

## **AGENDA ITEM 4A**

**Discussion—Papillion Creek Watershed Partnership  
Interlocal Agreement**

# Memorandum



**To:** Planning Commission  
**From:** Christopher Solberg, City Planner  
**Date:** 5/8/2014  
**Re:** Papio Creek Watershed Partnership Interlocal Agreement

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## BACKGROUND

### 1. Context and process:

As the result of a regional effort to establish a plan for management of water quality and flood control in the Papillion Creek watershed, a Stormwater Element was added to Omaha's Master Plan in June of 2006 and amended in June of 2009. Since 2009, Omaha has continued to work with regional stakeholders through the Papillion Creek Watershed Partnership (PCWP) to review the policies that were originally adopted, update the Watershed Management Plan and develop a new specific five year Implementation Plan. As part of the renewal of the Interlocal Agreement that defines the PCWP and its mission, the member communities (Bellevue, Boystown, Gretna, La Vista, Omaha, Papio-Missouri River NRD, Papillion, Ralston, and Sarpy County) are being asked to adopt the revised Implementation Plan. No changes to the policies were recommended.

### 2. Master Plan Amendments:

#### a. Changes to the Watershed Management Plan

The map on Exhibit E has been updated to reflect the construction since 2009 of the regional reservoirs WP-5 and DS-15A.

Status of 2009 Implementation Plan for Years 2011-2013		
Original Structure Name	Changes From 2009 Plan	Current Status
WP-RB5	Renamed to WP-5	Under Construction; Est. June 2014 Completion

WQ-RB5-1	Revised to Two Basins: WQ-WP-5N and WQ-WP-5S	Under Construction; Est. June 2014 Completion
DS-15A	None	Under Design; Est. Fall 2014 Construction Start and 2015 Completion.
WQ-15A-1	Revised to One Basin: WQ-15A	
WQ-15A-2		
WQ-Zorinsky 1	None	Design Complete; Est. 2014 Construction Start and Completion
WQ-CL-6	Not constructed Due to Lack of Development Interest	Deferred

b. New 5-year Implementation Plan

The map on Exhibit F (Implementation Plan) shows the approximate locations of elements of the Watershed Management Plan that the Partnership recommends for design and construction between 2014 and 2018. Those elements have an estimated total cost of \$18M and are comprised of 2 regional detention basins. The intent is that the Watershed Management Plan be reviewed and updated in 3- to 5-year increments and that the Interlocal Agreement be amended to reflect additional phases of work as they are needed.

3. Implementation:

In addition to the execution of the extension of the Interlocal Agreement, the La Vista Master Fee Ordinance will be amended based on the figures in Exhibit G to implement the Watershed Management fee system developed by the Papio-Missouri River NRD for fiscal years 2014-2018. The rate structure was amended to meet the goal of 1/3 of structural project costs are funded through the Watershed Fees and 2/3 of structural project costs are funded by the NRD and to provide for inflation moving forward.

**ANALYSIS**

The intent of the PCWP is to establish regionally common goals and development standard to address stormwater quality and quantity issues in a consistent, effective and efficient manner. The refinements contained in the proposed policies and plans are another incremental improvement in regional public health safety and quality of life.

**RECOMMENDATION**

This is only a discussion item. No recommendation is needed from the Planning Commission to the City Council.

**INTERLOCAL COOPERATION ACT AGREEMENT  
FOR CONTINUATION OF THE  
PAPILLION CREEK 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 watershed of the Papillion Creek (hereinafter referred to as "**the Watershed**"), the Interested Governments consisting of the following governmental entities, to-wit: the **CITY OF BELLEVUE**, Nebraska; the **VILLAGE OF BOYS TOWN**, Nebraska; the **CITY OF GRETNNA**, Nebraska; the **CITY OF LAVISTA**, Nebraska; the **CITY OF OMAHA**, Nebraska; the **CITY OF PAPILLION**, Nebraska; the **CITY OF RALSTON**, 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 Papillion Creek Watershed Partnership**" or "**the Partnership**"), thus signifying the intent of the Parties to act, and contribute their resources, as members of the "Papillion Creek Watershed Partnership," which is hereinafter defined and described.

**WHEREAS**, the Partnership originally was formed through an Interlocal Cooperation Act Agreement dated on August 1, 2001 (hereinafter referred to as the "**Initial Agreement**"), and expiring on July 31, 2004. An Interlocal

Cooperation Act Agreement for Continuation of the Papillion Creek Watershed Partnership was approved by the Parties in 2004 **and 2009**, effective July 1, 2004 **and July 1, 2009 respectively**, for a period of five years from and after **their** effective date.

**WHEREAS**, the Partnership has accomplished the assessment of existing water quality and quantity conditions, the cooperative preparation of NPDES Phase II Permit applications, the submittal of multiple grant applications, the analysis of additional flood control and the support of storm water utility legislation. The Partnership coordinated these issues at monthly meetings of its members' representatives. The progress of Partnership activities was presented to the public at meetings and on a website ([www.papiopartnership.org](http://www.papiopartnership.org));

**WHEREAS**, the Partnership was instrumental in the preparation of the "Partnership NPDES Phase II Storm Water Management Plan" for the Watershed, (hereinafter referred to as the "**SWMP**") a true and correct copy of which is attached to this Agreement as **Exhibit "A"** and incorporated herein by this reference;

**WHEREAS**, by the members of the Partnership continuing to act in concert and proposing, enacting and implementing common standards, there will be continued increases in effectiveness and in cost-sharing capability within the Partnership, particularly in the capability to implement the SWMP and to address federally-imposed requirements and mandates which are imminent and which must be funded locally;

**WHEREAS**, other premises that justify the continuation of the Partnership still exist, including, without limitation, that:

- The Papillion Creek does not meet water quality standards specified by the State of Nebraska;

- The City of Omaha has a current Federal mandate to reduce combined sewer overflows;
- The Watershed has not had a major widespread storm event since the 1960's;
- The hydrology of the Watershed for the Flood Insurance Study will continue to need to be updated;
- Urbanization of the Watershed and associated impervious area have increased dramatically since the 60's and 70's;
- Deposition is occurring in Watershed reservoirs at unacceptable rates;
- Currently there is inadequate funding 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, 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 Papillion Creek Watershed; implementing better site design that minimizes impervious surfaces, utilizes techniques to mimic natural hydrology, and approximates pre-development runoff conditions; updating hydrology to 2001 and 2040; 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 ordinance/regulation 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;

- Continuation of 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, a Watershed Management Plan, Implementation Plan and Stormwater Management Policies (hereinafter referred to collectively as the **“Plans and Policies”**) were developed through a community-based process involving the development community, Partnership members, public agencies, non-profit organizations, other stakeholder groups and the general public. The Plans and Policies developed through the Partnership consist of six (6) Policy Groups, headed as follows:

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

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

**WHEREAS**, The Plans and Policies are intended to be adopted, in total, by the respective members of the Partnership, using their respective land use review and adoption processes (typically reviewed by a Planning Commission or Board and then review and adoption by the elected Board or Council); provided this agreement is not meant to limit any jurisdiction from adopting comparable or more stringent Stormwater Management Policies, regulations, or ordinances.

**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 through 2040.
- 3. Applicability:** Members of the partnership having jurisdiction over land area outside the physical boundaries of the Watershed 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 as though they were located physically within the Watershed 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) Increased water-based recreational opportunities that result from water quality improvements in existing streams and reservoirs and associated improvements in quality of life;
  - 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) Storm Water Management Plan update;
  - h) Environmental compliance;
  - i) Sediment and erosion control;
  - j) Floodplain management; and,
  - k) Development of and updates to the Plans and Policies.
- 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 50% 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;
- 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. **Implementation.** The Partnership intends and agrees that the elements of the SWMP, the Plans and Policies, and other beneficial programs and projects meeting the mission and goals of this Agreement, will be implemented as follows:

- a)** Responsibility for implementation of an element of the SWMP therein identified solely for individual action by a Partner will rest with the respective member(s) of the Partnership upon whom the primary duty to implement such element has been imposed by law or regulation. Regulations or ordinances implementing elements of the SWMP and the Plans and Policies will be adopted by each member of the Partnership as appropriate. The provisions of such regulations or ordinances shall indicate the geographic jurisdictional limits to which such regulation or ordinance shall apply. This agreement is not meant to limit any jurisdiction from adopting comparable or more stringent Stormwater Management Policies, regulations, or ordinances.
- b)** Subject to the availability of funds, implementation of those elements of the SWMP therein identified for action by the Partnership or individual partners and identified in the table attached hereto as **Exhibit “C”** and incorporated herein by reference shall be voluntarily undertaken by the Partnership collectively; provided, however, no voluntary collective undertaking by the Partnership shall be deemed to relieve a member of the Partnership of a primary duty imposed upon such member by law or regulation.
- c)** Any elements of the SWMP, alternatively, may be voluntarily undertaken by the Partnership collectively if the Executive Committee determines that such course of action is reasonable and feasible.
- d)** If the Executive Committee determines that such course of action is reasonable and feasible, the Partnership may voluntarily and collectively undertake beneficial programs and projects meeting the mission and goals of this Agreement.

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

- a)** The Partnership Fund, established by the Initial Agreement, shall continue to 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 second column of the table attached hereto as **Exhibit "D"** and incorporated herein by reference (such amount hereinafter being referred to as the **"Maximum Annual Contribution"** for such member). For subsequent years during the term of this Agreement, the Administering Agent shall request annual contributions 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 to be determined by the Administering Agent prior to the first day of June 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 proportional to such

members' first year contributions to the Partnership Fund, provided, however, in no case shall any such requested annual contribution exceed the amount of such member's Maximum Annual Contribution.

- 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.
- 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 NRD general property tax dollars to equitably distribute the capital cost of implementing structural water quality and quantity controls 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 implement the Watershed Management Plan and Implementation Plan, , attached hereto as **Exhibit “E”** and **Exhibit “F”** respectively, and both incorporated herein by reference, or as may be amended in three (3) to five (5) year increments through provisions in this Agreement, as follows:

- i) The cities of BELLEVUE, GRETNA, LAVISTA, OMAHA, PAPILLION and RALSTON, and the County of SARPY (all hereinafter referred to collectively as “**zoning jurisdictions**”) agree to collect Watershed Fees from new development or significant redevelopment within the Papillion Creek Watershed, such Watershed Fees to be collected and earmarked specifically for construction of regional detention structures and water quality basins, as follows, to-wit:
  - a) Each zoning jurisdiction shall adopt a regulation or ordinance authorizing the collection of the Watershed Fees, according to Exhibit G or as specified in a previous agreement, for new development and significant redevelopment and authorizing the transfer of such fees to the NRD, consistent with the provisions of this Agreement. Developing subdivisions platted prior to 2009 may be exempt from collection of Watershed Fees.
  - b)
  - c) 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 construction by the NRD of regional detention structures and water quality basins and expended by the NRD as further provided in this Agreement.

- d) 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 G and,
  - (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 G 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.

- (3) Commercial/Industrial Development shall be assessed per gross acre as shown in the table in Exhibit G and shall be proportionately indexed to “Single Family Residential Development” in terms of the potential to generate stormwater surface runoff. Such Commercial/Industrial Watershed Fees shall be 1.5 times “Single Family Residential Development.”
- e) At approximately three (3) to five (5) year intervals, the Partnership and the development community shall review the Watershed Fees framework and rates, the Watershed Management Plan and the Implementation Plan with respect to availability of needed funds and rate of development within the Watershed. Subsequent changes to the Watershed Fees framework and rates, Watershed Management Plan and Implementation Plan, indicated by such review, shall be subject to formal approval by the respective local zoning jurisdictions and the NRD.
- ii) The NRD agrees, subject to the availability of funding, to construct the regional detention structures and water quality

basins in accordance with the Watershed Management Plan and Implementation Plan as follows:

a) The NRD shall establish a Watershed Fund and utilize the Watershed Fees received to pay approximately one-third (1/3) of required capital costs of constructing the regional detention structures and water quality basins, including the cost of obtaining necessary land rights. The remaining approximately two-thirds (2/3) of such capital costs shall be paid by the NRD from the proceeds of its general property tax levying authority and from contributions from developers and other cooperators that the NRD may be able to obtain.

- 9. 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.
- 10. 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.
- 11. Effective Date:** This Agreement shall become effective on July 1, 2014.
- 12. Duration of Agreement:** This Agreement shall be in effect for a period of five (5) years from and after its effective date.

- 13. 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.
- 14. 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]**

## EXHIBIT A

### — NPDES Phase II Stormwater Management Plan

Measurable goals listed in the Stormwater Management Plan are target goals on which progress will be reported on in the annual report.

<b>Minimum Requirement #1 – Public Education and Outreach</b>		
The Permittee individually or as a member of the Papillion Creek Watershed Partnership (PCWP) shall implement programs to distribute educational materials and perform public outreach to inform citizens about the impacts that polluted stormwater runoff discharges have on water quality and what steps can be taken to reduce stormwater pollution. The Permittee shall document its stormwater public education and outreach program. At a minimum, the program will:		
<b>BMP#</b>	<b>SWMP Element Description</b>	<b>Target Goals &amp; Implementation Schedule</b>
1.01	Define the goals, objectives, target audience and distribution process of materials for the public education and outreach program	<b>Year 1</b> – Provide a memorandum of the defined goals, objectives, etc. of the public education and outreach program.
1.02	Provide public awareness through activities that illustrate the impacts from the public on stormwater pollutant levels in local waterways.	<b>On-Going All Years</b> – Annually report on the different activities being accomplished (e.g. classes, billboards, mailings, inlet stamping, projects, etc).
1.03	Maintain a general stormwater web site of resources, educational tools and notifications of events. Develop specialty web sites to provide targeted information on specific events.	<b>On-Going All Years</b> Annually report a list of web sites that support program activities (e.g. rain barrel, water quality related events)
The Permittee may conduct other activities not specifically identified in this section which contribute to Public Education and Outreach.		

## EXHIBIT A

<b>Minimum Requirement #2 – Public Participation and Involvement</b>		
The Permittee individually or as a member of the PCWP shall provide opportunities for citizens to participate in the development and implementation of stormwater programs and projects. The Permittee shall document its stormwater public education and outreach program. At a minimum, the program will:		
<b>BMP#</b>	<b>SWMP Element Description</b>	<b>Target Goals &amp; Implementation Schedule</b>
2.01	Provide for receiving citizen complaints of illegal dumping, illicit discharges, and construction site violations	<b>On-Going All Years –</b> Maintain a web based complaint form and a maintain stormwater hotline. Provide a count of complaints and resolutions in the most recent annual report.
2.02	Create opportunities for citizens to participate in the City's stormwater program.	<b>On-Going All Years –</b> Annually report on the different participation events related to stormwater. (e.g. Earth Day, tours of HHW facility, water quality related events)
2.03	Participate in community organizations, conferences, workshops, and web casts related to water quality and stormwater management.	<b>On-Going All Years –</b> Annually report on the different participation events attended (e.g. Sediment and Erosion Workshop, LID Workshop, CWP Webcasts, etc.)
The Permittee may conduct other activities not specifically identified in this section which contribute to Public Participation and Involvement.		

## EXHIBIT A

<b>Minimum Requirement #3 – Illicit Discharge Detection and Elimination</b>		
The Permittee shall implement and enforce a program, including a schedule, to detect and remove illicit discharges and improper disposal into the MS4. At a minimum, the program will include:		
<b>BMP#</b>	<b>SWMP Element Description</b>	<b>Target Goals &amp; Implementation Schedule</b>
3.01	Maintain outfall map for the Papio, Missouri and Elkhorn River Watersheds.	<b>On-Going All Years –</b> Maintain a continually updated storm drain map for those watersheds in your jurisdiction per the permit requirements.
3.02	Conduct field screening activities per the permit requirements specifically geared to local TMDL pollutants of concern such as E. Coli. Other parameters will be determined based on the results of a PCE, but could include nutrients, ammonia, BOD, and TPH.	<b>On-Going All Years -</b> Annually conduct dry weather monitoring “priority” outfalls. “Priority” outfall are those that are 72” or greater and/or those with documented illicit discharges.
3.03	Implement procedures to investigate and enforce portions of the MS4 that based on the results of field screening or other information indicate a reasonable potential of containing illicit discharges.	<b>On-Going All Years –</b> Use the code enforcement procedures to eliminate unauthorized non-stormwater discharges identified during an investigation
3.05	Respond to and investigate complaints about spills, dumping, or disposal of materials other than stormwater to the MS4.	<b>On-Going All Years –</b> Annually coordinate with Sewer Maintenance to report and track the number of calls per year in regards to spill, dumping or improper disposal of material to the MS4. Coordinate with city maintenance divisions to resolve reoccurring issues related to IDDE.
3.06	Implement educational and training measures for the Illicit Discharge Detection and Elimination Program.	<b>Year 2 and 5 –</b> Conduct training events for municipal field staff.
The Permittee may conduct other activities not specially identified in this section which contribute to the Illicit Discharge Detection and Elimination program.		

## EXHIBIT A

<b>Minimum Requirement #4 – Construction Site Runoff Control</b>		
The Permittee as a member of the PCWP shall maintain and enforce a program that requires implementation and maintenance of structural and non-structural best management practices to reduce pollutants in stormwater runoff from construction activity to the MS4. The program shall address construction activity that results in land disturbance of greater than or equal to one acre and construction activity disturbing less than one acre which is part of a larger common plan of development or sale. At a minimum, the program will:		
<b>BMP#</b>	<b>SWMP Element Description</b>	<b>Target Goals &amp; Implementation Schedule</b>
4.01	Review grading permit applications	<b>On-Going All Years –</b> Maintain a common continually updated inventory of all private and public construction sites.
4.02	Maintain the electronic records for inspection of construction sites and enforcement of erosion and sediment control measures.	<b>On-Going All Years –</b> Inspect construction sites on a regular basis and on a complaint basis. Track the number of sites inspected annually in a database. Initiate enforcement proceedings as appropriate to address violations.
4.03	Communicate with the regulated community and other groups affected by the CSR program	<b>On-Going All Years –</b> Conduct workshops for developers, builders, site designers, contractors, and/or City staff.
4.04	Maintain an electronic submittal web application	<b>On-Going All Years –</b> Maintain information for grading permits and the associated information.
The Permittee may conduct other activities not specifically identified in this section which contribute to Construction Site Runoff Control.		

## EXHIBIT A

<b>Minimum Requirement #5 – Post Construction Runoff Control</b>		
The Permittee individually or as a member of the PCWP shall implement and enforce a program to maintain structural and non-structural best management practices, including source control measures, to reduce pollutants from areas of new development and enforce controls to reduce the discharge of pollutants from the MS4 which receive discharges from areas of new development and significant redevelopment after construction is complete. At a minimum, the program will:		
<b>BMP#</b>	<b>SWMP Element Description</b>	<b>Target Goals &amp; Implementation Schedule</b>
5.01	Maintain an electronic submittal web application	<b>On-Going All Years –</b> Maintain information for post construction stormwater management plans and the associated information.
5.02	Review post construction management plan submittals	<b>On-Going All Years –</b> Maintain an electronic inventory of all private and public stormwater control measures.
5.03	Inspect annually city owned BMPs for functionality and coordinate maintenance activities if needed.	<b>On-Going All Years –</b> Track the number of sites inspected and maintenance activities annually in a database.
5.04	Coordinate with other agencies, or special interest groups to hold workshops on post construction stormwater issues	<b>On-Going All Years –</b> Conduct workshops for developers, builders, site designers, contractors, and/or City staff.
5.05	Implement demonstration projects to illustrate to the public, the engineering community, and other on the effectiveness of BMPs (structural and/or non-structural). Evaluate the functionality of the BMP and implement changes as necessary.	<b>On-Going All Years –</b> Allocate Stormwater Management Program Grant funds to projects as funds become available.
The Permittee may conduct other activities not specifically identified in this section which contribute to Post Construction Runoff Control.		

## EXHIBIT A

<b>Minimum Requirement #6 – Pollution Prevention and Good Housekeeping</b>		
The Permittee individually or as a member of the PCWP shall implement a program to reduce pollutants from municipal facilities and public streets that are discharged from the MS4. At a minimum, the program will include:		
<b>BMP#</b>	<b>SWMP Element Description</b>	<b>Target Goals &amp; Implementation Schedule</b>
6.01	Municipal maintenance facilities map.	<b>Annually</b> – Maintain an inventory and map of all municipal facilities.
6.02	Implement practices for operating and maintaining public streets, roads and highways and procedures for reducing the impact on receiving waters from the MS4.	<b>On-Going All Years</b> – Track street sweeping activities annually.
6.03	Implement practices for operating and maintaining inlets and piped storm drains and procedures for reducing the impact on receiving waters from the MS4.	<b>On-Going All Years</b> – Report annually on Sewer Maintenance activities related to maintaining the storm sewer system.
6.04	Promote public awareness by marking storm drain inlets	<b>On-Going All Years</b> – Annually apply a stormwater message on inlets and report activities annually.
6.05	Implement education and training activities for municipal staff.	<b>On-Going All Years</b> – Conduct training events for municipal staff.
6.06	Conduct inspections of municipal maintenance facilities and review annual municipal runoff control plans. Revise plans as needed if facilities expand or reduce activities.	<b>On-Going All Years</b> – Conduct inspections and review reports for municipal facilities regarding stormwater runoff.
The Permittee may conduct other activities not specifically identified in this section which contribute to Pollution Prevention and Good Housekeeping.		

## EXHIBIT A

<b>Minimum Requirement #8 – Monitoring Program</b>		
The Permittee as a member of the PCWP shall have a program to estimate pollutant loads from discharges of the MS4. At a minimum, the program will include:		
<b>BMP#</b>	<b>SWMP Element Description</b>	<b>Target Goals &amp; Implementation Schedule</b>
8.01	<p>The development and implementation of a BMP monitoring plan</p> <p>Monitoring will be flow based monitoring to assess the performance of different BMPs.</p> <p>Monitoring Plan:</p> <ul style="list-style-type: none"> <li>a. Monitoring of the BMPs is to provide more useful data than has been gathered in the past. This will provide for a more complete picture of the efficiency of various Best Management Practices in the watershed.</li> <li>b. Consideration will be given to the following objectives: <ul style="list-style-type: none"> <li>i. Quantify the BMPs ability to reduce discharges to the storm sewer system</li> <li>ii. Evaluate if any improvements could be made to the BMP to increase the volume of water detained from the storm sewer system.</li> </ul> </li> <li>c. A record of the following information: <ul style="list-style-type: none"> <li>i. Narrative and quantitative data, as appropriate, for each event.</li> <li>ii. A narrative description of the data and duration of the events sampled (either simulated event or real event)</li> </ul> </li> </ul>	<b>On-Going All Years –</b> Implement annual monitoring plan
8.02	Partner with local organizations, such as Nebraska Watershed Network, to evaluate the results of data that they collected that could provide water quality information on stream or urban aquatic fisheries	<b>On-Going All Years –</b> Report the results in the annual report.
8.03	Use GIS to identify land use based on zoning and calculate pollutant loads from discharges of the MS4 based on literature values and precipitation data.	<b>On-Going All Years –</b> Report the estimate in the annual report based on literature values.
The Permittee may conduct other activities not specifically identified in this section which contribute to Monitoring Program.		

## PAPILLION CREEK WATERSHED STORMWATER MANAGEMENT POLICIES

### POLICY GROUP #1: WATER QUALITY IMPROVEMENT

**ISSUE:** Waters of the Papillion Creek Watershed are impaired.

**“ROOT” POLICY:** Improve water quality from all contributing sources, including but not limited to, agricultural activities, urban stormwater, and combined sewer overflows, such that waters of the Papillion Creek 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 Papillion Creek 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  $\frac{1}{2}$  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

## **PAPILLION CREEK 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].*

## PAPILLION CREEK WATERSHED STORMWATER MANAGEMENT POLICIES

### POLICY GROUP #2: PEAK FLOW REDUCTION

#### ISSUE

Urbanization within the Papillion Creek Watershed has and will continue to increase runoff leading to more 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 Papillion Creek Watershed Management Plan and shall be coordinated with other related master planning efforts for parks, streets, water, sewer, etc.
- 2) Maximum LID shall be required to reduce peak discharge rates on all new developments and significant redevelopments as identified in the Papillion Creek Watershed Management Plan.
- 3) All significant redevelopment shall maintain 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  $\frac{1}{2}$  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) Maximum LID. A level of LID using strategies, including water quality LID and on-site detention, designed not to exceed peak discharge rates of more than 0.2 cfs/acre during the 2-year storm event or 0.5 cfs/acre during the 100-year storm event based on the contributing drainage from each site, measured at every drainage (stormwater discharge) outlet from the new development or significant redevelopment.
- 4) 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.

## **PAPILLION CREEK WATERSHED STORMWATER MANAGEMENT POLICIES**

- 5) Regional Stormwater Detention Facilities. Those facilities generally serving a drainage catchment area of 500 acres or more in size.
- 6) Baseline Land Use Conditions. That which existed for Year 2001 for Big and Little Papillion Creeks and its tributaries (excluding West Papillion Creek) and for Year 2004 for West Papillion Creek and its tributaries.
- 7) Full Build-Out Land Use Conditions. Fully platted developable land use conditions for the combined portions of the Papillion Creek Watershed that lie in Douglas and Sarpy Counties that are assumed to occur by the Year 2040, plus the projected 2040 land uses within the Watershed in Washington County; or as may be redefined through periodic updates to the respective County comprehensive plans.

## PAPILLION CREEK 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 as identified in the Papillion Creek Watershed Management Plan and a creek setback of 3:1 plus 20 feet for all other watercourses.
- 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

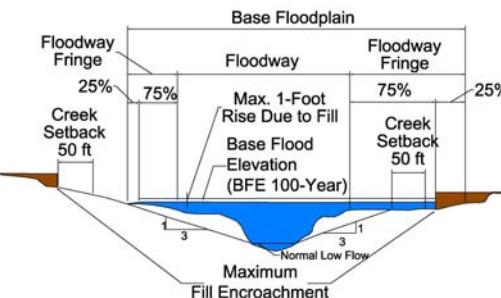
#### DEFINITIONS

- 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

## PAPILLION CREEK WATERSHED STORMWATER MANAGEMENT POLICIES

or lack of lateral support. In the event that the structure is adjacent to any stream 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 remapping of flooding sources within the Papillion Creek Watershed where Digital Flood Insurance Rate Maps (DFIRMs) are based on 2004 or more recent conditions hydrology and full-build out conditions hydrology. West Papillion Creek and its tributaries are currently under remapping and will become regulatory in 2009. Updating flood hazard maps for Big Papillion Creek and Little Papillion Creek are planned to be completed in the future.
- 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.

## **PAPILLION CREEK 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.

## PAPILLION CREEK WATERSHED STORMWATER MANAGEMENT POLICIES

### POLICY GROUP #5: FLOODPLAIN MANAGEMENT

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

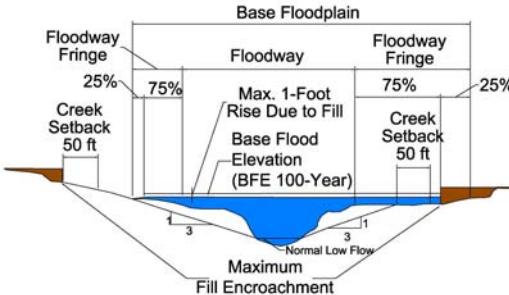
**“ROOT” POLICY:** Participate in the FEMA National Flood Insurance Program, update FEMA floodplain mapping throughout the Papillion Creek Watershed, and enforce floodplain regulations to full build-out, base flood elevations.

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

- 1) Floodplain management coordination among all jurisdictions within the Papillion Creek Watershed and the Papio-Missouri River Natural Resources District (P-MRNRD) is required.
- 2) Flood Insurance studies and mapping throughout the Papillion Creek Watershed shall be updated using current and full-build out 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 full build-out base flood elevation using best available data.
- 4) Filling of the floodway fringe associated with new development within the Papillion Creek System 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 full-build out 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 Papillion Creek Watershed shall be a minimum of one (1) foot above the 500-year flood pool elevation.

#### **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**

## PAPILLION CREEK WATERSHED STORMWATER MANAGEMENT POLICIES

- 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 remapping of flooding sources within the Papillion Creek Watershed where Digital Flood Insurance Rate Maps (DFIRMs) are based on 2004 or more recent conditions hydrology and full-build out conditions hydrology. West Papillion Creek and its tributaries are currently under remapping and will become regulatory in 2009. Updating flood hazard maps for Big Papillion Creek and Little Papillion Creek are planned to be completed in the future.
- 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.

### 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]*

## **PAPILLION CREEK 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 Papillion Creek 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 Papillion Creek Watershed Management Plan among new development or significant redevelopment. Such Watershed Management Fee shall only apply to new development or significant redevelopment within the Papillion Creek 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 Papillion Creek Watershed Management Plan, including Maximum LID costs such as on site detention, regional detention basins, and water quality basins.
  - b. Multiple fee classifications shall be established which fairly and equitably distribute the cost of these projects among all undeveloped areas within the Papillion Creek Watershed.
  - c. Watershed Management Fees (private) are intended to account for approximately one-third (1/3) of required capital 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 construction account via inter-local agreements.
  - e. The P-MRNRD (public) costs are intended to account for approximately two-thirds (2/3) of required capital funds, including the cost of obtaining necessary land rights, except as further provided below; and the P-MRNRD shall be responsible for constructing regional detention structures and water quality basins using pooled accumulated funds.
  - f. The P-MRNRD will seek general obligation bonding authority from the Nebraska Legislature to provide necessary construction scheduling flexibility.
  - g. Financing for Papillion Creek 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 Papillion Creek Watershed Management Plan and Watershed Management Fee framework, rates, and construction priority schedule shall be reviewed with respect to availability of

## **PAPILLION CREEK WATERSHED STORMWATER MANAGEMENT POLICIES**

needed funds and rate of development within the Papillion Creek 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 charged 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.

### **REFERENCE INFORMATION**

#### **DEFINITIONS**

- 1) **Stormwater Management Policies.** Stormwater management policies developed by the Technical Workgroup and Policy Workgroup that were commissioned by the Papillion Creek Watershed Partnership (PCWP) subsequent to the "Green, Clean, and Safe" initiatives developed through the "Watershed by Design" public forums conducted in 2004 and 2005 and subsequently revised by the PCWP in 2009. The

## **PAPILLION CREEK WATERSHED STORMWATER MANAGEMENT POLICIES**

following policy groups contain “root” policies and sub-policies for stormwater management that have been developed in addition to the Stormwater Management Financing Policy Group 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

- 2) Stormwater Management Plan (SWMP). A SWMP is a required part of the NPDES Phase II Stormwater Permits issued to many of the Omaha metropolitan area Papillion Creek Watershed Partnership (PCWP) members. Development of Stormwater Management Policies is an integral part of the SWMP, and such policies are to be adopted by respective PCWP 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, in years 3 through 5 of the NPDES permit cycle; that is, by the year 2009. Ordinances and regulations are intended to be consistent for, and adopted by, the respective PCWP members. Such ordinances and regulations shall need to be consistent with the Comprehensive Development Plans of the respective PCWP 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) Maximum LID. A level of LID using strategies, including water quality LID and on-site detention, designed not to exceed peak discharge rates of more than 0.2 cfs/acre during the 2-year storm event or 0.5 cfs/acre during the 100-year storm event based on the contributing drainage from each site, measured at every drainage (stormwater discharge) outlet from the new development or significant redevelopment.
- 8) Baseline Land Use Conditions. That which existed for Year 2001 for Big and Little Papillion Creeks and its tributaries (excluding West Papillion Creek) and for Year 2004 for West Papillion Creek and its tributaries. That which existed in 2007 for all areas not within the Papillion Creek Watershed.

## **PAPILLION CREEK WATERSHED STORMWATER MANAGEMENT POLICIES**

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

- 1) Time is of the essence for policy development and implementation:
  - a) Under the existing 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 by the end of 2009.
  - 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 regional stormwater detention and water quality basin 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

Stormwater Management Elements Shared by the Papillion Creek Watershed Partnershi

<b>#1 Public Education and Outreach</b>	<b>Lead Partnership Member(s)</b>
1.01 Education and Outreach Program	City of Omaha, PMRNRD
1.02 Public Awareness Activities	City of Omaha
1.03 Stormwater Website	City of Omaha

<b>#2 Public Participation and Involvement</b>	<b>Lead Partnership Member(s)</b>
2.01 Stormwater Hotline and Website	City of Omaha
2.02 Create Stormwater Event:	City of Omaha, PMRNRD
2.03 Participation Events	City of Omaha

<b>#3 Illicit Discharge Detection and Elimination</b>	<b>Lead Partnership Member(s)</b>
3.04 Track IDDE complaints	City of Omaha
3.05 Education and Training for IDDE Program	City of Omaha

<b>#4 Construction Site Runoff</b>	<b>Lead Partnership Member(s)</b>
4.01 Maintain Construction Site Reporting Website	City of Omaha
4.02 Perform Construction Site Inspections	City of Omaha
4.03 Conduct Workshops on Construction Site Runoff	City of Omaha
4.04 Maintain Grading Information	City of Omaha

<b>#5 Post Construction Runoff Control</b>	<b>Lead Partnership Member(s)</b>
5.01 Maintain Post Construction Stormwater Management Website	City of Omaha
5.02 Review PCSW plans	PMRNRD
5.05 Conduct Workshops on Post Construction Issues	City of Omaha

<b>#6 Pollution Prevention and Good Housekeeping</b>	<b>Lead Partnership Member(s)</b>
6.05 Education and Training	City of Omaha

<b>#8 Monitoring Program</b>	<b>Lead Partnership Member(s)</b>
8.01 BMP Monitoring	City of Omaha
8.02 Partner with organizations providing water quality data	City of Omaha, PMRNRD
8.03 Calculate Pollutant Loads	City of Omaha

## EXHIBIT D

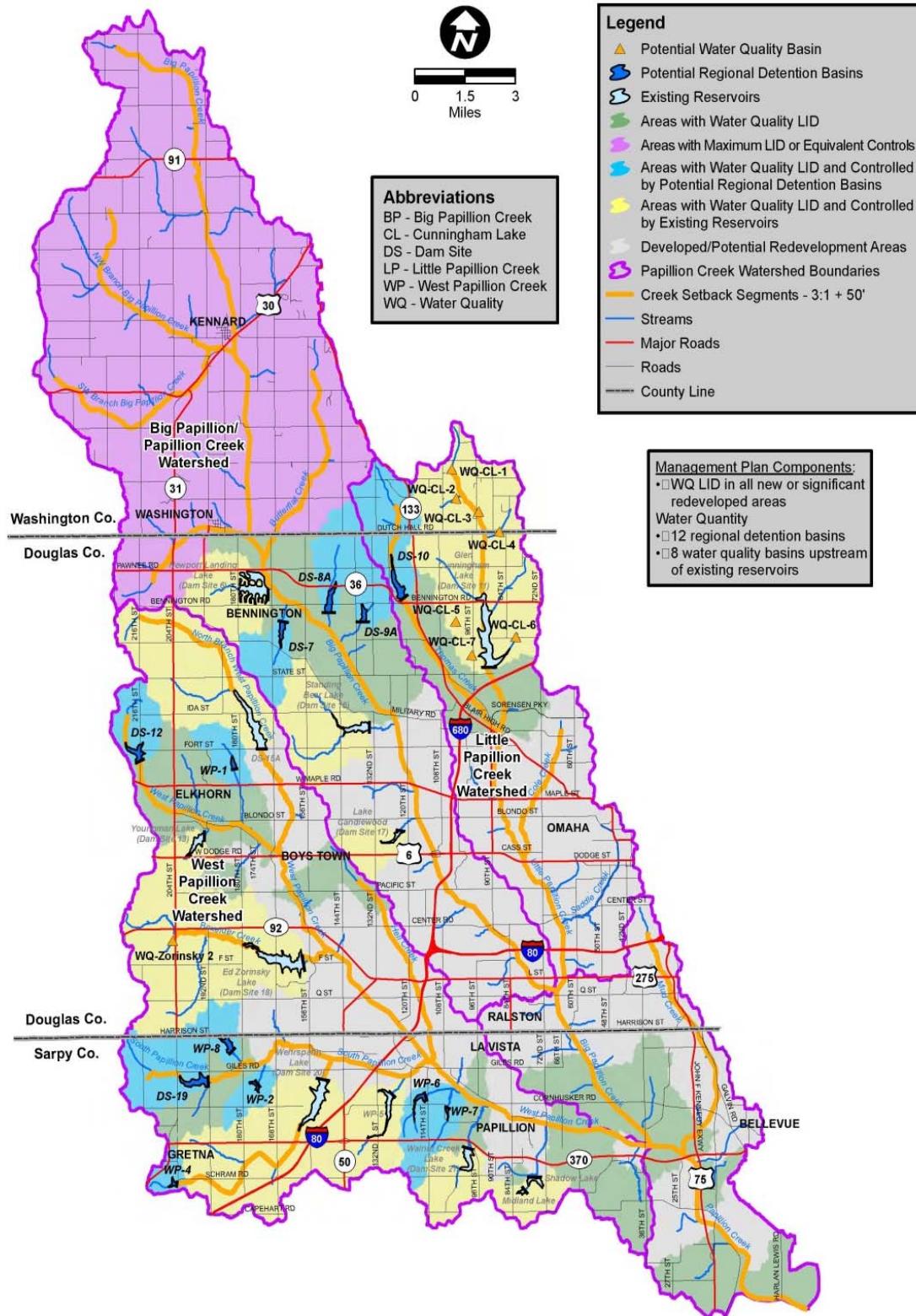
<u>Agency</u>	<u>Second Column Initial Contribution</u>	<u>Third Column Percentage</u>
Bellevue	\$20,000	5.4%
Boystown	\$1,000	0.3%
Gretna	\$1,000	0.3%
La Vista	\$5,000	1.4%
Omaha	\$187,500	50.8%
Papillion	\$7,000	1.9%
Ralston	\$2,500	0.7%
Sarpy County	\$55,000	14.9%
Papio NRD	\$90,000	<u>24.4%</u>
<b>TOTALS</b>	<b>\$369,000</b>	<b>100.0%</b>

## EXHIBIT E



# 2014 Watershed Management Plan Update

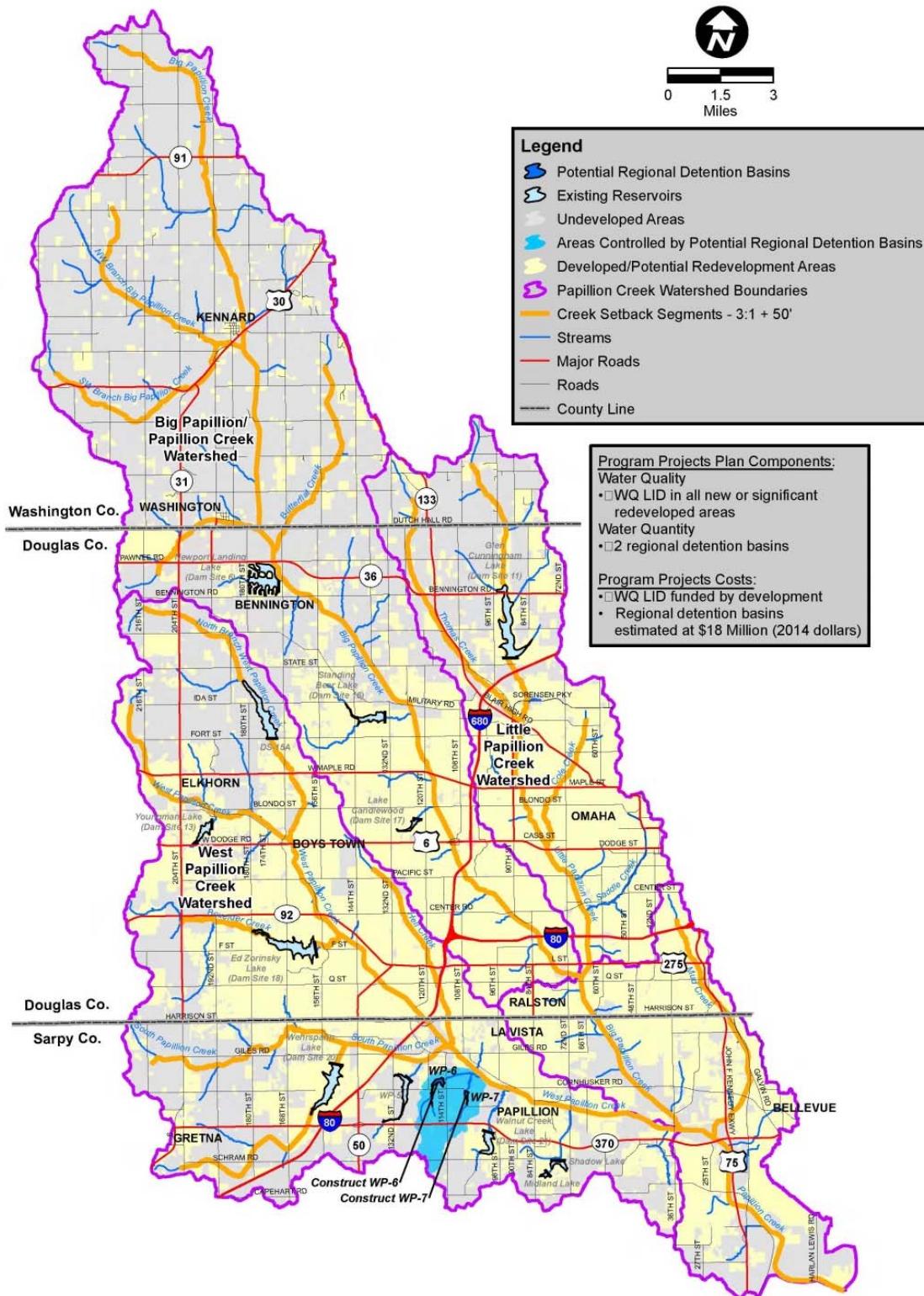
## 2014 Watershed Management Plan Update for Full Build-Out Conditions



## EXHIBIT F

# 2014 Watershed Management Plan Update

### Papillion Creek Watershed Implementation Plan (Years 2014 to 2018)



## Exhibit G

### Watershed Fee Schedule

Land Use	FY14	FY15	FY16	FY17	FY18
Single Family Residential (also includes low density multi-family up to 4- plexes) per dwelling unit	\$823	\$843	\$864	\$886	\$908
High Density Multi-Family Residential (beyond 4- plexes) per gross acre	\$3,619	\$3,710	\$3,803	\$3,898	\$3,995
Commercial/Industrial per gross acre	\$4,387	\$4,497	\$4,609	\$4,724	\$4,842

Note: Fiscal years (FY) run from July 1-June 30. FY14 Watershed Fees are in effect as of July 1, 2014.

## PAPILLION CREEK WATERSHED MANAGEMENT PLAN

MARCH 2014 UPDATE



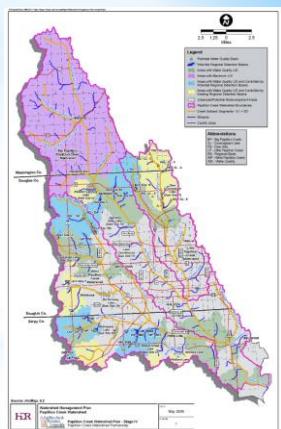
Papillion Creek  
Watershed  
Partnership

HDR | ONE COMPANY  
Many Solutions™

## Background and Purpose

- Papillion Creek Watershed Partnership (PCWP) formed in August 2001
- April 2009 Watershed Management Plan
- 2014 Management Plan reflects PCWP desire for update every 3 to 5 years
- 5-year Interlocal Agreement up for renewal

## 2009 Watershed Management Plan



## 2009-2013 “Program Project” Status

Structure Name	Approx. Location & Planning Jurisdiction	Drainage Area (acres)	Estimated Project Funding		Sources (Millions of \$)	Current Status
			Bonding	General Fund		
WP-5 and Associated Water Quality Basin [1]	120th & Cornhusker Road, Papillion	3,310	\$18.5	\$17.4	\$0	\$35.9
DS-10A and Associated Water Quality Basin [2]	168th & Fort Streets, Omaha	7,100	\$42.6	\$1.2	\$0	\$43.8
WQ-Zornsky 1	Upstream of Zornsky Lake, Omaha	1,660	\$1.5	\$1.3	\$1.4	\$4.2
WQ-CL-6	Upstream of Cunningham Lake, Omaha	510				Deferred
Totals:		6,670	\$62.6	\$19.9	\$1.4	\$83.9

Notes:

[1] Original single basin concept revised to two basins.  
[2] Original two basin concept revised to form a single basin.

2009 Cost Estimate = \$134.0 Million

\$83.9 Million in Funding  
74.6% Bonding  
23.7% General Fund  
1.7% Watershed Fees

## 2014 Proposed Watershed Management Plan

Estimated Capital Costs for Remaining Projects (2013 Dollars)

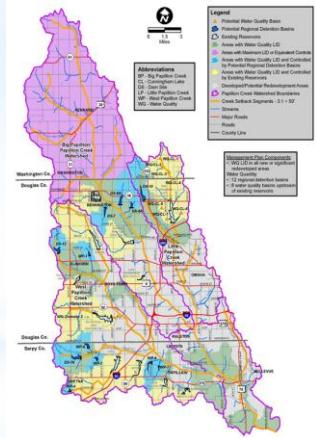
Structure Name	Stream Reach	Approx. Location/Jurisdiction	Drainage Area (Acres)	Est. Project Costs, 2013 Basis		
				Est. Normal Project Area (Acres)	Total Est. Project Capital Costs, \$ Millions	
WP-6	Tab to Unnamed West Papillion Tab.	118th & Commencement Road, Sarpy Co.	1,260	32	\$11.6	
WP-7	Tab to Unnamed West Papillion Tab.	108th & Commencement Road, Sarpy Co.	400	12	\$6.4	
WP-4	Tab to Unnamed South Papillion Creek	108th & Harrison Rd, Sarpy Co.	565	15	\$9.9	
DB-19	South Papillion Creek	108th & Giles Road, Sarpy Co.	2,750	100	\$22.7	
WP-8	Tab to South Papillion	108th & Harrison Rd, Douglas & Sarpy Co.	1,470	45	\$11.0	
WP-2	Tab to South Papillion	108th & Giles Road, Sarpy Co.	679	21	\$9.9	
WP-1	Tab to West Papillion	108th & Fort St., Omaha	964	24	\$13.7	
DB-18	West Papillion Creek	210th & Fort Streets, Douglas Co. & Omaha	1,450	70	\$20.2	
DB-19	Thames Creek	132nd & Harrison Rd, Omaha	2,960	97	\$23.2	
DB-7	Tab to Big Papillion	168th & Bennington Road, Bennington & Omaha	1,690	47	\$11.6	
DB-9A	Tab to Big Papillion	132nd & Bennington Road, Omaha	1,280	38	\$10.5	
DB-8A	Tab to Big Papillion	144th & Bennington Road, Bennington	1,850	75	\$15.6	
				Regional Detention Subtotal		<b>\$168.9</b>
WG-CL-6	Upper Existing Cunningham Lake	Omaha	915	89	\$9.3	
WG-Zomsky_2	Upper Existing Zomsky Lake	Omaha	1,000	89	\$9.9	
WG-CL-5	Upper Existing Cunningham Lake	Omaha	470	89	\$9.1	
WG-CL-7	Upper Existing Cunningham Lake	Omaha	200	87	\$7.0	
WG-CL-4	Upper Existing Cunningham Lake	Omaha & Washington Co.	915	84	\$14.2	
WG-CL-2	Upper Existing Cunningham Lake	Washington Co.	945	83	\$13.7	
WG-CL-3	Upper Existing Cunningham Lake	Washington Co.	985	83	\$13.7	
WG-CL-1	Upper Existing Cunningham Lake	Washington Co.	740	83	\$13.3	
				Water Quality Basin Subtotal		<b>\$ 89.9</b>
				Total Regional Detention and Water Quality Basins		
				<b>\$ 259.8</b>		

12 Reservoirs: \$169.9 Million      Total \$259.8 Million over next 35 years  
(to be adjusted for inflation)

12 Reservoirs  
8 VVO Basins

## 2014 Proposed Watershed Management Plan

### 2014 Proposed Watershed Management Plan



## 2014-2018 Implementation Plan Financing Considerations

### P-MNRD project funding issues

- Current bond obligations approx. \$5 million per year for 3 existing bonds totaling approx. \$71.5 million that will expire in 2032, 2033, and 2034 respectively
- Approx. \$10 million in remaining bonding capacity exists
- Current mill levy at \$0.03275 per \$100 property valuation and must consider portion of General Fund that can be allocated toward structural projects

### Watershed Fees

- Updated to maintain a ratio of 1/3 private and 2/3 public cost share for all projects using the actual costs of ongoing projects, revised costs for future projects and development projections.

### Priority Projects

- WP-6
- WP-7

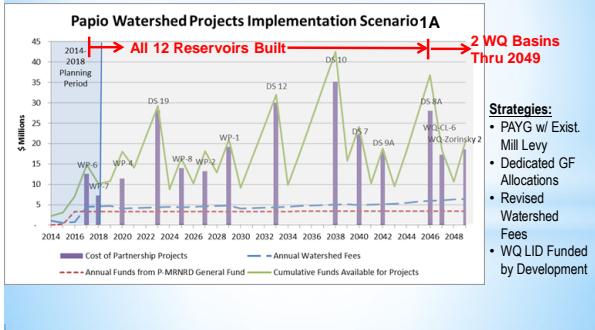
## Summary of Implementation Funding Scenarios

- 8 Scenarios evaluated involving various combinations of Pay-As-You-Go, reference Appendix B for all scenarios

Scenario	Mill Levy per \$100 valuation	PAYG	
		Total # of projects completed in 35-year planning period	Program Projects completed in 2014-2018
1A	\$0.03275	14 (out of 20)	2
3A	\$0.03275	12 (out of 20)	2 or 3
4A	\$0.045	20 (out of 20)	3

## 2014-2018 Implementation Plan Funding Scenarios

Preferred Plan for 2014-2018 "Program Projects" and long-term:



## 2014 – 2018 Implementation Plan "Program Projects" and Watershed Fees

Structure	Approx. Location & Planning Jurisdiction	Drainage Area (acres)	Est. Project Capital Costs, 2014 Basis, \$ Millions
WP- 6	114th & Cornhusker Road; Sarpy County	1,260	\$11.6
WP- 7	108th & Cornhusker Road; Sarpy County	450	\$6.4
		<b>Total</b>	<b>\$18.0</b>

Note: The abbreviation "WP" = West Papillion Creek Watershed.

Fee Category	Current Developer Fee Amounts	2014	2015	2016	2017	2018
Single Family Residential (also includes low-density multi-family up to 4-plexes)	\$750 per lot (same as per Housing Unit or per Dwelling Unit)	\$823	\$843	\$864	\$886	\$908
High-Density Multi-Family Residential (beyond 4-plexes)	\$3,300 per Gross Developable Acre	\$3,619	\$3,710	\$3,803	\$3,898	\$3,995
Commercial/Industrial	\$4,000 per Gross Developable Acre	\$4,387	\$4,497	\$4,609	\$4,724	\$4,842

Note: The annual increase for 2015 to 2018 is 2.5 percent per year.



**Reserved Slides  
For Q & A**

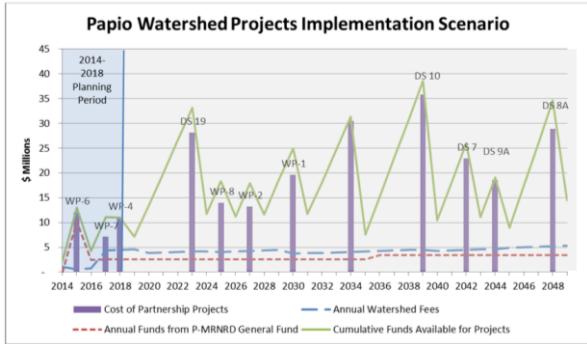
Table 5 Funding Scenarios Evaluated

Scenario	Funding Mechanism	Mill Levy per \$100 Valuation	Watershed Fees	P-MNRD General Fund Allocation
1A Baseline	P-A-Y-G	\$0.03275	Current Rates with Inflation	Dedicated General Fund Allocation per LRIP, Begin 2016
1B	P-A-Y-G	\$0.03275	Increase to 50% of program costs, linked to inflation	Dedicated General Fund Allocation per LRIP, Begin 2016
2A	P-A-Y-G	\$0.03275	Current Rates with Inflation	No Dedicated Allocation of Funds
2B	P-A-Y-G	\$0.03275	Increase to 50% of program costs, linked to inflation	No Dedicated Allocation of Funds
3A	Bonding with P-A-Y-G	\$0.03275	Current Rates with Inflation	Same as 1A + Bond Proceeds - Debt Service
3B	Bonding with P-A-Y-G	\$0.03275	Increase to 50% of program costs, linked to inflation	Same as 1B + Bond Proceeds - Debt Service
4A	Bonding with P-A-Y-G	\$0.045	Current Rates with Inflation	Dedicated General Fund Allocation per LRIP, Begin 2016
4B	Bonding with P-A-Y-G	\$0.045	Increase to 50% of program costs, linked to inflation	Dedicated General Fund Allocation per LRIP, Begin 2016

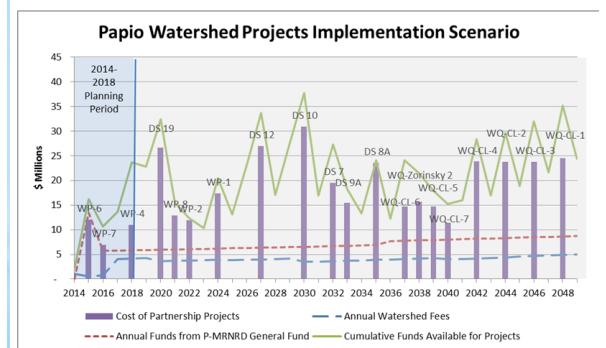
**Table B-2** Summary of Candidate Projects Implemented for Each Scenario

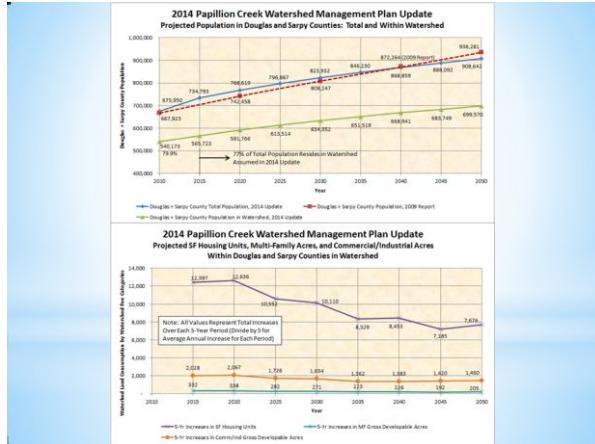
P-A-Y-G					
Scenario	Mill Levy per \$100 Valuation	Watershed Fees		Total Number of Program Projects Completed in 35-Year Planning Horizon (Regional Basins/W/Q Basins)	
		Current Rates with Inflation	Increase to 50% of program costs linked to inflation	14 (All 12/27)	Program Projects Completed 2014 to 2018
1A Baseline	\$0.03275				2
1B	\$0.03275				
2A	\$0.03275				
2B	\$0.03275				
Bonding with P-A-Y-G					
Scenario	Mill Levy per \$100 Valuation	Watershed Fees		Total Number of Program Projects Completed in 35-Year Planning Horizon (Regional Basins/W/Q Basins/W/Q Basins)	
		Current Rates with Inflation	Increase to 50% of program costs linked to inflation	12 (All 12/26)	Program Projects Completed 2014 to 2018
3A	\$0.03275				2 or 3
3B	\$0.03275				
4A	\$0.045				
4B	\$0.045				
Bonding with P-A-Y-G					
Scenario	Mill Levy per \$100 Valuation	Watershed Fees		Total Number of Program Projects Completed in 35-Year Planning Horizon (Regional Basins/W/Q Basins/W/Q Basins)	
		Current Rates with Inflation	Increase to 50% of program costs linked to inflation	18 (All 12/26)	Program Projects Completed 2014 to 2018
5A	\$0.045				2
5B	\$0.045				
Bonding with P-A-Y-G					
Scenario	Mill Levy per \$100 Valuation	Watershed Fees		Total Number of Program Projects Completed in 35-Year Planning Horizon (Regional Basins/W/Q Basins/W/Q Basins)	
		Current Rates with Inflation	Increase to 50% of program costs linked to inflation	26 (All 12/26 All 8)	Program Projects Completed 2014 to 2018
6A	\$0.045				3
6B	\$0.045				
Bonding with P-A-Y-G					
Scenario	Mill Levy per \$100 Valuation	Watershed Fees		Total Number of Program Projects Completed in 35-Year Planning Horizon (Regional Basins/W/Q Basins/W/Q Basins)	
		Current Rates with Inflation	Increase to 50% of program costs linked to inflation	29 (All 12/26 All 8) and 8 years earlier than Scenario 4A	Program Projects Completed 2014 to 2018
7A	\$0.045				3
7B	\$0.045				
Bonding with P-A-Y-G					

**Figure 6 Scenario 3A: Bonding with P-A-Y-G Existing Mill Levy and Dedicated General Fund Allocation per LRIP, Begin 2016**



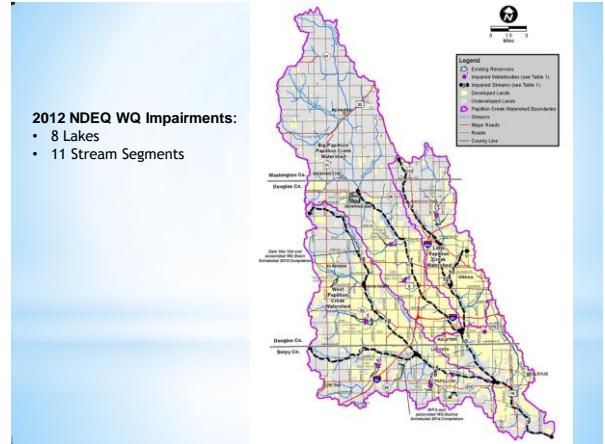
**Figure B-5 Scenario 4A: Bonding with P-A-Y-G Utilizing Mill Levy Increase to \$0.045, Dedicated General Fund Allocation per LRIP**





## 2012 NDEQ WQ Impairments:

- 8 Lakes
- 11 Stream Segments



**2012 NDEQ WQ Impairments:**

- 8 Lakes
- 11 Stream Segments

(Ref. Table 1 in Update)

**Figure 2 Map of Impaired Waterbodies**

Figure 2 Map ID	Waterbody ID	Waterbody	2009 WQ Impairments	2012 WQ Impairments						
Lakes	1	MTL-0023 Hailack Park Lake, Papillion								
	2	MTL-0024 Weyerhaeuser Lake	X		X	X		X		X
	3	MTL-0030 Weyerhaeuser Lake	X		X	X		X		X
	4	MTL-0040 Hitchcock Park Lake								
	5	MTL-0041 Hitchcock Park Lake	X		X	X		X		X
	6	MTL-0049 Standing Bear Lake			X	X	X	X	X	X
	7	MTL-0120 Glenn Cunningham Lake	X	X		X	X		X	X
	8	MTL-0125 Glenn Cunningham Lake			X					
Streams	9	MTL-10100 Papillion Creek (Big River to W. Pap. Confluence)	X	X	X	X		X	X	X
	10	MTL-10110 Big Papillion Creek (W. Pap. Confluence to Little Pap. Confluence)		X						X
	11	MTL-10120 Big Papillion Creek (Little Pap. Confluence to South Pap. Confluence)		X						X
	12	MTL-10111 Little Papillion Creek (Big Pap. Confluence to Thomas Creek Confluence)		X						X
	13	MTL-10111.2 Little Creek	X	X		X	X			X
	14	MTL-10111.2 Little Creek								
	15	MTL-10200 Thomas Creek (Big Pap. Confluence to South Pap. Confluence)		X						X
	16	MTL-10210 Walnut Creek								
	17	MTL-10240 South Papillion Creek								
	18	MTL-10250 West Papillion Creek (South Pap. Confluence to North Branch Confluence)			X	X				X
	19	MTL-10252 West Papillion Creek, North Branch								

**Legend:**

- Existing Resources
- Impaired Waterbodies (see Table 1)
- Impaired Stream Segments (see Table 1)
- Developed Land
- Impaired Lakes
- Papillion Creek Watershed Boundaries
- Stream Segments
- Major Roads
- County Line