

MS4 Annual Report

Permit # VAR040135

Stormwater Discharge From Small Municipal Separate Storm Sewer Systems

**Reporting period:
July 1, 2016 thru June 30, 2017**

**Original Submittal:
September 30, 2017**



Report submitted by:
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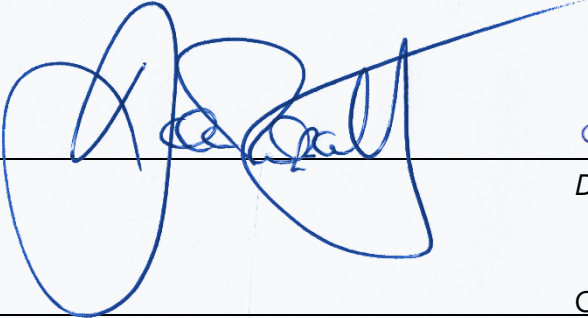
TABLE OF CONTENTS

1.0	BACKGROUND.....	1
2.0	MCM 1: PUBLIC EDUCATION & OUTREACH.....	2
3.0	MCM 2: PUBLIC INVOLVEMENT/PARTICIPATION	7
4.0	MCM 3: ILLICIT DISCHARGE DETECTION AND ELIMINATION.....	9
5.0	MCM 4: CONSTRUCTION SITE STORMWATER RUNOFF CONTROL ...	11
6.0	MCM 5: CONSTRUCTION SITE STORMWATER RUNOFF CONTROL ...	12
7.0	MCM 6: POLLUTION PREVENTION/GOOD HOUSEKEEPING	13

APPENDIX

- A. City of Radford MS4 BMP Facilities Tracking Database**
- B. Staff Training Presentation and Sign-in Sheets**

1.0 BACKGROUND

Permit Condition	Evidence of Compliance
II.E.3.a(1)	Name and permit number: City of Radford, Virginia; VAR040135 Original Permit Date: August 19, 2014
II.E.3.a(2)	Annual report year: July 1, 2016 through June 30, 2017
II.E.3.a(3)	<p>Modifications to any operator's department's roles and responsibilities: Jay Eanes remains as the duly authorized representative.</p> <p>Jay Eanes 10 Robertson Street Radford, VA 24141 Phone: 540-731-3603 Email: Jay.Eanes@radfordva.gov</p>
II.E.3.a(4)	Number of new MS4 outfalls and associated acreage by HUC added during the permit year: None.
II.E.3.a(5)	<p>Signed certification:</p> <p>CERTIFICATION</p> <p>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 the possibility of fine and imprisonment for knowing violations.</p> <div style="display: flex; justify-content: space-between; align-items: flex-end; margin-top: 20px;"> <div style="text-align: center;">  <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <p><i>City Manager</i></p> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <p>VAR040135 <i>Permit Number</i></p> </div> <div style="text-align: center;"> <p>September 25, 2017</p> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <p><i>Date</i></p> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <p>City of Radford, VA <i>MS4 Name</i></p> </div> </div>

2.0 MCM 1: PUBLIC EDUCATION & OUTREACH

Permit Condition	Compliance Activities
II.B.1.g(1)	<p data-bbox="321 407 1458 558"><u>A list of the education and outreach activities conducted during the reporting period for each high-priority water quality issue, the estimated number of people reached, and an estimated percentage of the target audience or audiences that will be reached.</u> Items 1 to 3 listed below are the high-priority water quality issues identified by the City.</p> <ol style="list-style-type: none"> <li data-bbox="370 600 1458 982">1. Proper Disposal of Pet Waste – This program raises awareness of the need for proper disposal of pet waste to avoid release of bacteria into the stormwater system and, in turn, the New River. <ol style="list-style-type: none"> <li data-bbox="464 720 1458 905">a. Specific Activities: Brochure was on display and/or passed out at the following locations: Treasurer’s Office, Two Veterinarian Offices within the City (West End Animal Clinic and Riverside Veterinary Clinic), Radford Recreation Center, City Manager’s Office, and Radford Public Library, and is posted on the City’s Stormwater portion of the website. <li data-bbox="464 911 1040 940">b. Estimated No. of People Reached: 11,000 <li data-bbox="464 947 1398 982">c. Estimated percentage of the target audience(s) to be reached: 100% <li data-bbox="370 1031 1458 1528">2. Collection of Yard Waste – This program educates citizens about proper disposal of yard waste (grass clippings, leaves, etc.) to reduce the amount of such waste discarded into the City’s storm sewer drains. In addition, the City collects yard waste as part of a composting program that develops topsoil for City use. These programs help reduce clogging in the storm sewer network and reduce pollutants (i.e. fertilizers, herbicides, and pesticides) from entering the storm sewer network. <ol style="list-style-type: none"> <li data-bbox="464 1297 1458 1444">a. Specific Activities: Brochure was on display and/or passed out at the following locations: Radford Recreation Center, City Manager’s Office, and Radford Public Library, and is posted on the City’s Stormwater portion of the website. <li data-bbox="464 1451 1024 1486">b. Estimated No. of People Reached: 5,000 <li data-bbox="464 1493 1390 1528">c. Estimated percentage of the target audience(s) to be reached: 100% <li data-bbox="370 1577 1458 1871">3. Nutrient Management Education – The City has produced a “Resident’s Guide for a Cleaner Environment” brochure to be distributed to citizens and to educate them about nutrient management for their own properties. This brochure is coordinated with the City’s internal efforts to develop Nutrient Management Plans for City-owned property. The brochure contains this statement: “Avoid the use of fertilizers and do not apply before heavy rainfall.” <ol style="list-style-type: none"> <li data-bbox="464 1801 1458 1871">a. Specific Activities: Brochure was on display and/or passed out at the following locations: Radford Recreation Center, City Manager’s Office, and

	<p>Radford Public Library, and is posted on the City's Stormwater portion of the website.</p> <ul style="list-style-type: none"> b. Estimated No. of People Reached: 1,000 c. Estimated percentage of the target audience(s) to be reached: 100% <p>4. Youth Stormwater Education</p> <ul style="list-style-type: none"> a. Specific Activities: In April 2017, we placed our Stormwater "Only Rain in the Drain" Model, learning pages, and poster at the Library. b. Estimated No. of People Reached: 2000 Visitors c. Estimated percentage of the target audience(s) to be reached: 80% <p>5. Children's Stormwater Education</p> <ul style="list-style-type: none"> a. Specific Activities: The Library also held a treasure hunt to get smaller children out looking at the City in General. Some of the items we had them looking for related to Stormwater. For completing the treasure hunt a "Be the solution to stormwater pollution" shirt was given to help raise awareness. b. Estimated No. of People Reached: 67 c. Estimated percentage of the target audience(s) to be reached: 100% <p>6. Public Safety Building outreach.</p> <ul style="list-style-type: none"> a. Specific Activities: We placed our Stormwater "Only Rain in the Drain" Model, poster, and learning pages at the Public safety building in the lobby. b. Estimated No. of People Reached: 1000 c. Estimated percentage of the target audience(s) to be reached: 100%
II.B.1.g(2)	<p><u>A list of the education and outreach activities that will be conducted during the next reporting period for each high-priority water quality issue, the estimated number of people that will be reached, and an estimated percentage of the target audience or audiences that will be reached.</u> Items 1 to 3 listed below are the high-priority water quality issues identified by the City.</p> <p>1. Proper Disposal of Pet Waste – This program raises awareness of the need for proper disposal of pet waste to avoid release of bacteria into the stormwater system and, in turn, the New River.</p> <ul style="list-style-type: none"> a. Specific Activities: Brochure on display and or passed out at the following locations: Treasurer's Office, Two Veterinarian Offices within the City (West End Animal Clinic and Riverside Veterinary Clinic), Radford Recreation Center, City Manager's Office, Radford Public Library and Posted on the City's Stormwater portion of the website. b. Estimated No. of People Reached: 11,000 c. Estimated percentage of the target audience(s) to be reached: 100%

2. Collection of Yard Waste – This program educates citizens about proper disposal of yard waste (grass clippings, leaves, etc.) to reduce the amount of such waste discarded into the City’s storm sewer drains. In addition, the City collects yard waste as part of a composting program that develops topsoil for City use. These programs help reduce clogging in the storm sewer network and reduce pollutants (i.e. fertilizers, herbicides, and pesticides) from entering the storm sewer network.
 - a. Specific Activities: Brochure on display and or passed out at the following locations: Radford Recreation Center, City Manager’s Office, Radford Public Library and Posted on the City’s Stormwater portion of the website.
 - b. Estimated No. of People Reached: 5,000
 - c. Estimated percentage of the target audience(s) to be reached: 100%

3. Nutrient Management Education – The City has produced a “Resident’s Guide for a Cleaner Environment” brochure to be distributed to citizens and to educate them about nutrient management for their own properties. This brochure is coordinated with the City’s internal efforts to develop Nutrient Management Plans for City-owned property. The brochure contains this statement: “Avoid the use of fertilizers and do not apply before heavy rainfall.”
 - a. Specific Activities: Brochure on display and or passed out at the following locations: Radford Recreation Center, City Manager’s Office, Radford Public Library and Posted on the City’s Stormwater portion of the website.
 - b. Estimated No. of People Reached: 5,000
 - c. Estimated percentage of the target audience(s) to be reached: 100%

4. Youth Stormwater Education
 - a. Specific Activities: In April 2018, we plan to place our Stormwater “Only Rain in the Drain” Model, learning pages, and poster at the Library.
 - b. Estimated No. of People Reached: 2000 Visitors
 - c. Estimated percentage of the target audience(s) to be reached: 80%

5. Children’s Stormwater Education
 - a. Specific Activities: The Library plans to hold a treasure hunt to get children out looking at the City in General. Some of the items we had them looking for related to Stormwater. For completing the treasure hunt a “Be the solution to stormwater pollution” shirt was given to help raise awareness.
 - b. Estimated No. of People Reached: 80
 - c. Estimated percentage of the target audience(s) to be reached: 100%

6. Public Safety Building outreach.
 - a. Specific Activities: We will continue to have our Stormwater “Only Rain in the Drain” Model, poster, and learning pages at the Public safety building in the lobby.

	<p>b. Estimated No. of People Reached: 1000</p> <p>c. Estimated percentage of the target audience(s) to be reached: 100%</p>
<p>Additional Program Plan BMPs</p>	<p>1.2: Pet Waste Management for Public Parks</p> <p>The City will continue to raise awareness and enforce current policies requiring pet owners to clean up after their animals while in public parks.</p> <p><u>Schedule of Activities:</u> The City's Parks & Recreation Department will continue to enforce the current Pet Waste Management Program. The Department will continue to evaluate the effectiveness of the Program during the coming plan year, adding or relocating the pet waste bag dispensers based on observations of their use and according to input received by the public.</p> <p>City staff will continue to produce and make available the "Scoop the Poop" brochure at the locations listed above, at the City's Animal Shelter, and at various City-sponsored events during the coming plan year.</p> <p><u>Documentation:</u> The regulation is stated on the City's website for the William D. Lorton, Jr. "Sparky's Run" Dog Park.</p> <p><u>Achievements:</u> The City's Parks & Recreation Department continues its Pet Waste Management Program in the three heaviest used public park areas within the City's Park system: Bisset Park, Wildwood Park, and the William D. Lorton, Jr. "Sparky's Run" Dog Park.</p> <p>The Program consists of maintaining individual pet waste bag dispensers in key locations within each of these Parks. The Department maintains the dispensers and checks them on a regular basis to keep them full of the plastic waste bags. The dispensers also contain signs encouraging the public to collect their pet's waste in the plastic bags available in the dispensers.</p> <p>The Department enforces a regulation that discourages citizens from allowing their pets to run at large (out of the individual control of their owners), requiring all pets to be on a leash while in the Parks.</p> <p>The City continues to produce its "Scoop the Poop" brochure specifically targeting the control of pet waste. The brochure is available at several locations in the City including:</p> <ol style="list-style-type: none"> 1. Treasurer's Office: to be handed out when issuing Dog Tags (730 this plan year) 2. Two Veterinarian Offices within the City: Riverside Veterinary Clinic and West End Animal Clinic (3,000 visits this plan year) 3. Posted on the City's website for Stormwater / Pollution Prevention (1,700+ visits this plan year) 4. Radford Recreation Center

5. City Manager's Office (5,000 views this plan year)
6. Radford Public Library

1.3: Drain Marking Program

The City has implemented a Storm Drain Marking Program. This involved performing an inventory of the storm drain locations and identifying the drains most easily accessible to the public and that may be vulnerable to illicit dumping. These drains were good candidates for permanent marking.

Achievements: The City's storm sewer network has been completely mapped using GIS technology, based on compiling as-built and record information from City archives and from observations in the field. 100% of the curb inlets and grate inlets in the City have been marked during the reporting year.

Schedule of Activities: Completed.

3.0 MCM 2: PUBLIC INVOLVEMENT/PARTICIPATION

Permit Condition	Compliance Activities
II.B.2.d(1)	<p>A web link to the MS4 Program Plan and annual report: http://www.radfordva.gov/802/Stormwater-Management-Program</p>
II.B.2.d(2)	<p><u>Documentation of compliance with the public participation requirements of this section:</u> Refer to Additional Program Plan BMPs summary below.</p>
<p>Additional Program Plan BMPs</p>	<p>2.1: Annual Stream Clean-up Events The City sponsors, at least once per year, an event that encourages public participation in cleaning up the streams within the City limits. Emphasis is placed on removing foreign debris, litter, etc. The event is publicized through various media in order to have as much participation as possible.</p> <p><u>Achievements:</u> On August 27, 2016, Radford hosted a regional clean up event known as 'Fall into the New'. 5 localities joined together to clean the 9 miles of Radford's New River. There were over 400 volunteers and 4 tons of debris collected from Radford's portion of the New.</p> <p><u>Schedule of Activities:</u> The event was so successful that each locality took it back to their City or County and planned a cleanup for a portion of their River/ New River Watershed for Fall of 2017. Fall into the New 2017 took place on August 26, 2017.</p> <p>2.2: Develop Public Outreach Plan The City developed a plan to identify the target audience and develop strategies to reach a minimum of 20% of the target audience annually through public outreach activities. As part of the plan, the goal will be to have a minimum of 4 public participation events annually.</p> <p><u>Achievements:</u> The City previously identified the target audience as the citizen population. The City's Public Information staff publicized events and initiatives aimed at educating citizens about the MS4 program, and how they can be involved.</p> <p>The following events were held during the reporting period.</p> <ol style="list-style-type: none"> 1. NRV Regional Household Hazardous Waste Collection Day: April 2017. 226 cars came to the event; 114 Cars were from Radford. 2. Rake Leaves & Eat Pie – Pathways for Radford: November 27, 2016. City staff and citizens raked leaves and cleaned trails, parks, and tributaries within the City. -20 people were in attendance.

3. Native American Heritage Festival in Bisset Park: April 8, 2017. A City-sponsored event, including a Student Day on April 8. City staff had a booth to promote awareness of the City's stormwater initiatives, good land stewardship, and hand out literature and educational materials. 750 attended.
4. Arbor Day Celebration: April 27, 2017. Activities included planting of 250 tree seedlings throughout Radford by the Public Work's department and City's Beautification Committee. There were 8 volunteers.
5. Adopt A Spot Program Sign Ups: To encourage citizen participation in litter cleanup of designated areas in their community at regular intervals. Individuals, organizations or businesses may agree to keep a designated area, other than a highway, cleared of litter for a two-year period. In exchange, program participants are given materials to help them with the cleanup and a sign bearing their name to be posted in the area. At the end of the two-year period, the program participants will receive a special certificate of appreciation and may renew their agreement. Sign Up's Began in March of 2017, and to date there are 13 of the 50 available spots adopted.

Schedule of Activities: The above events are ongoing and/or annual, will occur again during the coming plan year, and are anticipated to draw a 5% increase in attendance compared to the current plan year.

4.0 MCM 3: ILLICIT DISCHARGE DETECTION AND ELIMINATION

Permit Condition	Compliance Activities
II.B.3.f(1)	<p><u>A list of any written notifications of physical interconnection given by the operator to other MS4s.</u></p> <ol style="list-style-type: none"> 1. Radford University 2. Montgomery County 3. VDOT
II.B.3.f(2)	<p><u>The total number of outfalls screened during the reporting period:</u> 50</p> <p><u>The screening results:</u> The results were documented using the Outfall Field Screening Report form; there were no illicit discharges detected.</p> <p><u>Detail of any follow-up actions necessitated by the screening results:</u> None.</p> <p><u>Schedule of Activities:</u> The City will screen 50 outfalls during the coming plan year, documenting results (in the Outfall Field Screening Report Form for individual outfalls and in the Spreadsheet cumulatively), and follow-up as necessary.</p> <p><u>Documentation:</u> The Dry Weather Screening procedure are provided in the Illicit Discharge Ordinance.</p>
II.B.3.f(3)	<p><u>A summary of each investigation conducted by the operator of any suspected illicit discharge. The summary must include: (i) the date that the suspected discharge was observed, reported, or both; (ii) how the investigation was resolved, including any follow-up, and (iii) resolution of the investigation and the date the investigation was closed.</u></p> <p>No illicit discharges were reported.</p>
Additional Program Plan BMPs	<p>3.1: Illicit Discharge Ordinance Ordinance #1681 was adopted on July 11, 2016, and is included in the MS4 Program Plan.</p> <p>3.2: Protect Sensitive Areas by use of City Code The City previously adopted by Ordinance two "overlay districts" (Floodplain District and Riverfront Corridor Overlay District) in the City Code that protect areas within a floodplain and that are adjacent to the New River. (Divisions 15 and 16 of Chapter 120.1: Zoning Ordinance)</p> <p><u>Achievements:</u> No changes to these districts were made during this plan year. City staff has continued to enforce the provisions of these overlay districts.</p>

Schedule of Activities: City staff will continue to enforce the provisions of the overlay districts in the coming plan year.

Documentation: Divisions 15 and 16 of Chapter 120.1: Zoning Ordinance.

3.3: Outfall Map and Database

The City previously created outfall mapping in GIS. The outfall map is included in the MS4 Program Plan.

5.0 MCM 4: CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

Permit Condition	Compliance Activities
	<p><u>Date of Annual Standards approval:</u> January 14, 2008 via Erosion & Sediment Control Ordinance.</p>
II.B.4.f(1)	<p><u>Total number of regulated land-disturbing activities during the reporting year.</u></p> <ol style="list-style-type: none"> 1. Single Family Residences – Agreement In Lieu of Plan: 3 permits 2. Land Disturbing Permits: 4 permits
II.B.4.f(2)	<p><u>Total number of acres disturbed during the reporting year.</u></p> <ol style="list-style-type: none"> 1. Single Family Residences – Agreement In Lieu of Plan: 0.63 acres 2. Land Disturbing Permits: 3.185 acres
II.B.4.f(3)	<p><u>Total number of inspections provided during the reporting year.</u></p> <ol style="list-style-type: none"> 1. Single Family Residences – Agreement In Lieu of Plan: 18 inspections 2. Land Disturbing Permits: 27 inspections <p>Refer to the MS4 Program Plan for the City's Erosion & Sediment Plan Inspection Report.</p>
II.B.4.f(4)	<p><u>A summary of the enforcement actions taken, including the total number and type of enforcement actions taken during the reporting period:</u> None required.</p>
<p>Additional Program Plan BMPs</p>	<p>4.1: City Staff Training</p> <p>The City staff members that enforce the Erosion and Sediment Control Ordinance will maintain the appropriate VA DEQ certifications.</p> <p><u>Achievements:</u> City staff have earned the appropriate certifications. Inspections and other activities are currently being completed city staff and by outside consulting firms with certified personnel, as needed.</p> <p><u>Schedule of Activities:</u> City staff will continue appropriate continuing education to maintain certification, and use outside consultants on an as needed basis.</p>

6.0 MCM 5: POST CONSTRUCTION STORMWATER MANAGEMENT

Permit Condition	Compliance Activities
	<p><u>Date of Annual Standards approval:</u> October 27, 2014 via Stormwater Ordinance.</p>
II.B.5.e	<p><u>The operator shall submit an electronic database or spreadsheet of all stormwater management facilities brought online during each reporting year with the appropriate annual report.</u></p> <p>Refer to Appendix A for the BMP Facilities Tracking Database.</p>

7.0 MCM 6: POLLUTION PREVENTION/GOOD HOUSEKEEPING

Permit Condition	Compliance Activities
II.B.6.g(1)	<p><u>A summary report on the development and implementation of the daily operational procedures.</u></p> <p>The City previously developed Standard Operating Procedures (SOPs) for the following employee tasks and assignments: (Refer to the MS4 Program Plan for a copy of the SOPs.)</p> <ol style="list-style-type: none"> 1. Asphalt Program: Good Housekeeping 2. Detention Pond Maintenance 3. Drainageway Maintenance 4. Vehicle and Equipment Storage 5. Good Housekeeping 6. IDDE Outfall Screening 7. Inlet, Pipe, & Vault Cleaning and Disposal 8. Landscape Chemical Application 9. Disposal and Maintenance of Landscape/Organic Waste 10. Building Maintenance 11. Parking Lot Sweeping and Repair 12. Recycling and Drop Center 13. Right of Way Maintenance 14. Spill Prevention and Control 15. Street Sweeping and Water Quality Protection 16. Vehicle Maintenance 17. Vehicle Washing <p><u>Achievements:</u> SOP Training was completed on June 28 and 29, 2017.</p> <p><u>Scheduled Activities:</u> The City will continue to train new employees annually, and all employees on a biannual basis.</p> <p><u>Documentation:</u> A copy of the training materials and sign-in sheets are provided in Appendix B.</p>
II.B.6g(2)	<p><u>A summary report on the development and implementation of the required SWPPPs.</u></p> <p>The City will continue to evaluate its operations and facilities for ways to reduce discharge of pollutants. This evaluation will include identifying potential sources of pollution, identifying and prioritizing problem areas, and determining methods to address and correct the problems. Some of these methods might include employee training, spill prevention plans, Stormwater Pollution Prevention Plans (SWPPPs), implementing new procedures, etc.</p>

	<p><u>Achievements:</u> The following SWPPPs were completed in the reporting period.</p> <ol style="list-style-type: none"> 1. Public Works Department: Solid Waste & Recycling Division Drop Center 2. Public Works Department Facility 3. Salt Storage Facility <p><u>Scheduled Activities:</u> The following SWPPPs will be completed within the next reporting period.</p> <ol style="list-style-type: none"> 1. Parks & Recreation Department 2. Electric Department Facility 3. Water Treatment Plant
II.B.6.g(3)	<p><u>A summary report on the development and implementation of the turf and landscape nutrient management plans that includes;</u></p> <ol style="list-style-type: none"> a. <u>The total acreage of lands where turf and landscape nutrient management plans are required:</u> 43.5 acres b. <u>The acreage of lands upon which turf and landscape nutrient management plans have been implemented:</u> 43.5 acres <p>The City's Nutrient Management Plan was completed June 1, 2016, and is provided in the MS4 Program Plan.</p>
II.B.6.g(4)	<p><u>A summary report on the required training:</u> The City contracted with Draper Aden Associates to develop training documentation and provide training on general MS4 permit requirements, illicit discharge protection, and standard operating procedures.</p> <p><u>Achievements:</u> Staff training for public works, police, fire, and other applicable City departments was completed on June 28 and 29, 2017. 172 employees attended the training.</p> <p><u>Scheduled Activities:</u> The City will continue to train new employees annually, and all employees on a biannual basis.</p> <p><u>Documentation:</u> A copy of the training materials and sign-in sheets is provided in Appendix B.</p>
Additional Program Plan BMPs	<p>6.1: Reduce the Amount of Solid Waste from City-owned Facilities by Encouraging Employees to Recycle Waste</p> <p>The City has an active recycling program that encourages City employees to participate. This program will continue and be evaluated for ways to improve and expand the program.</p>

	<p><u>Achievements:</u> The City Collected 18,926.95 Tons of Solid Waste from July 2016-June 2017. There were 10,569.60 tons recycled, percentage recycled/diverted from landfill in 56%.</p> <p><u>Scheduled Activities:</u> The City will continue the recycling program and encourage increased participation by providing information on the City's website and the local government television channel.</p>
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