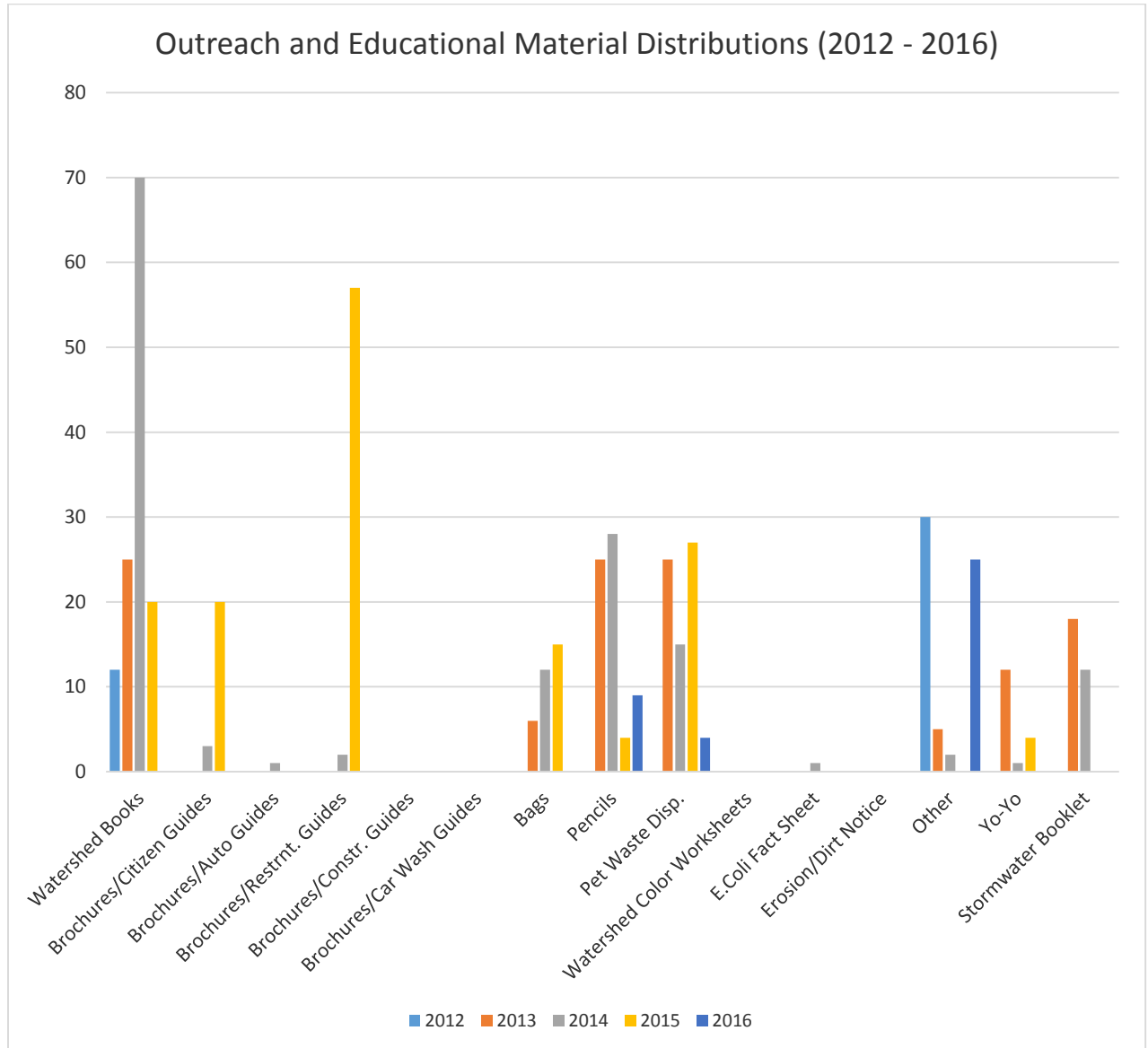


Figure 10: Outreach and educational material from 2012 to 2016

The following graph illustrates the media distribution of educational and outreach materials between July 1, 2015 and June 30, 2016.

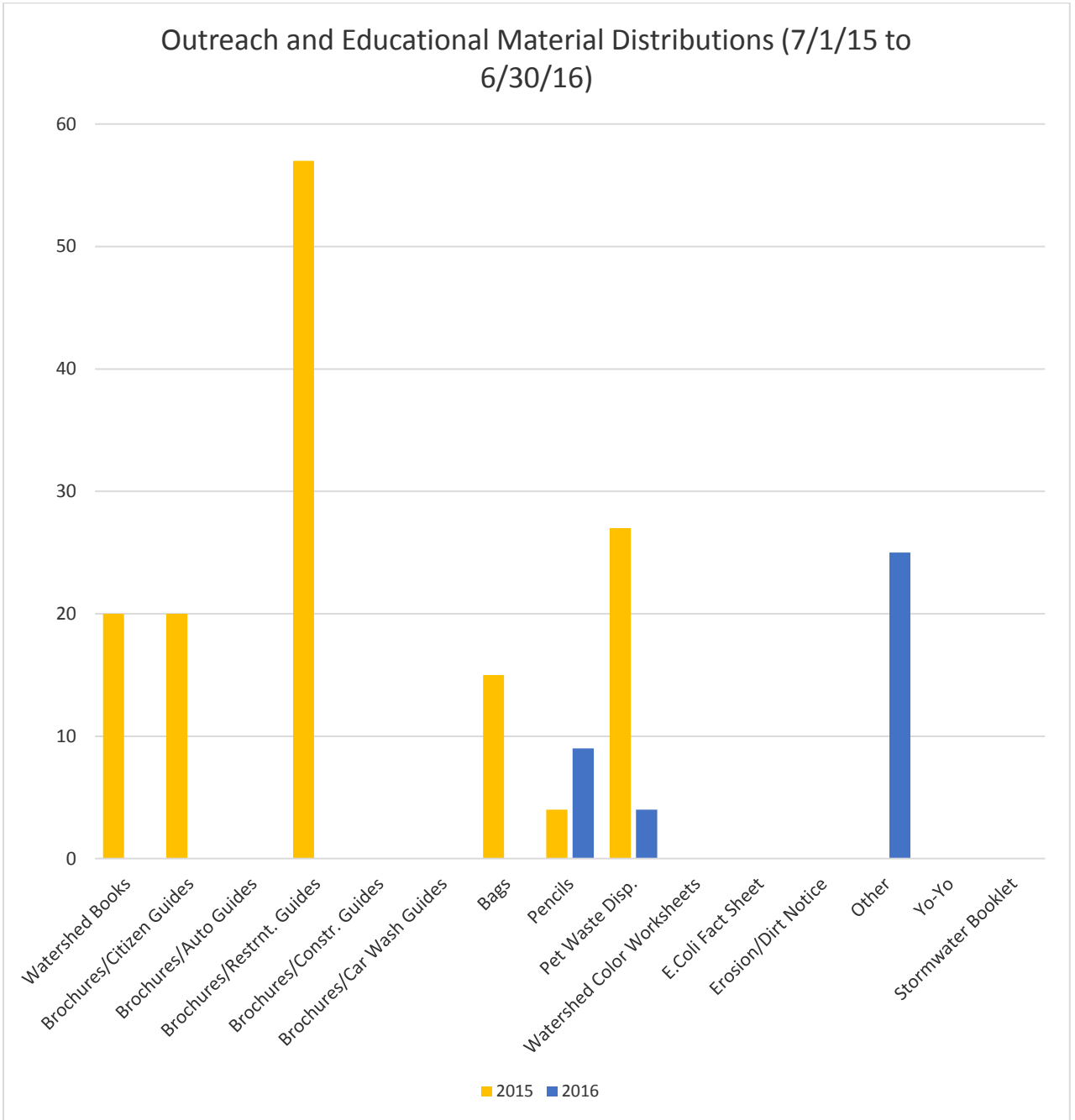


Figure 11: Outreach and educational material distributions from July 1, 2015 to June 30, 2016

Appendix F: Low Impact Development, GI, and Rainwater Harvesting Workshop

**Low-Impact Development,
Green Infrastructure & Rainwater Harvesting Workshop**

Workshop for Engineers, Environmental Staff, Landscapers, Developers, and Planners

Learn about Low-Impact Development, Green Infrastructure, and Rainwater Harvesting in Las Cruces and Doña Ana County as viable stormwater solutions in the Desert Southwest!

DECEMBER 2 & 3, 2015
Wednesday 9:00 am – 4:00 pm
Thursday 9:00 am – 3:00 pm

Thomas Branigan Memorial Library
200 E. Picacho Ave., Las Cruces, NM
Roadrunner Meeting Room (2nd floor)

Registration is FREE and lunch is provided both days!



Certified Floodplain Managers receive 12 Continuing Education Credits!

Limited space is available.

Registration is required. Contact:

Claire Catlett, Stream Dynamics, Inc
claire@streamdynamics.us, 575.654.1350
-OR-
Lisa LaRocque, City of Las Cruces
llarocque@las-cruces.org, 575.541.2177



Native bunch grass
Water level
Existing Curb +6" w/Curb Cut
Street Level
4-8" Rip Rap sediment trap
2"-4" Mulch Layer
6' Min
1' 1/2"
1' 1/2"
4' Min Pedestrian Access

Diagrams from Watershed Management Group Green Infrastructure Manual



Figure 12: Low-Impact Development flyer

Appendix G: MS4 Cooperative Group Meetings

In preparation for the new NPDES MS4 permit for the lower Rio Grande, the City of Las Cruces has been meeting once a month with other MS4 entities to discuss possible shared program requirements. The following MS4s have been in attendance: New Mexico State University, the City of Las Cruces, the New Mexico Department of Transportation, Doña Ana County, the City of Anthony, and the City of Sunland Park.

Program components such as storm water quality sampling and education and outreach are areas that may benefit from a shared collaborative approach. CLC staff have also attended meetings in the Middle Rio Grande Albuquerque area to see how MS4s are handling their shared permit responsibilities.

Lower Rio Grande MS4s-Contacts:

- a) Las Cruces/El Paso MS4s
 - i) Dona Ana County
 - (1) Renee Molina 575-525-6170, renem@donaanacounty.org
 - (2) vacant – 575-647-7142
 - ii) Las Cruces
 - (1) Peter Bennett – 575-528-3075, pbennett@las-cruces.org
 - (2) Tony Trevino – 575-528-3168, ttrevino@las-cruces.org
 - iii) Anthony – Diana Trujillo, Mayor 575-618-7297
 - iv) Santa Teresa
 - v) Sunland Park
 - vi) NMDOT D1
 - (1) Leo Montoya III 575-640-6806 Leandro.MontoyaIII@state.nm.us
 - (2) Gene Paulk 575-544-6554 Gene.Paulk@state.nm.us
 - vii) Town of Mesilla
 - viii) NMSU
 - (1) Primary: Jack Kirby, 575-646-7102, jfkirby@nmsu.edu
 - (2) Secondary: Polly Wagner, 575-6466899, pwagner@nmsu.edu
 - ix) EBID - Zack Libbin 575-526-6671, zlibbin@ebid-nm.org