

REVISED DRAFT

2016 STRATEGIC PLAN – STORMWATER MANAGEMENT PROGRAM

Johnson County, Kansas

B&V PROJECT NO. 186077

PREPARED FOR

Johnson County Public Works & Infrastructure
Urban Services Division

23 JUNE 2016

I. EXECUTIVE SUMMARY

The Stormwater Management Program (SMP) is part of Johnson County’s Urban Services Division within the Public Works Department. The purpose of the SMP is to provide financial, technical, and planning support services for municipalities and unincorporated areas within Johnson County for the improvement of stormwater management. In 2002, the SMP developed its first Strategic Business Plan. The plan is widely seen as a success; however, in response to current stormwater-related challenges and opportunities, the Urban Services Division initiated an effort to update the SMP’s Strategic Business Plan. This report describes the results of that effort.

SMP BACKGROUND

Johnson County’s Urban Services Division engaged Black & Veatch Corporation (Black & Veatch) to lead the development of a comprehensive update of the SMP Strategic Business Plan. A Steering Committee was established and provided the Black & Veatch team with essential information, input and guidance throughout the updating process. A cross section of stakeholders comprised the Steering Committee, including staff and elected officials from smaller and larger cities as well as officials from the County Commission, County Manager’s office and Johnson County Public Works & Infrastructure Department.

The SMP is funded currently through a dedicated 1/10th of one cent sales tax, and is guided by the Stormwater Management Advisory Council (SMAC), a body representing the 20 cities in Johnson County.

The first SMP Strategic Business Plan has served Johnson County well, inspiring enhancements such as:

- Redefining stormwater management in Johnson County to include water quantity and water quality.
- Continued development of consistent County-wide design standards;
- Identifying opportunities for environmental enhancement;
- Providing National Pollution Discharge Elimination System (NPDES) assistance; and
- Ongoing SMP assistance and coordination to Johnson County communities.

Steering Committee Members:

Jim Allen, County Commissioner, Johnson County

Mike Brungardt, City Engineer,
City of De Soto

Celia Duran, City Engineer, City of Olathe

Aaron Otto, City Administrator, City of Roeland Park

Penny Postoak-Ferguson, Deputy County Manager,
Johnson County

Brian Pietig, Public Works & Infrastructure Director,
Johnson County

Fred Spears, Council Person, City of Overland Park

Bill Stogsdill, Public Works Director, City of Fairway

PLANNING DRIVERS

In recent years, new stormwater-related challenges and opportunities have emerged, and they form the foundation of the updated strategic plan. The following summarizes the elements identified from stakeholder input and SMP Steering Committee discussion:

- The “State of Practice” in stormwater management has evolved since 2002. New approaches and implementation of advances have been driven by water quality and regulatory issues as well as a growing trend toward integrated water resource management planning, in addition to water quantity or flood management concerns.
- The need to update the Strategic Business Plan was tied to the need to:
 - Advance community vitality, resiliency and sustainability;
 - Manage stormwater at a watershed scale;
 - Address aging system replacement along with new infrastructure;
 - Manage assets and resources utilizing a condition/needs assessment of the system;
 - Revisit the annual budgeting process due to the variability in funds accepted by cities and project cancellations;
 - Forecast SMP funds beyond one year cycles;
 - Develop, understand, and use best management practices (BMPs) such as Low Impact Development, structural BMPs, and land management;
 - Provide a platform for stormwater management innovation; and
 - Re-evaluate home buyout policies and goals associated with removing all homes from the regulatory floodplain.

Over the years synergy between the SMP and the Johnson County Assistance Road System (CARS) led to the efficient use of funds and benefit of both programs. Exploring a more direct tie between the two, such as combining the programs, may enhance operations of both.

VISION AND MISSION

During the planning process, the SMP Steering Committee discussed perspectives regarding the Program, stakeholder input gathered by the project team, and the State of the Practice in stormwater management. Steering Committee presentations shared current trends, opportunities and pathways toward a more sustainable and financially sound SMP. The participants evaluated a number of alternative future scenarios for the SMP, and in doing so, arrived at vision and mission statements for the next phase of the SMP, as follows.

Vision Statement

“To provide safe, healthy, and sustainable waterways that benefit the entire community.”

Mission Statement

“To encourage solutions with a watershed-based approach for protecting human lives and property, modernizing infrastructure, improving water quality, conserving natural resources and promoting appropriate use of waterways by providing financial, technical and other stormwater assistance services.”

In addition to evaluation of the SMP as a stand-alone program, the Steering Committee also discussed the concept of combining the SMP and CARS programs into a single “Infrastructure Funding” program. The committee did not see immediate benefits to a combined program and elected not to include it in the SMP recommendations at this time. However, there was agreement that it should be re-evaluated in the future, if appropriate.

THE PROCESS: SIMILAR PROGRAMS, BENCHMARKING, AND GAP ANALYSIS

The Steering Committee worked through an objective assessment or benchmarking process of the SMP, referencing national trends, third-party industry guidance, and a review of other stormwater management programs. This effort led to identification of existing gaps in current SMP practices and priorities relative to State of the Practice and ways to begin closing gaps.

National Trends

Black & Veatch conducted a review of national trends in stormwater management, including: knowledge and experience from other stormwater programs; review of industry publications; and review of available information on program websites. A discussion of these national trends led the Steering Committee to understand the importance of thinking about stormwater management in new ways. Trends that particularly shaped the Strategic Business Plan update follow.

Watershed-level Planning

Watersheds are a basic unit of planning, especially when considering stormwater issues. Activities that occur within a watershed will affect other portions of the watershed, regardless of state, city, or development boundaries. It makes sense to structure the future SMP around watershed-level decision making.

Asset Management

The expanded use of asset management is a key part of State of the Practice programs nationally. Understanding the stormwater system as a whole and its condition allows for better expenditure planning and project investment decisions. In many cases, local jurisdictions have the information, and it is a task of compilation. In other cases, the assessment needs to be done and added to the compilation.

Water Quality Improvements

Nationally, much of the focus on stormwater has expanded from flood damage reduction and public safety to stormwater quality concerns. Many of the SMP’s peer programs are entirely concerned with meeting water quality regulatory requirements, and meeting stakeholder concerns around

quality of life and the condition of the environment. The SMP of the future will increase emphasis on water quality while continuing investments in flood damage reduction and public safety.

Alternative Financing Solutions

With ever-increasing demands on local, public dollars, many jurisdictions have turned to alternative financing solutions. Examples include federal program dollars, State Revolving Fund monies, Non-Governmental Organization (NGO) participation, and Public-Private Partnerships (PPPs).

Benchmarking of Peer Communities

The Steering Committee reviewed programs across the country to evaluate best practices and the State of the Practice for stormwater-centric programs. This review identified project types, scale and type of funding, population served, area served, and basic organization of the programs. The review served to identify ideas and practices that might work for the SMP.

The vast majority of reviewed county-based stormwater programs are primarily concerned with water quality regulatory compliance. Some only include the unincorporated areas that are not covered by Municipal Separate Storm Sewer System (MS4) permits held by cities within the county. Far fewer programs include flood damage reduction as a primary goal.

Gap Analysis

The Steering Committee identified five aspects of State-of-the-Practice programs as gaps in the SMP and recommended they be evaluated for inclusion in the update. They are:

- Watershed-based Improvement Planning
- Watershed-based Organization
- System Replacement as Eligible Projects
- Water Quality Improvement Projects
- Alternative Funding

Programs Reviewed Include:

King County, WA
County of Asotin, WA
Santa Clara County, CA
Pikes Peak Stormwater Task Force, CO
Southeast Metro Stormwater Authority, CO
New Braunfels, TX
City of Springfield/Green County, MO
DuPage County, IL
Cook County, IL
City of Frankfort/Franklin County, KY
Orange County, CA
Wake County, NC
Westchester County, NY
Long Creek Watershed Towns, ME
Nassau County, NY
Montgomery County, MD
St. Georges County, MD
Hampton Roads Regional SMP, VA
Augusta-Richmond County, GA
Stormwater Coalition of Monroe County, NY
Stormwater Coalition of Albany County, NY

THE RESULTS: OBJECTIVES, STRATEGIES, AND METRICS

Objectives and strategies were developed for the SMP moving forward, and were grouped into two phases. Phase I represents a period of significant programmatic change over a period of approximately three years, whereas Phase II represents a period of implementation for changes made in Phase I in years four and beyond.

Objectives

The following objectives were established for the SMP moving forward. It is important to remember that objectives provide direction for creating the desired program in the future. Thus, objectives were developed to address an identified gap, such as Watershed-based Organization, or continuing and improving existing SMP activities, such as Flood Damage Reduction. It is understood and to be expected that the objectives for Phase II may be developed or modified through the course of Phase I.

		GAP AREA	OBJECTIVE
PHASE I		Watershed-based Organization	<ul style="list-style-type: none"> • Modify organizational structure, if necessary, to allow for comprehensive watershed-based improvement plans that look at flooding, water quality and system replacement • Develop new funding criteria based on these plans
		Water Quality	<ul style="list-style-type: none"> • Develop funding criteria and procedures for water quality improvement projects as stand-alone projects • Define watershed specific goals for water quality improvement based on established water quality impairment and total maximum daily loads (TMDLs) • Develop plan to assist cities with compliance/implementation
		Flood Damage Reduction	<ul style="list-style-type: none"> • Develop/review funding criteria and procedures for flood damage reduction projects • Establish metrics for SMP success regarding flood damage reduction projects
		System Management	<ul style="list-style-type: none"> • Develop comprehensive asset inventory within GIS of stormwater systems (both engineered and natural) • Define condition of stormwater assets to a uniform level county-wide • Develop criteria/prioritization for funding system replacement projects
		Alternative Funding	<ul style="list-style-type: none"> • Identify and implement funding strategy and SMP modifications • Determine metrics for program or grant funding • Develop plan to secure targeted program or grant funding • Establish goals for annual program or grant funding secured annually

		GAP AREA	OBJECTIVE
PHASE II		Watershed-based Organization	<ul style="list-style-type: none"> • Ensure organization modifications made in Phase I meet the needs of the SMP and adjust as necessary
		Water Quality	<ul style="list-style-type: none"> • Implement funding criteria and procedures for water quality improvement projects County-wide • Meet watershed-specific metrics established in Phase I • Comply with established TMDL requirements and work towards removing streams from Kansas 303d list
		Flood Damage Reduction	<ul style="list-style-type: none"> • Achieve metrics established in Phase I regarding residential, commercial, and street flood damage reduction.

System Management	<ul style="list-style-type: none"> • Develop comprehensive lists of prioritized projects for each watershed • Provide assistance to cities to achieve B+ Infrastructure Grade according to ASCE methodology or “Transformative Program” grading according to Modified WEF Utility Scorecard methodology
Alternative Funding	<ul style="list-style-type: none"> • Establish sustainable funding for capital improvements or system replacement • Meet goals established in Phase I.

Strategies

The following strategies are developed within the report to allow the SMP to achieve the objectives of the update. Most of these strategies have a primary focus of addressing a single objective listed above (for instance, the primary intent of the Water Quality Focus strategy is to help the SMP achieve its Water Quality objectives listed above). However, since many of the issues and gaps are inexorably linked, progress in any one strategy will tend to have positive impacts upon secondary objectives as well. Finally, the fundamental changes that this strategic plan update suggests will require modifications to the SMP’s methods of selecting, prioritizing, and funding projects. While this strategy is not directly tied to a single primary objective, it will enable achievement in each of the objective areas.

In addition to addressing the gap areas identified by the Steering Committee, the strategies also address policy and procedure updates necessary for the SMP to continue providing value to stakeholders. Specific examples include revision of the project rating/ranking system, a new “benefits” calculation, design standards, needs assessments, and minimum project criteria. Other policies or procedures that will need to be addressed through the course of Phase I include staffing considerations, public private partnerships, and project pay request reviews and process.

STRATEGY NAME	STRATEGY STATEMENT
Watershed-based Organization	The SMP will modify the organization of the SMP by establishing Watershed Committees. This will better serve Johnson County by aligning SMP funding with the needs (e.g., flood damage reduction, water quality, system replacement, etc.) of each watershed.
Water Quality Focus	The SMP will enhance its efforts to improve water quality within and leaving the Johnson County. This will include funding water quality improvement projects and developing additional programs to assist watershed committees.
Flood Damage Reduction	The SMP will continue to address flooding issues throughout Johnson County by funding flood damage reduction projects that remove habitable buildings from the floodplain and/or minimize the potential for flooding based on design standards and mitigate street flooding based on design standards. Flood improvements will be prioritized based on watershed needs and may also include stable streams, reduce hydromodification, improve water quality, and/or replace system components.
System Management	The SMP will develop the tools necessary for an asset management program. This will include coordinating with cities that already have a system and investing in asset inventory and condition assessment for engineered stormwater infrastructure, as well as the natural stormwater conveyance system. This will assist the watershed committees in developing capital improvement and system replacement approaches.

STRATEGY NAME	STRATEGY STATEMENT
<p>Funding Approach and Criteria</p>	<p>The SMP will develop new scoring procedures to prioritize funding for water quality projects and system replacement projects. The current scoring procedure for traditional flood damage reduction projects will also need to be modified to reflect the new watershed-based approach. With the improvements to the organizational structures, decisions regarding funding approvals and payments will need to be made. In addition, this strategy will consider whether dedicated funding for each category should be implemented.</p>
<p>External Funding Sources</p>	<p>The SMP will develop a long-term funding approach that includes traditional and external funding sources. Investigate specific modifications to the SMP, asset management approach, water quality efforts, and project types to provide target funding levels. Once specific targets for funding are identified, an ongoing effort to maintain and comply with funding SMP requirements will be implemented.</p>

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