

Agenda Item: #. 8

## MEMORANDUM

TO: Programs, Projects & Operations Subcommittee

FROM: Lori Ann Laster, Stormwater Management Engineer

SUBJECT: Review and Recommendation on Southern Sarpy Watershed Partnership Interlocal Agreement

DATE: October 6, 2016

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In 2015 Sarpy County commissioned a study to consider options for providing sanitary sewer service in the southern area of the County not currently served by Omaha's Papillion Creek Wastewater Treatment Plant. This area, identified as the Southern Sarpy Watershed (see attached map), has been historically an agricultural area with some sand and gravel mining operations along the Platte River. The Southern Sarpy Watershed includes all areas of Sarpy County draining directly to the Elkhorn or Platte Rivers.

After the Southern Ridge Wastewater Treatment Study was completed in early 2016, Sarpy County, the Cities of Bellevue, Gretna, Papillion and Springfield, along with the District, met to discuss stormwater management for new development in this area and to develop policies and governance for new development. Using the policies and structure of the Papillion Creek Watershed Partnership, the communities have developed the attached Interlocal Agreement for the creation of the Southern Sarpy Watershed Partnership (SSWP).

This group has been meeting regularly throughout 2016 to form initial policies for development in this area and to determine what the planning needs are for this watershed. Unlike the Papillion Creek Watershed, the Southern Sarpy Watershed has very little data with regards to hydrology, hydraulics, and water quality. The need to develop a comprehensive watershed management plan is the top priority of the new SSWP. The attached SSWP Fact Sheet explains the major components envisioned in the watershed management plan. These include:

- Hydrologic/Hydraulics Analysis
- Floodplain Mapping
- Stream Stabilization/Restoration
- Peak Flow Reduction
- Water Quality
- Resource Inventory

Another top priority for this new Partnership is to assist the communities in administering the federally mandated NPDES Stormwater Management Program required by EPA and Nebraska Department of Environmental Quality (NDEQ). This effort envisions expanding the current

procedures in place for the Papillion Creek Watershed Partnership into this newly developing area.

Initially, the communities have created policies for new development until such time as a watershed management plan is in place for this watershed. The key features of these policies, found in their entirety as Exhibit B to the Interlocal Agreement, are as follows:

- Policy Group #1: Water Quality Improvement improves water quality by requiring the use of low-impact development strategies (that is, design techniques that promote infiltration, filtration, storage, evaporation, and temporary detention of stormwater) to provide for water quality control of the first ½ inch of stormwater runoff and to maintain peak discharge rates during the 2-year storm event based on baseline land use conditions.
- Policy Group #2: Peak Flow Reduction reduces stormwater peak discharges due to development by maintaining or reducing peak discharge rates during the 2-, 10-, and 100-year storm events under baseline land use conditions.
- Policy Group #3: Landscape Preservation, Restoration, and Conservation protects natural areas along creeks. A creek setback is to be provided along all streams equal to three times the channel depth plus 50 feet (3:1 plus 50 feet) from the edge of low water on both sides of the channel.
- Policy Group #4: Erosion and Sediment Control and Other BMPs covers federal and state regulatory requirements for construction activities that disturb greater than 1 acre. Best Management Practices (BMPs) are required on construction sites to minimize soil loss.
- Policy Group #5: Floodplain Management promotes sound floodplain management consistent with state and federal floodplain programs as well as placing added limitations on development in the floodway fringe. In areas with no special flood hazard designation, hydrologic and hydraulic analyses will be required.
- Policy Group #6: Stormwater Management Financing provides for a dedicated, sustainable funding mechanism (that is, a watershed fee on development) to help implement programs to address local, state, and federal regulations, including a National Pollutant Discharge Elimination System (NPDES) Stormwater Management Program and the development of a Southern Sarpy Watershed Plan. Revenues from the watershed fee during the first 5 years will fund about one-third of the annual financing of the NPDES Stormwater Management Program activities and development of a watershed plan. After 2020, funds would be used to implement the Watershed Management Plan.

It is estimated that the cost to develop a watershed management plan and administer a NPDES stormwater management program will total about \$300,000 annually over the next few years. The proposed Interlocal Agreement provides that this cost be financed by both the public and private sector with the SSWP paying about two-thirds (2/3) of the cost (\$200,000 annually) and development paying about one-third of the cost (\$100,000 annually).

The proposed three year Interlocal Agreement calls for the District to act as the administering agent for the SSWP. As such, the District will be responsible for collecting annual contributions from each of the members and using those contributions (the Partnership Fund) to help finance

activities of the SSWP. The proposed contributions for each member are shown in the table below.

<b>Jurisdiction</b>	<b>Contribution Amount</b>	<b>Percentage of Total</b>
Bellevue	\$16,000	8%
Gretna	\$10,000	5%
Papillion	\$16,000	8%
Springfield	\$12,000	6%
Sarpy County	\$80,000	40%
P-MRNRD	\$66,000	33%
<b>Total</b>	<b>\$200,000</b>	<b>100%</b>

The communities will collect Watershed Fees from new development in the watershed to use towards SSWP activities. These fees would be identical to the fees collected by communities on new development in the Papillion Creek Watershed (see table below). It is estimated that these fees will generate about \$100,000 annually over the next number of years.

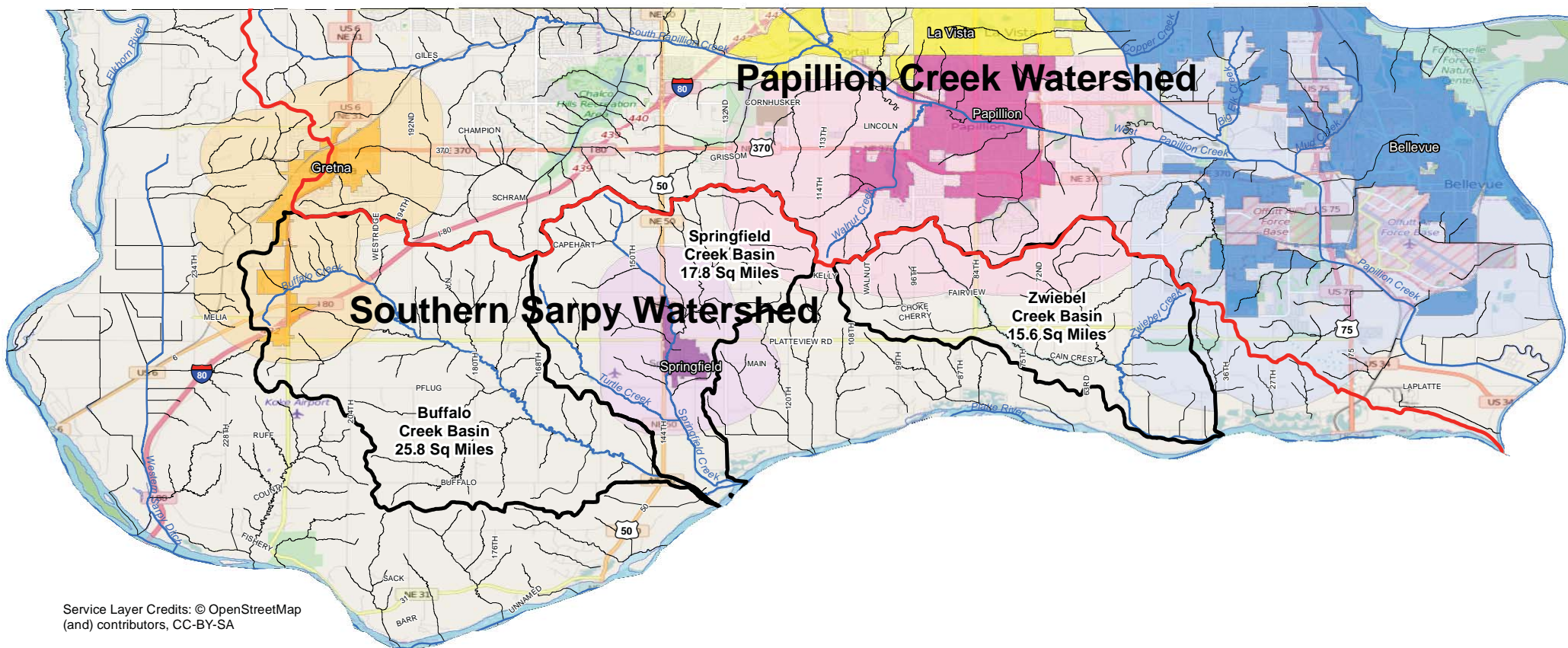
<b>Fee Category</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>
	<b>July 1, 2016- June 30, 2017</b>	<b>July 1, 2017- June 30, 2018</b>	<b>July 1, 2018- June 30, 2019</b>
Single Family Residential per dwelling unit (also includes low-density multi-family up to 4-plexes)	\$864	\$886	\$908
High-Density Multi-Family Residential per gross acre (beyond 4-plexes)	\$3,803	\$3,898	\$3,996
Commercial/Industrial/Institutional per gross acre	\$4,609	\$4,724	\$4,842

The Interlocal Agreement specifies that both funding streams will be placed in a Watershed Fund managed by the District to administer a NPDES Stormwater Management Program as required for new construction and to develop a watershed management plan. Once a watershed management plan has been developed for this area, it is anticipated that the Watershed Fund will be used to fund water quantity and quality projects as identified in the plan.

**Management recommends that the Subcommittee recommend to the Board of Directors that the General Manager be authorized to execute the proposed Interlocal Agreement for the creation of the Southern Sarpy Watershed Partnership between the communities of Bellevue, Gretna, Papillion, Springfield, Sarpy County and the Papio-Missouri River Natural Resources District, subject to changes deemed necessary by the General Manager and approval as to form by District Legal Counsel.**

LEGEND

- Named Streams
- Unnamed Streams
- Drainage
- Papillion Creek Watershed



SOUTH SARPY COUNTY

FIGURE 1

SARPY COUNTY



PATH: D:\TEMP\WORK\LAUREN\SARPY\SARPY.MXD - USER: RWDOHL - DATE: 6/27/2016



# SSWP Fact Sheet

## CREATING A WATERSHED PLAN TO ADDRESS STORMWATER ISSUES IN THE SOUTHERN SARPY WATERSHED

### Acting Now will Keep the Public Safe from Future Floodwaters

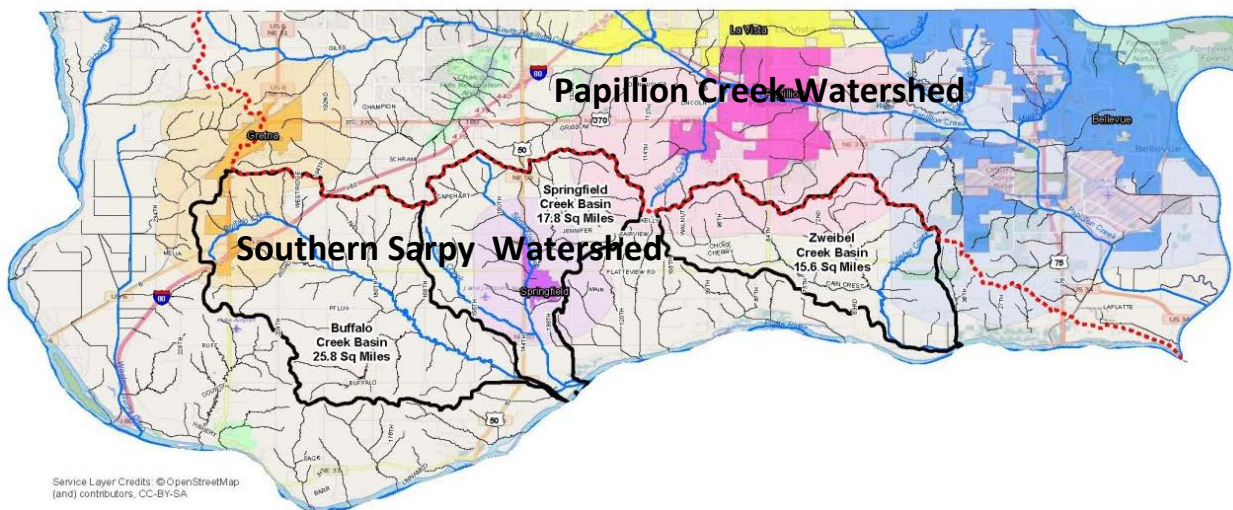
Planning is crucial in managing stormwater. As development occurs, stormwater runoff increases and our streams become swollen, roads are overtopped, and low-lying areas are flooded, causing damage to both public and private properties. Creating and implementing a watershed plan can minimize the damaging effects of high runoff events. The Southern Sarpy Watershed Partnership (SSWP) was created in early 2016 to establish the framework for a stormwater management program and a watershed plan.

In managing stormwater, keeping a path for stormwater is important, as is keeping people away from floodwaters. The current flood studies and mapping for Sarpy County are outdated. These studies and maps need to be updated to identify accurate flood hazards and risk.

Knowing the risks and understanding the resources within the watershed are essential in making sound stormwater decisions in a developing watershed. Now is the time to be proactive and establish a plan to manage stormwater to keep the public safe by reducing the potential for future floods and restoring stream channels to their natural function.

### Southern Sarpy Watershed Drains into the Elkhorn and Platte Rivers

The Southern Sarpy Watershed (Watershed) encompasses approximately 145 square miles that drain into the Elkhorn River or the Platte River in Sarpy County. The Watershed has several drainage basins, with approximately 40 percent of the area contained within the Buffalo Creek, Springfield Creek, and Zwiebel Creek Basins. Jurisdictions located within the watershed are Bellevue, Gretna, Papillion, Springfield, and Sarpy County. The remaining 100 square miles of Sarpy County are a part of the Papillion Creek Watershed.







# SSWP Fact Sheet

## Stormwater Management Policies at a Glance

The SSWP has drafted stormwater management policies for the Southern Sarpy Watershed using the Papillion Creek Watershed Partnership policies as a starting point. These initial policies are for new development or significant redevelopment, and are aimed at protecting soil and water resources. These policies may be revised when a watershed management plan is developed. Key features of the policies are summarized below:

- Policy Group #1: Water Quality Improvement improves water quality by requiring the use of low-impact development strategies (that is, design techniques that promote infiltration, filtration, storage, evaporation, and temporary detention of stormwater) to provide for water quality control of the first ½ inch of stormwater runoff and to maintain peak discharge rates during the 2-year storm event based on baseline land use conditions.
- Policy Group #2: Peak Flow Reduction reduces stormwater peak discharges due to development by maintaining or reducing peak discharge rates during the 2-, 10-, and 100-year storm events under baseline land use conditions.
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- Policy Group #4: Erosion and Sediment Control and Other BMPs covers federal and state regulatory requirements for construction activities that disturb greater than 1 acre. Best Management Practices (BMPs) are required on construction sites to minimize soil loss.
- Policy Group #5: Floodplain Management promotes sound floodplain management consistent with state and federal floodplain programs as well as placing added limitations on development in the floodway fringe. In areas with no special flood hazard designation, hydrologic and hydraulic analyses will be required.
- Policy Group #6: Stormwater Management Financing provides for a dedicated, sustainable funding mechanism (that is, a watershed fee on development) to help implement programs to address local, state, and federal regulations, including a National Pollutant Discharge Elimination System (NPDES) Stormwater Management Program and the development of a Southern Sarpy Watershed Plan. Revenues from the watershed fee during the first 5 years will fund about one-third of the annual financing of the NPDES Stormwater Management Program activities and development of a watershed plan. After 2020, funds would be used to implement the Watershed Management Plan.

## The Need to Administer State and Federal Regulations

In compliance with the provisions of the Clean Water Act, the U.S. Environmental Protection Agency (EPA) created the NPDES permit. Two types of NPDES permits are applicable to the watershed: 1) Phase II stormwater for municipal separate storm sewer systems (MS4s), and 2) stormwater associated with construction activity. The Phase II stormwater requirements cover six minimum control measures,<sup>1</sup> including the development of a NPDES Stormwater Management Program. The NPDES stormwater permit for discharges from construction activities affects all jurisdictions regardless of population or the size of the community. Any earth-disturbing activity of 1 acre or more of land requires an NPDES construction activity permit.

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<sup>1</sup> The six minimum control measures are Public Education and Outreach, Public Involvement/Participation, Illicit Discharge Detection and Elimination, Construction Site Runoff Control, Post-Construction Runoff Control, and Pollution Prevention/Good Housekeeping.



# SSWP Fact Sheet

## The Need to Develop a Watershed Plan

Currently, no watershed plan exists for the Southern Sarpy Watershed. Creating such a plan will require a funding source, time to prepare the plan, and a phased approach. Working together to adopt watershed-wide stormwater management programs provides continuity for communities, designers, and developers. The watershed plan would include the following:

- Hydrologic/Hydraulics Analysis. Hydrologic modeling quantifies the rainfall/runoff response by defining peak discharge rates over time and volumes for selected design storms (that is, hypothetical storms used in modeling). Hydraulic modeling defines water levels based on peak discharges for selected design storms. This watershed plan would update Buffalo, Springfield, and Zwiebel Creeks with a detailed hydrologic/hydraulic analysis and would provide an approximate method for all other tributaries. The watershed plan would not update the Elkhorn and Platte Rivers analyses. Peak flow and water levels would be defined for drainage areas less than 1 square mile. The initial phase of the plan would develop baseline hydrologic and hydraulic models that can be used by developers to evaluate effects of development and structural improvements.
- Floodplain Mapping. Hydrologic/hydraulic and topographic data are used to create flood hazard maps that outline a community's flood risk. The watershed plan would create floodplain mapping that could be used by FEMA to map flood hazards. Base flood elevations and profiles would be generated for Buffalo, Springfield, and Zwiebel Creeks.
- Stream Stabilization/Restoration. Numerous streams within the Southern Sarpy Watershed have degrading channels and banks, which have led to damages of both riparian and public infrastructure. Stopping the sudden change in grade or elevation in a streambed can be achieved with grade stabilization, while stream bank erosion can be achieved with bank stabilization. Stream restoration aims to restore the natural state and function of the river system in support of biodiversity, recreation, flood management, and landscape development.
- Peak Flow Reduction. Regionalizing the location of stormwater detention facilities (that is, reservoirs or lakes) can provide multi-purpose benefits along with cost-effective solutions. The use of regional detention basins may reduce or even eliminate the need for on-site peak flow reduction facilities on each development. Regional reservoirs provide opportunities for outdoor public recreation facilities and other public amenities. Recreational trails can be built, and operation and maintenance costs reduced with a larger structure.
- Water Quality. Water quality BMPs are used to capture and treat stormwater close to where the rain falls. Regionalizing water quality basins to control the first ½ inch of stormwater runoff may be desirable. Post-construction stormwater control measures, such as BMPs on each development, may be reduced or eliminated with a regional water quality basins. The placement of upstream basins (ponds) to improve water quality and extend the useful life of regional detention structures will be evaluated.
- Resource Inventory. Environmentally sensitive areas in the county need to be identified, restored, and protected. A soil, water, and plant resource inventory would identify and classify naturally occurring resources along with problem areas.



# SSWP Fact Sheet

## Funding

Administration of the NPDES Stormwater Management Program and creation of a watershed plan will require funding, to include a combination of public and private funds. It is estimated that it will require \$300,000 per year for 5 years to support the NPDES Stormwater Management Program and watershed plan development. Table 1 shows the budgetary costs.

**Table 1. Budgetary Costs for Southern Sarpy Watershed 2016-2020**

Element	Summary	Budget Cost
NPDES Stormwater Management Program	<ul style="list-style-type: none"> <li>Routine (compliance) inspections of active grading sites</li> <li>Other activities required to meet the six minimum control measures of MS4 permit.</li> </ul>	\$500,000
Southern Sarpy Watershed Plan	<ul style="list-style-type: none"> <li>Phased watershed management plan development based on available funding</li> </ul>	\$1,000,000
Total		\$1,500,000

Private funds would come from development through a watershed fee. Private watershed fees are intended to account for one-third of required funds and paid to the applicable local zoning jurisdiction with the building permit application. Table 2 shows the proposed Watershed Fee structure. Cumulative revenue is estimated to be \$500,000 over the first five years (2016 thru 2020), averaging \$100,000 per year.

**Table 2. Watershed Fee Structure**

Fee Category	2016	2017	2018	2019	2020
Single Family Residential per lot (also includes low-density multi-family up to 4-plexes)	\$864	\$886	\$908	\$930	\$954
High-Density Multi-Family Residential per developable acre (beyond 4-plexes)	\$3,803	\$3,898	\$3,996	\$4,095	\$4,198
Commercial/Industrial per developable acre	\$4,609	\$4,724	\$4,842	\$4,963	\$5,087

Adjusted 2.5% per year for Inflation.

Public contributions from the Partners through a 5-year Interlocal Agreement are intended to account for two-thirds of required funds. Public monies of \$200,000 (totaling \$1.0 million over five years) per year would come from the six members of the SSWP. Table 3 shows the proposed distribution of the public monies based on population and jurisdictional area.

**Table 3. Annual Partner Contributions for Southern Sarpy Watershed**

Jurisdiction	Contribution Amount	Percentage of Total
Bellevue	\$16,000	8%
Gretna	\$10,000	5%
Papillion	\$16,000	8%
Springfield	\$12,000	6%
Sarpy County	\$80,000	40%
P-MRNRD	\$66,000	33%
Total	\$200,000	100%



**INTERLOCAL COOPERATION ACT AGREEMENT  
SOUTHERN SARPY WATERSHED PARTNERSHIP**

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**THIS INTERLOCAL COOPERATION ACT AGREEMENT** (hereinafter referred to as “**this Agreement**”) is intended to create a voluntary mechanism for the purpose of addressing important subjects of concern to the interested governments (hereinafter referred to as “**the Interested Governments**”) situated in whole or part within the Southern Sarpy Watershed that drains to the Platte River (hereinafter referred to as “**the Watershed**”), the Interested Governments consisting of the following governmental entities, to-wit: the **CITY OF BELLEVUE**, Nebraska; the **CITY OF GRETNA**, Nebraska; the **CITY OF PAPILLION**, Nebraska; the **CITY OF SPRINGFIELD**, Nebraska; the **COUNTY OF SARPY**, Nebraska; and, the **PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT**; provided, however, this Agreement is made and entered as an Interlocal Cooperation Act Agreement by and among only those of the Interested Governments which have duly executed this Agreement at the foot hereof, such signatory entities (hereinafter referred to collectively as “**the Parties**,” “**the Southern Sarpy Watershed Partnership**” or “**the Partnership**”), thus signifying the intent of the Parties to act, and contribute their resources, as members of the “Southern Sarpy Watershed Partnership,” which is hereinafter defined and described.

**WHEREAS**, the Sarpy Southern Ridge Wastewater Treatment Study was commissioned in 2015 and identified areas of new development in Sarpy County that are not currently covered by a Watershed Management Plan (as shown in Exhibit A);

**WHEREAS**, the members of the Partnership wish to act in concert by proposing, enacting, and implementing common standards for development and to address federally-imposed requirements and mandates which are imminent and which must be funded locally;

**WHEREAS**, other premises, justify the formation of the Partnership, including, without limitation, ,:

- The hydrology of the Watershed for the Flood Insurance Study is incomplete and existing hydrology needs to be updated;
- Urbanization of the Watershed and associated impervious area will increase;
- Currently there is no plan to address storm water quantity and water quality problems within the Watershed;
- The benefits of reducing existing and future flood impacts in the Watershed include: decreased public and private property damages, reduced potential loss of life, lower flood insurance costs, and decreased cost to taxpayers and public agencies for flood disaster relief;
- Improvement of water quality in streams and reservoirs will result in increased fish, aquatic, and riparian habitat; recreational improvements; reduction of reservoir operation and maintenance costs; and improved aesthetics;
- Potential increased recreational opportunities from the work of the Partnership could include: green spaces (picnic areas, outdoor activities), boating, canoeing, fishing, trail systems, riparian areas for bird watching, nature hikes, education, wildlife viewing, etc.;
- Techniques which could be employed by the Partnership include:

- implementation of low impact development techniques and other green infrastructure to address stormwater quality and quantity issues;
- facilitation of multi-use storm water structures;
- pursuing establishment of stormwater utility enabling legislation;
- minimization of future fill and construction in the FEMA-designated floodplain/floodway in the Southern Sarpy Watershed;
- implementing better site design that minimizes impervious surfaces, utilizes techniques to mimic natural hydrology, and approximates pre-development runoff conditions;
- updating hydrology to current and future conditions; formulating a master drainage plan for the Watershed;
- providing adequate construction and maintenance funding;
- buy-outs/relocations of structures in flood prone areas;
- providing increased upstream flood storage;
- enhancing public education and outreach;
- implementation of new construction site management practices;
- development of new development/redevelopment standards;
- implementation of an illicit discharge program;
- enhance environmental aspects of public street maintenance;
- reducing the environmental impacts of herbicide, pesticide, and fertilizer application;
- developing a water quality and quantity monitoring program;
- developing an industrial site inspection program;

- construction of retention/detention ponds designed for both water quantity and quality;
  - restoration, creation and enhancement of wetlands; preservation of riparian areas;
  - environmental restoration of streams;
  - creation of buffer strips;
  - use of grassed swales for drainageways;
  - updating of design and construction standards;
  - application of standardized ordinances/regulations throughout the Watershed; and,
  - implementation of new set back ordinances/regulations and open drainage requirements;
- Standardization of the construction development permit process would reduce liability to landowners from flooding and erosion problems and reduce sediment runoff during construction;
  - A coordinated effort will improve compliance with federal, state, and local regulations,

**WHEREAS**, in carrying out its mission, the Partnership will work cooperatively with, but not limited to, the U.S. Army Corps of Engineers, the Metropolitan Area Planning Agency, the USDA Natural Resources Conservation Service, the Nebraska Game and Parks Commission, the Nebraska Department of Environmental Quality, the Nebraska Department of Natural Resources, the University of Nebraska, the University of Nebraska Cooperative Extension, and State and County Health Departments.

**WHEREAS**, as part of implementing the federally-imposed NPDES requirements where necessary, and to address stormwater management on a watershed-wide basis, Stormwater Management Policies (hereinafter referred to

collectively as the “**Policies**”) were developed. The Policies developed through the Partnership consist of six (6) Policy Groups, headed as follows:

- #1 Water Quality Improvement;
- #2 Peak Flow Reduction;
- #3 Landscape Preservation, Restoration, and Conservation;
- #4 Erosion and Sediment Control and Other BMPs;
- #5 Floodplain Management; and
- #6 Storm Water Management Financing.

The texts of the Stormwater Management Policies are attached hereto as **Exhibit “B”** and incorporated herein by this reference.

**NOW, THEREFORE**, in consideration of the foregoing recitals and their mutual covenants hereinafter expressed, the members of the Partnership agree as follows:

- 1. Authority:** This Agreement is an agreement for collective and cooperative action made pursuant to authority provided in the Nebraska Interlocal Cooperation Act (Neb. Rev. Stat. §13-801, R.R.S., 1943, et seq.), without a separate entity being created, and, whenever possible, this Agreement shall be construed in conformity therewith.
- 2. Mission:** It shall be the mission of the Partnership to address issues related to surface water quality and storm water quantity in the Watershed by establishing and implementing regionally common goals and standards for the development of the Watershed.
- 3. Applicability:** Members of the partnership having jurisdiction over land area in the Watershed as shown in Exhibit A expect and intend that planning activities within the Watershed for projects of the Partnership



will, insofar as feasible, apply universally to all such land areas unless specifically excluded by the respective partnership member.

**4. Goals:** The Partnership shall have as its goals:

- a)** Assisting the parties that have NPDES stormwater permits in the implementation of those elements of the SWMP and other programs and projects that are reasonably and feasibly undertaken by collective action of the Partnership;
- b)** Compliance with Federal, State, and local storm water quality and quantity regulations;
- c)** Improvement of water quality in the Watershed's streams and reservoirs;
- d)** Restoration of streams to their natural state and function to support biodiversity, recreation, flood management, and landscape;
- e)** Standardization of the construction development process and evaluation of its effectiveness;
- f)** Assessment and characterization of current water quality and quantity conditions for the watershed;
- g)** Environmental compliance;
- h)** Sediment and erosion control;
- i)** Floodplain management; and,
- j)** Development of and updates to the Policies as shown in Exhibit B.

**5. Executive Committee:** The members of the Partnership shall establish an Executive Committee consisting of one representative from each entity that is a member of the Partnership. Each representative shall have one vote and all actions of the Executive Committee shall require a recorded vote. A quorum (at least two-thirds of members) must be present for any action requiring a vote. Unless otherwise specified, a simple

majority of those members present shall be required for approval of any proposed action. It is understood that the authority of each Executive Committee member to act on behalf of his/her respective elected board or council shall be defined by that member's respective board or council.

**6. Administering Agent:** The Executive Committee designates the Papio-Missouri River Natural Resources District (hereinafter referred to as the “NRD”), or other member of the Partnership which is willing to serve in such capacity, as Administering Agent to administer this Agreement. The Administering Agent serves at the pleasure of the Executive Committee and performs duties assigned by the Executive Committee, which may include, without limitation:

- a)** Seeking any state legislation which a majority of the parties to this Agreement determine necessary to support the work of the Partnership;
- b)** Designating such personnel and assistance which shall be deemed desirable to support the work of the Partnership;
- c)** Preparing, presenting and distributing educational materials;
- d)** Organizing meetings of members of the Partnership and interested persons to share knowledge and compare projects and programs of all involved;
- e)** In July of each year, set meetings for one year and post those meeting dates to the Partnership website and email to the Partnership members and others;
- f)** Prepare written minutes of the action items and record votes for each meeting;

- g)** Post Partnership meeting agendas 7 days prior to meeting date on Partnership website. Action items involving an expenditure of funds may not be added to an agenda following its posting;
- h)** Preparing reports on the work of the Partnership;
- i)** Entering into contracts on behalf of the Partnership as the Executive Committee directs for the performance of specific actions consistent with both the goals of this Agreement and the respective missions of members of the Partnership;
- j)** Holding and maintaining the Partnership Fund, calculating the amount of money necessary to be raised by contributions each year in order to carry out the work of the Partnership, and making requests for contributions from the members of the Partnership, all as the Executive Committee directs; and
- k)** Disbursing the Partnership Fund as directed by the Executive Committee and reimbursing members of the Partnership for expenditures made on behalf of the Partnership or for the reasonable value of activities performed on behalf of the Partnership, as reasonable value is determined by the Executive Committee.

Provided, however, and notwithstanding any provisions of this agreement to the contrary, when a member of the Partnership is acting as the Administering Agent under this Agreement and administering the directions, recommendations and requests of the Executive Committee, the governing body of the Administering Agent has the authority to make such determinations and take and implement such actions as such governing body, in its sole discretion, determines lawful, feasible and reasonable.

**7. Funding:** Funding shall be administered as follows:

a) The Partnership Fund shall be held by the Administering Agent in an interest-bearing account in trust for the members contributing thereto, in proportion to their contributions, and shall be expended as the Executive Committee directs to meet the mission and goals of this Agreement, establishing mechanisms for long-term funding and authorization for additional planning and implementation of such programs and projects, and for performance of other activities described in this Agreement. The Partnership Fund shall be funded and administered as follows:

i) On or before the first day of July after the effective date of this Agreement, each member of the Partnership shall make a contribution to the Partnership Fund in the amount shown, opposite such member's name, in the third column of the table attached hereto as **Exhibit "C"** and incorporated herein by reference. For subsequent years during the term of this Agreement, the Administering Agent shall request total annual contributions which shall not exceed \$200,000 from the members of the Partnership in the amounts necessary to carry out the work of the Partnership. The amounts of such subsequent-year contributions for each member shall be determined by the Executive Committee prior to the first day of April of such subsequent year and paid by the members of the Partnership before the first day of July of such subsequent year. These subsequent-year contributions shall be 33% of the total contributions for the NRD and a computed percentage (expressed as a whole number) of the total annual contributions for each of the remaining members, as shown in Exhibit C.

- ii) Each year during the term of this Agreement, and from time to time as any member of the Partnership may reasonably request, the Administering Agent shall furnish to the members of the Partnership written statements of the condition of the Partnership Fund; and
  - iii) Grants or contributions made by non-members of the Partnership shall not be deemed to offset or diminish the obligations of the members of the Partnership under this Agreement.
  - iv) If any member of the Partnership fails to contribute to the Partnership Fund as requested pursuant to this Agreement, such member's involvement and membership in the Partnership shall be terminated upon written notice of termination given by the Administering Agent to such member.
- b)** The Watershed Fund shall be comprised of Watershed Management Fees and contributions to the Partnership Fund to equitably distribute the cost of developing a Watershed Management Plan and administering a Stormwater Management Program among new development or significant redevelopment within the Watershed and to the general public. Based on an initial framework and rates set for Watershed Management Fees (hereinafter referred to as **"Watershed Fees"**) defined in Policy Group #6 in the Stormwater Management Policies, the Partnership does hereby agree to:
- i) The cities of BELLEVUE, GRETNA, PAPILLION and SPRINGFIELD, and the County of SARPY (all hereinafter referred to collectively as **"zoning jurisdictions"**) agree to



collect Watershed Fees from new development within the Southern Sarpy Watershed, such Watershed Fees to be collected and earmarked specifically for development of a Southern Sarpy Watershed Management Plan and implementation of a Stormwater Management Program, as follows, to-wit:

- a) Each zoning jurisdiction shall adopt a regulation or ordinance authorizing the collection of the Watershed Fees, according to Exhibit D for new development and authorizing the transfer of such fees to the NRD, consistent with the provisions of this Agreement. Developing subdivisions with a final plat approved prior to December 1, 2016 shall be exempt from collection of Watershed Fees;
- b) On or before July 1<sup>st</sup> of each calendar year, each zoning jurisdiction shall remit to the NRD the Watershed Fees paid to or collected by such zoning jurisdiction on or before June 1<sup>st</sup> of such calendar year. Such Watershed Fees received by the NRD shall be held by the NRD in a separate, interest-bearing account, to be known as the "Watershed Fund," in trust for the members of the Partnership contributing thereto in proportion to their contributions, earmarked specifically for development of a Southern Sarpy Watershed Management Plan and implementation of a Stormwater Management Program and expended by the NRD as further provided in this Agreement;

- c) Each zoning jurisdiction shall, in general, adopt a framework consisting of three Watershed Fee classifications, to-wit:
- (1) “Single Family Residential Development” (generally consisting of single-family and multi-family dwelling units up to 4-plexes, or as otherwise determined by the zoning jurisdiction). It is assumed that the density of single family development will be 3.5 residential units per acre. Watershed Fees shall be assessed per dwelling unit or equivalent prorated average area of lot basis; as shown in the table in Exhibit D;
  - (2) “High-Density Multi-Family Residential Development” (consisting of other multi-family residential dwelling units determined by the local zoning jurisdiction to represent High density development) shall be assessed per gross acre as shown in the table in Exhibit D and shall be proportionately indexed to “Single Family Residential Development” in terms of the potential to generate stormwater surface runoff. Such “High-Density Development” Watershed Fees shall be 1.25 times “Single Family Residential Development” Watershed Fees when considered on an estimated dwelling unit per gross acre basis; and

(3) Commercial/Industrial/Institutional

Development shall be assessed per gross acre as shown in the table in Exhibit D and shall be proportionately indexed to “Single Family Residential Development” in terms of the potential to generate stormwater surface runoff. Such Commercial/Industrial/Institutional Watershed Fees shall be 1.5 times “Single Family Residential Development.”

d) At approximately three (3) to five (5) year intervals, the Partnership shall review the Watershed Fees framework and rates with respect to availability of needed funds and rate of development within the Watershed. Subsequent changes to the Watershed Fees framework and rates, indicated by such review, shall be subject to formal approval by the respective local zoning jurisdictions and the NRD.

ii) The NRD shall establish a Watershed Fund and utilize the Watershed Fees received to pay approximately one-third (1/3) of required costs of developing a Watershed Management Plan and administering a Stormwater Management Program. The remaining approximately two-thirds (2/3) of such required costs shall be paid from the contributions to the Partnership Fund.

**8. Title to Property.** Title to any tangible property (e.g., monitoring equipment) obtained using funds contributed by members of the Partnership pursuant to this Agreement shall be held in the name of the

Administering Agent in trust for the members of the Partnership in proportion to their total contributions to the Partnership Fund and Watershed Fee Fund.

- 9. Counterparts.** This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterpart copies of this Agreement, as executed, shall be maintained as part of the records of the Administering Agent.
- 10. Effective Date:** This Agreement shall become effective on October 13, 2016 or upon approval by all parties.
- 11. Duration of Agreement:** This Agreement shall be in effect until July 1, 2019. The terms of this agreement shall remain in effect until such time as a continuation agreement is adopted by all parties.
- 12. Termination.** Involvement of any member of the Partnership with the Partnership, and responsibilities under this Agreement, may be terminated by such member without cause effective upon 60 days written notice to the other members of the Partnership. Termination of a member's involvement with the Partnership pursuant to this Agreement shall not operate to terminate this Agreement nor shall it affect any rights obtained under this Agreement, prior to such notice of termination being given, for costs incurred or moneys advanced, or for actions taken or responsibilities assumed, by another member of the Partnership during the term of and pursuant to this Agreement.
- 13. Additional Planning and Implementation.** The members of the Partnership may amend or supplement this Agreement from time to time as may be deemed necessary to provide long-term funding and

authorization for additional planning and implementation of beneficial programs and projects to meet the mission and goals of this Agreement.

**IN WITNESS WHEREOF**, this Agreement is entered into by the members of the Partnership pursuant to resolutions duly adopted by their respective governing boards.

**[Signature page(s) next]**



INTERLOCAL COOPERATION ACT AGREEMENT  
SOUTHERN SARPY WATERSHED PARTNERSHIP

SIGNATURE PAGE

Executed by the City of Bellevue, Nebraska on this \_\_\_\_\_ day of

\_\_\_\_\_, \_\_\_\_\_.

THE CITY OF BELLEVUE, NEBRASKA

BY \_\_\_\_\_  
MAYOR

Attest:

\_\_\_\_\_  
CITY CLERK

INTERLOCAL COOPERATION ACT AGREEMENT  
SOUTHERN SARPY WATERSHED PARTNERSHIP

SIGNATURE PAGE

Executed by the City of Gretna, Nebraska on this \_\_\_\_ day of  
\_\_\_\_\_, \_\_\_\_\_.  
THE CITY OF GRETNA, NEBRASKA

BY \_\_\_\_\_  
MAYOR

Attest:

\_\_\_\_\_  
CITY CLERK

INTERLOCAL COOPERATION ACT AGREEMENT  
SOUTHERN SARPY WATERSHED PARTNERSHIP

SIGNATURE PAGE

Executed by the City of Papillion, Nebraska on this \_\_\_\_ day of  
\_\_\_\_\_, 2014.

THE CITY OF PAPILLION, NEBRASKA

BY \_\_\_\_\_  
MAYOR

Attest:

\_\_\_\_\_  
CITY CLERK

INTERLOCAL COOPERATION ACT AGREEMENT  
SOUTHERN SARPY WATERSHED PARTNERSHIP

SIGNATURE PAGE

Executed by the City of Springfield, Nebraska on this \_\_\_\_ day of  
\_\_\_\_\_, \_\_\_\_\_.  
THE CITY OF SPRINGFIELD, NEBRASKA

BY \_\_\_\_\_  
MAYOR

Attest:

\_\_\_\_\_  
CITY CLERK

INTERLOCAL COOPERATION ACT AGREEMENT  
SOUTHERN SARPY WATERSHED PARTNERSHIP

SIGNATURE PAGE

Executed by the County of Sarpy, Nebraska on this \_\_\_\_ day of  
\_\_\_\_\_, \_\_\_\_.

THE COUNTY OF SARPY, NEBRASKA

BY \_\_\_\_\_  
CHAIRPERSON, COUNTY BOARD

Attest:

\_\_\_\_\_  
COUNTY CLERK

**INTERLOCAL COOPERATION ACT AGREEMENT  
SOUTHERN SARPY WATERSHED PARTNERSHIP**

**SIGNATURE PAGE**

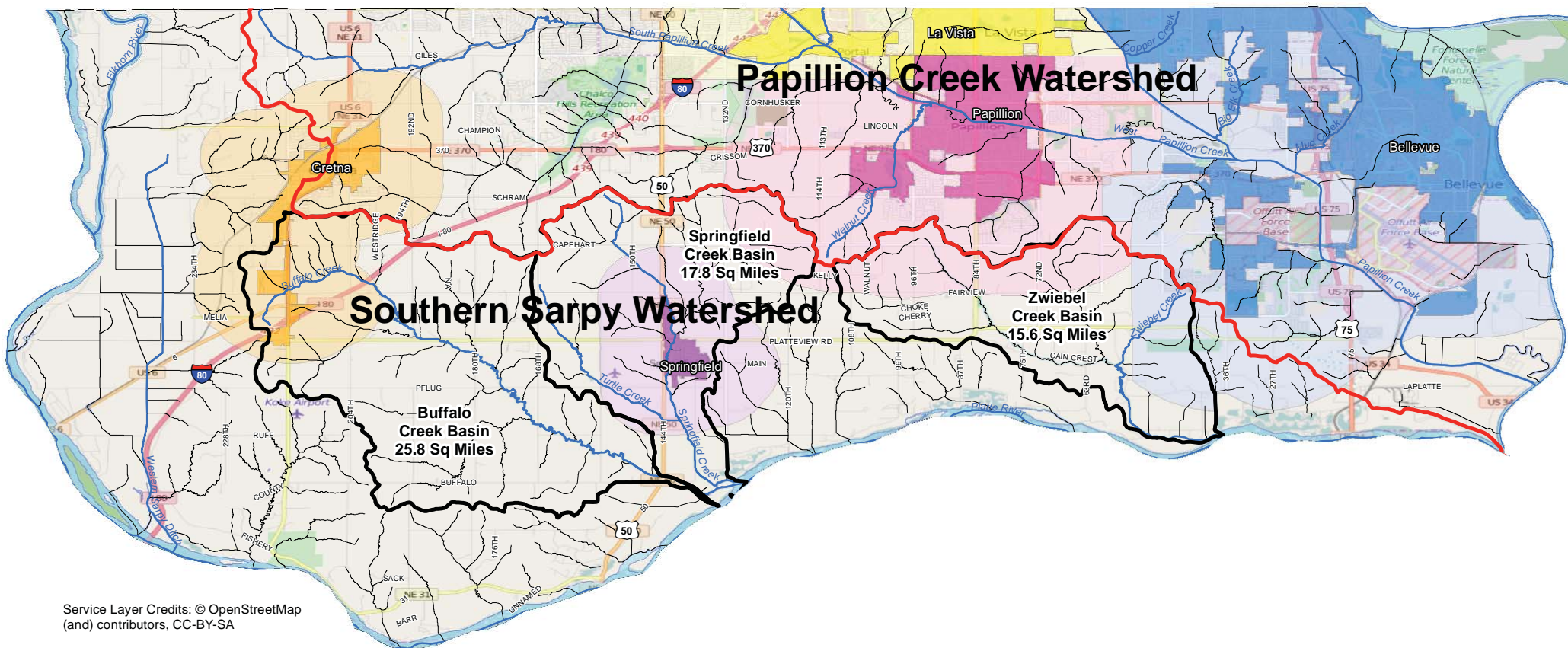
Executed by the Papio-Missouri River Natural Resources District on this  
\_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

**PAPIO-MISSOURI RIVER NATURAL  
RESOURCES DISTRICT**

**BY \_\_\_\_\_  
GENERAL MANAGER**

LEGEND

- Named Streams
- Unnamed Streams
- Drainage
- Papillion Creek Watershed



SOUTH SARPY COUNTY

FIGURE 1

SARPY COUNTY



PATH: D:\TEMP\WORK\LAUREN\SARPY\SARPY.MXD - USER: RWDOHL - DATE: 6/27/2016

# **EXHIBIT B**

## **SOUTHERN SARPY WATERSHED**

### **STORMWATER MANAGEMENT POLICIES**

#### **POLICY GROUP #1: WATER QUALITY IMPROVEMENT**

**ISSUE:** Waters of the Southern Sarpy Watershed are impaired.

**“ROOT” POLICY:** Improve water quality from all contributing sources, including but not limited to, agricultural activities and urban stormwater, such that waters of the Southern Sarpy Watershed and other local watersheds can meet applicable water quality standards and community-based goals, where feasible.

#### **SUB-POLICIES:**

- 1) Water Quality LID shall be required on all new developments and significant redevelopments.
- 2) Protect surface and groundwater resources from soil erosion (sheet and rill, wind erosion, gully and stream bank erosion), sedimentation, nutrient and chemical contamination. Buffer strips and riparian corridors should be established along all stream segments.
- 3) Preserve and protect wetland areas to the fullest extent possible to maintain natural hydrology and improve water quality by minimizing the downstream transport of sediment, nutrients, bacteria, etc. borne by surface water runoff. Reestablishment of previously existing wetlands and the creation of new wetlands should be promoted. Any impacted wetlands shall be mitigated at a 3:1 ratio.
- 4) Support NDEQ in an accelerated TMDL development process that addresses potential pollutant sources in a fair and reasonable manner based on sound technical data and scientific approach.
- 5) Implement Best Management Practices (BMPs) that reduce both urban and rural pollution sources, maintain or restore designated beneficial uses of streams and surface water impoundments, minimize soil loss, and provide sustainable production levels. Water quality basins shall be located in general conformance with an adopted Southern Sarpy Watershed Management Plan.

#### **REFERENCE INFORMATION**

#### **DEFINITIONS:**

- 1) Low-Impact Development (LID). A land development and management approach whereby stormwater runoff is managed using design techniques that promote infiltration, filtration, storage, evaporation, and temporary detention close to its source. Management of such stormwater runoff sources may include open space, rooftops, streetscapes, parking lots, sidewalks, medians, etc.
- 2) Water Quality LID. A level of LID using strategies designed to provide for water quality control of the first ½ inch of stormwater runoff generated from each new development or significant redevelopment and to maintain the peak discharge rates during the 2-year storm event to baseline land use conditions, measured at every drainage (stormwater discharge) outlet from the new development or significant redevelopment.
- 3) Best Management Practice (BMP). “A technique, measure or structural control that is used for a given set of conditions to manage the quantity and improve the quality of



## **EXHIBIT B**

### **SOUTHERN SARPY WATERSHED**

### **STORMWATER MANAGEMENT POLICIES**

stormwater runoff in the most cost-effective manner.” *[Source: U.S. Environmental Protection Agency (EPA)]*

- 4) Total Maximum Daily Load (TMDL). A calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. Water quality standards are set by States, Territories, and Tribes. They identify the uses for each waterbody, for example, drinking water supply, contact recreation (swimming), and aquatic life support (fishing), and the scientific criteria to support that use. A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and non-point sources. The calculation must include a margin of safety to ensure that the waterbody can be used for the purposes the State has designated. The calculation must also account for seasonal variation in water quality. The Clean Water Act, Section 303, establishes the water quality standards and TMDL programs, and for Nebraska such standards and programs are administered by the Nebraska Department of Environmental Quality. *[Source: EPA and Nebraska Surface Water Quality Standards, Title 117]*.
- 5) Southern Sarpy Watershed Management Plan. The Southern Sarpy Watershed Partnership is working to develop a Watershed Management Plan for this area. The plan may address water quality and quantity issues, stream stabilization, floodplain mapping. This plan may also include recommendations for regional structures to address issues related to flooding, erosion, and water quality within the watershed.
- 6) Significant redevelopment. Land disturbing activity that results in the creation, addition, or replacement of at least five thousand (5,000) square feet of impervious surface area on an already developed site.

# **EXHIBIT B**

## **SOUTHERN SARPY WATERSHED**

### **STORMWATER MANAGEMENT POLICIES**

#### **POLICY GROUP #2: PEAK FLOW REDUCTION**

##### **ISSUE**

Urbanization within the Southern Sarpy Watershed will increase runoff leading to flooding problems and diminished water quality.

##### **ROOT POLICY**

Maintain or reduce stormwater peak discharge during development and after full build-out land use conditions from that which existed under baseline land use conditions.

##### **SUB-POLICY**

- 1) Regional stormwater detention facilities and other structural and non-structural BMPs shall be located in general conformance with an adopted Southern Sarpy Watershed Management Plan and shall be coordinated with other related master planning efforts for parks, streets, water, sewer, etc.
- 2) All new developments and significant redevelopments shall maintain or reduce peak discharge rates during the 2, 10, and 100-year storm event under baseline land use conditions.

##### **REFERENCE INFORMATION**

##### **DEFINITIONS**

- 1) Low-Impact Development (LID). A land development and management approach whereby stormwater runoff is managed using design techniques that promote infiltration, filtration, storage, evaporation, and temporary detention close to its source. Management of such stormwater runoff sources may include open space, rooftops, streetscapes, parking lots, sidewalks, medians, etc.
- 2) Water Quality LID. A level of LID using strategies designed to provide for water quality control of the first ½ inch of stormwater runoff generated from each new development or significant redevelopment and to maintain the peak discharge rates during the 2-year storm event to baseline land use condition, measured at every drainage (stormwater discharge) outlet from the new development or significant redevelopment.
- 3) Peak Discharge or Peak Flow. The maximum instantaneous surface water discharge rate resulting from a design storm frequency event for a particular hydrologic and hydraulic analysis, as defined in the Omaha Regional Stormwater Design Manual. The measurement of the peak discharge shall be at the lower-most drainage outlet(s) from a new development or significant redevelopment.
- 4) Regional Stormwater Detention Facilities. Those facilities generally serving a drainage catchment area of 500 acres or more in size.
- 5) Baseline Land Use Conditions. The pre-developed conditions which existed in Year 2014.
- 6) Full Build-Out Land Use Conditions. Fully platted developable land use conditions for the Southern Sarpy Watershed are assumed to occur by the Year 2055; or as may be redefined through periodic updates to the respective community and county comprehensive plans.

**EXHIBIT B**  
**SOUTHERN SARPY WATERSHED**  
**STORMWATER MANAGEMENT POLICIES**

- 7) Southern Sarpy Watershed Management Plan. The Southern Sarpy Watershed Partnership is working to develop a Watershed Management Plan for this area. The plan may address water quality and quantity issues, stream stabilization, floodplain mapping. This plan may also include recommendations for regional structures to address issues related to flooding, erosion, and water quality within the watershed.
- 8) Significant redevelopment. Land disturbing activity that results in the creation, addition, or replacement of at least five thousand (5,000) square feet of impervious surface area on an already developed site.

## **EXHIBIT B**

### **SOUTHERN SARPY WATERSHED**

### **STORMWATER MANAGEMENT POLICIES**

#### **POLICY GROUP #3: LANDSCAPE PRESERVATION, RESTORATION, AND CONSERVATION**

**ISSUE:** Natural areas are diminishing, and there is a need to be proactive and integrate efforts directed toward providing additional landscape and green space areas with enhanced stormwater management through restoration and conservation of stream corridors, wetlands, and other natural vegetation.

**“ROOT” POLICY:** Utilize landscape preservation, restoration, and conservation techniques to meet the multi-purpose objectives of enhanced aesthetics, quality of life, recreational and educational opportunities, pollutant reduction, and overall stormwater management.

#### **SUB-POLICIES:**

- 1) Incorporate stormwater management strategies as a part of landscape preservation, restoration, and conservation efforts where technically feasible.
- 2) Define natural resources for the purpose of preservation, restoration, mitigation, and/or enhancement.
- 3) For new development or significant redevelopment, provide a creek setback of 3:1 plus 50 feet along all streams.
- 4) All landscape preservation features as required in this policy or other policies, including all stormwater and LID strategies, creek setbacks, existing or mitigated wetlands, etc., identified in new or significant redevelopment shall be placed into an out lot or within public right of way or otherwise approved easement.

#### **REFERENCE INFORMATION**

#### **DEFINITIONS**

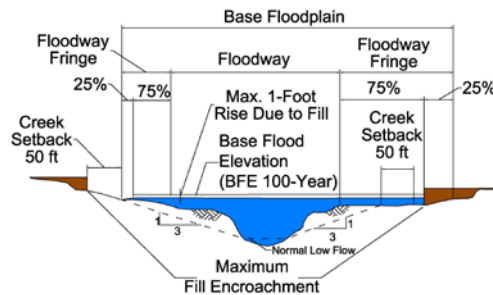
- 1) Creek Setback. See Figure 1 below and related definitions in Policy Group #5. A setback area equal to three (3) times the channel depth plus fifty (50) feet (3:1 plus 50 feet) from the edge of low water on both sides of channel shall be required for any above or below ground structure exclusive of bank stabilization structures, poles or sign structures adjacent to any watercourse defined within the watershed drainage plan. Grading, stockpiling, and other construction activities are not allowed within the setback area and the setback area must be protected with adequate erosion controls or other Best Management Practices, (BMPs). The outer 30 feet adjacent to the creek setback limits may be credited toward meeting the landscaping buffer and pervious coverage requirements.

A property can be exempt from the creek setback requirement upon a showing by a licensed professional engineer or licensed landscape architect that adequate bank stabilization structures or slope protection will be installed in the construction of said structure, having an estimated useful life equal to that of the structure, which will provide adequate erosion control conditions coupled with adequate lateral support so that no portion of said structure adjacent to the stream will be endangered by erosion or lack of lateral support. In the event that the structure is adjacent to any stream

## EXHIBIT B

### SOUTHERN SARPY WATERSHED STORMWATER MANAGEMENT POLICIES

which has been channelized or otherwise improved by any agency of government, then such certificate providing an exception to the creek setback requirement may take the form of a certification as to the adequacy and protection of the improvements installed by such governmental agency. If such exemption is granted, applicable rights-of-way must be provided and a minimum 20 foot corridor adjacent thereto.



**Figure 1 – Floodway Fringe Encroachment and Creek Setback Schematic**

#### DEFINITIONS

- 1) **Base Flood.** The flood having a one percent chance of being equaled or exceeded in magnitude in any given year (commonly called a 100-year flood). *[Adapted from Chapter 31 of Nebraska Statutes]*
- 2) **Floodway.** The channel of a watercourse and the adjacent land areas that are necessary to be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot. *[Adapted from Chapter 31 of Nebraska Statutes]*. The Federal Emergency Management Agency (FEMA) provides further clarification that a floodway is the central portion of a riverine floodplain needed to carry the deeper, faster moving water.
- 3) **Floodway Fringe.** That portion of the floodplain of the base flood, which is outside of the floodway. *[Adapted from Chapter 31 of Nebraska Statutes]*
- 4) **Floodplain.** The area adjoining a watercourse, which has been or may be covered by flood waters. *[Adapted from Chapter 31 of Nebraska Statutes]*
- 5) **Watercourse.** Any depression two feet or more below the surrounding land which serves to give direction to a current of water at least nine months of the year and which has a bed and well-defined banks. *[Adapted from Chapter 31 of Nebraska Statutes]*
- 6) **Low Chord Elevation.** The bottom-most face elevation of horizontal support girders or similar superstructure that supports a bridge deck.
- 7) **Updated Flood Hazard Maps.** The current Flood Insurance Study and Flood Insurance Rate Maps for Sarpy County include analyses of the Platte River completed in 2005, the Elkhorn River completed in 1988, Buffalo Creek completed in 1978, and Springfield Creek completed in 1976.
- 8) **New Development.** New development shall be defined as that which is undertaken to any undeveloped parcel that existed at the time of implementation of this policy.
- 9) **Significant redevelopment.** Land disturbing activity that results in the creation, addition, or replacement of at least five thousand (5,000) square feet of impervious surface area on an already developed site.

## **EXHIBIT B**

### **SOUTHERN SARPY WATERSHED STORMWATER MANAGEMENT POLICIES**

#### **POLICY GROUP #4: EROSION AND SEDIMENT CONTROL AND OTHER BMPs**

**ISSUE:** Sound erosion and sediment control design and enforcement practices are needed in order to protect valuable land resources, stream and other drainage corridors, and surface water impoundments and for the parallel purpose of meeting applicable Nebraska Department of Environmental Quality regulatory requirements for construction activities that disturb greater than one acre.

**“ROOT” POLICY:** Promote uniform erosion and sediment control measures by implementing consistent rules for regulatory compliance pursuant to State and Federal requirements, including the adoption of the Omaha Regional Stormwater Design Manual.

#### **SUB-POLICIES:**

- 1) Construction site stormwater management controls shall include both erosion and sediment control measures.
- 2) The design and implementation of post-construction, permanent erosion and sediment controls shall be considered in conjunction with meeting the intent of other Stormwater Management Policies.
- 3) Sediment storage shall be incorporated with all regional detention facilities where technically feasible.

#### **REFERENCE INFORMATION**

#### **DEFINITIONS**

- 1) Erosion Control. Land and stormwater management practices that minimize soil loss caused by surface water movement.
- 2) Sediment Control. Land and stormwater management practices that minimize the transport and deposition of sediment onto adjacent properties and into receiving streams and surface water impoundments.

## **EXHIBIT B**

### **SOUTHERN SАРY WATERSHED**

### **STORMWATER MANAGEMENT POLICIES**

#### **POLICY GROUP #5: FLOODPLAIN MANAGEMENT**

**ISSUE:** Continued and anticipated development within the Southern Sarpy Watershed mandates that holistic floodplain management be implemented and maintained in order to protect its citizens, property, and natural resources.

**“ROOT” POLICY:** Participate in the FEMA National Flood Insurance Program, update FEMA floodplain mapping throughout the Southern Sarpy Watershed and enforce floodplain regulations.

#### **SUB-POLICIES:**

- 1) Floodplain management coordination among all jurisdictions within the Southern Sarpy Watershed and the Papio-Missouri River Natural Resources District (P-MRNRD) is required.
- 2) Flood Insurance studies and mapping throughout the Southern Sarpy Watershed shall be updated using current conditions hydrology.
- 3) Encroachments for new developments or significant redevelopments within floodway fringes shall not cause any increase greater than one (1.00) foot in the height of the existing base flood elevation using best available data.
- 4) Filling of the floodway fringe associated with new development within the Southern Sarpy Creek System (Platte and Elkhorn Rivers not included) shall be limited to 25% of the floodway fringe in the floodplain development application project area, unless approved mitigation measures are implemented. The remaining 75% of floodway fringe within the project area shall be designated as a floodway overlay zone. For redevelopment, these provisions may be modified or waived in whole or in part by the local jurisdiction.
- 5) The low chord elevation for bridges crossing all watercourses within FEMA designated floodplains shall be a minimum of one (1) foot above the base flood elevation for existing conditions hydrology using best available data.
- 6) The lowest first floor elevation of buildings associated with new development or significant redevelopment that are upstream of and contiguous to regional dams within the Southern Sarpy Watershed as identified in the Southern Sarpy Watershed Management Plan shall be a minimum of one (1) foot above the 500-year flood pool elevation.
- 7) Developments in areas with no FEMA Special Flood Hazard Area defined must provide hydrologic and hydraulic analyses to ensure new development will be reasonably safe from flooding during the base flood.

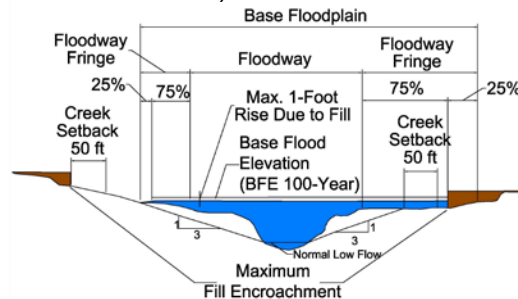
# EXHIBIT B

## SOUTHERN SARPY WATERSHED

### STORMWATER MANAGEMENT POLICIES

#### REFERENCE INFORMATION

**DEFINITIONS** (See Figure 1 below and related definitions in Policy Group #3: Landscape Preservation, Restoration, and Conservation).



**Figure 1 – Floodway Fringe Encroachment and Creek Setback Schematic**

- 1) Base Flood. The flood having a one percent chance of being equaled or exceeded in magnitude in any given year (commonly called a 100-year flood). *[Adapted from Chapter 31 of Nebraska Statutes]*
- 2) Floodway. The channel of a watercourse and the adjacent land areas that are necessary to be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot. *[Adapted from Chapter 31 of Nebraska Statutes]*. The Federal Emergency Management Agency (FEMA) provides further clarification that a floodway is the central portion of a riverine floodplain needed to carry the deeper, faster moving water.
- 3) Floodway Fringe. That portion of the floodplain of the base flood, which is outside of the floodway. *[Adapted from Chapter 31 of Nebraska Statutes]*
- 4) Floodplain. The area adjoining a watercourse, which has been or may be covered by flood waters. *[Adapted from Chapter 31 of Nebraska Statutes]*
- 5) Watercourse. Any depression two feet or more below the surrounding land which serves to give direction to a current of water at least nine months of the year and which has a bed and well-defined banks. *[Adapted from Chapter 31 of Nebraska Statutes]*
- 6) Low Chord Elevation. The bottom-most face elevation of horizontal support girders or similar superstructure that supports a bridge deck.
- 7) Updated Flood Hazard Maps. The current Flood Insurance Study and Flood Insurance Rate Maps for Sarpy County include analyses of the Platte River completed in 2005, the Elkhorn River completed in 1988, Buffalo Creek completed in 1978, and Springfield Creek completed in 1976.
- 8) New Development. New development shall be defined as that which is undertaken to any undeveloped parcel that existed at the time of implementation of this policy.
- 9) Southern Sarpy Watershed Management Plan. The Southern Sarpy Watershed Partnership is working to develop a Watershed Management Plan for this area. The plan may address water quality and quantity issues, stream stabilization, floodplain mapping. This plan may also include recommendations for regional structures to address issues related to flooding, erosion, and water quality within the watershed.



## **EXHIBIT B**

### **SOUTHERN SARPY WATERSHED**

### **STORMWATER MANAGEMENT POLICIES**

- 10) Significant redevelopment. Land disturbing activity that results in the creation, addition, or replacement of at least five thousand (5,000) square feet of impervious surface area on an already developed site.

#### **BASIC FEMA REQUIREMENTS**

On March 1, 2003, FEMA became part of the U.S. Department of Homeland Security (DHS). In order for a community to participate in the FEMA National Flood Insurance Program, it must first define base flood elevations and adopt a floodway for all its major streams and tributaries.

Once a community adopts its floodway, the requirements of *44 CFR 60.3(d)* must be fulfilled.

The key concern is that each project in the floodway must receive an encroachment review; i.e., an analysis to determine if the project will increase flood heights or cause increased flooding downstream. Note that the FEMA regulations call for preventing any increase in flood heights.

Projects, such as filling, grading or construction of a new building, must be reviewed to determine whether they will obstruct flood flows and cause an increase in flood heights upstream or adjacent to the project site. Further, projects, such as grading, large excavations, channel improvements, and bridge and culvert replacements should also be reviewed to determine whether they will remove an existing obstruction, resulting in increases in flood flows downstream. *[Adapted from Federal Emergency Management Agency guidance]*

## **EXHIBIT B**

### **SOUTHERN SARPY WATERSHED STORMWATER MANAGEMENT POLICIES**

#### **POLICY GROUP #6: STORMWATER MANAGEMENT FINANCING**

**ISSUE:** Regulatory requirements for stormwater management and implementation of Stormwater Management Policies intended to accommodate new development and significant redevelopment will impose large financial demands for capital and operation and maintenance beyond existing funding resources.

**“ROOT” POLICY:** Dedicated, sustainable funding mechanisms shall be developed and implemented to meet capital and operation and maintenance obligations needed to implement NPDES Stormwater Management Plans, Stormwater Management Policies, and the Southern Sarpy County Watershed Management Plan.

#### **SUB-POLICIES:**

- 1) All new development and significant redevelopment will be required to fund the planning, implementation, and operation and maintenance of water quality LID.
- 2) A Watershed Management Fee system shall be established to equitably distribute the capital cost of implementing the Southern Sarpy Watershed Management Plan among new development or significant redevelopment. Such Watershed Management Fee shall only apply to new development or significant redevelopment within the Southern Sarpy Watershed and the initial framework shall consist of the following provisions:
  - a. Collection of fees and public funding shall be earmarked specifically for the construction of projects called for in the Southern Sarpy Watershed Management Plan. Fees may also be used to fund tasks such as construction site inspection, water quality monitoring, and reporting activities. Furthermore, the fee may be used to commission studies for the purposes of watershed planning, flood hazard mapping, and other planning activities.
  - b. Multiple fee classifications shall be established which fairly and equitably distribute the cost of these projects among all undeveloped areas within the Southern Sarpy Watershed.
  - c. Watershed Management Fees (private) are intended to account for approximately one-third (1/3) of required funds and shall be paid to the applicable local zoning jurisdiction with building permit applications.
  - d. Watershed Management Fee revenues shall be transferred from the applicable local zoning jurisdiction to a special P-MRNRD account via inter-local agreements.
  - e. The Public costs are intended to account for approximately two-thirds (2/3) of required funds for developing a Watershed Management Plan and administering a Stormwater Management Program.
  - f. The P-MRNRD will seek reauthorization of its general obligation bonding authority from the Nebraska Legislature to provide necessary scheduling flexibility.
  - g. Financing for Southern Sarpy Watershed Management Plan projects may require public-private partnership agreements between the P-MRNRD and developers/S&IDs on a case-by-case basis.
  - h. On approximately three (3)-year intervals, the Southern Sarpy Watershed Management Plan and Watershed Management Fee framework, rates, and

## **EXHIBIT B**

### **SOUTHERN SARPY WATERSHED**

### **STORMWATER MANAGEMENT POLICIES**

construction priority schedule shall be reviewed with respect to availability of needed funds and rate of development within the Southern Sarpy Watershed by the parties involved (local zoning jurisdictions, P-MRNRD, and the development community). Subsequent changes thereto shall be formally approved by the respective local zoning jurisdictions and the P-MRNRD.

- 3) A Stormwater Utility Fee System shall be established to equitably distribute the costs for ongoing operation and maintenance of all stormwater BMPs and infrastructure among all existing property owners within NPDES Phase I or II municipal jurisdictions.
  - a. NPDES Phase I and II cities and counties should actively seek legislation from the Nebraska Legislature to allow for the establishment of an equitable stormwater utility fee.
  - b. The initial framework for the Stormwater Utility Fee System should consist of the following provisions provided Nebraska statutes allow for such a fee:
    - i. A county or city shall establish by resolution user charges to be assessed against all real property within its zoning jurisdiction and may issue revenue bonds or refunding bonds payable from the proceeds of such charges, all upon terms as the county board or city council determines are reasonable.
    - ii. Such charges shall be designed to be proportionate to the stormwater runoff contributed from such real property and based on sound engineering principles.
    - iii. Such charges should provide credits or adjustments for stormwater quantity and quality BMPs utilized in order to encourage wise conservation and management of stormwater on each property.
    - iv. Such charges shall be collected in a manner that the county or city determines as appropriate and shall not be determined to be special benefit assessments.
    - v. A county or city shall establish a system for exemption from the charges for the property of the state and its governmental subdivisions to the extent that it is being used for a public purpose. The local elected body shall also provide an appeals process for aggrieved parties.
    - vi. A county shall not impose these charges against real property that is being charges user charges by a city.
    - vii. Any funds raised from a Stormwater Utility Fee shall be placed in a separate fund and shall not be used for any purpose other than those specified.

# **EXHIBIT B**

## **SOUTHERN SARPY WATERSHED**

### **STORMWATER MANAGEMENT POLICIES**

#### **REFERENCE INFORMATION**

#### **DEFINITIONS**

- 1) Stormwater Management Policies. Stormwater management policies were developed by the Southern Sarpy Watershed Partnership. The following policy groups contain “root” policies and sub-policies for stormwater management that have been developed herein:
  - Policy Group #1 – Water Quality Improvement
  - Policy Group #2 – Peak Flow Reduction
  - Policy Group #3 – Landscape Preservation, Restoration, and Conservation
  - Policy Group #4 – Erosion and Sediment Control and Other BMPs
  - Policy Group #5 – Floodplain Management
  - Policy Group #6 – Stormwater Management Financing
- 2) Stormwater Management Plan (SWMP). A SWMP is a required part of the NPDES Phase II Stormwater Permits for the urbanized portion of Sarpy County. Development of Stormwater Management Policies is an integral part of the SWMP, and such policies are to be adopted by respective SSWP partners.
- 3) Comprehensive Development Plans. Existing plans developed by local jurisdictions that serve as the basis for zoning and other land use regulations and ordinances. The Stormwater Management Policies are to be incorporated into the respective Comprehensive Development Plans.
- 4) Policy Implementation. The implementation of the policies will be through the development of ordinances and regulations. Ordinances and regulations are intended to be consistent for, and adopted by, the respective SSWP members. Such ordinances and regulations shall need to be consistent with the Comprehensive Development Plans of the respective SSWP members.
- 5) Low-Impact Development (LID). A land development and management approach whereby stormwater runoff is managed using design techniques that promote infiltration, filtration, storage, evaporation, and temporary detention close to its source. Management of such stormwater runoff sources may include open space, rooftops, streetscapes, parking lots, sidewalks, medians, etc.
- 6) Water Quality LID. A level of LID using strategies designed to provide for water quality control of the first ½ inch of stormwater runoff generated from each new development or significant redevelopment and to maintain the peak discharge rates during the 2-year storm event to baseline land use conditions, measured at every drainage (stormwater discharge) outlet from the new development or significant redevelopment.
- 7) Baseline Land Use Conditions. The pre-developed conditions which existed in Year 2014.
- 8) Southern Sarpy Watershed Management Plan. The Southern Sarpy Watershed Partnership is working to develop a Watershed Management Plan for this area. The plan may address water quality and quantity issues, stream stabilization, floodplain

## **EXHIBIT B**

### **SOUTHERN SARPY WATERSHED STORMWATER MANAGEMENT POLICIES**

mapping. This plan may also include recommendations for regional structures to address issues related to flooding, erosion, and water quality within the watershed.

- 9) Significant redevelopment. Land disturbing activity that results in the creation, addition, or replacement of at least five thousand (5,000) square feet of impervious surface area on an already developed site.

#### **BASIS FOR STORMWATER MANAGEMENT FINANCING ISSUE**

- 1) Time is of the essence for policy development and implementation:
  - a) Under Phase II Stormwater Permits issued by the Nebraska Department of Environmental Quality, permittees must develop strategies, which include a combination of structural and/or non-structural best management practices and incorporate them into existing Comprehensive Development Plans.
  - b) The S&ID platting process is typically several years ahead of full occupation of an S&ID. Therefore, careful pre-emptive planning and program implementation is necessary in order to construct stormwater structural improvements in a timely manner to meet the purposes intended and to avoid conflicts from land use encroachments from advancing development.
- 2) Financing to meet capital and O&M obligations for stormwater management projects requires a comprehensive, uniformly applied approach and not a project-by-project approach.

EXHIBIT C  
Annual Partner Contributions

Bellevue	8%	\$ 16,000
Gretna	5%	\$ 10,000
Papillion	8%	\$ 16,000
Springfield	6%	\$ 12,000
Sarpy County	40%	\$ 80,000
P-MRNRD	33%	\$ 66,000
Total Annual Contributions	100%	\$ 200,000

P-MRNRD Contribution shall equal 33% of the Total Annual Contributions

Percentage of Zoning Jurisdictions Contributions Calculated as:

$$Contribution\% = \left( 0.25 \frac{Population_{Jurisdiction}}{Population_{Total}} + 0.75 \frac{Area_{Jurisdiction}}{Area_{Total}} \right) \times 0.67$$

Definitions:

Population -Jurisdiction	Population within the boundaries of each jurisdiction, including extra-territorial jurisdiction boundaries. Population for Sarpy County is calculated as those residing outside of the ETJ boundaries of communities within the county.
Population - Total	Total population in Sarpy County excluding residents within La Vista's boundaries (including their ETJ)
Area - Jurisdiction	Area of each jurisdiction, including ETJ, within the Buffalo Creek, Springfield Creek, and Zwiebel Creek subwatersheds.
Area - Total	Total land area of Buffalo Creek, Springfield Creek, and Zwiebel Creek subwatersheds.

EXHIBIT C  
Annual Partner Contributions

EXHIBIT D  
Watershed Fees

Fee Category	FY 2017	FY 2018	FY 2019
	July 1, 2016- June 30, 2017	July 1, 2017- June 30, 2018	July 1, 2018- June 30, 2019
Single Family Residential per dwelling unit (also includes low-density multi-family up to 4-plexes)	\$864	\$886	\$908
High-Density Multi-Family Residential per gross acre (beyond 4-plexes)	\$3,803	\$3,898	\$3,996
Commercial/Industrial/Institutional per gross acre	\$4,609	\$4,724	\$4,842