2014

City of Bella Vista

Prepared by:
Planning, Building, & Code
Enforcement Department

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Promulgated in partnership with the Benton & Washington County Cooperative Extension Service offices

STORM WATER MANAGEMENT PLAN

August 1, 2014 – July 31, 2019

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Section I: General Information

Background and Context

This Stormwater Management Plan (SWMP or the Plan) has been developed to provide policy and management guidance for activities affecting stormwater throughout the City of Bella Vista (the City). It is intended to help the City fulfill certain State and Federal water quality requirements, and to meet local water resources management objectives. Through the implementation of the policies and management practices embodied in the SWMP over time, Bella Vista hopes to reduce and prevent the urban stormwater quality issues that negatively impacts local rivers and streams while developing and preserving the urban drainage infrastructure in a manner that meets the community's needs for years to come.

State and Federal regulatory programs place significant emphasis on improving water quality and the health of America's watersheds. Bella Vista, as part of the Elk River watershed, further emphasizes the need for local management of urban stormwater and waterways. It becomes even more important that management of these resources occur in a manner that minimizes destructive long-term impacts to drainage infrastructure and the natural features that help protect water quality and control flooding.

Description of Permit Area

The City currently serves a growing population of 26,461 (2010 U.S. census) within the city limits. The geographic boundaries of the MS4 plan are the City limits and the service area for stormwater planning encompasses approximately 46.8 square miles. As defined by the 2010 census, the city became part of the Fayetteville - Springdale urbanized area and includes 45.9 square miles of the incorporated 45.96 square miles (or 99.87%). Based on the Census Bureau's urbanized area limits, only the very extreme eastern and western portions of Bella Vista occur outside the urbanized area.

The City did not exist before 2007. However, prior to the city's incorporation, the community was serviced by the Bella Vista Property Owners Association (BV POA). The BV POA owns most of the property that contains the areas that contain existing lakes, studied floodplains, drainage areas as common property for the use and enjoyment of residents of the community. As such, the BV POA will most likely be the primary property owner that the city will work with when addressing various drainage issues. The City's stormwater management practices are evolving to include efficient and cost-effective approaches that reduce or eliminate stormwater pollution and protect the riparian (stream bank) areas of open waterways. These approaches provide natural pollutant removal and stormwater management capacity.

The entire municipal code for the City of Bella Vista is currently "under construction." The City Council hopes to accept the new municipal code by the end of this year (2014). A copy of the Municipal Code will be several hundred pages long and maintained through the City Clerk's office. Appendix B lists the most pertinent sections of the municipal code, but is not a completely exhaustive list since codes are regularly updated. Other department policies, manuals, and guidelines are not included in this SWMP since they are also regularly updated but not part of city codes.

Purpose of Plan

The purposes of the SWMP are threefold. First, the Plan characterizes the City's entire stormwater drainage system, including both the open and piped systems, their connections to the streams, and the overall condition of the system. This characterization is necessary to address relevant State and Federal

regulatory requirements while providing baseline information on which to develop focused stormwater management strategies. Second, the Stormwater Plan establishes goals, policies, and implementation actions that will achieve the City's long-term objectives in a way that is understandable to the public, usable by City staff, and meets regulatory needs. Finally, it establishes a means for measuring, reporting, and adaptively managing the City's water resources, by presenting benchmarks that will ensure meaningful progress, as well as ensuring compliance with applicable laws and permit requirements.

Scope and Areas of Focus

The SWMP addresses stormwater quality management policies and management practices that are to be implemented by the City. The scope of the Plan is determined primarily by the Federal MS4 permit requirements, but is intended to address local water resources issues as well. These areas of focus in the Stormwater Plan include:

Pollution incidents and unlawful (illicit) discharges to the City's stormwater drainage system.

These discharges can be systematic (recurring) or episodic (occasional or one-time) discharges, and include pollutant runoff from parking lots, discharges from industrial outfalls, accidental spills, poor construction site management, and the variety of ways people dispose of pollutants that reach our waterways.

On-site management of stormwater to reduce the quantity of stormwater and pollution entering the drainage system.

Similar to illicit discharges, events that cause flooding, system surcharges, or on-going pollutant loadings are possible both up- and down-stream from the city limits, and originate from a variety of causes. These include inadequacies in the type and design of infrastructure, inadequate maintenance, insufficient erosion and/or sediment control practices, and increases in impervious area without provision for on-site infiltration of stormwater into the ground. The City regulates these issues through implementation of various portions of the city ordinances and codes.

Reduction and prevention of pollution at City facilities and resulting from City activities and business practices.

The City provides services with a potential for creating water pollution, erosion, and sedimentation. These include field activities (such as ditch cleaning and excavation/maintenance activities) as well as activities at City facilities (such as vehicle washing and maintenance, materials handling, and street sweeper dumping and processing). The Federal NPDES Stormwater Program requires the City to implement pollution prevention practices that reduce or eliminate stormwater pollution discharging from City activities. Beyond this regulatory motivation, it is important that the City lead by example in areas where similar practices and behaviors from citizens and businesses are required.

Public education geared toward broad community stewardship of water resources.

The Federal NPDES Stormwater Program places significant emphasis on public education as part of the long-term solution to stormwater pollution. As such, education is a required element of this SWMP. The long-term success of the City's efforts will hinge on increased awareness and stewardship throughout

the community. The Plan will result in formal, organized educational and outreach efforts that are targeted broadly throughout the municipal area. Many of these efforts are most effectively approached on a Northwest Arkansas Stormwater Compliance Group basis - a cooperative effort between the 21 MS4s located in the Benton and Washington County area and the University of Arkansas' Cooperative Extension Service.

Public awareness and involvement in the City's Stormwater management program.

Broad awareness and participation in the development and implementation of the SWMP by residents and local area businesses is a key component to ensure effectiveness of the Plan, including a public involvement component that meets the Federal NPDES program.

Targeted infrastructure improvements and maintenance programs to improve water quality and restore high priority areas.

The City will develop a Stormwater Facilities Master Plan (SFMP), which will include the City's assessment for future drainage infrastructure improvements. The SWMP supports the development and implementation of the SFMP in a manner that helps meet the City's water quality objectives.

ADEQ Required Municipal Separate Storm Sewer System (MS4) Plan elements.

The NPDES Stormwater Program requires that the City submit a MS4 plan in order to acquire a MS4 permit to legally discharge stormwater to the waters of the U.S.

The Federal rules and, therefore, ADEQ's permit requirements, direct that the City's MS4 plan address six minimum areas, which are termed "Minimum Control Measures." These areas are broadly titled in the rules as follows:

1. Public Education and Outreach on Stormwater Impacts;
2. Public Involvement and Participation;
3. Illicit Discharges Detection and Elimination;
4. Construction Site Stormwater Runoff Control;
5. Post-Construction Stormwater Management for New Development & Re-Development; and
6. Pollution Prevention in Municipal Operations.

Under each of these areas described above, the City's MS4 plan must contain the following information:

- The structural and non-structural Best Management Practices (BMPs) that the permittee or another entity will implement for each of the stormwater Minimum Control Measures;
- The measurable goals and benchmarks for each of the BMPs including, as appropriate, the months and years in which the permittee will undertake required actions, including interim milestones and the frequency of the action; and
- The person or persons responsible for implementing or coordinating the BMPs for the permittee's MS4 plan.

In addition to the requirements listed above, the permittee must provide a rationale for how and why each of the BMPs is selected and measurable goals for the permittee's stormwater management program.

Stormwater Best Management Practices (BMPs) is a **catch-all** term or phrase for the various actions and thoughts for managing stormwater to reduce the negative impacts of runoff on the receiving streams. While the term has become widely used by the regulatory agencies and throughout the stormwater management industry, it does **NOT** imply that each BMP is necessarily the "Best" at achieving a particular stormwater management objective. BMPs are alternatives to practices that reduce the water quality and flow management functions and benefits of the open drainage system such as piping, filling or hardening open drainage ways. BMPs include, but are not limited to:

- Structural, non-structural, and nature-mimicking devices that reduce or eliminate runoff, or the pollutants that it can carry;
- Creation and protection of natural features such as wetlands or ponds that improve water quality and/or attenuate flow;
- Maintenance or construction practices that prevent erosion, control sedimentation, and reduce pollution entering runoff;
- Regulations, educational strategies, and enforcement programs that inform the public, developers, business/industry, etc. on stormwater pollution, prevention, and protection of water quality;
- Protection and maintenance of:
  - Open drainage ways for stormwater treatment and conveyance;
  - Adjacent riparian buffers to provide natural stormwater filtration and cooling;
  - Long-term channel stability and other stormwater management functions; and
  - Avoidance of piping, filling, or deteriorating the condition of open drainage ways.

Overview of Bella Vista's Stormwater Drainage Systems

The City is responsible for implementing surface water management activities within its boundaries, including the planning, design, construction, operation, and maintenance of the stormwater drainage system. The City performs all operation and maintenance on the public drainage system that is designed and constructed to City standards and located within easements or rights-of-way, or real property that has been conveyed or dedicated to the City. The Bella Vista Property Owners Association and the developer of the various subdivisions within a majority of the City are responsible for maintaining most open channels throughout the city and public outfalls to natural streams within the City's jurisdiction as these occur on the private (common) property areas owned by those corporations. The geographic area covered by this Plan includes almost 46 square miles inside the Bella Vista' city limits.

The City's stormwater drainage systems also include some private (commercial, industrial & residential) stormwater management facilities that help moderate and reduce the volume and pollutant content of stormwater leaving private property and entering the public stormwater drainage system and/or local streams.

Stormwater Drainage Basin Characteristics

Surface water runoff from Bella Vista drains several directions within the city limits, but all drain into southwestern Missouri via tributaries of Elk River, which eventually drains to the west into Kansas and then southwest via the Lower Neosho River in Oklahoma to the Arkansas River watershed.

The City can be broken down into several separate tributaries of this stream. A drainage basin can be described as a geographic area within which stormwater drains from many small systems converging on a larger drainage way, ultimately culminating in outfalls to the major drainageway. The character and condition of the drainage ways varies significantly throughout the basins, depending on surrounding

land uses and contributing drainages. In Bella Vista the primary discharges occur from the:

1. Tanyard Creek – Little Sugar Creek sub-basin flowing north via Little Sugar Creek where it leaves Bella Vista at the state line with Missouri.
2. Browning Creek (Gordon Hollow Creek) – Little Sugar Creek sub-basin by flowing northward through a portion of unincorporated Benton County where it enters the state of Missouri in the vicinity of Gordon Hollow Drive.
3. Mill Creek – Elk River sub-basin from the vicinity of Pamona Drive by flowing northwesterly through unincorporated Benton County into the state of Missouri.

The character and conditions of the drainageways vary significantly throughout the basins, depending on surrounding land uses and contributing drainage areas topography.

Section II: Goals, Policies, & Implementation Actions

This section provides overall guidance to the City in performing stormwater management activities in a manner consistent with State and Federal laws, while meeting local goals and the long-term outcomes the City hopes to achieve. The following goals are derived from long-term key outcomes that have been reviewed. The policies provide specific direction, consistent with the local goals, State and Federal requirements. Implementation actions include BMPs discussed in detail in the MS4 plan and other actions needed to achieve local objectives. The work plan for completion of Implementation actions is in the Stormwater Plan Implementation Action Summary.

Goal 1: Protect Citizens and Property from Flooding

Policies

1.1 Maintain surface drainage in the City to reduce the threat of flooding, through proper maintenance of the City's stormwater drainage system and other infrastructure, with practices that are protective of water quality.

1.2 Through the development review process, ensure that new development incorporates adequate stormwater management and infrastructure to avoid up- and down-stream capacity and water quality problems.

1.3 Create and preserve open stormwater drainage networks, where feasible, to best accommodate peak storm flows while providing and maintaining flood storage capacity as well as promoting and improving water quality.

1.4 Adhere to standards, policies, and practices which comply with Federal Emergency Management Agency (FEMA) Flood Management Program requirements to insure that the City maintains flood insurance coverage under this program.

Implementation Actions

1.A. Continue evaluation of City maintenance practices. Implement appropriate BMPs to assure that the City adequately maintains the stormwater drainage system capacity in an environmentally responsible manner.

1.B .Evaluate and refine the City's drainage program, including education, outreach, inspection, and enforcement components to reduce the negative stormwater impacts from land alteration, erosion,

sedimentation, and excessive runoff.

1.C. Continue to review the City's Drainage Manual. Assess the public stormwater drainage system and capacity needs. Identify capital improvements and other measures necessary to maintain and provide adequate system capacity for planned community growth.

1.D. Implement BMPs consistent with NPDES Minimum Control Measure #1, Public Education and Outreach on Stormwater Impacts, to ensure that residents, businesses, and industries within our jurisdiction are aware of the importance of preventing pollution from entering the streams and water bodies of the State.

1.E. Implement BMPs consistent with NPDES Minimum Control Measure #4, Construction Site Stormwater Runoff Control, to minimize or eliminate erosion and sedimentation in the stormwater drainage system due to new construction.

1.F. Implement BMPs consistent with NPDES Minimum Control Measure #5, Post-Construction Stormwater Management for New Development and Redevelopment, to ensure that new development is in compliance with Local, State and Federal flow-regulating and water quality management practices, such as detention ponds, on-site stormwater storage, etc.

1.G. BMPs consistent with NPDES Minimum Control Measure #6, Pollution Prevention in Municipal Operations, to ensure adequate creation, maintenance, and inspection of the stormwater system.

Goal 2: Improve Surface and Sub-surface Waters for Aquatic Life and Other Beneficial Uses

Policies

2.1 The City will monitor and implement practices and regulatory programs with the objective of improving surface and groundwater quality to, at a minimum, meet State water quality standards, adequately protect threatened and endangered wildlife, and meet the State beneficial use guidelines.

2.2 The City will work with the BV POA to maintain open channels and waterways in a manner that is protective of their natural hydrologic and stormwater management and other habitation functions for the benefit of the citizens of the City, local wildlife (including threatened or endangered species), and for future generations of both.

Implementation Actions

2. A. Promote pollution protection educational efforts, including signage, development project review, and public outreach.

2. B. Enhance erosion and illicit discharge detection and compliance efforts, including permitting and Code enforcement.

2. C. Implement BMPs consistent with NPDES Minimum Control Measure #1, Public Education and Outreach on Stormwater Impacts, to enhance citizens' and businesses' knowledge regarding water quality regulations as well as the benefits to the community from properly functioning waterways.

2. D. Implement BMPs consistent with NPDES Minimum Control Measure #3, Illicit Discharges Detection

and Elimination, to eliminate or minimize toxic discharges from business and industry.

2. E. Implement BMPs consistent with NPDES Minimum Control Measure #4, Construction Site Stormwater Runoff Control, to minimize sedimentation and channel degradation from construction sites.

2. F. Implement BMPs consistent with NPDES Minimum Control Measure #5, Post-Construction Stormwater Management for New Development and Re-Development, to ensure long-term functioning of newly- and re-developed sites.

2. G. Implement BMPs consistent with NPDES Minimum Control Measure #6, Pollution Prevention in Municipal Operations, to ensure that municipal properties - including the stormwater drainage system - are maintained in properly-functioning and environmentally-friendly conditions.

Goal 3: Preserve and Maintain Surface Waters, Wetlands, and Riparian Areas

Policies

3.1 Through the development plan review process, the City will ensure that development is protective of significant open waterways, wetlands, and riparian areas that meet historical, existing, and future needs.

3.2 The City will implement permitting programs, educational outreach, compliance inspections and enforcement activities as needed to reduce erosion, sedimentation, illicit discharges, and other pollution impacts to the City's waterways.

Implementation Actions

3. A. The City will review and refine its drainage program, which addresses erosion, sedimentation, and the impacts of land alteration, including permitting, inspections, technical education, public outreach, and enforcement.

3. B. The City will review development proposals for impacts on open drainage ways, wetlands, and riparian areas, and protect the functions and benefits of these areas as provided for in the Municipal Code; Design Standards; and other regulations, guidelines, and requirements.

3. C. The City will work cooperatively with the BV POA, citizens, businesses, and other agencies to protect and improve surface waterways, seek opportunities for stewardship partnerships, further enhance educational opportunities, and continue participation in intergovernmental work groups.

3. D. The City will implement and continue to refine/improve BMPs for all City activities with potential to impact water quality and/or the functions of waterways, wetlands, and riparian areas.

3. E. Implement BMPs consistent with NPDES Minimum Control Measure #4, Construction Site Stormwater Runoff Control, to reduce or eliminate sedimentation from construction sites as one of several contributors to poor water quality and quantity management.

3. F. Implement BMPs consistent with NPDES Minimum Control Measure #5, Post-Construction Stormwater Management for New Development and Redevelopment, so developments maintain the function and capacity of the stormwater drainage system, as well as preventing the contribution to

future degradation of either.

3. G. Implement BMPs consistent with NPDES Minimum Control Measure #6, Pollution Prevention in Municipal Operations, which is critical to maintaining properly functioning wetlands, riparian areas, open channels, and the overall system.

Goal 4: Citizens, Businesses, and Industries Understand the Need to Protect Water Quality

Policies

4.1 The City will develop targeted education and outreach and technical assistance programs regarding practices and obligations for keeping debris and pollutants out of the stormwater drainage system and train stakeholder groups in appropriate erosion control and sediment prevention practices, as well as stormwater management BMPs.

4.2 The City will seek to form partnerships with neighborhoods and other community groups interested in providing stewardship of local waterways.

4.3 The City will develop, implement, and enforce appropriate development design and municipal codes to address water quality compliance issues (including pollution, habitat, and aesthetic issues) and to encourage the development of urban waterways that are positive amenities in the community.

Implementation Actions

4. A. The City will implement outreach and education efforts regarding water quality, riparian and wetland areas, including business, contractor, resident, and developer outreach programs to educate these parties about their impacts on stormwater quality.

4. B. Continue maintenance, enforcement, and compliance activities - including inspections, technical assistance, and Code enforcement.

4. C. Implement BMPs consistent with NPDES Minimum Control Measure #1, Public Education and Outreach on Stormwater Impacts, to engage the public in the efforts to create positive urban amenities.

4. D. Implement BMPs consistent with NPDES Minimum Control Measure #3, Illicit Discharges Detection and Elimination, to ensure that waterways are safe; meet Local, State, and Federal water quality standards; and can function as amenities to the whole region.

Goal 5: Urban Drainage Ways Become Community Amenities

Policies

5.1 The City will conduct education and outreach activities to appropriate target groups to increase understanding of the importance of maintaining safe and clean drainage ways, and to seek volunteers willing to be caretakers for water features near them.

5.2 The City will protect existing significant open waterways and encourage through site planning and landscaping the creation of additional areas that enhances the attractiveness and natural functions of the water features.

5.3 The City will maintain all public drainage ways in a manner that provides for safe and attractive conditions within the limits of its fiscal constraints.

Implementation Actions

5. A. Enhance the City's erosion control program, including educating developers and the community regarding the positive aspects of open waterways to promote acceptance, and integrating effective compliance and enforcement components.

5. B. Provide adequate funding within the City's restraints for public maintenance of the stormwater drainage system, and ensure ongoing maintenance of private stormwater features through development agreements.

5. C. Increase educational outreach to schools and other youth groups to increase awareness of children regarding the need to keep litter and pollutants out of urban drainage ways.

5. D. Implement all six of the NPDES Minimum Control Measure BMPs. Implementing all of the provisions of the MS4 plan will ultimately result in improved water quality and quantity management, improved habitat and resource protection, and, ultimately, enhance urban waterways as desirable community amenities.

Section III: Municipal NPDES MS4 Plan

City Stormwater Management Program – Responsible Parties

The City is responsible for implementing surface water management activities within its boundaries, including the planning, design, construction, operation, and maintenance of the stormwater drainage system. In response to the NPDES Phase II stormwater requirements, the City has developed a MS4 plan addressing each of the six required Minimum Control Measures, as specified in the Federal-NPDES Phase II rules. The City's stormwater management program is the responsibility of the Planning, Building, and Code Enforcement Department. Other departments within the City will receive training to recognize stormwater issues related to their facility, the fieldwork they do, and for reporting these and other activities around town to the Planning, Building and Code Enforcement Department for review, investigation, education, enforcement, and/or legal action. Public Education and Involvement would also be encouraged with their co-workers, families, and neighbors. This same training will be made available to the employees of the BV POA and Village Waste Water.

City of Bella Vista Organizational Chart

The current organizational chart for the City of Bella Vista can be found in Appendix A.

NPDES Phase II BMP Requirements

Specific BMPs are proposed for each Minimum Control Measure (MCM), which are intended to support the reduction of discharges of pollutants in stormwater runoff to the maximum extent practicable (MEP) as required by the Federal-NPDES Phase II rules. Each MCM section provides the following information:

- A list of planned BMPs (proposed MS4 plan activities);
- A brief explanation of the BMP;
- A list of the responsible parties for the implementation;
- A summary of measurable goals for the planned BMPs; and
- A development/implementation schedule summary listing each BMP's activity, topic emphasis and

target audience for each year; and the rationale for each topic chosen.

The BMP schedule shows when certain activities will be completed on a calendar year basis. More specific dates are not given since weather (drought, flood, and/or "normal") conditions as well as the availability of funds from future city budgets may affect the timeline for the various actions. Early or late completion of one activity may also affect the schedule for starting or finishing the next one.

The NPDES Phase II rules provide for a five-year implementation schedule starting from March of 2004. Bella Vista was not determined to be part of an Urbanized Area until after the 2010 Census, so was not required to submit MS4 paperwork (NOI, this original SWMP, etc.) until January 2013 (per ADEQ notification). The current Arkansas State NPDES Permit implementation schedule covers calendar years 2014 through 2019.

Minimum Control Measure #1: Public Education and Outreach

Permit Requirements

Regulation 40 CFR 122.34(b)(1): "The permittee must implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff."

Applicable City BMPs and Explanations

PEO1: *Develop and distribute printed educational materials.* Input from both the MS4 Stormwater Compliance Group and Education Steering Committee guides the emphases of electronic and printed educational materials. Once topics have been identified, fact sheets, newsletters, press releases, and Public Service Announcements (PSAs) will be developed, adapted, and/or gathered for distribution at public meetings, in support of presentations, and with educational displays. Stormwater management and pollution prevention messages will be provided to participating MS4s for inclusion in municipal utility bill mailings to their residents.

PEO2: *Develop and distribute electronic educational materials.* Input from both the MS4 Stormwater Compliance Group and Education Steering Committee guides the emphases of electronic and printed educational materials. Once topics have been identified, podcasts, e-learning modules, website content, e-newsletters, e-press releases, and digital Public Service Announcements (PSAs) will be developed, adapted, and/or gathered for distribution at public meetings, in support of presentations, and with educational displays. Stormwater management and pollution prevention messages will be provided to participating MS4s for inclusion in municipal utility bill mailings to their residents.

PEO3: *Create displays and staff educational booths.* Displays highlighting the annual topics of emphasis will be created and set up/staffed at libraries, banks, schools, local festivals and fairs, etc.

PEO4: *Conduct hand-on youth stormwater/water quality education programs.* Educational programs for school youth will focus on the water cycle, watersheds, stormwater dynamics, water quality and pollution prevention using the Enviro-Scape surface runoff model, groundwater simulator, hands-on exercises from Project WET, Project WILD, and Project Learning Tree and creek-side classrooms. Programs conducted will support the Arkansas State Frameworks required curriculum.

PEO5: *Conduct stormwater programs for adult audiences.* Educational presentations will be given to illustrate stormwater dynamics, identify potential pollutants and pathways, describe techniques to reduce stormwater pollution and encourage voluntary BMP implementation according to the

annual topic/audience emphases outlined in the SWMP.

PEO6: *Riparian and waterbody areas.* A series of opportunities will be coordinated with the various watershed partnerships in NWA to provide residents, contractors, volunteers, service groups, families, school and scouting groups, and other organizations the chance to plant, clean-up, maintain, improve or otherwise repair riparian areas inside the City of Bella Vista.

Rationale

In order to cover a wide range of audiences including government staff, the general public, and youth, multiple outreach genres and methods should be used (booths and materials at local festivals, newspaper articles, school and camp programs, etc.). An education contract between the Northwest Arkansas Regional Planning Commission, the municipalities in their service area (that are specifically designated as being part of the urbanized area), and the University of Arkansas' Cooperative Extension Service was first developed in 2004 to address some of the common education requirements of municipal stormwater permits so that the municipalities could focus their efforts (and expenses) on issues within their specific municipality. Since the University of Arkansas is "an educator," by working with them the municipalities are provided more educational outreach opportunities while providing a unified message for the residents of Northwest Arkansas.

There is also a great need to partner with various organizations to maximize the educational impact. Coordinating with other agencies in our MS4 region like the cities of Fayetteville, Springdale, Rogers, Bentonville, Washington County, Benton County, the University of Arkansas (Fayetteville campus) and other watershed groups, helps to keep each staff informed and educated on regional stormwater-related issues, such as existing materials and information available for common use (e.g., monitoring data and results of BMP evaluations), and issues such as Endangered Species Act (ESA) implications for each municipality's stormwater management activities. The Cooperative Extension Service also partners with these organizations and uses media outlets and Extension Service listings to promote volunteer opportunities for stream clean ups and water monitoring.

Bella Vista's strategy for developing and distributing the public education materials is to start with information such as the most typical sources of pollutants in stormwater runoff and the impacts associated with those pollutants, and making this information available as educational handouts, flyers, and mailings handled by the University of Arkansas' Cooperative Extension Service. Future activities will include outreach presentations, advertisements, and workshops for the public, businesses, industry, and various other stakeholders, to educate them on impacts that the City's stormwater management program may have, and what they can do to improve stormwater quality. Outreach presentations, advertisements, and workshops can target development businesses to utilize new technology methods for stormwater runoff control and encourage Low Impact Development (LID) within development planning. Numerous topics can be covered by these outreach methods and will include recommendations for topics of interest via steering committees. Topic areas are coordinated to target populations that are defined by the different committees. These multiple partners, venues, and materials allow for at least 50% of the population of the MS4 areas to be reached.

Responsible Parties

The Northwest Arkansas Regional Planning and the University of Arkansas' Cooperative Extension Service have contracted with the municipality to be responsible for the development and implementation of the public education efforts. The City of Bella Vista's Planning, Building and Code Enforcement Department shall oversee these efforts and will address any and all short-falls of the contract product to ensure that all permit requirements are met. The City's various departments will

coordinate with various community and watershed groups for other educational and outreach activities beyond the scope of the Cooperative Extension Service's educational contract.

Summary of Measurable Goals

University of Arkansas Cooperative Extension Service staff may use periodic neighborhood surveys, public events, and consultation with community and citizen group leaders to solicit feedback on specific education and outreach efforts. The goals listed below were selected by the Cooperative Extension Service's staff that is under contract for our educational portions of our permit, but the MS4 representatives approved the quantity for each goal. Goal quantities were based on the percent of the Urbanized Area within the municipality so larger cities will have more stringent requirements (both in size and quantity) than a neighboring and/or adjoining small town may have. Specific measureable goals for Bella Vista during the 5-year permit period include, but are not limited to:

- 20 electronic and printed educational materials will be developed;
- Documenting the number of educational materials distributed;
- Stormwater displays with different focal points will be created for use at 5 different events/locales;
- 20 stormwater education programs will be conducted for youth audiences;
- 10 stormwater education programs will be conducted for adult audiences; and
- 2 riparian plantings in the watershed that Bella Vista is a major contributor to.

Development/Implementation Schedule Summary

<table>
<tr><th rowspan="2">BMP#</th><th colspan="5">PERMIT YEAR</th></tr>
<tr><th>2015</th><th>2016</th><th>2017</th><th>2018</th><th>2019</th></tr>
<tr><td rowspan="6">PEO1</td><td colspan="5">Utilize education steering committee to plan outreach/education methods, measurable goals, and evaluate program impacts.</td></tr>
<tr><td colspan="5">Meet with the stormwater compliance group on a monthly basis to receive feedback on educational efforts and regional training needs.</td></tr>
<tr><td colspan="5">Use multiple printed methods to reach the general public highlighting season-specific and media-driven stormwater management and pollution prevention topics.</td></tr>
<tr><td>Topic Emphasis: Household yard and garden management</td><td>Topic Emphasis: Automotive maintenance</td><td>Topic Emphasis: Septic systems, and swimming pools, and leftover chemicals</td><td>Topic Emphasis: Litter/trash management</td><td>Topic Emphasis: Irrigation management by disconnecting impervious surfaces</td></tr>
<tr><td>Target Audience: Homeowners and gardening enthusiasts</td><td>Target Audience: Vehicle and small equipment owners</td><td>Target Audience: Homeowners with a septic system and/or swimming pool</td><td>Target Audience: Homeowners and general public</td><td>Target Audience: Homeowners and/or businesses with irrigation and guttering systems</td></tr>
<tr><td>Rationale: Improper yard waste disposal can clog storm drains. Excess fertilizer and pesticide applications can contaminate stormwater with nutrients and chemicals.</td><td>Rationale: Leaking automotive fluids & washing vehicles and/or small equipment on paved surfaces allow oil, grease, & other chemicals to be carried in stormwater to local waterways.</td><td>Rationale: Malfunctioning septic systems; improper handling and disposal of pool chemicals; & emptying chlorinated (pool) water and impact stormwater quality.</td><td>Rationale: Improper handling and disposal of litter and trash can allow it to enter the storm drain system and impact stormwater quality.</td><td>Rationale: Efficient irrigation conserves water and prevents it from entering the storm drain system while disconnecting impervious surfaces minimizes runoff by enhancing infiltration.</td></tr>
</table>

BMP#	PERMIT YEAR				
	2015	2016	2017	2018	2019
PEO2	Use multiple electronic outreach methods to reach the general public highlighting season-specific and media-driven stormwater management and pollution prevention topics.				
	Topic Emphasis: Household yard and garden management	***Topic Emphasis:*** Automotive maintenance	***Topic Emphasis:*** Septic systems, and swimming pools, and leftover chemicals	***Topic Emphasis:*** Litter/trash management	***Topic Emphasis:*** Irrigation management by disconnecting impervious surfaces
	Target Audience: Homeowners and gardening enthusiasts	***Target Audience:*** Vehicle and small equipment owners	***Target Audience:*** Homeowners with a septic system and/or swimming pool	***Target Audience:*** Homeowners and general public	***Target Audience:*** Homeowners and/or businesses with irrigation and guttering systems
	Rationale: Improper yard waste disposal can clog storm drains. Excess fertilizer and pesticide applications can contaminate stormwater with nutrients and chemicals.	***Rationale:*** Leaking automotive fluids and washing vehicles and/or small equipment on paved surfaces allow oil, grease, and other chemicals to be carried in stormwater to local waterways.	***Rationale:*** Malfunctioning septic systems; improper handling and disposal of pool chemicals; and emptying chlorinated (pool) water and impact stormwater quality.	***Rationale:*** Improper handling and disposal of litter and trash can allow it to enter the storm drain system and impact stormwater quality.	***Rationale:*** Efficient irrigation conserves water and prevents it from entering the storm drain system while disconnecting impervious surfaces minimizes runoff by enhancing infiltration.
PEO3	Use multiple methods of display to educate the public highlighting season-specific and media-driven stormwater management and pollution prevention topics.				
	Topic Emphasis: Household yard and garden management	***Topic Emphasis:*** Automotive maintenance	***Topic Emphasis:*** Septic systems, and swimming pools, and leftover chemicals	***Topic Emphasis:*** Litter/trash management	***Topic Emphasis:*** Irrigation management by disconnecting impervious surfaces
	Target Audience: Homeowners and gardening enthusiasts	***Target Audience:*** Vehicle and small equipment owners	***Target Audience:*** Homeowners with a septic system and/or swimming pool	***Target Audience:*** Homeowners and general public	***Target Audience:*** Homeowners and/or businesses with irrigation and guttering systems
	Rationale: Improper yard waste disposal can clog storm drains. Excess fertilizer and pesticide applications can contaminate stormwater with nutrients and chemicals.	***Rationale:*** Leaking automotive fluids and washing vehicles and/or small equipment on paved surfaces allow oil, grease, and other chemicals to be carried in stormwater to local waterways.	***Rationale:*** Malfunctioning septic systems; improper handling and disposal of pool chemicals; and emptying chlorinated (pool) water and impact stormwater quality.	***Rationale:*** Improper handling and disposal of litter and trash can allow it to enter the storm drain system and impact stormwater quality.	***Rationale:*** Efficient irrigation conserves water and prevents it from entering the storm drain system while disconnecting impervious surfaces minimizes runoff by enhancing infiltration.
PEO4	Conduct hands-on activities with youth through school enrichment, library, and camp programs.				

BMP#	PERMIT YEAR				
	2015	2016	2017	2018	2019
	Topic Emphasis: Household yard and garden management	***Topic Emphasis:*** Automotive maintenance	***Topic Emphasis:*** Septic systems, and swimming pools, and leftover chemicals	***Topic Emphasis:*** Litter/trash management	***Topic Emphasis:*** Irrigation management by disconnecting impervious surfaces
	Target Audience: Young family members of households	***Target Audience:*** Young family members of households	***Target Audience:*** Young family members of business owners and households	*Target Audience:* Young family members of households	***Target Audience:*** Young family members of business owners and households with irrigation and guttering systems
	Rationale: Improper yard waste disposal can clog storm drains. Excess fertilizer and pesticide applications can contaminate stormwater with nutrients and chemicals.	***Rationale:*** Leaking automotive fluids and washing vehicles and/or small equipment on paved surfaces allow oil, grease, and other chemicals to be carried in stormwater to local waterways.	***Rationale:*** Malfunctioning septic systems; improper handling and disposal of pool chemicals; and emptying chlorinated (pool) water and impact stormwater quality.	***Rationale:*** Improper handling and disposal of litter and trash can allow it to enter the storm drain system and impact stormwater quality.	***Rationale:*** Efficient irrigation conserves water and prevents it from entering the storm drain system while disconnecting impervious surfaces minimizes runoff by enhancing infiltration.
PEO5	Conduct hands-on activities with adults through community service organizations and other public events.				
	Contract with BV POA Lakes' staff for basic water sampling of all Bella Vista lakes plus up- and down-stream from where creeks and streams enter and leave our city limits.				
	Topic Emphasis: Household yard and garden management	***Topic Emphasis:*** Automotive maintenance	***Topic Emphasis:*** Septic systems, and swimming pools, and leftover chemicals	***Topic Emphasis:*** Litter/trash management	***Topic Emphasis:*** Irrigation management to minimize runoff by disconnecting impervious surfaces
	Target Audience: Homeowners; BVPOA Lakes' staff and volunteers; and gardening enthusiasts	***Target Audience:*** Vehicle and small equipment owners; BVPOA Lakes' staff and volunteers	***Target Audience:*** Homeowners with a septic system and/or swimming pool; BVPOA Lakes' staff and volunteers	***Target Audience:*** Industrial, institutional, and commercial businesses; households; BVPOA Lakes' staff and volunteers	***Target Audience:*** Industrial, institutional, and commercial businesses; households with irrigation and guttering systems; BVPOA Lakes' staff and volunteers

BMP#	PERMIT YEAR				
	2015	**2016**	**2017**	**2018**	**2019**
	Rationale: Improper yard waste disposal can clog storm drains. Excess fertilizer and pesticide applications can contaminate stormwater with nutrients and chemicals.	***Rationale:*** Leaking automotive fluids and washing vehicles and/or small equipment on paved surfaces allow oil, grease, and other chemicals to be carried in stormwater to local waterways.	***Rationale:*** Malfunctioning septic systems; improper handling and disposal of pool chemicals; and emptying chlorinated (pool) water and impact stormwater quality.	***Rationale:*** Improper handling and disposal of litter and trash can allow it to enter the storm drain system and impact stormwater quality.	***Rationale:*** Efficient irrigation conserves water and prevents it from entering the storm drain system while disconnecting impervious surfaces minimizes runoff by enhancing infiltration.
PEO6	Trees, shrubs, grasses, and other riparian planted areas help stabilize banks and bottoms of creeks and streams while reducing opportunities for erosion to occur.				
	Contract with BV POA Lakes' staff for basic water sampling of all Bella Vista lakes plus up- and down-stream from where creeks enter and leave city limits.				
	Topic Emphasis: Household yard and garden management	***Topic Emphasis:*** Automotive maintenance	***Topic Emphasis:*** Septic systems, and swimming pools, and leftover chemicals	***Topic Emphasis:*** Litter/trash management	***Topic Emphasis:*** Irrigation management by disconnecting impervious surfaces
	Target Audience: Green Industry; BVPOA Lakes' staff and volunteers; and homeowners	***Target Audience:*** Vehicle and small equipment owners; and BVPOA Lakes' staff and volunteers	***Target Audience:*** Residents; business owners; and BVPOA Lakes' staff and volunteers	***Target Audience:*** Industrial, institutional, and commercial businesses; households near drainageways; and BVPOA Lakes' staff and volunteers	***Target Audience:*** Industrial, institutional, and commercial businesses; households with irrigation and guttering systems; and BVPOA Lakes' staff and volunteers
	Rationale: Maintained drainage & waterways adjoining properties can mean reduced needs for irrigation, fertilizing, and flooding.	***Rationale:*** Increased riparian protection can mean fewer constructed and/or installed BMPs are needed - reducing costs for maintaining creek, stream, and lake health.	***Rationale:*** Maintaining healthy riparian areas can support other wildlife and food sources while protecting water quality in creeks and lakes.	***Rationale:*** Litter and trash impact stormwater runoff quality which can affect the health of all downstream waterbodies.	***Rationale:*** Maintained drainage & waterways adjoining properties can mean reduced needs for irrigation, fertilizing, and mowing while preventing flooding.

Minimum Control Measure #2: Public Involvement and Participation

Permit Requirements:

"The permittee must, at a minimum, comply with State and local public notice requirements when implementing a public involvement/participation program." Through the education contract with the Northwest Arkansas Regional Planning and the University of Arkansas' Cooperative Extension Service,

measurable program accomplishments will be tracked and reported through quarterly and annual reports presented to the NWA Regional Planning Commission, education steering committees, and the MS4 stormwater compliance group along with annual reports for each participating MS4 prior to the ADEQ annual reporting deadline.

Applicable City BMPs and Explanations

PIP1: *Train and Utilize Volunteer Educators:* "Train-the-trainer" processes will be used to engage public volunteers and educators in teaching stormwater and pollution prevention (e.g. Benton and Washington County Master Gardeners, Master Naturalists, Lake-Smart Leaders, etc.).

PIP2: *Conduct Public Participation/Involvement Events:* Citizen and youth groups will participate in public involvement events (litter pick up, establishing demonstration rain gardens, planting riparian vegetation, stenciling storm drain inlets, etc.

PIP3: *Engage Residents in Stormwater Policy Development:* Information will be included through multiple outlets (website, newsletters, press releases, etc.) to encourage public input/involvement as MS4 stormwater management policy evolves.

Rationale

The jurisdiction selected the above BMPs to address this Minimum Control Measure #2 and to complement its public education efforts in Minimum Control Measure #1. The jurisdiction adopted a Stormwater Ordinance which included initial review and approval of the public involvement plan included in the MS4 permit application. The plan outlines opportunities for public input into the SWMP at various stages of its development. These events included informational posters and graphic displays, with staff available to answer questions and solicit feedback. Outreach was directed at the general public as well as applicable professional and environmental organizations and the development community. Certain policies, implementation actions, and BMPs included in the SWMP may trigger requirements for additional public involvement, such as amending the municipal code or the development code, or implementing new ordinances.

The City is working through the Northwest Arkansas Regional Planning Commission to contract with the University of Arkansas' Cooperative Extension Service to continue a public involvement and participation program addressing this and 20 other jurisdictions within our MS4. Components of this program will include organizing citizen participation in periodic creek cleanup efforts, storm drain stenciling, or assisting with educational or interpretive events.

Responsible Parties

The jurisdiction is responsible for the development and implementation of the public involvement and participation efforts, utilizing the services of the University of Arkansas Cooperative Extension Service (contracted through the Northwest Arkansas Regional Planning Commission). The City of Bella Vista's Planning, Building and Code Enforcement Department shall oversee these efforts and will address any and all short-falls of the contract product to ensure that all permit requirements are met.

Summary of Measurable Goals

The jurisdiction will provide opportunities for public input on the stormwater management program on an annual basis in various forms, including surveys and/or public events. Additionally, the Planning, Building, and Code Enforcement Department will periodically update the administration on the stormwater management program and efforts to meet state water quality standards. Feedback from the administration on annual progress will guide modifications to the stormwater management program as appropriate. The jurisdiction will track these activities on an annual basis. In addition, the University of

Arkansas' Cooperative Extension Service will utilize Master Gardeners and community volunteers for creek clean-ups, storm drain stenciling, and assisting with PIP1 and PP2 programs. The goals listed below were selected by the Cooperative Extension Service's staff that is under contract for our educational portions of our permit, but the MS4 representatives approved the quantity for each goal. Goal quantities were based on the percent of the Urbanized Area within the municipality so larger cities will have more stringent requirements (both in size and quantity) than a neighboring and/or adjoining small town may have. Specific measureable goals during the 5-year permit period include, but are not limited to:

- 5 train-the-trainer programs will be conducted;
- 3 public participation events will be coordinated; and
- 5 stormwater policy development, review, or implementation public meetings will be held.

Summary of Development/Implementation Schedule

<table>
<tr><th rowspan="2">BMP#</th><th colspan="5">PERMIT YEAR</th></tr>
<tr><th>2015</th><th>2016</th><th>2017</th><th>2018</th><th>2019</th></tr>
<tr><td rowspan="5">PIP1</td><td colspan="5">Incorporate stormwater pollution prevention into annual Master Gardener training and use trained volunteers for further public outreach, education, and involvement programs.</td></tr>
<tr><td>Topic Emphasis: Rain barrel workshops and low-input landscaping programs</td><td>Topic Emphasis: Automotive and small equipment maintenance</td><td>Topic Emphasis: Septic systems, and swimming pools, and leftover chemicals</td><td>Topic Emphasis: Clean up events (creek, lake, park, trail or roadway)</td><td>Topic Emphasis: Proper irrigation system use and/or maintenance</td></tr>
<tr><td>Target Audience: Urban homeowners</td><td>Target Audience: Owners of vehicles and small equipment</td><td>Target Audience: Homeowners with septic systems and/or swimming pools</td><td>Target Audience: Homeowners and general public</td><td>Target Audience: Homeowners and/or businesses with irrigation and guttering systems</td></tr>
<tr><td>Rationale: Excess fertilizer and pesticide applications can contaminate stormwater with nutrients and chemicals.</td><td>Rationale: Leaking fluids from vehicles and/or small equipment allow oil, grease, and other chemicals to be carried in stormwater to local waterways.</td><td>Rationale: Malfunctioning septic systems; improper handling and disposal of pool chemicals; and pumping chlorinated water can impact stormwater quality.</td><td>Rationale: Improper handling and disposal of litter and trash can allow it to enter the storm drain system and impact stormwater quality.</td><td>Rationale: Efficient irrigation conserves water and prevents it from entering the storm drain system while disconnecting impervious surfaces minimizes runoff by enhancing infiltration.</td></tr>
<tr><td rowspan="3">PIP2</td><td colspan="5">Citizen and youth groups to participate in public participation and public involvement activities.</td></tr>
<tr><td colspan="5">Contract with BV POA Lakes' staff for basic water sampling of all Bella Vista lakes plus up- and down-stream from where creeks and streams enter and leave our city limits.</td></tr>
<tr><td>Topic Emphasis: Proper application and/or disposal of fertilizer, pesticide, and herbicide chemicals</td><td>Topic Emphasis: Automotive and small equipment maintenance</td><td>Topic Emphasis: Septic systems, and swimming pools, and leftover chemicals</td><td>Topic Emphasis: Clean up events (creek, lake, park, trail or roadway)</td><td>Topic Emphasis: Irrigation management by disconnecting impervious surfaces</td></tr>
</table>

BMP#	PERMIT YEAR				
	2015	**2016**	**2017**	**2018**	**2019**
	Target Audience: Urban homeowners; and BVPOA Lakes' staff and volunteers	***Target Audience:*** Owners of vehicles and small equipment; and BVPOA Lakes' staff and volunteers	***Target Audience:*** Homeowners with septic systems and/or swimming pools; and BVPOA Lakes' staff and volunteers	***Target Audience:*** Homeowners and general public; and BVPOA Lakes' staff and volunteers	***Target Audience:*** Homeowners and/or businesses with irrigation and guttering systems; and BVPOA Lakes' staff and volunteers
	Rationale: Educate homeowners and renters about over-fertilization adding nutrients to runoff and the types of problems their presence can create downstream.	***Rationale:*** Educate owners and/or operators of vehicles and/or small equipment about how those particular fluids can affect the quality of stormwater.	***Rationale:*** Educate owners and/or operators of septic systems and/or swimming pools about how those particular chemicals can affect the pH, clarity, and runoff quality.	***Rationale:*** Improper handling and disposal of litter and trash can allow it to enter the storm drain system and impact stormwater quality.	***Rationale:*** Efficient irrigation conserves water and prevents it from entering the storm drain system while disconnecting impervious surfaces minimizes runoff by enhancing infiltration.
PIP3	Engage residents in implementing stormwater policies, implementation actions, and BMPs.				
	Contract with BV POA Lakes' staff for basic water sampling of all Bella Vista lakes plus up- and down-stream from where creeks and streams enter and leave our city limits.				
	Topic Emphasis: Rain barrel workshops and low-input landscaping programs	***Topic Emphasis:*** Urban riparian buffers	***Topic Emphasis:*** Citizen-based water quality monitoring	***Topic Emphasis:*** Clean up events (creek, lake, park, trail or roadway)	***Topic Emphasis:*** Irrigation management by disconnecting impervious surfaces
	Target Audience: Urban homeowners; and BVPOA Lakes' staff and volunteers	***Target Audience:*** Owners of vehicles and small equipment; and BVPOA Lakes' staff and volunteers	***Target Audience:*** Homeowners with septic systems and/or swimming pools; and BVPOA Lakes' staff and volunteers	***Target Audience:*** Homeowners and general public; and BVPOA Lakes' staff and volunteers	***Target Audience:*** Homeowners and/or businesses with irrigation and guttering systems; and BVPOA Lakes' staff and volunteers
	Rationale: Educate homeowners and renters about over-fertilization adding nutrients to runoff and the types of problems their presence can create downstream.	***Rationale:*** Increased riparian protection can mean fewer constructed and/or installed BMPs are needed, reducing costs during both construction and site maintenance.	***Rationale:*** Educate owners and/or operators of septic systems and/or swimming pools about how those particular chemicals can affect water pH, clarity, and quality.	***Rationale:*** Improper handling and disposal of litter and trash can allow it to enter the storm drain system and impact stormwater quality.	***Rationale:*** Efficient irrigation conserves water and prevents it from entering the storm drain system while disconnecting impervious surfaces minimizes runoff by enhancing infiltration.

Minimum Control Measure #3: Illicit Discharge Detection and Elimination

Permit Requirements:

The permittee must:

- "Develop, implement and enforce a program to detect and eliminate illicit discharges [as defined in 40 CFR §122.26(b)(2)] into the permittee's small MS4, including notifying adjacent interconnected MS4 when discharges occur;
- "Develop and continue to update a storm sewer system map, showing the location of all outfalls and the names and location of all waters that receive discharges from those outfalls, including catch basins, pipes, ditches and public and private stormwater facilities;
- "Effectively prohibit (through ordinances or other regulatory mechanisms to the maximum extent allowable under Local, State, and Federal laws) non-stormwater discharges into the permittee's storm sewer system and implement appropriate enforcement procedures and actions for non-compliance;
- "Develop and implement a plan to detect and address non-storm water discharges, including illegal dumping, to the permittee's system;
- "Inform public employees, businesses, and the general public of the hazards associated with illegal discharges and improper disposal of waste to the stormwater system;
- "Address all categories of non-storm water discharges or flows (illicit discharges) if identifies as significant contributor of pollutants to the permittee's small MS4;
- "Develop a list of occasional incidental non-storm water discharges that will NOT be addressed as illicit discharges because of reasonably expectations (based on information available) that the source would not be a significant source of pollutants. These will primarily be due to the nature of the discharges or conditions the City of Bella Vista' storm water management program plan has established for allowing these discharges to the permittee's MS4; and
- "Develop a process to respond to and document complaints relating to illicit discharges. "

Applicable City BMPs and Explanations

IDDE1: *Ordinance: Creation and Revisions.* Create and annually review for revisions to stormwater ordinances are needed to keep the ordinance, its enforcement actions, and any related items up-to-date with the state and federal regulations that are in affect.

IDDE2: *Reporting and Response System for Suspicious Discharges.* Suspicious discharges need to be report and responded to in timely manners so that clean-up and enforcement can take place.

IDDE3: *Tracking and Enforcement of Illicit Discharges.* Prevention of large problems begins with education of owner/operators and prevention of small messes. Unfortunately, sometimes only enforcement can stop the reoccurrence of events.

IDDE4: *Outfall Inventory and Dry-Weather Screenings.* Continual inventorying of stormwater outfalls and dry-weather screenings makes it easier to track back to locate the source of the discharge when one occurs.

IDDE5: *Outfall and System Mapping.* Mapping stormwater outfalls makes it easier to locate the source of the discharge when one occurs.

IDDE6: *City-wide Illicit Discharge Detection and Elimination Plan.* This plan will include developing and implementing practices at each city-owned or operated site to prevent pollution and/or reduce stormwater discharges that could carry pollution. It also will involve ways to review, examine, repair, replace, improve and/or maintain the existing stormwater system so that illicit connections to our separate storm sewer system can be removed.

IDDE7: *Collecting, Identifying, and Assessing Non-Stormwater Discharges.* This process will help the City of Bella Vista identify any discharges that need to be removed from the exempt-status discharge list to a list of identified discharges that may and/or do affect the stormwater system - either the structures or the water quality of the waterway or the downstream receiving water bodies.

Rationale

Bella Vista selected the above seven BMPs to address this requirement. IDDE1 includes an annual review of the existing stormwater ordinance to compare against both other city ordinances as well as the appropriate state regulations. If any deficiencies are found then department and city policies for updating the ordinance shall be followed by the Planning, Building, and Code Enforcement Department's personnel. IDDE2 and IDDE3 describe the City's processes that respond to and document complaints regarding water quality (including illicit discharges) as well as The City's program to prohibit and enforce elimination of illicit discharges. These two BMPs, reporting/response and tracking/enforcement, will work in conjunction and include several methods for reporting presumed illicit spills, sightings and discharges as well as follow-up procedures. Most of the City department's personnel, while doing their daily jobs will report potential illicit problem areas to the Director of Planning, Building, & Code Enforcement or his/her designee. The problem area will be investigated as soon as practically possible and depending on the situation. All infractions will be brought to the owner's attention, followed up on, and an investigation report to the Illicit Complaint files complete with pictures and the investigation results. Larger incidents with water bodies, fish kills with unknown circumstances will also be reported to State Fish and Wildlife and/or the ADEQ for their expertise and water quality measurement capabilities. IDDE2 and IDDE3 also include publicizing of the Planning, Building, and Code Enforcement Department's phone number for complaints and protocols for the most efficient and effective follow-up actions in response to calls as well as the phone number for the Police and Fire Departments for emergency and warranted after-hours reporting of obviously environmentally-dangerous spills (i.e. almost any petroleum product).

IDDE4 and IDDE5 will work together to begin to create the stormwater inventory and map of the City's Stormwater System. As outfalls continue to be visited during dry periods, the channels will be walked to look for new or previously unmapped outfalls. Outfall maps will be reviewed for completeness, completed where information is missing, updated as new development occurs, and maintained during the permit period. The map will be created by using GPS and other software programs. All information is reviewed by City personnel as additional information is provided to compare against older versions of the map or its information. The map will continue to be updated as needed by the Planning, Building, and Code Enforcement Department. New development designs will be required for all newly platted areas. As-built construction drawings showing streets, inlets and development tie-ins to existing storm drains or outfalls from the development will be required to be submitted so they can be transferred from the development drawings to the City's digital copy of the storm sewer map.

Activities conducted under IDDE6 will partner with IDDE2 and IDDE 3 to inform the public about the hazards of illicit discharges is implemented through several of the public education outreaches by both the City and their education partner - the University of Arkansas' Cooperative Extension Service. IDDE7 will address the collection, identification, and assessment non-stormwater discharges. Discharges determined to adversely impact the stormwater system will be followed up by appropriate management practices or regulations will be used, developed, and/or implemented - including enforcement of any municipal regulations available.

Responsible Parties

- Director of Planning, Building, and Code Enforcement and/or his/her designee
- Bella Vista Village Property Owners Association's Lakes Dept., as contracted for water sampling
- Village Waste Water laboratory staff, as needed for sample testing of suspicious discharges and "dry" weather screenings

- Bella Vista Street Dept. personnel, as needed

Summary of Measurable Goals

The goals below were selected to achieve reductions and eliminations of non-stormwater discharges to the stormwater system. Some goals were divided into separate tasks to better review progress on each while other objectives were more clearly defined so that the assigned personnel have a better idea of what is involved in completing the task. All goals will be annually monitored, reviewed, evaluated and assessed by an individual within the Planning, Building, and Code Enforcement Department with stormwater oversight, but not by the program's coordinator. The measurable goals of the illicit discharges program during the 5-year permit period include, but are not limited to:

- Monitor and revise existing ordinances to meet new federal and state permit requirements.
- Develop and implement a system to monitor, document, and track the number and type of calls received each year and the actions taken in response.
- Annually visit a minimum of 20% of the known outfalls for a dry-weather screening. Areas visited should overlap with developed and/or mapped areas to search for undocumented and previously unknown outfalls. Receiving streams (local and ultimate) of all waters will be documented on the field inventory sheets and added to the storm sewer system's digital information.
- Document an annual review of outfall maps of the storm sewer system to ensure they are up-to-date. All maps cover the city limits of Bella Vista (not just the Urbanized Area) and include the name of each local and regional receiving stream.
- Monitor the number of illicit discharges that are encountered and document enforcement procedures that are conducted.
- Implement and enforce a program to detect and eliminate illicit discharges. The program will include regulatory and enforcement mechanisms and will be evaluated annually.
- Monitor the number of commercial/industrial uses assessed for possible illicit discharges and document resolution of illicit discharges identified.
- Complete an assessment of non-stormwater discharges along with implementing local controls where identified as needed.

Summary of Development/Implementation Schedule

<table>
<tr><th rowspan="2">BMP#</th><th colspan="5">PERMIT YEAR</th></tr>
<tr><th>2015</th><th>2016</th><th>2017</th><th>2018</th><th>2019</th></tr>
<tr><td rowspan="4">IDDE1</td><td colspan="5">Revise and adopt an updated stormwater, grading, and erosion control ordinance.</td></tr>
<tr><td colspan="5">Create and adopt an illicit discharge ordinance.</td></tr>
<tr><td>Topic Emphasis: Create draft illicit discharge ordinance; include definitions of illegal and illicit. Review existing ordinance to new state MS4 permit requirements.</td><td>Topic Emphasis: Revise both ordinances as necessary to address public comments on draft ordinance and new state permit in existing ordinance. Adopt revised ordinance.</td><td>Topic Emphasis: Begin education of public on new ordinance on January 1. Continue enforcement of existing ordinance.</td><td>Topic Emphasis: Begin enforcement (liens, fines, etc.) of new ordinance. Continue enforcement of existing ordinance.</td><td>Topic Emphasis: Continue enforcement of both ordinances.</td></tr>
<tr><td colspan="5">Target Audience: Planning, Building, and Code Enforcement departmental staff</td></tr>
</table>

BMP#	PERMIT YEAR				
	2015	2016	2017	2018	2019
	Rationale: Make necessary revisions to the draft ordinance by remove "shortages" between existing ordinances and new state permit requirements	***Rationale:*** To allow the public to comment on additional regulations before ordinance is adopted.	***Rationale:*** Provide several years of warnings and advanced education will hopefully minimize the complaints when enforcement begins.		
IDDE2	Encourage Bella Vista residents and businesses to report to City Hall suspected illegal dumping and suspect liquid discharges in and near our drainage ways.				
	Contract with BV POA Lakes' staff for basic water sampling of all Bella Vista lakes plus up- and down-stream from where creeks and streams enter and leave our city limits.				
	Topic Emphasis: Household yard and garden management	***Topic Emphasis:*** Automotive maintenance	***Topic Emphasis:*** Septic systems, and swimming pools, and leftover chemicals	***Topic Emphasis:*** Litter/trash management	***Topic Emphasis:*** Irrigation management to minimize runoff by disconnecting impervious surfaces
	Target Audience: Homeowners; gardening enthusiasts; and BVPOA Lakes' staff and volunteers	***Target Audience:*** Vehicle and small equipment owners; and BVPOA Lakes' staff and volunteers	***Target Audience:*** Homeowners with septic system and/or swimming pool; and BVPOA Lakes' staff and volunteers	***Target Audience:*** Industrial, institutional, and commercial businesses; households; and BVPOA Lakes' staff and volunteers	***Target Audience:*** Industrial, institutional, and commercial businesses; households with irrigation and guttering systems; and BVPOA Lakes' staff and volunteers
	Rationale: Over-fertilizing and over-watering of landscaping and lawns increases the amounts of polluted waters into our creeks and streams.	***Rationale:*** Support green infrastructure educational emphasis promoting urban greenways for stormwater management.	***Rationale:*** Malfunctioning septic systems; improper handling and disposal of pool chemicals; and pumping chlorinated water can impact stormwater quality.	***Rationale:*** Improper handling and disposal of litter and trash can allow it to enter the storm drain system and impact stormwater quality.	***Rationale:*** Efficient irrigation conserves water and prevents it from entering the storm drain system while disconnecting impervious surfaces minimizes runoff by enhancing infiltration.
IDDE3	Tracking illicit discharges and enforcing policies and ordinances.				
	Topic Emphasis: Annually review Report and Response System for repeat violators of ordinance. Apply existing code enforcement options.	***Topic Emphasis:*** Draft/develop a plan to detect and address non-storm water discharges.	***Topic Emphasis:*** Adopt and implement the plan to detect and address non-storm water discharges.	***Topic Emphasis:*** Get the updated library of background materials found in the various waterway from past water collections.	***Topic Emphasis:*** Get the updated library of chemicals and other parameters found in the pre-treatment samples of past water collections.

<table>
<tr><th rowspan="2">BMP#</th><th colspan="5">PERMIT YEAR</th></tr>
<tr><th>2015</th><th>2016</th><th>2017</th><th>2018</th><th>2019</th></tr>
<tr><td></td><td>Target Audience: Municipal employees for known stormwater outfalls and/or known street and ditch dump sites.</td><td>Target Audience: Municipal employees for known stormwater outfalls and/or known street and ditch dump sites.</td><td>Target Audience: Municipal employees for known stormwater outfalls and/or known street and ditch dump sites.</td><td>Target Audience: Municipal employees for known stormwater outfalls and/or known street and ditch dump sites.</td><td>Target Audience: Municipal employees for known stormwater outfalls and/or known street and ditch dump sites.</td></tr>
<tr><td colspan="6">Rationale: Have all liquid samples tested for content. Have all unknown/unidentified solids collected and tested by proper personnel. Prevention of large problems begins with education of owner/operators and prevention of small messes. Unfortunately, sometimes only enforcement can stop the reoccurrence of events.</td></tr>
<tr><td rowspan="3">IDDE4</td><td colspan="5">Inventory stormwater outfalls.</td></tr>
<tr><td>Topic Emphasis: Inventory 20% of stormwater outfalls. Annually monitor and revise the inventory to include new outfalls in areas of new development and redevelopment.</td><td>Topic Emphasis: Inventory additional 20% of stormwater outfalls and connections to stormwater drainage system, including outfalls of previously developed (but unmapped) areas</td><td>Topic Emphasis: Inventory additional 20% of stormwater outfalls and connections to stormwater drainage system. Annually monitor and revise the inventory to include new outfalls.</td><td>Topic Emphasis: Inventory 20% of stormwater outfalls. Annually monitor and revise the inventory to include new outfalls in areas of new development and redevelopment.</td><td>Topic Emphasis: Inventory additional 20% of stormwater outfalls and connections to stormwater drainage system, including outfalls of previously developed (but unmapped) areas</td></tr>
<tr><td colspan="5">Target Audience: City employees and contract companies for locating unmapped outfalls. Engineers, designers, contractors, builders and other construction community personnel on newly installed outfalls.
Rationale: When a discharge has been reported, knowing the upstream system from the report can make it easier to track back to locate the source of the discharge.</td></tr>
<tr><td rowspan="3">IDDE5</td><td colspan="5">Develop a detailed map of storm drainage system and stormwater outfalls.</td></tr>
<tr><td>Topic Emphasis: Inventory 20% of stormwater outfalls. Annually monitor and revise the inventory to include new outfalls in areas of new development and redevelopment.</td><td>Topic Emphasis: Inventory additional 20% of stormwater outfalls and connections to stormwater drainage system, including outfalls of previously developed (but unmapped) areas</td><td>Topic Emphasis: Inventory additional 20% of stormwater outfalls and connections to stormwater drainage system. Annually monitor and revise the inventory to include new outfalls.</td><td>Topic Emphasis: Inventory 20% of stormwater outfalls. Annually monitor and revise the inventory to include new outfalls in areas of new development and redevelopment.</td><td>Topic Emphasis: Inventory additional 20% of stormwater outfalls and connections to stormwater drainage system, including outfalls of previously developed (but unmapped) areas</td></tr>
<tr><td colspan="5">Target Audience: City employees and contract companies for locating unmapped outfalls. Engineers, designers, contractors, builders and other construction community personnel on newly installed outfalls.
Rationale: When a discharge has been reported, knowing the upstream system from the report can make it easier to track back to locate the source of the discharge.</td></tr>
<tr><td>IDDE6</td><td colspan="5">Develop pollution practices and policies for each city-operated site to prevent pollution and reduce possibility of stormwater discharge carrying pollution.</td></tr>
</table>

BMP#	PERMIT YEAR				
	2015	2016	2017	2018	2019
	Topic Emphasis: Review and revise the pollution practices and policies for each city-operated site with the respective overseeing department head.	***Topic Emphasis:*** Each department to adopt and implement practices and policies for respective site(s) as soon as possible.	***Topic Emphasis:*** Review individual department policies for shortfalls.	***Topic Emphasis:*** Review and revise the pollution practices and policies for each city-operated site with the respective overseeing department head.	***Topic Emphasis:*** Revise practices and policies as necessary to comply with new state MS4, construction, and industrial permits.
	Target Audience: City employees and contract companies operating city-owned and/or -operated facilities				
	Rationale: Improper yard waste disposal can clog storm drains. Excess fertilizer and pesticide applications can contaminate stormwater with nutrients and chemicals.	***Rationale:*** Leaking automotive fluids and washing vehicles and/or small equipment on paved surfaces allow oil, grease, and other chemicals to be carried in stormwater to local waterways.	***Rationale:*** Malfunctioning septic systems; improper handling and disposal of pool chemicals; and emptying chlorinated (pool) water and impact stormwater quality.	***Rationale:*** Improper handling and disposal of litter and trash can allow it to enter the storm drain system and impact stormwater quality.	***Rationale:*** Efficient irrigation conserves water and prevents it from entering the storm drain system while disconnecting impervious surfaces minimizes runoff by enhancing infiltration.
IDDE7	Visit a minimum of 20% of known outfalls per calendar year for dry weather-screenings to assist in the location of non-stormwater discharges and to identify what the discharge material(s) is (are). Areas covered should overlap with areas of previous development to locate previously unmapped outfalls.				
	Topic Emphasis: Annually review Report and Response System for repeat violators of ordinance. Apply existing code enforcement options.	***Topic Emphasis:*** Draft/develop a plan to detect and address non-storm water discharges.	***Topic Emphasis:*** Adopt and implement the plan to detect and address non-storm water discharges.	***Topic Emphasis:*** Get the updated library of background materials found in the various waterway from past water collections.	***Topic Emphasis:*** Get the updated library of chemicals and other parameters found in the pre-treatment samples of past water collections.
	Target Audience: Municipal, and/or contract company employees for known stormwater outfalls.	***Target Audience:*** Municipal and/or contract company employees for known street and roadside ditch dump sites.	***Target Audience:*** Municipal, and/or contract company employees for known stormwater outfalls and/or known street and roadside ditch dump sites.	***Target Audience:*** Municipal, and/or contract company employees for known stormwater outfalls.	***Target Audience:*** Municipal and/or contract company employees for known street and roadside ditch dump sites.
	Rationale: When a discharge has been reported, knowing the upstream system from the report can make it easier to track back to locate the source of the discharge.				

Minimum Control Measure #4: Construction Site Runoff Regulations and Controls

Permit Requirements:

"The permittee must develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to the permittee's small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of stormwater discharges from construction activity disturbing less than one acre must be included in the permittee's program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more." For stormwater discharges associated with any construction activity must comply with 40 CFR §122.26(b)(15)(i) by developing, implementing, and enforcing a program to reduce pollutant discharges from such sites. The permittee's program must include the development and implementation of, at a minimum:

- "An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under Federal, State or Local laws;
- "Requirements for site operators to implement appropriate erosion and sediment control Best Management Practices;
- "Requirements for construction site operators to prevent or control waste that may cause adverse impacts to water quality such as building materials and their packing systems, concrete truck washout, chemicals, litter, equipment & fluid leaks, and sanitary waste at the construction site;
- "Procedures for site plan review and land division that incorporate measures to prevent or control potential water quality impacts;
- "Procedures for receipt and consideration of information submitted by the public; and
- "Procedures for site inspection and enforcement of control measures."

Applicable City BMPs and Explanations

CRC1: *Ordinance: Creation and Revisions.* Create and periodically review for revisions to stormwater ordinances are needed to keep the ordinance, its enforcement actions, and any related items up-to-date with the state and federal regulations that are in affect.

CRC2: *Plan Reviews.* Plans for developments, homes, and waivers are reviewed to see how well they adhere to the City of Bella Vista's development requirements. Once approved, grading permits must be applied for and those requirements also met before ground can be broken on any site. Development plans not involving disturbance of any ground surface (including existing concrete and asphalt pavements) require Building Inspections review and approval.

CRC3: *Drainage Manual.* Adopt and implement a new drainage manual with updated stormwater design and runoff prevention requirements.

CRC4: *Site Inspections for Sediment and Erosion Control.* Monthly documented site inspections (at a minimum) of construction and other development sites to answer questions, resolve potential problems, and prevent failures of stormwater preventative measures as well as structural items that could result in stop work orders, delay in inspections (and/or approvals to continue), and increase cost of completing the project. Sites receiving complaints are given priority for next-available inspection time over regular site visits and/or inspections.

CRC5: *Complaint Reporting and Response System.* A system for citizens to report suspect discharges will be created so city personnel can respond, review, and see that clean-up takes place in a timely manner specified and documented by the responding city personnel. Enforcement may need to also follow-up on reports. Sites receiving complaints are given priority for next-available inspection time over regular site visits and/or inspections. The system will annually be monitored,

reviewed, evaluated and assessed by an individual within the Planning, Building, and Code Enforcement Department with stormwater oversight, but not by the program's coordinator.

CRC6: *Enforcement.* Prevention of large problems begins with education of owner/operators and prevention of small messes. Unfortunately, sometimes only enforcement can stop the reoccurrence of events.

CRC7: *City Staff Training.* Training multiple department staffs puts more eyes "on the ground" for finding, reporting, and/or responding to sites where permits and control requirements are not being met.

Rationale

The City selected the above BMPs to address each component of the construction site runoff control requirements. Regulatory authority for implementation and enforcement of the City's erosion and sediment control program is primarily located in Article 1400 of our Zoning Code, but other municipal codes and adopted departmental guidelines also provides guidance to city staff. These Codes and guidelines provide a framework for oversight of erosion and sediment control measures during construction or redevelopment of any site. This permit creates documentation of new housing sites, provides an avenue for pre-construction meetings, and produces a format for random site reviews. Specific requirements for construction site operators are addressed during plan reviews, permit application processes, plat Reviews, SWPPP review processes, and are included in the City's design criteria as referenced in the development code. The Stormwater Ordinance requires the development of erosion and sediment control plans and will be updated to include issues provided by the updated Arkansas State NPDES Permit ARR040000. Additionally, the nuisance prohibitions section of the Code of Ordinances provide authority to regulate construction sites to prevent or control wastes that can adversely impact water quality. Training of City staff (and making it available to BV POA staff) to recognize and correct erosion problems on construction sites and to enforce the provisions of the City's adopted ordinances and BV POA's covenants are critical components of the stormwater management program.

Responsible Parties

The City's Planning, Building, and Code Enforcement Department maintains the portion of the Municipal Code of Ordinances related to construction, coordinates the site plan and drainage reviews, and manages these through the Planning & Development Review process. The Department is responsible for implementation and inspection of approved land alteration and development projects for overall development criteria as well as erosion and sediment control and construction site runoff controls. Other departments' personnel help the Planning, Building, and Code Enforcement Department become aware of land disturbances that are occurring but may not have been through the plan review process. Enforcement of these areas of City's codes is conducted in coordination with the Police Departments - and with the Staff/Prosecuting Attorney, if necessary.

Summary of Measurable Goals

The goals below were selected to correspond with goals to achieve reductions and eliminations of non-stormwater discharges to the stormwater system. Some previous goals were divided into separate tasks to better review progress on each while other objectives were more clearly defined so that the assigned personnel have a better idea of what is involved in completing the task. All goals will be annually monitored, reviewed, evaluated and assessed by an individual within the Planning, Building, and Code Enforcement Department with stormwater oversight, but not by the program's coordinator. The measurement of success of the program will be based on tracking of compliance and avoidance of

impacts to water quality from land alteration and construction. Specific measureable goals during the 5-year permit period include, but are not limited to:

- Revise existing ordinances to meet new federal and state permit requirements;
- Review, comment, and/or approve a plan review for each set of documents submitted;
- Adopt a new drainage manual and begin to use in plan reviews within 3 months of adoption;
- Visit, review, and comment on status of each site under construction;
- Document and respond to a minimum of 90% of all complaints (that are not related to flooding);
- Document and respond to 80% of all neighborhood flooding complaints;
- Document all enforcement actions taken (from discussions on construction sites to formal education settings to stop work orders to fines); and
- Perform and document all annual employee training sessions.

Summary of Development/Implementation Schedule

<table>
<tr><th rowspan="2">BMP #</th><th colspan="5">PERMIT YEAR</th></tr>
<tr><th>2015</th><th>2016</th><th>2017</th><th>2018</th><th>2019</th></tr>
<tr><td rowspan="5">CRC1</td><td colspan="5">Revise and adopt an updated stormwater, grading, and erosion control ordinance.</td></tr>
<tr><td colspan="5">Create and adopt an illicit discharge ordinance.</td></tr>
<tr><td>Topic Emphasis: Create draft illicit discharge ordinance; include definitions of illegal and illicit. Review existing ordinance to new state MS4 permit requirements.</td><td>Topic Emphasis: Revise both ordinances as necessary to address public comments on draft ordinance and new state permit in existing ordinance. Adopt revised ordinance.</td><td>Topic Emphasis: Begin education of public on new ordinance on January 1. Continue enforcement of existing ordinance.</td><td>Topic Emphasis: Begin enforcement (liens, fines, etc.) of new ordinance. Continue enforcement of existing ordinance.</td><td>Topic Emphasis: Continue enforcement of both ordinances.</td></tr>
<tr><td colspan="5">Target Audience: Planning, Building, and Code Enforcement departmental staff</td></tr>
<tr><td>Rationale: Make necessary revisions to the draft ordinance by remove "shortages" between existing ordinances and new state permit requirements</td><td>Rationale: To allow the public to comment on additional regulations before ordinance is adopted.</td><td colspan="3">Rationale: Provide several years of warnings and advanced education will hopefully minimize the complaints when enforcement begins.</td></tr>
<tr><td rowspan="4">CRC2</td><td colspan="5">Review and comment on every large-scale development plan, large-scale waiver, and/or subdivision plan submitted for development.</td></tr>
<tr><td colspan="5">Review, comment, and approve or deny each grading permit requested. Grading permits require an approved set of plans.</td></tr>
<tr><td colspan="5">Topic Emphasis: Is each site an example of pollution prevention while being a "good neighbor"?</td></tr>
<tr><td colspan="5">Target Audience: Municipal staff; Construction community; Green Industry; homeowners; residents; as well as industrial and commercial business owners</td></tr>
<tr><td colspan="5">Rationale: Requiring submitted plans to show and/or explain how sediment and erosion control requirements will be met on development sites provides city and POA personnel as well as adjoining properties owners and residents the size and scope of the project and the expected controls that will be used to prevent sediment and other erosion from leaving the project site.</td></tr>
</table>

BMP #	PERMIT YEAR				
	2015	2016	2017	2018	2019
CRC3	Revise and adopt an updated drainage manual.				
	Topic Emphasis: Begin enforcement of adopted drainage manual.	***Topic Emphasis:*** Review and monitor manual as necessary to confirm compliance with new state MS4 and construction permit.	***Topic Emphasis:*** Revise manual as necessary to comply with new state MS4, construction, and industrial permits.	***Topic Emphasis:*** Review and monitor manual as necessary to confirm compliance with new state MS4, construction, and industrial permit.	***Topic Emphasis:*** Revise manual as necessary to comply with new state MS4, construction, and industrial permits.
	Target Audience: Planning, Building, and Code Enforcement departmental staff; Construction community; Green Industry; homeowners; residents; as well as industrial and commercial business owners.				
	Rationale: Make necessary revisions to the draft ordinance by remove "shortages" between existing ordinances and new state permit requirements	***Rationale:*** To allow the public to comment on additional regulations before ordinance is adopted.	***Rationale:*** Provide several years of warnings and advanced education will hopefully minimize the complaints when enforcement begins.		
CRC4	Monthly inspection of construction and other development sites.				
	Topic Emphasis: Conduct monthly site inspections on developing properties. Update, revise, and monitor tracking database as inspections are completed.	***Topic Emphasis:*** Review and update inspection processes and forms. Conduct monthly site inspections on developing properties.	***Topic Emphasis:*** Adopt revised forms. Conduct monthly site inspections on developing properties.	***Topic Emphasis:*** Monitor construction tracking database for revisions/expansion. Conduct monthly site inspections on developing properties.	***Topic Emphasis:*** Revise/expand construction tracking database as necessary. Conduct monthly site inspections on developing properties.
	Target Audience: Planning Dept. and Building Inspections primarily; Code Enforcement, Street Dept., Police Dept., and Village Waste Water as needed.				
	Rationale: Training multiple department staffs puts more eyes "on the ground" for finding, reporting, and/or responding to sites where permits and control requirements are not being met.				
CRC5	Encourage Bella Vista residents and businesses to report to City Hall suspected illegal dumping and suspect liquid discharges in and near our drainage ways.				
	Contract with BV POA Lakes' staff for basic water sampling of all Bella Vista lakes plus up- and down-stream from where creeks and streams enter and leave our city limits.				
	Topic Emphasis: Household yard and garden management	***Topic Emphasis:*** Automotive maintenance	***Topic Emphasis:*** Septic systems, and swimming pools, and leftover chemicals	***Topic Emphasis:*** Litter/trash management	***Topic Emphasis:*** Irrigation management to minimize runoff by disconnecting impervious surfaces

BMP #	PERMIT YEAR				
	2015	**2016**	**2017**	**2018**	**2019**
	Target Audience: Homeowners and gardening enthusiasts; and BVPOA Lakes' staff and volunteers	***Target Audience:*** Vehicle and small equipment owners; and BVPOA Lakes' staff and volunteers	***Target Audience:*** Homeowners with septic system and/or swimming pool; and BVPOA Lakes' staff and volunteers	***Target Audience:*** Industrial, institutional, and commercial businesses; households; and BVPOA Lakes' staff and volunteers	***Target Audience:*** Industrial, institutional, and commercial businesses; households with irrigation and guttering systems; and BVPOA Lakes' staff and volunteers
	Rationale: Over-fertilizing and over-watering of landscaping and lawns increases the amounts of polluted waters into our creeks and streams.	***Rationale:*** Support green infrastructure educational emphasis promoting urban greenways for stormwater management.	***Rationale:*** Malfunctioning septic systems; improper handling and disposal of pool chemicals; and pumping chlorinated water can impact stormwater quality.	***Rationale:*** Improper handling and disposal of litter and trash can allow it to enter the storm drain system and impact stormwater quality.	***Rationale:*** Efficient irrigation conserves water and prevents it from entering the storm drain system while disconnecting impervious surfaces minimizes runoff by enhancing infiltration.
CRC6	Enforcement of municipal codes and ordinances to prevent unauthorized discharges.				
	Topic Emphasis: Annually review Report and Response System for repeat violators of ordinance. Apply existing code enforcement options.	***Topic Emphasis:*** Draft/develop a plan to detect and address non-storm water discharges.	***Topic Emphasis:*** Adopt and implement the plan to detect and address non-storm water discharges.	***Topic Emphasis:*** Get the updated library of background materials found in the various waterway from past water collections.	***Topic Emphasis:*** Get the updated library of chemicals and other parameters found in the pre-treatment samples of past water collections.
	Target Audience: Municipal, and/or contract company employees for known stormwater outfalls and/or known street and roadside ditch dump sites.				
	Rationale: When a discharge has been reported, knowing the upstream system from the report can make it easier to track back to locate the source of the discharge.				
CRC7	Conduct new hire and annual employee training.				
	Topic Emphasis: Obtain training DVD's. Conduct annual training for employees.	***Topic Emphasis:*** Review and update materials. Conduct training for new hires.	***Topic Emphasis:*** Review and update materials. Conduct annual training.	***Topic Emphasis:*** Review and update materials. Conduct training as necessary for new hires.	***Topic Emphasis:*** Review and update materials. Conduct annual training.
	Target Audience: Planning, Building, and Code Enforcement Dept.; Street Dept.; Police Dept.; Fire Dept.				
	Rationale: Training multiple department staffs puts more eyes "on the ground" for finding, reporting, and/or responding to sites where permits and control requirements are not being met.				

Minimum Control Measure #5: Post-Development Construction Standards

Permit Requirements:

The permittee must:

- "Develop, implement, and enforce a program to ensure reduction of pollutants in storm water runoff to the maximum extent practicable (MEP) from new development and redevelopment projects within the permittee's jurisdiction that disturb one acre or more, are part of a larger common plan of development or sale, and/or discharge into the permittee's small MS4. The permittee's program must ensure that developers are aware that controls needed to prevent and minimize water quality impacts.
- "Develop and implement strategies that include a combination of structural and/or non-structural BMPs appropriate for the permittee's community.
- "Use an ordinance or other legal regulatory mechanism to address construction and post-construction runoff from new and re-development projects to the maximum extent allowable under Federal, State and/or Local laws.
- "Ensure adequate long-term operation and maintenance of permanent and long-term BMPs; and
- "Ensure adequate enforcement of ordinance or alternative regulatory program."

Applicable City BMPs and Explanations

PDS1: *Ordinance: Creation and Revisions.* Create and periodically review for revisions to stormwater ordinances are needed to keep the ordinance, its enforcement actions, and any related items up-to-date with the state and federal regulations that are in affect.

PDS2: *Drainage Manual.* Adopt and implement a new drainage manual with updated stormwater design and runoff prevention requirements.

PDS3: *Post-Construction Requirements.* Create stormwater, grading, erosion control, and illicit discharge ordinance as needed for post-construction requirements.

PDS4: *Plan Reviews.* Plans developments, subdivisions, and waivers are reviewed to see how well they adhere to the City of Bella Vista's development requirements.

PDS5: *Maintenance and Inspections.* Regular maintenance and inspections of post-construction stormwater controls can answer neighborhood questions, resolve potential purpose and usage problems, and prevent failures.

PDS6: *Enforcement.* Prevention of large problems begins with education of owner/operators and prevention of small messes. Unfortunately, sometimes only enforcement can stop the reoccurrence of events

PDS7: *Long-Term Operations and Management Plans/Agreements.* Agreements that private property owners, property- or home-owner associations, and/or developers have with the City of Bella Vista stating that the maintenance and operation of post-construction BMPs will be paid for and overseen by the non-government party. Agreements give the City of Bella Vista the right to periodically inspect the BMP and to enforce maintenance, repairs, replacement, upgrades, improvements, and/or other actions to preserve the purpose and function of the BMP.

PDS8: *Pollution Control Guidelines and Stormwater Facilities Master Plan.* Handy references if employees need to deal with some sort of spill or other non-hazardous pollution clean-up that is not part of their regular duties.

PDS9: *Low Impact Development.* Other methods and options exist that will minimize the impact of stormwater runoff from development.

Rationale

The City selected the above BMPs to meet the post-construction Minimum Control Measure requirements. The City Code of Ordinances requires that new developments incorporate stormwater

management to reduce the impacts associated with stormwater runoff generated at the site. PDS1, PDS2, PDS3, and PDS4 provide for maintenance of the appropriate Code of ordinances requirements and the more specific design requirements included in the Bella Vista Drainage Manual, such that pollutants from stormwater runoff from new development are reduced to the maximum extent practicable, in compliance with the requirements of this Minimum Control Measure. PDS3, PDS5, PDS6, and PDS7 work together to provide for the development of a long-term inspection and enforcement program. PDS8 was selected to address opportunities for implementing water quality improvement projects associated with retrofits to and expansion of the existing stormwater drainage system. This BMP will support publicly-funded and managed water quality improvement networks to supplement the reduction of pollutants associated with increased stormwater runoff from a growing urban environment. PDS9 will develop options for development that meet other city requirements (drainage runoff, design reviews, etc.) but that will be low impact during and after construction.

Responsible Parties

- Planning, Building and Code Enforcement Department
- Street Department
- Police Department

Summary of Measurable Goals

The goals below were selected to progress towards achieving reductions and eliminations of non-stormwater discharges to the stormwater system. Some previous goals were divided into separate tasks to better review progress on each while other objectives were more clearly defined so that the assigned personnel have a better idea of what is involved in completing the task. All goals will be annually monitored, reviewed, evaluated and assessed by an individual within the Planning Department with stormwater oversight, but not by the program's coordinator.

The regulatory framework for control of post-construction stormwater runoff will be contained in the Code of Ordinances and Bella Vista Drainage Manual. This framework will be refined and expanded as needed to improve the City's capability to achieve reductions in stormwater pollution from new developments through periodic evaluations and updates to the Codes. Measurable goals during the 5-year permit period include, but are not limited to:

- Revise existing ordinances to meet new federal and state permit requirements;
- Review, comment, and/or approve a plan review for each set of documents submitted;
- Adopt a new drainage manual and begin to use in plan reviews within 3 months of adoption;
- Public education and outreach events will be coordinated to educate property and home-owner associations on their operational and maintenance requirements in general as well as for specific BMPs not covered in the general events;
- Develop and implement Pollution Control Guidelines (PCG) for each city-owned or operated site;
- Create a city-wide Stormwater Facilities Master Plan summarizing and containing each PCG; and
- Develop and implement optional methods, criteria, and standards for low-impact stormwater development.

Summary of Development/Implementation Schedule

BMP#	PERMIT YEAR				
	2015	2016	2017	2018	2019
PDS1	Revise and adopt an updated stormwater, grading, and erosion control ordinance.				
	Create and adopt an illicit discharge ordinance.				

<table>
<tr><th rowspan="2">BMP#</th><th colspan="5">PERMIT YEAR</th></tr>
<tr><th>2015</th><th>2016</th><th>2017</th><th>2018</th><th>2019</th></tr>
<tr><td rowspan="3"></td><td>Topic Emphasis: Create draft illicit discharge ordinance; include definitions of illegal and illicit. Review existing ordinance to new state MS4 permit requirements.</td><td>Topic Emphasis: Revise both ordinances as necessary to address public comments on draft ordinance and new state permit in existing ordinance. Adopt revised ordinance.</td><td>Topic Emphasis: Begin education of public on new ordinance on January 1. Continue enforcement of existing ordinance.</td><td>Topic Emphasis: Begin enforcement (liens, fines, etc.) of new ordinance. Continue enforcement of existing ordinance.</td><td>Topic Emphasis: Review and monitor requirements annually to confirm compliance with new state MS4, construction, and industrial permit.</td></tr>
<tr><td colspan="5">Target Audience: Planning, Building, and Code Enforcement departmental staff</td></tr>
<tr><td>Rationale: Make necessary revisions by removing "shortages" between existing ordinances and new state permit requirements</td><td>Rationale: To allow the public to comment on additional regulations before ordinance is adopted.</td><td colspan="3">Rationale: Provide several years of warnings and advanced education will hopefully minimize the complaints when enforcement begins.</td></tr>
<tr><td rowspan="4">PDS2</td><td colspan="5">Revise and adopt an updated drainage manual.</td></tr>
<tr><td>Topic Emphasis: Begin enforcement of adopted drainage manual.</td><td>Topic Emphasis: Review and monitor manual as necessary to confirm compliance with new state MS4 and construction permit.</td><td>Topic Emphasis: Revise manual as necessary to comply with new state MS4, construction, and industrial permits.</td><td>Topic Emphasis: Review and monitor manual annually to confirm compliance with new state MS4, construction, and industrial permit.</td><td>Topic Emphasis: Revise manual annually to comply with new state MS4, construction, and industrial permits.</td></tr>
<tr><td colspan="5">Target Audience: Planning, Building, and Code Enforcement departmental staff; Construction community; Green Industry; and residents.</td></tr>
<tr><td>Rationale: Make necessary revisions by removing "shortages" between existing ordinances and new state permit requirements</td><td>Rationale: To allow the public to comment on additional regulations before ordinance is adopted.</td><td colspan="3">Rationale: Provide several years of warnings and advanced education will hopefully minimize the complaints when enforcement begins.</td></tr>
<tr><td>PDS3</td><td colspan="5">Revise stormwater, grading, erosion control, and illicit discharge ordinance as needed for post-construction requirements.</td></tr>
</table>

BMP#	PERMIT YEAR				
	2015	**2016**	**2017**	**2018**	**2019**
	Topic Emphasis: Revise draft ordinance as necessary to address public comments and new state permit. Adopt revised ordinance.	***Topic Emphasis:*** Begin enforcement (education) of revised ordinance on January 1.	***Topic Emphasis:*** Begin enforcement (liens, fines, etc.) of revised ordinance.	***Topic Emphasis:*** Review and monitor post-construction requirements annually to confirm compliance with new state MS4, construction, and industrial permit.	***Topic Emphasis:*** Revise post-construction requirements annually to comply with new state MS4, construction, and industrial permits.
	Target Audience Planning, Building, and Code Enforcement Department staff				
	Rationale: Compare draft ordinance to existing ordinances, codes, and policies.	***Rationale:*** To allow the public to comment on additional regulations.	***Rationale:*** To attempt to make any necessary revisions to the initial ordinance.	***Rationale:*** Remove "shortages" between existing ordinance and new state permit requirements.	***Rationale:*** Providing several years of warnings and advanced education will hopefully minimize the complaints when enforcement begins.
PDS4	Review and comment on every large-scale development plan, large-scale waiver, and/or subdivision plan submitted for development.				
	Review, comment, and approve or deny each grading permit requested. Grading permits require an approved set of plans.				
	Topic Emphasis: Is each site an example of pollution prevention while being a "good neighbor"?				
	Target Audience: Municipal staff; Construction community; Green Industry; homeowners; residents; as well as industrial and commercial business owners				
	Rationale: Requiring submitted plans to show and/or explain how sediment and erosion control requirements will be met on development sites provides city and POA personnel as well as adjoining properties owners and residents the size and scope of the project and the expected controls that will be used to prevent sediment and other erosion from leaving the project site.				
PDS5	Regular maintenance and inspections of post-construction stormwater controls can answer neighborhood questions, resolve potential purpose and usage problems, and prevent failures.				
	Topic Emphasis: Annually review post-construction sites for compliance with city ordinance. Enforce as necessary per local code requirements.	***Topic Emphasis:*** Review and update inspection processes and forms. Conduct site inspections on properties with post-construction BMPs.	***Topic Emphasis:*** Adopt revised forms. Conduct annual site inspections on properties with post-construction BMPs.	***Topic Emphasis:*** Monitor construction tracking database for revisions and/or expansion. Conduct site inspections on properties with post-construction BMPs.	***Topic Emphasis:*** Revise/expand construction tracking database as necessary. Conduct site inspections on properties with post-construction BMPs.
	Target Audience: Planning, Building and Code Enforcement Dept. and Street Dept. primarily; Police Dept. as needed for additional enforcement; property-owner associations and other private individuals with post-construction stormwater controls on-site.				
	Rationale: Training multiple department staffs puts more eyes "on the ground" for finding, reporting, and/or responding to sites where permits and control requirements are not being met. Educating property-owners of their responsibilities prevents unexpected operational and/or maintenance problems, disasters, back-ups, and/or flooding.				

BMP#	PERMIT YEAR				
	2015	2016	2017	2018	2019
PDS6	Enforcement of municipal codes and ordinances to prevent unauthorized discharges.				
	Contract with BV POA Lakes' staff for basic water sampling of all Bella Vista lakes plus up- and down-stream from where creeks and streams enter and leave our city limits.				
	Topic Emphasis: Annually review Report and Response System for repeat violators of ordinance. Apply existing code enforcement options.	***Topic Emphasis:*** Draft/develop a plan to detect and address non-storm water discharges.	***Topic Emphasis:*** Adopt and implement the plan to detect and address non-storm water discharges.	***Topic Emphasis:*** Get the updated library of background materials found in the various waterway from past water collections.	***Topic Emphasis:*** Get the updated library of chemicals and other parameters found in the pre-treatment samples of past water collections.
	Target Audience: Municipal employees for stormwater outfalls; BVPOA Lakes' staff and volunteers for waterbody quality	***Target Audience:*** Municipal and/or contract company employees for repeat street and roadside ditch dump sites; BVPOA Lakes' staff and volunteers for waterbody quality	***Target Audience:*** Municipal employees for stormwater outfalls and/or repeat street and roadside ditch dump sites; BVPOA Lakes' staff and volunteers for waterbody quality	***Target Audience:*** Municipal company employees for stormwater outfalls; BVPOA Lakes' staff and volunteers for waterbody quality	***Target Audience:*** Municipal and/or contract company employees for repeat street and roadside ditch dump sites; BVPOA Lakes' staff and volunteers for waterbody quality
	Rationale: Training multiple department staffs puts more eyes "on the ground" for finding, reporting, and/or responding to sites where permits and control requirements are not being met.				
PDS7	Correctly maintaining (public and/or private) post-construction BMPs by their respective owner.				
	Topic Emphasis: Household yard and garden management	***Topic Emphasis:*** Automotive maintenance	***Topic Emphasis:*** Septic systems, and swimming pools, and leftover chemicals	***Topic Emphasis:*** Litter/trash management	***Topic Emphasis:*** Irrigation management by disconnecting impervious surfaces
	Target Audience: Green Industry and homeowners	***Target Audience:*** Vehicle and small equipment owners	***Target Audience:*** Residents and business owners	***Target Audience:*** Industrial, institutional, and commercial businesses and households	***Target Audience:*** Industrial, institutional, and commercial businesses and households with irrigation and guttering systems
	Rationale: Maintained drainage and waterways adjoining properties can mean reduced needs for irrigation, fertilizing, and flooding.	***Rationale:*** Increased riparian protection can mean fewer constructed and/or installed BMPs are needed, reducing costs during both construction and site maintenance.	***Rationale:*** Maintaining healthy riparian areas can support other wildlife and food sources.	***Rationale:*** Improper handling and disposal of litter and trash can allow it to enter the storm drain system and impact stormwater quality.	***Rationale:*** Efficient irrigation conserves water and prevents it from entering the storm drain system while disconnecting impervious surfaces minimizes runoff by enhancing infiltration.

BMP#	PERMIT YEAR				
	2015	2016	2017	2018	2019
PDS8	Develop and implement Pollution Control Guidelines (PCG) for each city-owned or operated site.				
	Create a Stormwater Facilities Master Plan should summarize and/or contain a copy of each PCG.				
	Topic Emphasis: Create overall City Stormwater Facilities Master Plan (SFMP) and include copy of each PCG.	***Topic Emphasis:*** Adopt overall City Stormwater Facilities Master Plan (SFMP).	***Topic Emphasis:*** Implement SFMP through departmental training programs overseen by each director/supervisor.	***Topic Emphasis:*** Review, monitor, and revise each department's Pollution Control Guidelines (PCG) for each property they maintain for changes needed due to usage change, location change, or change in services provided to the public.	
	Target Audience: Planning, Building and Code Enforcement Dept. will oversee the development but all municipal departments will participate in developing their own guidelines.				
	Rationale: A Pollution Control Guideline for each site will make it easier for new employees to learn how to clean their site and other city facilities. Experienced employees will find the PCG a handy reference if they need to deal with some sort of spill or other non-hazardous pollution clean-up that is not part of their regular duties.				
PDS9	Low-Impact Development and other development options				
	Topic Emphasis: Identify low-impact development impediments.	***Topic Emphasis:*** Develop methods, criteria, and standards for reducing or removing impediments for LID and low-income housing.	***Topic Emphasis:*** Adopt the methods, criteria, and standards developed in two previous years.	***Topic Emphasis:*** Implement the methods, criteria, and standards developed in the first two years of permit cycle.	***Topic Emphasis:*** Continue to identify, monitor, revise, and remove impediments to LID and low-income housing.
	Target Audience: Municipal staff	***Target Audience:*** Construction community, Green Industry, and homeowners	***Target Audience:*** Construction community and municipal staff	***Target Audience:*** Construction community, Green Industry, and homeowners	***Target Audience:*** Municipal staff
	Rationale: Other methods and options exist that will minimize the impact of stormwater runoff from development. These methods and options may not currently be ordinance or construction-friendly nor meet all the development requirements. Removing these issues from the development process should allow a greater number of development opportunities.				

Minimum Control Measure #6: Operation Maintenance for Pollution Prevention in Municipal Operations

Permit Requirements:

The permittee must:

- "Develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations;
- "Using training materials and/or programs that are available, train employees to prevent and reduce stormwater pollution from activities including, but not limited to, park and open space

maintenance, fleet and building maintenance, new municipal facility construction and related land disturbances, design and construction of street and storm drain systems, and stormwater system maintenance;

- "Develop a list of city-owned or operated sites with industrial activities that are subject to ADEQ's Industrial Stormwater General Permit. Include the ADEQ permit number or a copy of the Industrial NOI form for each facility. For the municipal facilities that conduct activities described in 40 CFR 122.26(b)(14) that are not required to obtain Industrial Stormwater General Permit coverage shall develop and implement a Stormwater Pollution Prevention Plan (SWPPP) of coverage being granted under this permit. The SWPPP shall conform to the requirements of ADEQ's Industrial Stormwater General Permit in effect at the time coverage under this permit is granted; and
- "Develop a list of individual NPDES permits for discharges of stormwater associated with industrial activity that ultimately discharge to the MS4. Include the ADEQ permit number or a copy of the Industrial NOI form for each facility."

Applicable City BMPs and Explanations

O&M1: *Employee training.* Training multiple department staffs puts more eyes "on the ground" for finding, reporting, and/or responding to sites where requirements are not being met.

O&M2: *Operation and Maintenance program.* Implement an O&M program for each city-owned or operated site. Revise and upgrade as needed.

O&M3: *Pollution Control Guidelines (PCGs) and Stormwater Facilities Master Plan (SFMP).* Handy references if employees need to deal with some sort of spill or other non-hazardous pollution clean-up that is not part of their regular duties.

O&M4: *Disposal of Wastes.* Regardless of the job, wastes will be created. Correctly disposing of them prevents: damage to equipment and/or infrastructure; potential pollution runoff if materials come into contact with stormwater; flooding; slips and/or falls; and other incidents.

O&M5: *Minimizing the Use of Potential Pollutants.* Minimizing and/or reducing the use certain potential pollutants (such winter's road salt, sand, and runway deicer; pesticides; herbicides; fertilizers) decreases the risk of a spill and the need for containment equipment. Options to their use should be undertaken to better understand their need. Containments should be regularly reviewed for soundness, breaks, leaks, repairs, and/or replacements.

O&M6: *Open Channel Assessment including flood management/water quality projects.* Provide an assessment of known open channel conditions as well as outfall connections to the channels.

O&M7: *Industrial facilities discharging stormwater and/or sewer to city*. Create a list of publicly- and privately-owned industrial facilities that ultimately discharge either sanitary sewer or stormwater to the City of Bella Vista. A copy of each facility's NOI will be collected to put with the list.

O&M8: *Industrial non-municipal facility inspection form.* Create a generic inspection form that municipal employees can use during an industrial site visit to look for potential illicit connections or stormwater, septic, or sewage discharges.

O&M9: *Industrial municipal facility inspection form.* Create an inspection form that departmental employees can use during an annual facility inspection to look for potential pollution, stormwater, septic, or sewage discharges. A copy to be incorporated into each department's Pollution Control Guidelines.

Rationale

As part of the contract with Northwest Arkansas Regional Planning and the University of Arkansas' Cooperative Extension Service, Cooperative Extension Service employees will provide training at least

once a year to the MS4s. The training (O&M1) will use materials provided by ExCal Visuals and others that include information on construction sites, park & open space maintenance, and fleet & building maintenance. Jurisdictional-specific ordinances, policies, and mandates will also be addressed during these trainings and specific system maintenance as departmentally appropriate. Training will stress how the employees are the "eye and ears" of the city and that they should learn to recognize signs of illicit discharge and how to properly report these instances. Recommendations from these employees are also discussed during the regional stormwater compliance committee's monthly meetings to help to shape the educational outreach messages for future presentations. In Bella Vista, this same training will be made available to the employees of the BV POA.

The City selected the above six BMPs to address Pollution Prevention in Municipal Operations. O&M2 and O&M3 include:

1. Implementation of a Pollution Control Manual for City Facilities; and
2. Continue scheduled evaluations of City practices. Develop or revise pollution control manuals or procedures as appropriate.
3. Review and revision of vehicle maintenance and cleaning practices and procedures, as appropriate.
4. Review and revision of site-specific items: material storage; waste clean-up and removal; manuals, practices and procedures, as appropriate.

A Pollution Control Guidelines (PCGs) will be developed for each City site to improve maintenance operations as appropriate and provide evaluation standards when reviewing each site for potential impacts to stormwater (O&M2). The guidelines for each site will then be put into a City-wide Stormwater Facilities Master Plan (SFMP) with the intent to meet State and/or Federal regulatory programs (O&M3). Not all of the category/type facilities may need an *independent* PCG (i.e. each city park won't need its own unless it has some special stormwater-related issue), but each category/type will definitely be addressed as part of the overall SFMP. Specific departmental training for employees will also be outlined in the SFMP and will focus on stormwater quality management practices.

O&M4 addresses disposal of wastes (including street sweepings) as a pollution control practice, and includes an assessment and evaluation of existing practices and implementing improved practices as appropriate. O&M5 will address annual reviews of ways the materials used that are potential pollutants can be replaced by non-potential pollutants or use of the materials can be reduced to reduce and/or eliminate the quantity of materials stored by City service providers. O&M6 provides an updated assessment of open channel conditions. This assessment will assist the City in prioritizing capital improvements and maintenance activities that improve open channel stormwater quality functions throughout the city. Each of the BMPs aims to prevent or reduce pollutants contained in urban stormwater runoff from municipal operations.

O&M7 creates a list of identified Arkansas industrial facilities that are within the City of Bella Vista – owned, operated, or maintained by either a public and private entity. O&M8 creates a generic inspection form for use during annual site visits to private facilities while O&M9 creates a series of forms that will be similar but will be specifically created for each municipal facility. The forms created as part of O&M9 will be incorporated into each department's PCG (O&M2) as well as included in the city-wide SFMP (O&M3).

Responsible Departments

- Planning, Building and Code Enforcement Department
- Street Department
- Police Department
- Fire Department
- University of Arkansas' Cooperative Extension Service (contract for employee training elements)

Summary of Measurable Goals

The goals were selected to achieve reductions and eliminations of non-stormwater discharges to the stormwater system. Some previous goals were divided into separate tasks to better review progress on each while other objectives were more clearly defined so that the assigned personnel have a better idea of what is involved in completing the task. All goals will be annually monitored, reviewed, evaluated and assessed by an individual within the Planning, Building and Code Enforcement Department with stormwater oversight, but not by the program's coordinator.

University of Arkansas Cooperative Extension Service staff will oversee annual and new hire employee stormwater trainings, per their education contract. The Planning Department staff with help from the Facilities Manager will oversee the creation and implementation of all manuals, guidelines, and plans listed as well as material and method assessments and reviews. The goals listed are partially selected by the Cooperative Extension Service's staff that is under contract for our educational portions of our permit, but the MS4 representatives approved the quantity for each goal. The Cooperative Extension Service utilizes an Educational Steering Committee in each of the two counties to help pick the general topic/subject for each year's public education, outreach, participation, and involvement. Goal quantities were based on the percent of the Urbanized Area within the municipality so larger cities will have more stringent requirements (both in size and quantity) than a neighboring and/or adjoining small town may have. The City of Bella Vista shall oversee these efforts and will address any and all short-falls of the contract product to ensure that all permit requirements are met. The City's various departments will coordinate with various community and watershed groups for other educational and outreach activities beyond the scope of the Cooperative Extension Service's educational contract for employee training.

Specific measureable goals during the 5-year permit period include, but are not limited to:

- Annual employee training;
- Develop and implement Operational and Maintenance Guidelines for each city-owned and/or operated site;
- Develop and implement Pollution Control Guidelines (PCG) for each city-owned or operated site;
- Determine Industrial Permit need/status for each city-owned and/or operated site;
- Create a city-wide Stormwater Facilities Master Plan summarizing and containing each PCG;
- Review and assess methods of waster disposals including street sweepings;
- Review and assess ways to minimize the use of potential pollutants;
- Assess known open channel conditions as well as outfall connections to the channels;
- Creation of a list of identified industrial facilities;
- Creation of an industrial inspection form for privately-operated facility; and
- Creation of an industrial inspection form for municipally- or publicly-operated facility.

Summary of Development/Implementation Schedule

BMP#	PERMIT YEAR				
	2015	2016	2017	2018	2019

BMP#	PERMIT YEAR				
	2015	2016	2017	2018	2019
O&M1	Annual employee training.				
	Topic Emphasis: Review and update materials. Conduct annual training.	***Topic Emphasis:*** Review and update materials. Conduct training as necessary for new hires.	***Topic Emphasis:*** Review and update materials. Conduct annual training.	***Topic Emphasis:*** Review and update materials. Conduct training as necessary for new hires.	***Topic Emphasis:*** Review and update materials. Conduct annual training.
	Target Audience: Planning, Building and Code Enforcement Dept.; Street Dept.; Police Dept.; Fire Dept.				
	Rationale: Training multiple department staffs puts more eyes "on the ground" for finding, reporting, and/or responding to sites where requirements are not being met.				
O&M2	Operational and Maintenance Guidelines for each city-owned and/or operated site.				
	Determine Industrial Permit need/status for each city-owned and/or operated site.				
	Review and monitor state permits annually to comply with new state MS4, construction, and industrial permits. Annually visit an additional 25% of industrial sites.				
	Topic Emphasis: Develop O&M Guidelines for each municipal industrial site. Each site needing Industrial permit to complete application. Implement and adopt draft industrial municipal inspection form. "Test" the draft form at two sites in first half of year. Revise, then adopt and implement the form for use at those two sites.	***Topic Emphasis:*** Each site to adopt O&M Guidelines. Complete a self-assessment using new Guidelines. Develop a SWPPP for each site with industrial permit received between two previous years. "Test" the draft inspection form at two sites in first half of year. Revise, then adopt and implement the form for use at those two sites.	***Topic Emphasis:*** Each department to complete at least one self-assessment using new Guidelines. "Test" the draft inspection form at remaining industrial sites in first half of year. Revise, then adopt and implement the form for use at those sites.	***Topic Emphasis:*** Each department to complete at least one self-assessment using the adopted inspection form. Each site to be reviewed for need of an Industrial permit and to complete application process, if necessary.	***Topic Emphasis:*** Each department to complete at least one self-assessment using adopted inspection form. Develop a SWPPP for each site with industrial permit received during two previous years.
	Target Audience: Planning, Building and Code Enforcement Dept.; Street Dept.; Police Dept.; Fire Dept.				
	Rationale: Training entire departments puts more eyes "on the ground" for finding, reporting, responding and cleaning events that occur "in-house." We are the example that we want residents, businesses, and visitors to take notice of and adhere to.				
O&M3	Develop and implement Pollution Control Guidelines (PCG) for each city-owned or operated site.				
	Create a Stormwater Facilities Master Plan should summarize and/or contain a copy of each PCG.				
	Topic Emphasis: Create overall City Stormwater Facilities Master Plan (SFMP) and include copy of each PCG.	***Topic Emphasis:*** Adopt overall City Stormwater Facilities Master Plan (SFMP).	***Topic Emphasis:*** Implement SFMP through departmental training programs overseen by each director/supervisor.	***Topic Emphasis:*** Review, monitor, and revise each department's Pollution Control Guidelines (PCG) for each property they maintain for changes needed due to usage change, location change, or change in services provided to the public.	

BMP#	PERMIT YEAR				
	2015	2016	2017	2018	2019
	Target Audience: Planning, Building and Code Enforcement Dept. will oversee the development but all municipal departments will participate in developing their own guidelines.				
	Rationale: A Pollution Control Guideline for each site will make it easier for new employees to learn how to clean their site and other city facilities. Experienced employees will find the PCG a handy reference if they need to deal with some sort of spill or other non-hazardous pollution clean-up that is not part of their regular duties.				
O&M4	Disposal of municipal wastes, including street sweepings				
	Topic Emphasis: Household yard and garden management	***Topic Emphasis:*** Automotive maintenance	***Topic Emphasis:*** Septic systems, and swimming pools, and leftover chemicals	***Topic Emphasis:*** Litter/trash management	***Topic Emphasis:*** Irrigation management by disconnecting impervious surfaces
	Target Audience: Green Industry and homeowners	***Target Audience:*** Vehicle and small equipment owners	***Target Audience:*** Residents and business owners	***Target Audience:*** Industrial, institutional, and commercial businesses in addition to households	***Target Audience:*** Industrial, institutional, and commercial businesses in addition to households with irrigation and guttering systems
	Rationale: Maintained drainage and waterways adjoining properties can mean reduced needs for irrigation, fertilizing, and flooding.	***Rationale:*** Increased riparian protection can mean fewer constructed and/or installed BMPs are needed, reducing costs during both construction and site maintenance.	***Rationale:*** Maintaining healthy riparian areas can support other wildlife and food sources.	***Rationale:*** Improper handling and disposal of litter and trash can allow it to enter the storm drain system and impact stormwater quality.	***Rationale:*** Efficient irrigation conserves water and prevents it from entering the storm drain system while disconnecting impervious surfaces minimizes runoff by enhancing infiltration.
O&M5	Minimizing the municipal use of potential pollutants: road salt and sand (in winter); pesticides; herbicides; and fertilizers (in spring, summer, and autumn).				
	Topic Emphasis: Review application programs for pesticides and herbicides. Recommend changes or improvements as appropriate.	***Topic Emphasis:*** Review application programs for fertilizers. Recommend changes or improvements as appropriate.	***Topic Emphasis:*** Consider the implementation of a street sweeping program.	***Topic Emphasis:*** Litter/trash management.	***Topic Emphasis:*** Irrigation management to minimize runoff by disconnecting impervious surfaces.
	Target Audience: Planning, Building and Code Enforcement Dept. and Street Dept. primarily; Police Dept. as needed for additional enforcement.				

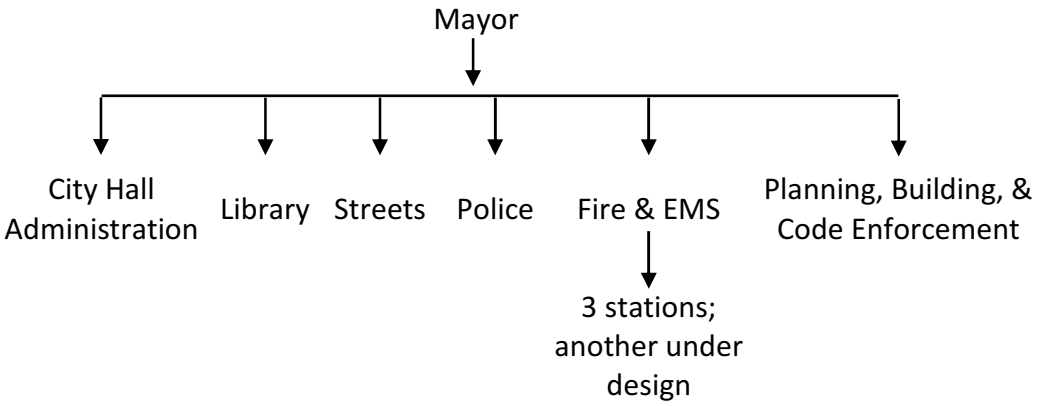
BMP#	PERMIT YEAR				
	2015	**2016**	**2017**	**2018**	**2019**
	Rationale: Over-application of pesticides and/or herbicides increases the amount of polluted waters into our creeks and streams.	***Rationale:*** Over-fertilizing and/or over-watering increases the amounts of polluted waters into our creeks and streams.	***Rationale:*** Clean, swept streets prevent storm drains from becoming blocked which prevents streets and yards from flooding.	***Rationale:*** Improper containment and disposal of wastes continue to be a source of stormwater pollution.	***Rationale:*** Disconnecting impervious surfaces minimizes runoff and related pollution.
O&M6	Provide an assessment of a minimum of 20% of known open channel conditions as well as outfall connections to the channels each year.				
	Contract with BV POA Lakes' staff for basic water sampling of all Bella Vista lakes plus up- and down-stream from where creeks and streams enter and leave our city limits.				
	Topic Emphasis: Inventory 20% of channels. Annually monitor and revise the inventory to include new outfalls; BVPOA Lakes' staff and volunteers for waterbody quality	***Topic Emphasis:*** Inventory additional 20% of channels to stormwater drainage system, including outfalls of previously developed (but unmapped) areas; BVPOA Lakes' staff and volunteers for waterbody quality	***Topic Emphasis:*** Inventory 20% of channels. Annually monitor and revise the inventory to include new outfalls; BVPOA Lakes' staff and volunteers for waterbody quality	***Topic Emphasis:*** Inventory additional 20% of channels to stormwater drainage system, including outfalls of previously developed (but unmapped) areas; BVPOA Lakes' staff and volunteers for waterbody quality	***Topic Emphasis:*** Inventory 20% of channels. Annually monitor and revise the inventory to include new outfalls; BVPOA Lakes' staff and volunteers for waterbody quality
	Target Audience: City employees and contract companies for locating unmapped outfalls. Engineers, designers, contractors, builders and other construction community personnel on newly installed outfalls.				
	Rationale: When a discharge has been reported, knowing the upstream system from the report can make it easier to track back to locate the source of the discharge.				
O&M7	Create list of ADEQ-permitted industrial facilities that ultimately discharge stormwater to the City.				
	Create list of ADEQ-permitted industrial facilities that discharge sanitary sewer to the Village Waste Water.				
	Topic Emphasis: Identification of industrial users within and/or that discharge to the municipality.				
	Target Audience: Industrial facilities; Planning, Building, and Code Enforcement Department; Village Waste Water personnel; and BV POA personnel.				
	Rationale: Identify industrial facilities within the city limits.	***Rationale:*** Notify facilities within the city limits for acquiring copy of NOI for each industrial facility by end of calendar year.	***Rationale:*** Acquire copy of NOI for each industrial facility not received the previous calendar year. Review ADEQ website listing of industrial permits for additional facilities in Bella Vista.	***Rationale:*** Educate facility operators on sediment, nutrients, bacteria, wind- and water-borne items as sources of pollution.	***Rationale:*** Educate facility operators on improper containment and disposal of wastes as sources of pollution.

BMP#	PERMIT YEAR				
	2015	2016	2017	2018	2019
O&M8	Create a stormwater inspection form for non-municipal industrial facilities.				
	Topic Emphasis: Implement and adopt draft industrial non-municipal inspection form. "Test" the draft form at three additional sites in first half of year. Revise, then adopt and implement the form for use at a minimum of six other private industrial sites by end of year.	***Topic Emphasis:*** Monitor and review the effectiveness of the generic facility form. Draft and/or adopt changes or improvements as appropriate. Annually visit an additional 25% of industrial sites. Annually review the industrial permits list for additional facilities to be located and inspected.	***Topic Emphasis:*** Review and monitor state permits annually to comply with new state MS4, construction, and industrial permits. Annually visit an additional 25% of industrial sites.	***Topic Emphasis:*** Annually visit an additional 25% of industrial sites. Annually review the industrial permits list for additional facilities to be located and inspected within city limits.	***Topic Emphasis:*** Review and monitor state permits annually to comply with new state MS4, construction, and industrial permits. Annually visit an additional 25% of industrial sites.
	Target Audience: Industrial facilities; Planning, Building, and Code Enforcement Department; Village Waste Water personnel; and BV POA personnel.				
	Rationale: Over-application of pesticides and/or herbicides increases the amount of polluted waters into our creeks and streams.	***Rationale:*** Over-fertilizing and/or over-watering increases the amounts of polluted waters into our creeks and streams.	***Rationale:*** Clean, swept streets prevent storm drains from becoming blocked which prevents streets and yards from flooding.	***Rationale:*** Improper containment and disposal of wastes continue to be a source of stormwater pollution.	***Rationale:*** Disconnecting impervious surfaces minimizes runoff and related pollution.
O&M9	Create a stormwater inspection form for municipal industrial facilities for inclusion in the respective department's PCG.				
	Topic Emphasis: Visit 20% of municipal industrial sites. Review and monitor site-specific Pollution Control Guideline checklists.	***Topic Emphasis:*** Annually visit an additional 20% of municipal industrial sites. Revise and adopt updated site-specific Pollution Control Guideline checklists for sites visited in previous year. Annually review the industrial permits list and tax listing for additional facilities to be located and inspected.	***Topic Emphasis:*** Visit 20% of municipal industrial sites. Review and monitor site-specific Pollution Control Guideline checklists.	***Topic Emphasis:*** Annually visit an additional 20% of municipal industrial sites. Revise and adopt updated site-specific Pollution Control Guideline checklists for sites visited in previous year. Annually review the industrial permits list and tax listing for additional facilities to be located and inspected.	***Topic Emphasis:*** Visit 20% of municipal industrial sites. Review and monitor site-specific Pollution Control Guideline checklists.

BMP#	PERMIT YEAR				
	2015	**2016**	**2017**	**2018**	**2019**
	Target Audience: Industrial facilities; Planning, Building, and Code Enforcement Department; Village Waste Water personnel; and BV POA personnel.				
	Rationale: Over-application of pesticides and/or herbicides increases the amount of polluted waters into our creeks and streams.	***Rationale:*** Over-fertilizing and/or over-watering increases the amounts of polluted waters into our creeks and streams.	***Rationale:*** Clean, swept streets prevent storm drains from becoming blocked which prevents streets and yards from flooding.	***Rationale:*** Improper containment and disposal of wastes continue to be a source of stormwater pollution.	***Rationale:*** Disconnecting impervious surfaces minimizes runoff and related pollution.

Appendixes

A. Organizational Chart



B. Legal Authority and SWMP Resources

Article 1400 of the Subdivision Code is where the grading and erosion control information can be found. The 2014 version of the code can be found on the City of Bella Vista's internet website at http://www.cityofbellavista.com/planning/pdf/Subdivision%20Code%20effective%2007-04-14.pdf The City's Drainage Manual can be found in the same code, but in Article 1500.

C. Municipal Forms

The following two pages have our construction inspection form and our complaint form. We use these when we deal with stormwater on construction sites as well as complaints.

As other parts of the SWMP are completed (departmental pollution control guidelines, etc.), those items will be added to this chapter. Annual reports, other permit periods NOI, SWMPs, etc. will be stored in Appendix D and its followers.

The City of Bella Vista
Planning, Building, & Code Enforcement Department

306 Town Center West
Bella Vista, AR 72714
Office: (479) 268-4980
Fax: (479) 855-8081

MS4 Stormwater Management
Construction Site Inspection Form

General Information	
Project / Site Name:	Contractor:
BV Permit Number: _____	Common Address:
Total Disturbed Acreage: _____ acres	Inspection Date:

Paperwork & SWPPP				
ADEQ Permit Required? ☐ No (under 5 Acres) ☐ Yes ADEQ Permit #: ARR15_____	Notice of Coverage Posted? (over 1 Acre) ☐ Yes ☐ No ☐ Not Applicable	ADEQ Mailbox ☐ Yes ☐ Improper ☐ No	SWPPP Available? ☐ Yes ☐ Incomplete ☐ No	Grading Permit Posted? ☐ Yes ☐ No
Are inspections conducted and records kept as required in the permit? (Contractor Self-Inspection Sheets) ☐ Yes ☐ No				
Date of Last City Inspection: _____	Date of Last Contractor Self-Inspection: _____			
Is there a Rain Gauge on-site? ☐ Yes ☐ No	Date of Last Rain/Snow fall: _____			
Duration of Last Rain/Snow fall: _____	Quantity in Rain Gauge: _____ inches			

BMP & Site Assessment				
Are stabilization and erosion control measures satisfactory? ☐ Yes ☐ No ☐ Not Applicable				
Photographs taken of deficiencies? ☐ Yes ☐ No	Photographs Date & Time Stamped? ☐ Yes ☐ No			
Photographs taken of repairs? ☐ Yes ☐ No ☐ N/A	Repair Photographs Date & Time Stamped? ☐ Yes ☐ No			
List deficiencies, if any: (seeding, mulching, geo-textiles, etc.)				Deadlines to repair, replace, or address deficiencies:
Trash containment available? ☐ Yes ☐ No ☐ Not being used				
Sanitary service available? ☐ Yes ☐ No ☐ Not being used				
Evidence of sediment leaving the site? ☐ Yes ☐ No				
Evidence of off-site tracking? ☐ Yes ☐ No				
Evidence of sediment entering the Waters of the State? ☐ Yes ☐ No				

Remedial Actions			
Other Comments:			
Code Violation Issued? ☐ Yes ☐ No	Correction Deadline:		
Fine Issued? ☐ Yes ☐ No	Correction Deadline:		
Stop Work Order Issued? ☐ Yes ☐ No	Correction Deadline:		
Letter Sent? ☐ Yes ☐ No	Repeat Offender? ☐ No ☐ Yes If yes, # of times _____		

Signatures	
Contractor Printed Name:	Contractor's Signature
Inspection Date:	City Inspector's Signature

Permit ARR040059
AFIN 88-01449

PLANNING, BUILDING, AND CODE ENFORCEMENT DEPARTMENT

Storm Water Management Plan

Person receiving the complaint to collect as much information in the top box as possible. The assigned inspector to "research" or determine the remainder of the information that can be gathered from public records before going into the field to review.

Complaint Report		
IWORQ Case #:	**SBL:**	**ADEQ Permit #:**
Complainant:	**Property Owner:**	**Permit Holder:**
Complainant Address:	**Owner Address:**	
City, State:	**City, State:**	
Phone:	**Phone:**	
Fax:	**Fax:**	
Email:	**Email:**	
Site has a lien? ☐ **Yes** ☐ **No**	**Lien Holder:**	**Lien Contact Name:**
How was complaint received? ☐ **Phone** ☐ **Letter** ☐ **Verbal / In-person** ☐ **Fax** ☐ **Email**		
Person Receiving Complaint:		**Date:**
Inspector Referred:		**Date:**

Complaint Inspection			
Description of what was found: *(in detail)*			
Were photographs taken? ☐ **Yes** ☐ **No**		**Were photographs date & time stamped?** ☐ **Yes** ☐ **No**	
Previous complaint(s) received? ☐ **Yes** ☐ **No**		**Date(s) of previous complaint(s):**	
Discharges to a stream? ☐ **Yes** ☐ **No**		**Name of receiving stream:**	

Corrective & Follow-up Actions
Is corrective action required? ☐ **Yes** ☐ **No** **If yes, date to be completed by**
If corrective action is required, who will perform the work?
Follow-up inspection required? ☐ **Yes** ☐ **No** **If yes, date re-inspection will occur**
If re-inspection is required, who will perform the work?

Signatures	
Site Personnel Printed Name:	**Site Personnel Signature:**
Date:	**Inspector's Signature:**