Patsy Christie
Director
Planning And Community
Development Division

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May 23, 2012

Jamal Solaimanian, P.E., Ph.D.

Water Division General Permit Section Supervisor,
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118-5317

Re: Small MS4 General Permit Annual Report – ARR040019

Dear Mr. Solaimanian:

Enclosed is the City of Springdale's NPDES Phase II Small MS4 Annual Report for the period January 1, 2011 thru December 31, 2011. We are pleased to report that the City of Springdale is in compliance with the permit conditions as per the 2010 -2014 permit period. The Stormwater Management Plan has been reviewed and no revisions are required at this time.

If you have any questions please give me a call.

Sincerely,

for Patsy Christie
Planning and Community Development Director

cc: Mayor Doug Sprouse

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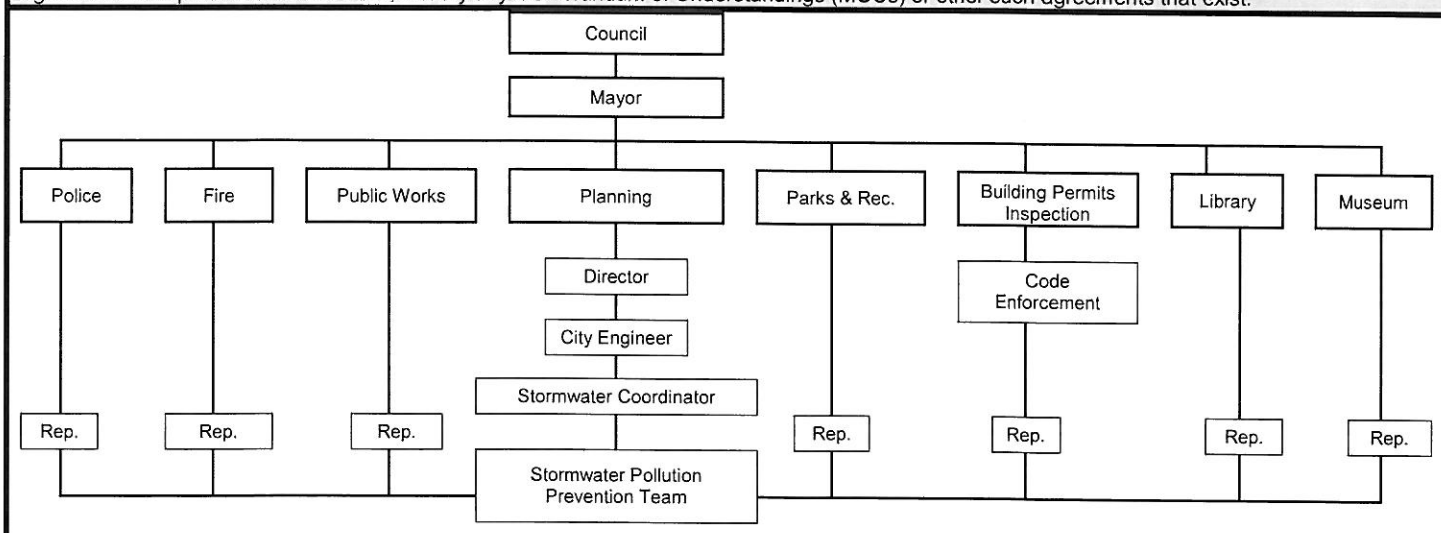
# NPDES Small MS4 General Permit (ARR040000) Annual Reporting Form

Instructions for completing this form:

- ARR040000 requires that this form be used when submitting annual reports. You may request approval to use your own reporting format.
- Annual Reports are due annually on or before June 1st.
- Complete the form and sign and date the certification statement below.
- If more space is needed than is provided, identify within the provided space that Attachment A, B, C, etc. has been attached.
- If an item of the form is not applicable for your program (such as street sweeping), fill in N/A in the space provided.
- Don't include attachments such as brochures, newspaper clips, sign-in sheets, etc. related to your program with this form. You only need to summarize these within this report. These records must be filed and will be needed during program audits.
- Please attach results of monitoring required for TMDL or impaired streams separately from this form.
- When complete, submit this Annual Report form to the following address:
  ADEQ
  Water Division
  General Permits Section
  5301 Northshore Drive
  North Little Rock, AR 72118
  Water-permit-application@adeq.state.ar.us

| | | |
|---|---|---|
| Small MS4 Annual Report for Year: 2011 | | |
| ADEQ Permit Tracking Number: ARR040019, AFIN 88-00846 | | |
| Name of MS4: The City of Springdale | | |
| Primary Contact: Patsy Christie | Title: Director of Planning & Community Development | |
| Mailing Address: 201 Spring Street | | |
| City: Springdale | Zip Code: 72764 | County: Washington |
| Telephone Number: 479-750-8550 | Email Address: pchristie@springdalear.gov | |

Include or attach a Table of Organization. Indicate who (name and contact information) is responsible for overall management and implementation of your program, and if different, each minimum control measure of your program. Identify how development and implementation across multiple positions, agencies and departments occur. Also, identify any Memorandum of Understandings (MOUs) or other such agreements that exist.




Patsy Christie, the Planning Department Director has ultimate responsibility for developing and administering the stormwater program. Development and implementation across multiple departments is handled through the Mayor and Department Directors staff meetings. Approved stormwater plans are carried out by selected department representatives. The Stormwater Coordinator is a member of the Planning Department. The position performs construction pre-cons, site inspections, IDDE searches, investigations, determines elimination sequence and adds all info to data base. The Stormwater Pollution Prevention Team activities are coordinated by the Stormwater Coordinator. The Pollution Prevention Team was organized in 9-09 and made up of representatives of all departments as shown above. The Team is in the 2nd year of the development stage with a strong need to become more knowledgeable of stormwater issues of their department as well as awareness of overall knowledge of stormwater requirements throughout the City. The potential result would be the department stormwater representative being ultimately responsible to advance the knowledge of the department with crew specific training and work site pollution prevention measures as needed. Having stormwater certified representatives in significant departments has been considered to perform educational duties on a frequent basis to help overcome the less effective annual training needs held for the whole department in a group.
Springdale and 14 two county MS4s has a contract with the University of Arkansas Extension Service and a MOU with the NWA Regional Planning

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Commission to provide Public Outreach and Public Involvement measureable goals in a mass media form to schools, businesses, organizations and developing and handling large stormwater conventions and gatherings. Additional Public Outreach and Public Involvement needs of the City are recognized and is planned to be part of the City Library and Museum. Some of the public educational hurdles for the City are large numbers of Hispanic, Marshallese and other lower income residences that may not participate in educational methods as described above. This fallacy may be overcome by working towards a boarder base City employee stormwater education level knowing many of these employees live in the neighborhoods and associate with neighbors and POAs.

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 gather and evaluate 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 possibility of fine and imprisonment for knowing violations.

Print Name: Doug Sprouse

Print Title: Mayor

Signature: Doug Sprouse

Date: 5/17/12

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**PUBLIC EDUCATION & OUTREACH**
**Estimate Your Permit Area's Total Population: 44,397**

| BMP (mechanism) & Responsible Party | Measurable Goal | Theme or Message | Target Audience | % of Target Audience Reached & Total # of people reached | Summary of Results | Effective (Yes or No) |
|---|---|---|---|---|---|---|
| Develop and distribute educational materials<br>NWA Regional Stormwater Education Program | Provide resource materials to help residents understand and implement stormwater management and pollution prevention BMPs | Individual decisions and actions can combine to improve and protect regional water resources | Urbanized area residents | 2.3% of target audience<br>Materials distributed to 507 residents | Continued distributing electronic teacher resource newsletter along with other printed materials. | Yes |
| Develop and distribute mass media messages<br>NWA Regional Stormwater Education Program | Promote stormwater management and pollution prevention BMPs through newspaper, radio, television and water bills | Low impact development landscaping to prevent stormwater pollution, home BMPs and rain barrels to capture runoff for better infiltration | Urbanized area residents | 43.4% of target audience<br>9,632+ circulation/ audience | The Blue Pathways series was featured in AWAG's Spring 2011 newsletter. radio interviews on composting and the LakeSmart program were featured on the *Ozarks at Large* on KUAF, and coverage of the T.G. Smith rain barrel workshop was featured on KNWA news | Yes |
| Displays and exhibits<br>NWA Regional Stormwater Education Program | Develop and establish unmanned/staffed booth educational displays | Home landscape/HHW BMPs prevent stormwater pollution | Urbanized area residents | <1% of target audience<br>Visited with 13 people at staffed exhibits | A display was developed and used in conjunction with Secchi Day on Beaver Lake | Yes |
| Conduct hands-on youth stormwater quality education programs<br>NWA Regional Stormwater Ed. Program | Engage students in experiential learning, using stormwater and pollution prevention concepts to meet state Science frameworks | As cities develop, stormwater can carry pollutants to nearby water resources - everyone has a role in stormwater management and pollution prevention | Urbanized area school-age youth | 4.2% of target audience<br>934 youth participants | A total of 10 school, 4-H and summer camp programs were conducted - student and teacher evaluations indicated an effective program delivery and knowledge gained | Yes |
| Conduct stormwater education programs for adult audiences<br>NWA Regional Stormwater Education Program<br>NWA Regional Stormwater Ed. Program | Teach adult residents about urban stormwater dynamics and how to implement runoff management and pollution prevention BMPs | As cities develop, stormwater can carry pollutants to nearby water resources - urban residents' decisions and actions are key for effective stormwater management and pollution prevention | Municipal, civic, construction, gardening and environmental adult audiences | <1% of target audience<br>190 adult participants | 16 Programs were conducted including presentations at meetings, hands-on workshops and regional conferences | Yes |
| Springdale Public Works "adopt a street" program | To keep the street and right-of-way free of trash and debris | Adopt a Street | Urbanized area residents | unknown | During 2011 only 1 street has an adoption group in the initiation year. The street has been kept trash and debris free. | Yes |

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## PUBLIC INVOLVEMENT/PARTICIPATION

| BMP (Activity) & Responsible Party | Measurable Goal | Theme or Message | Target Audience | Estimate of People Participated | Summary of Results | Effective (Yes or No) |
|---|---|---|---|---|---|---|
| Conduct public participation/involvement events<br>NWA Regional Stormwater Education Program | Engage NWA urban residents in picking up litter and removing hazardous materials from sites | Using community volunteers not only directly enhances water quality but also watershed stewardship | Urbanized area residents and businesses | 471 Residents and business operators recycled electronics, while 312 5th grade students picked up trash at Lake Springdale Park | Springdale's participation contributed to the collection and recycling of 12 tractor trailer loads of e-waste | Yes |
| Train and Utilize Volunteer Educators<br>NWA Regional Stormwater Education Program | "Train-the-trainer" processes will be used to engage public volunteers and educators in teaching stormwater and pollution prevention | Training community volunteers on stormwater dynamics and pollution prevention BMPs expands education and outreach impacts as they, in turn, help educate other urbanized area residents | Urbanized area residents and civic and environmental organizations | 4 Residents participated in the 2011 Washington County Master Gardner Training and 2 volunteers helped conduct rain barrel workshops | Springdale residents were educated on stormwater pollution prevention BMPs and will now help educate others | Yes |
| Engage urban residents in stormwater policy development<br>NWA Regional Stormwater Education Program | Conduct public policy education meetings and garner input | Understand the changes to ADEQ's construction permit | Developers, contractors, engineers and municipal staff | 3 Participants | An ADEQ public meeting on the new construction stormwater permit was hosted in Fayetteville City Hall | Yes |
| Conduct pre-con sessions with new development contractors<br>City of Springdale Planning Department | Review SWPPP for individual construction site | Show DVD "Ground Control" SWPP for Construction Sites, Discuss pertinent requirements for individual sites, finalize grading permits and site personnel certifications, inspect installed site SWPPP control measures | General Contractors, engineers and contractor subs. | 60 Participants during 2011 | Springdale construction site contractors were educated on stormwater pollution prevention BMPs designed for the site and will now help educate others | Yes |

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## ILLICIT DISCHARGE DETECTION & ELIMINATION (IDDE)

| BMP & Responsible Party | Measurable Goal | Completed (Yes or No) | Cite Local Code(s) Being Used (If available, web link for code(s)) | Summary of Results or Activities | Effective (Yes or No) |
|---|---|---|---|---|---|
| Ordinance or Other Regulatory Mechanism<br>Planning Department | Ordinance Chapter 107 SEC. 107.7 and SWMP IDDE1 - IDDE6 | Ordinance in place. SWMP IDDE1-6 has been completed. | Yes. Springdalear.gov. A stormwater website has been created within the City website. *springdalear.gov/planning/index_asp* | Parts of program have been in place for years. SWMP developed goals make the program more thorough and effective. | Yes |

| BMP & Responsible Party | Measurable Goal | Completed (Yes or No) | Summary of Activities or Updates | Effective (Yes or No) |
|---|---|---|---|---|
| Storm Sewer System Map<br>Planning Department | SWMP IDDE3 | No. Estimated at 98% complete. | An aerial map was created during the previous permit period. Some outfall locations and retention/detention basin locations have been added to the map and correlated to a spread sheet for dry weather screenings. Map est. at 98% complete. (SWMP IDDE5) Activities in 2012-2013 will combine adding outfall data, IDD data base info, GPS additional inlets, open drainage, and piping. | Yes |

| BMP & Responsible Party | Measurable Goal | Completed (Yes or No) | Summary of Activities or Updates | Effective (Yes or No) |
|---|---|---|---|---|
| IDDE Plan<br>Planning Department | SWMP IDDE3 | Yes | Ordinance Chapter 107 has been revised in many areas and SEC. 107.7 (IDDE) has been added to this ordinance awaiting City final approval. | Yes |

| BMP & Responsible Party | Measurable Goal | Completed (Yes or No) | # of Outfalls Screened | # of Dry-Weather Flows Identified | # Of Illicit Discharges: | | Effective (Yes or No) |
|---|---|---|---|---|---|---|---|
| | | | | | Identified* | Eliminated | |
| Dry-Weather Screening of Outfalls<br>**# of Outfalls Screened** 42<br>**Total # of Outfalls** Est. >60 | SWMP IDDE3 | No | 42 outfalls screened and all sites have GPS and formal administrative log system created. | all | 0 | 0 | Yes |
| Planning Department | | | | | 4 other IDDs identified not part of dry weather screening | 4 other IDDs eliminated not part of dry weather screening | |

| BMP & Responsible Party | Measurable Goal | Completed (Yes or No) | Summary of Activities or Updates | Effective (Yes or No) |
|---|---|---|---|---|
| Identification of allowable non-stormwater discharges<br>Planning Department | N/A | N/A | Allowable discharges have been identified in Ordinance Chapter 107 SEC. 107.7.<br>**See Attachment 1** | Yes |

*Include an attachment which provides schedules for elimination of illicit connections that have been identified but have yet to be eliminated

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## CONSTRUCTION SITE RUNOFF CONTROL

| BMP & Responsible Party | Measurable Goal | Completed (Yes or No) | Cite Local Code(s) Being Used (If available, web link for code(s)) | Summary of Results or Activities | Effective (Yes or No) |
|---|---|---|---|---|---|
| Ordinance or Other Regulatory Mechanism<br>Planning Department | Established in 1st permit. | Yes | The Stormwater Ordinance Chapter 107, Drainage Criteria Manual, Landscaping Ordinance Chapter 56. | The Stormwater Ordinance Chapter 107 was established in 2004. Ordinance has currently been reviewed and updated revisions including new requirements are awaiting Council approval. | Yes |

| BMP & Responsible Party | Measurable Goal | Completed (Yes or No) | Standards Being Used | Summary of Results or Activities | Effective (Yes or No) |
|---|---|---|---|---|---|
| Sediment and Erosion Control Requirements<br>Planning Department | Established in 1st permit. | Yes | The Stormwater Ordinance Chapter 107. Additionally the pre-construction meeting with the developer and contractors has been upgraded to reflect on all sediment and erosion control areas required for the project. A SWPPP for construction sites video is show at pre-cons. as an educational reminder of the regulations. | Requirements are established in the Stormwater Ordinance Chapter 107. Ordinance has been reviewed and updated revisions including new requirements are awaiting Council approval. | Yes |

| BMP & Responsible Party | Measurable Goal | Completed (Yes or No) | Complaints | | Summary of Results or Activities | Effective (Yes or No) |
|---|---|---|---|---|---|---|
| | | | Received | Followed-Up On | | |
| Complaint Process<br>Planning Department | Established in 1st permit. | Yes | 0 | 0 | Complaints concerning construction projects are typically rare. The complaints are most generally mud tracking and dust problems during arid summer months. Additionally construction is only 5-6 projects active at one time making frequent monitoring feasible.. Site drive by reviews are 2-3/week and before rain events. Issues are less frequent with apparent more knowledgeable construction crews. | Yes |

| BMP & Responsible Party | Measurable Goal | Completed (Yes or No) | # of Applicable Sites Requiring Plans | # of Plans Reviewed | Summary of Results or Activities | Effective (Yes or No) |
|---|---|---|---|---|---|---|
| Site Plan Review Procedures<br>Planning Department | Established in 1st permit. | Yes | 13 Large scale site plans requiring approved SWPPPs.<br>88 residential site permits issued | 13 site plans reviewed and issued grading permits. 88 residential site permits reviewed and issued small site grading permits. | This is a continuing system for sites 1 acre or more from the previous permit period. Additionally 88 residential sites of <1 acre required Grading Permits and these construction sites were monitored for violations. | Yes |

| BMP & | Measurable Goal | Completed | Site Inspections Performed | Summary of Results or Activities | Effective |
|---|---|---|---|---|---|

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| Responsible Party | | (Yes or No) | # of Applicable Sites | # Performed | Avg. Frequency | | (Yes or No) |
|---|---|---|---|---|---|---|---|
| Site Inspection Procedures<br>Planning Dept. | SWMP CSW4 - Conduct site inspections on an on going basis | Yes | 15 | 48 | Site inspections are documented once every 4 weeks or after each rain = > 0.5" | Site inspections are for both construction and stormwater. Requirements for construction maybe 2 or more times per week. Stormwater requirements are viewed at that time also however not documented unless there is noncompliance. | Yes |

| BMP & Responsible Party | Measurable Goal | Completed (Yes or No) | Violations | | Summary of Results or Activities | Effective (Yes or No) |
|---|---|---|---|---|---|---|
| | | | # of Violation Letters | # of Enforcement Actions | | |
| Enforcement Procedures<br>Planning Department | **See SWMP Measurable Goals <u>Attachment 2</u>** | Yes | 1 | 1 | One Large Scale Development site >1 acre was sited for violation of the LSD requirements, flood plain requirements and stormwater requirements and legal activities continued through 2011. Enforcement procedures are presently on going.<br>Typically violation letters or tickets are not necessary. Ignorance is a problem but a verbal warning instruction usually gets results. Mud tracking is often an issue. | Yes |

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## POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

| BMP & Responsible Party | Measurable Goal | Completed (Yes or No) | Cite Local Code(s) Being Used (If available, web link for code(s)) | Summary of Results or Activities | Effective (Yes or No) |
|---|---|---|---|---|---|
| Ordinance or Other Regulatory Mechanism<br>Planning Department for LSDs and subdivisions, Building Department for residential sites | SWMP DS1 - Review Codes and adopt revisions for more complete coverage.<br>**See SWMP Measurable Goals Attachment 3** | Yes | City Codes Stormwater Ordinance Chapter 107, Chapter 56 - Landscape and Buffers, Chapter 106 - Drainage Criteria Manual and Chapter 112 Subdivisions | Typically LSDs are buildings, parking lot and landscaping and all post construction needs are in place. Most residential sites are completed with landscaping and sod with hydro-mulching of back yards. There are situations that require special requirements such as Utility maintenance activities, excess dirt from one construction site added to another etc. | Yes |

| BMP & Responsible Party | Measurable Goal | Completed (Yes or No) | Structural and/or Non-Structural Standards Being Used | Summary of Results or Activities/Compliance rates with MS4 requirements | Effective (Yes or No) |
|---|---|---|---|---|---|
| Post-Construction Requirements<br>Planning Department for LSDs and subdivisions, Building Department for residential sites | Established in 1st permit. | Yes | City Codes Stormwater Ordinance Chapter 107, Chapter 106 - Drainage Criteria Manual, Chapter 56 landscaping and Buffers and Chapter 112 Subdivisions | City Codes Stormwater Ordinance Chapter 107, Chapter 56 landscaping and Buffers and Chapter 112 Subdivisions require a final inspection prior to City approval of the development final plat. Most all inspection deficiencies are completed prior to this approval. | Yes |

| BMP & Responsible Party | Measurable Goal | Completed (Yes or No) | # of Applicable Sites Requiring Post-Const. BMPs | # of Plans Reviewed | Summary of Results or Activities | Effective (Yes or No) |
|---|---|---|---|---|---|---|
| Site Plan Review Procedures<br>Planning Department for LSDs and subdivisions, Building Department for residential sites | Established in 1st permit. | Yes | 13 sites in 2011 by Planning Department.<br>84 sites in 2010 by Building Department | 13 sites in 2011 by Planning Department.<br>88 sites in 2011 by Building Department | City codes require a final inspection prior to City approval of the development final plat. Most all inspection deficiencies are completed prior to approval that involved safety, drainage and site stabilization. | Yes |

| BMP & Responsible Party | Measurable Goal | Completed (Yes or No) | Site Inspections Performed | | Summary of Results or Activities | Effective (Yes or No) |
|---|---|---|---|---|---|---|
| | | | # Performed | Avg. Frequency | | |
| Site Inspection Procedures<br>Planning Department for LSDs and subdivisions, Building Department for residential sites | Established in 1st permit. | Yes | 13 sites in 2011 by Planning Department.<br>88 sites in 2011 by Building Department | 13 sites in 2011 by Planning Department.<br>88 sites in 2018 by Building Department. Final inspection at end of construction. C of O not granted until site meets approval. | Site Inspection Procedures follow the plan that was reviewed and approved by the design engineer and Planning Dept. engineer. Variances to the plan during construction require City approval of the variance. Stormwater handling devices such as detention ponds require a post construction certification from the design engineer verifying construction accuracy to the approved plan. | Yes |

| BMP & Responsible Party | Measurable Goal | Completed | Violations | Summary of Results or Activities | Effective |
|---|---|---|---|---|---|

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| | | (Yes or No) | # of Violation Letters | # of Enforcement Actions | | (Yes or No) |
|---|---|---|---|---|---|---|
| Enforcement Procedures<br>Planning Department for LSDs and subdivisions, Building Department for residential sites | Established Ordinances prior to NPDES Ph II | Yes | Ordinance requirement letters pass back and forth between the consultant engineer and City reviewer during the preliminary plat stage on all sites until all codes are met and site construction is approved. | Enforcement action is generally carried out in the preliminary plat review on all sites to ensure all codes are met prior to being approved for construction. Daily or as needed site inspections and final inspections ensure sites are built per plan. | Typically enforcement procedures are carried out within an Ordinance by withholding a Certificate of Occupancy or the Planning Director's final signature on final plat approval. This would include safety items, site drainage and final stabilization. | Yes |
| **BMP & Responsible Party** | **Measurable Goal** | **Completed (Yes or No)** | **# of Sites Requiring Plans/Agreements** | **# of Plans Developed/Agreements in Place** | **Summary of Results or Activities** | **Effective (Yes or No)** |
| Long-Term O&M Plans/Agreements<br>Planning Department | Established Ordinances prior to NPDES Ph II | Yes | All LSDs and subdivisions => 1 acre have agreements that are governed by City codes. | All LSDs and subdivisions => 1 acre have agreements that are governed by City codes. | Subdivision developers are responsible for stormwater drainage systems for 2 yrs. and post a maintenance bond prior to being dedicated to the City for long term O&M. LSDs are responsible for storm drainage systems for 1 yr. and post a maintenance bond to the City. | Yes |

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## POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

| BMP & Responsible Party | Measurable Goal | Completed (Yes or No) | Topic(s) | Targeted Audience | # of Employees Attended | Summary of Activity | Effective (Yes or No) |
|---|---|---|---|---|---|---|---|
| Employee Training Program<br>NWA Regional Stormwater Education Program | MS4 employees are educated about ways to minimize the water quality impact of municipal activities | Yes | Stormwater regulations, municipal pollution prevention/good housekeeping BMPs, and illicit discharge | Public Works and Parks & Rec. department staff | 52 | Used audience response remotes in conjunction with MS4 Stormwater Jeopardy | Yes |

| List of Municipal Facilities Subject to Program | O&M Procedures Developed for Facilities (Yes or No) | # of Facility Inspections Performed | Frequencies of Such Inspections |
|---|---|---|---|
| Presently Public Works and Parks and Recreation. In year 2 Police Motor Pool facilities and 6 fire Stations will be evaluated for effective needs and methods. | Yes - for Public Works and Parks and Recreation | 2 | Annually |

| | Summarize Maintenance Activities and Schedules | Summarize Activities Performed |
|---|---|---|
| MS4 Maintenance | Public Works - Maintenance of vehicles and road machinery is maintained in the maintenance shop or impervious parking lot daily or as required during a 5 working days/week. Repair is typically preventive maintenance or parts replacement.<br>Parks and Recs. maintain vehicles and mowing equipment within the Parks storage and maintenance barn. Summer months are typically preventive maintenance while winter months is rebuild repair. | Both facilities perform oil changes, lubrication and minor repair as needed. Major machinery catastrophic failure would typically be contracted and send to the contract facility. |

| | Procedures Developed (Yes or No) | Document Amounts of Wastes Properly Disposed |
|---|---|---|
| Disposal of Wastes | Yes | Approximately 2600 tons was collected in 2011 and hauled to Waste Management Land fill in Tontitown. Bulk waste products are primarily from citizens and bulk waste is picked up at the residence or brought to the facility that is not part of their homeowner contract with Waste Management. Storage is inside an enclosed trailer. Facility waste is collected in a covered receptacle and picked up by Waste Management |

| | Covered (Yes or No) | Tons Used | Summarize Measures Taken to Minimize Usage |
|---|---|---|---|
| Road Salt | Yes | 80 tons during 2011 | Salt is only used for icing conditions whereas snow is plowed to the street sides and compacted snow is sprinkled with chipped gravel. Street sweeping picks up the gravel after the snow event has concluded and melting completed and hauled to Waste Management dump. |

| | Procedures Developed (Yes or No) | Gallons Used | Summarize Measures Taken to Minimize Usage |
|---|---|---|---|
| Pesticide & Herbicide Usage | Yes | Public Works - 1 gallon of concentrate in 2011 | Only used in flower beds for weeds and bugs. All other areas mowed with motorized string line and pesticides and herbicides are rarely used in other areas. |
| | | Parks & Rec. - 100 gallons of weed killer in 2011 | Pump sprayers are used for the application. Primary function of spray is under chain link park fences to prevent grass from over growing in the fence line. |

| | Procedures Developed (Yes or No) | Pounds Used | Summarize Measures Taken to Minimize Usage |
|---|---|---|---|
| Fertilizer Usage | Yes | Public Works 300 lbs. in 2011 | Public Works only usage of is for flower beds around City Buildings, monuments and major intersections landscaping as necessary for normal growth. |
| | | Parks & Recs. - 3-4 tons annually<br>Arvest Ball Park - 600-700 lbs. annually | Parks and Recs. utilize fertilizer of this quantity for several 100 acres of parks and ball fields. Application is with a spreader and normally applied every other year. Arvest Ball Park utilizes fertilizer for field grass maintenance. Field construction design has eliminated runoff problems. |

| | Procedures Developed (Yes or No) | Document Amount of Material Collected and Properly Disposed |
|---|---|---|
| Street Sweeping | Yes | The sweeper truck is unloaded at the Facility yard to a dump truck and hauled to the Parsons Landfill. Approximately 625 tons were swept from the streets in 2011. |

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| **Flood Management Projects** | **Summarize any New or Existing Flood Management Projects that were Assessed for Impacts on Water Quality** |
| | N/A for Municipal Operations. Flood Plain is managed within the Planning Department. There was no Flood Plain Projects associated with water quality during 2011. |
| **LID Projects** | Public Works installed a rain garden during the 1st quieter of 2001 in the lawn in front of the facility office. The rain garden was positioned to collect approximately ½ of the drainage from the multi-acre site parking area for the road machinery. The garden is equipped with an under drain and over flow to drain into the site's large lawn. Much of the parking lot's potentially contaminated runoff is filtered or retained prior to reaching the normal street drainage to Spring Creek. |

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## PROPOSED CHANGES TO YOUR SWMP (IF ANY)

- Summarize any proposed changes to your SWMP, including changes to any BMPs or any identified measurable goals that apply to the program elements. If you fail to satisfy measurable goals for the reporting year, please explain why.

SWMP was revised and returned to ADEQ on 4-28-2010 with supplemental Ordinance copies and other documents after receiving the deficiency report received 2-2010.
SWMP was revised in 4th qtr.2010 and approved during 2011

## VARIANCES GRANTED (IF ANY)

- Identify and summarize any variances granted under your storm water program.

No variance requested - no variance granted.

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## Attachment 1
## SWMP IDDE Measureable Goals

IDDE1 - Investigate developing a "hot" line and document calls each year. Calls to the City departments are forwarded to the Planning Department for investigation, elimination administration and documentation. Training within the City Pollution Prevention Team to advance IDDE knowledge and observation techniques are in place with all departments. A Stormwater Management website within Springdalear.gov website was completed in 2011. A "report an issue" page is setup to allow the public to e-mail issues such as illicit discharge detection as well as any other stormwater issues. Additional public education methods may be needed to alert the public to internal site within the City of Springdale website.

IDDE2 - Develop protocols for responding to complaints and maintaining a data base. The "Hotline dispatcher" is essentially more than one number that the public is familiar with such as the Major's Office, Police Dispatcher, Code Enforcement, Planning Office and Public Works. These offices would receive the call and would notify the Planning Office to assess the dynamics of spills, observations and other IDDE requirements who then notify departments with appropriate enforcement credentials or crews and equipment to fit the situation or notify the State for major issues. Additionally releases to streams and water bodies are often observed by Springdale Water Utilities and this department would be also searching for the discharge point to determine if the release is a sanitary sewer release. The Planning Office and SWU often work together for the IDD resolution.

IDDE3 - Conduct Dry Weather Screening - outfalls and streams a formal screening program is in progress and established. This program was started in the 2nd qtr. of 2010. The formal screening includes GPS locations on outfalls to streams and tributaries and records the observed outfall structure type, dimensions and condition. Additionally the flow if any is recorded for color, smell, clarity and floatables on a check sheet for each location. The data base includes the GPS location and entered on the storm sewer map and check sheet for all outfalls. This information is also planned to be entered into a digital database showing both the outfall screening data for future years and any maintenance info performed due to the screening results. Dry weather screening of waterways is prioritized to City zones recognizing zones such as residential, commercial, manufacturing, junk yards and urban densities etc. A total of 42 screenings on the impaired Spring Creek and its tributaries have been observed. This project has high priority and is projected to be about 70% complete during 2011. Approximately 15 other outfalls were visited however due to the runoff criteria these outfalls were not recognized as an illicit discharge risk.

IDDE4 - Spring Creek USGS sampling project USGS has sampled and provided data since the contract began in 11-09. The contract measures for phosphorus and suspended sediment in 4 locations at high and low flows, across the City. Additionally Clear Creek and Brush Creek have been added to the contract during 2010. This will be a continuous project. USGS has added two continuous flow monitors during 2011 on Spring Creek at Sanders St. and Hwy 112 that now gives the stream flow criteria that can be associated to the contaminate loading for the flows in question.

IDDE5 - Implement protocols for finding, responding illicit discharges, and maintaining a data base - This goal ties into IDDE1 & 2 for a City wide Pollution Prevention Team to find and record illicit discharges found. The Stormwater Management website within springdalear.gov website has methods for the public to reach appropriate City personnel.

IDDE6 - Create and Implement Non-stormwater Discharge Assessment program - The current IDDE non-stormwater discharge list as referenced in Chapter 107 Stormwater Ordinance has several types and circumstances where non-stormwater discharges are not prohibited. Examples are pools with chlorine, salt and other chemicals as well as other types of pollution from being out of service for months or years. Others areas are crawl spaces and foundation drains that are presumed uncontaminated if the water is not turbid. The assessment program would entail investigative sampling to determine if other suspended contaminants are present in prohibitive quantities. The plan would detail the criteria for exempting discharges in this category.

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## Attachment 2
## SWMP Construction Site Stormwater Runoff Control Measurable Goals

Sites within Springdale jurisdiction for this reporting period:

N11-09 Non-LSD - BLK LLC drainage improvements started 8-11 - completed 10-11
L11-03 LSD - City of Springdale Airport Hanger Construction - started 6-11 – to be completed in 2012
AHTD LSD - Springdale Water Utilities Hwy 265 ph 1 water line relocation - started in 11-11 - to be completed in 2012
AHTD LSD - Springdale Water Utilities Hwy 265 ph 2 water line relocation - started in 11-11 - to be completed in 2012
L11-04 LSD - Auto Zone building expansion - started 7-11 - completed 10-11
L11-05 LSD - Arkansas Missouri Railroad depot building replacement and site renovation - started 8-11 – to be completed in 2012
L11-08 LSD - JV Manufacturing new building expansion and yard renovation - started 9-11 - completed in to be 2012
L10-15 LSD - Springdale School Dist. New school expansion site - started in 11-11 - to be completed in 2013
L11-09 LSD - Dollar General new store - started 12-11 - completed 4-2012
SWU-02 LSD - Springdale Water Utilities new water and sewer lines installation - started 12-11 – to be completed in 2012
CIP 1004 LSD - City of Springdale Elm Springs Rd widening - started 11-11 – to be completed in 2012
L11-12 LSD - Linen King building expansion - started in 11-11 - to be completed in 2012
L10-12 LSD - Shiloh Doctor's Clinic - started 9-10 - completed 2-11
L11-10 LSD - Walgreens new building and store location - started 12-11 – to be completed in 2012
L11-11 LSD - Kum & Go new gas station & deli location - started 12-11 – to be completed in 2012
L10-10 LSD - Dan Runge Towing site yard expansion and improvements - started in 3-10- to be completed in 2012

CSW1 - Review existing Municipal Codes and Development Codes for erosion and construction site runoff control effectiveness The review of this measurable goal is ongoing through the permit period. The significance of the review is to tighten certain codes for outfall discharges at the design stage to improve or eliminate water scouring or other erosion problems in drainage ways after leaving the new development. Notes have been taken for post construction problems after new development and will be analyzed for Code revisions during the permit period.

CSW2 - Conduct Staff Training On an Ongoing Basis. Prior to 2009 training of other City departments was completed by bringing a complete department together and showing stormwater DVDs or Power Point presentations. These were recognized as being ineffective since employees of the department with different jobs and different stormwater knowledge requirements. Therefore the City Pollution Prevention Team was created to counter the problem. Representatives from each department would be responsible for the training element as well as other pollution issues of the department. Additionally it is proposed for selected department representatives would also be certified in a stormwater program to help advance the stormwater education of the person. Even though "Team" meetings have some issues, the measureable goals of the arrangement appears to have economical merit for the expanding needs for stormwater pollution control however a City wide program is and will be slow to become fully functional..

CSW3 - Review the Land Drainage and Alteration on an Ongoing Basis The essence of reviewing the effects of development is to recognize that some of the development and re-development in the past has attributed to more water being released to streams and drainage ways during storm events causing larger flow volumes and faster velocities and resulting in more stream bank erosion. Even though detention is utilized in many development projects, detention control structures are designed around 100 year storm events and not designed for retention for smaller storm events. This analysis will be carried out through the permit period to pinpoint future design changes and potential needs for retrofits of existing control structures while evaluating the watershed runoff criteria. Some pollution settle out in the detention pond could also be realized.

CSW4 - Conduct Inspections on and Ongoing Basis This BMP provides for the private development construction site review monitoring frequency based on the site sensitivity such as location to streams, drainage to neighboring properties, size of the site and contractor construction methods and behavior. Drive-by/drive through inspections looks for flagrant violations and are performed one or more times per week and documented as necessary. More thorough inspections are documented once per month or after significant rain. There are no planned changes to this system until development re-development expands to the 2006 level that may require more inspectors to continue an effective program or reduce to a site selective program.

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## Attachment 3
## SWMP Post-Construction Stormwater Management for New Development and Redevelopment

DS1 - Review City Codes and BMP Manual The BMP manual was completed by committee and read by a sub-committee for completeness. Notes and markups are in progress on selected Ordinances to clarify drainage requirements and move towards minimum standards.

DS2 - Post Construction Inspection and Compliance. Final inspections are required on all projects. Pertinent items on the final "punch list" must be completed or bonded for cost to complete the item. Sensitive items such as drainage and corresponding erosion control are not bondable and must be completed. Enforcement can be attained in more than one way but typically approval to get the certificate of occupancy is paramount. Existing landscaping ordinances and the BMP manual will be reviewed for wording detail and possibly amended to assure residential lawn sites have been properly stabilized until grass growth is complete.

DS3 - Stormwater Facilities Plan and Capital Improvement This BMP will address opportunities for implementing water quality improvement projects associated with retrofits to and expansion of the public stormwater drainage system. This includes continued development and re-development, street widening projects with curb and gutter and storm sewer installation or replacement, stormwater retention, provide improvements and to pre-existing and post development methods. The City has 55 detention - retention ponds in place based on runoff criteria that is required by the Drainage Criteria Manual. The City maintains or monitors them and will add more as development continues. These function as flood control measures and can function as stormwater pollution traps with calculated modifications to some of the control structures.

DS4 - Low Impact Development Include recommendations for LID at Technical Plat Review and Land Division approvals with cost comparisons between traditional development and LID. LID is currently being demonstrated in small projects by the U of A and Habitat for Humanity organizations in NWA although not Springdale. A relatively large impediment for NWA is the extremely tight clay and rock sub soil (.05"/ hr. infiltration rate) making rain gardens and bio-swales more expensive and less effective than soils with higher to much higher infiltration rates. Developers will need to be made aware of both water quantity and water quality and require there consultants to develop cost effective methods of LID. There are however numerous LID functions that can be added to the design criteria that would benefit water quantity and quality even though the effectiveness may not be as good as with other soils.
The Public Works Department developed and installed a rain garden at that facility. The drainage to the garden is partial flow from the facility equipment and storage parking lot to filter contaminants from that outflow. It is located in the lawn where it can be viewed by the public. Other City rain gardens are being considered for park areas that will have signs for public viewing indicating the garden significance.

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**Attachment 4**

**SWMP POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS**

OM1 - Operations and Maintenance Program that Includes a Training Component - Training for City O&M units has been annually utilizing selected DVDs relating to the work the unit does. This method is somewhat ineffective and will be kept in place until better methods are achieved. Training is needed to fit the work any given crew does daily. It is being considered to have at least one individual in selected departments achieve a stormwater certification that meets their needs. This individual then would be required to handle specialized stormwater training to fit the needs of crews within their department who don't necessarily need a vast knowledge of the NPDES Phase II program.

OM2 - Training Program - Training for all City departments is in the development stage. As mentioned in OM1 developmental training is needed at all levels of a department that is geared towards the employee's daily duties involving stormwater or any anticipated pollution prevention or elimination aspect. This appears to be most effective if achieved by the individual department. Typically safety programs are handled similarly.

OM3 - Pollution Prevention Plan Manuals for City Ops (PPP) - PPPs for Public Works and Parks and Recreation has been completed and a copy included with recent revised SWMP mailed to ADEQ during April 2010. The PPP is intended to be reviewed and used as part of the training component.

OM4 - Stormwater Quality Technology Pilot Program - This will be an ongoing project during the permit period to determine the most significant areas of the City, inlet retrofit, and O & M costs. Consideration would be given primarily to floatables more so than pollution requiring lower micron level filtration. Oil and water separation is utilized for specialized runoff areas. A major arterial street has been engineered for widening and a storm sewer system installed. Various water quality features are being considered.

OM5- Channel Assessment - Channel studies of Spring Creek are underway to couple walking trails and bank stabilization projects together. Costs are expected to be beyond the City's budget and efforts are underway to find government and private grants.

OM6 - Street Sweeping for Stormwater Pollution Control – Consideration of street sweeping programs such as 2nd and 3rd shift sweeping developing longer hours and more frequent sweeping and a second and more effective sweeper is being considered for budgetary purposes. GPS tracking devices have been added to the sweeper truck and other vehicles during 2011. This aids mapping and data bases of street sweeping as well as other types of stormwater maintenance projects.