

JOHNSON COUNTY STORMWATER MANAGEMENT 2016 STRATEGIC PLAN IMPLEMENTATION

Funding Approach Whitepaper



PREPARED ON BEHALF OF

Johnson County Public Works & Infrastructure
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I. INTRODUCTION

The Stormwater Management Program (SMP) is part of the Johnson County’s Urban Services Division within the Public Works Department. The purpose of the SMP is to provide financial, technical, and planning support services for municipalities and unincorporated areas within Johnson County for the improvement of stormwater management.

In 2016, the SMP updated its Strategic Business Plan to incorporate additional objectives to address identified gaps. The SMP will improve existing flood damage reduction activities, but will also undertake water quality and system management efforts. The SMP will implement these efforts with new planning structures of watershed-based organizations.

Currently, the SMP is funded through a dedicated 1/10th of one cent sales tax. The SMP funds stormwater improvement projects at 75%, with participating municipalities applying for funds annually and matching the remaining 25% of project costs. With the updates of the Strategic Plan, the SMP will need to identify new funding strategies that address multiple stormwater needs and continue to advance community vitality.

“Don’t let good be the enemy of great”

This White Paper seeks to help the assembled Funding Approach Subcommittee to better understand how others have addressed key funding issues, and to provide context in developing a path forward. While the transitions of the SMP represent significant change, it is important to remember the guidance that was put forward on several occasions during the development of the 2016 Plan; **don’t let good be the enemy of great.**

II. CASE STUDIES

Case studies are presented to offer an introduction to some common funding issues, as well as a diverse look at how programs are addressing those issues. Each case study seeks to address key comments posed from the Funding Approach Subcommittee and other stakeholders during overall Strategic Plan implementation.

Programs Reviewed Include:

Minneapolis-Saint Paul Metropolitan Area Watershed Management Organizations (MN)

Urban Drainage and Flood Control District – Denver Metropolitan Area (CO)

Stormwater Management Commission – Lake County (IL)

MINNEAPOLIS – SAINT PAUL WATERSHED MANAGEMENT ORGANIZATIONS

In 1982, the Minnesota Legislature passed the Metropolitan Area Surface Water Management Act for the Minneapolis-Saint Paul Metropolitan Area. This Act required local units of government to form watershed management organizations (WMOs) so that they may prepare and implement surface water management plans. WMOs generally do not have individual taxing authority, but local units of government may establish a special tax district by subwatershed.

The following is a summary of strategies used by WMOs in the Minneapolis – Saint Paul area. WMOs evaluated are:

- Elm Creek WMO
- Lower Mississippi River WMO
- Vermillion River Organization
- Mississippi WMO

Elm Creek WMO & Lower Mississippi River (LMR) WMO

Key Issues

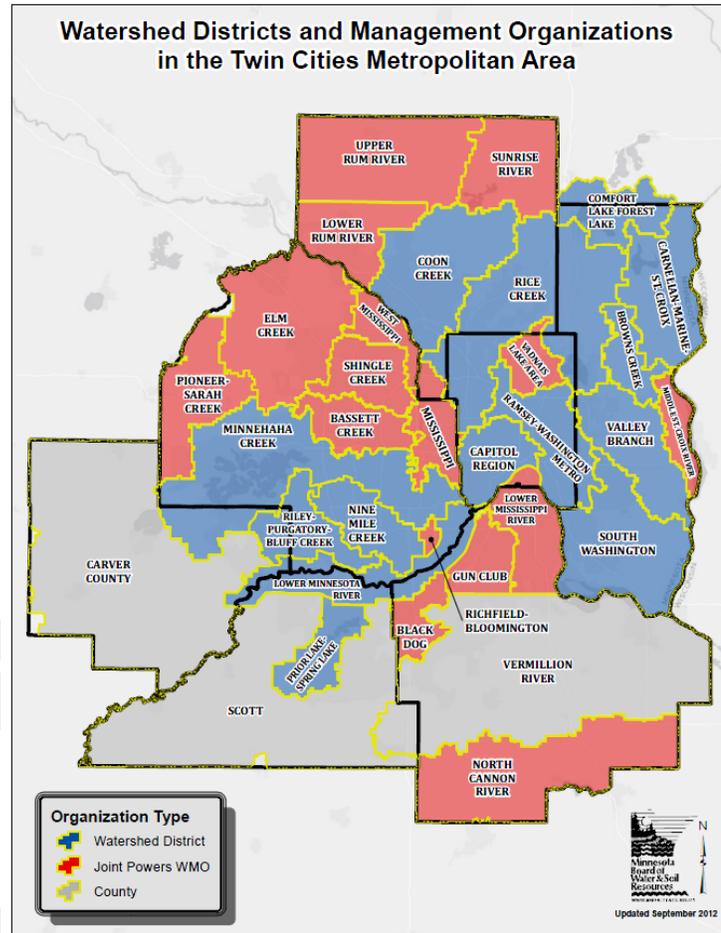
How should the watershed-based organizations divide costs amongst municipalities? Should a municipality have a cost responsibility for improvement projects outside their jurisdictional boundaries? If so, how would such amounts be determined?

Funding Strategies

The Elm Creek WMO consists of seven municipalities in the northwestern region of the Metropolitan Area. The seven members contribute toward an annual operating budget based on each member's share of the total market value of all property within the watershed. For example, the City of Rogers for the year 2016 had 14.63% of the total market value resulting in a member due of \$31,518 towards a total annual operating budget of \$215,360.



In regards to funding for capital improvement projects, the Elm Creek WMO Commission approves projects for county levy. On the final cost of projects, 25% is paid from proceeds received from county



property tax. The remaining costs are paid by the respective cities wherein the projects reside. No costs are charged to other members of the WMO.



The Lower Mississippi River (LMR) WMO is located in the central region of the Metropolitan Area and encompasses seven member municipalities. The Board of the LMRWMO determines a general fund budget that is then proportioned to each member. Required member contributions are based fifty percent on the member's share of the taxable market value of all property in the watershed and fifty percent on the member's share of the total acres in the watershed. Total dues from members in 2016 were \$76,230.

As for capital cost allocations, the LMRWMO uses more complex methods for fully designating costs amongst members for improvements listed in watershed management plans. For improvements related to water quality, the LMRWMO developed four cost allocation methods that are based on a member's share of total area, effective impervious area, relative pollutant load, and/or allowable pollutant load. An alternative approach may also be used that apportions the cost for water quality improvements downstream of a member city based on the cost to achieve the same level of treatment via other less expensive and feasible means.

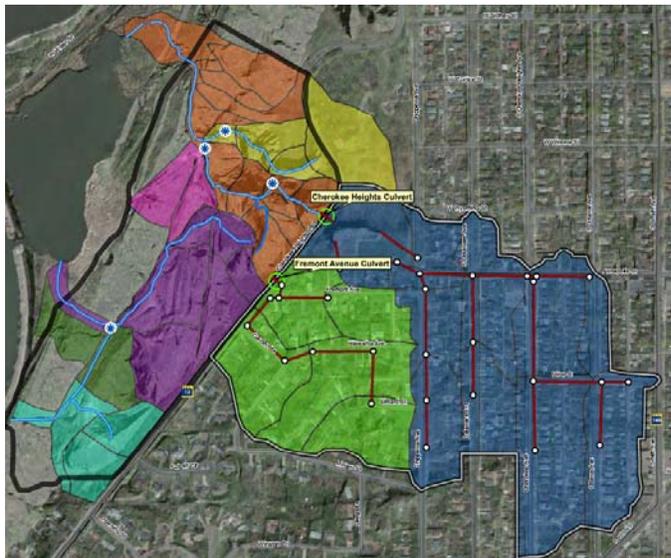


Figure 1: Image from LMRWMO Project Feasibility Study Showing Member Delineations

For improvements related to water quantity, the LMRWMO allocates costs using an allowable flow method. The LMRWMO developed this method under the guiding principle that upstream communities have the right to discharge some flow downstream without cost, but that they should also share in downstream costs of handling their excess flows. The allowable flow is defined as the amount a city can discharge without financial obligation and assumes "natural" conditions based on topography during the WMO's enactment date in 1985. A member is responsible for costs necessary to accommodate its allowable flow and also for costs to convey excessive flows originating within the member's borders.

Over the years, the LMRWMO has undertaken multiple efforts in defining and applying the cost sharing formulas. As explained in project memos, the cost for a given member can vary widely based on the formula used and the city defined as the sponsor of the work. For each proposed project, the LMRWMO has to evaluate the different cost allocations that result per method. Involved parties then have to reach a project-specific cost-sharing agreement. The members of the LMRWMO have also established means to dispute cost allocations and pursue arbitration as written in their Joint Powers Agreement.

Vermillion River Watershed Joint Powers Organization (VRWJPO)

Key Issues

What funding structures can be used to provide greater resources to projects that provide a greater impact to the watershed overall? Should the SMP fund projects on private property and if so, how would that funding compare to projects on public property?

Funding Strategies

Located in the southeastern region of the Metropolitan Area, the Vermillion River Watershed Joint Powers Organization (VRWJPO) was formed amongst members Dakota and Scott County. The VRWJPO maintains an operating budget of \$3.6 million with \$1.7 million dedicated to capital improvement projects. Revenue is primarily derived from special tax district levies within each county's portion of the watershed.



The VRWJPO has established funding guidelines that allow for tiers of funding for capital improvement projects based on levels of priority and whether the project is on public vs. private property. Tiers of funding consist of primary, secondary, and tertiary levels. Primary priorities are projects that are determined to be of watershed-wide benefit and are specifically identified within the Vermillion River Watershed Restoration and Protection Strategy (WRAPS). Primary projects on public property can receive maximum funding of 100% and projects on private property can be funded at 75%.

Secondary priorities are projects not identified in the WRAPS, but are determined to be of at least moderate watershed-wide benefit. Examples of secondary priorities would include reductions in water volume reaching certain designated streams, rivers, lakes, or wetlands, restoring or improving streambank vegetation, restoring or improving riparian vegetation, and correcting erosion problems in the main stem and primary tributaries. Secondary projects on public property can be funded at 75% maximum. Secondary projects on private property can be funded at 50% maximum.

Projects that are determined to be of low watershed-wide benefit are at the tertiary level. The maximum funding for tertiary projects on public property is 50% with funding on private property at 25%. Examples of tertiary priorities are projects that address non-TMDL water quality concerns or preserve and improve habitat and stream conditions in portions that are considered warm-water streams with less sensitive ecology.

Table 1: Summary of VRWJP Funding Guidelines

VRWJPO Priority for Improvement	Project Funding on Public Property or within DNR Public Waters*	Project Funding on Private Property*
Primary	100%	75%
Secondary	75%	50%
Tertiary	50%	25%

*Percentages indicates the maximum potential amount of funding to be contributed by the VRWJPO

Mississippi WMO (MWMO)

Key Issues

What funding structures can be used to facilitate partnerships amongst multiple entities in the watershed? How can funding be more flexible and responsive to the diverse needs of those entities?

Funding Strategies



The Mississippi WMO (MWMO) is located in the center of the Metropolitan Area and encompasses the cities of Minneapolis and Saint Paul along with five additional surrounding communities. The Minneapolis Park & Recreation Board is also a member of the organization. The MWMO consists of fully developed urban lands and waters with a total watershed area of 39.9 square miles. Average annual funding includes an operating budget of \$1.8 million and a \$2.7 million capital improvement budget.

The MWMO is able to broaden their scope and impact of stormwater services provided by offering grants of varying amounts to area partners. Funding is divided amongst capital project grants and stewardship fund grants. Capital project grants are for large-scale, innovative stormwater management projects that are either implemented on public land or private property if the project provides a significant public benefit. Funds cannot be used for projects required by a regulating authority and are reserved for projects above-and-beyond typical stormwater management. Example partnership projects include reconstruction of the iconic Minneapolis Sculpture Garden with a stormwater reuse system and partnership with an affordable housing organization to provide green infrastructure and an underground filtration system to a new apartment complex.



Figure 2: Stormwater Reuse Tank Prior to Installation at MWMO Capital Project Site



Figure 3: MWMO Mini Grant Project

Stewardship fund grants are designed to support eligible organizations that promote stormwater management. Eligible organizations include nonprofit organizations, officially recognized neighborhood groups, business and professional associations, schools, and local units of government. The MWMO has three types of stewardship fund grants which are mini grants, planning grants, and action grants.

Mini grants are for short term or small scale projects and may not exceed \$3,000. No matching funds are required from the eligible partner. Project examples include community events such as clean-ups and festivals, installation of small BMPs,

educational training and signage, and art or media projects depicting water and natural resource issues.

Planning grants provide up to \$10,000 in funds to assist in the planning and preparation of documentation for water quality projects that will be implemented in the near future. Grant recipients are required to provide 25% matching funds which may be matched with cash or in-kind support. Some examples of eligible projects are site evaluation for BMPs, construction documents and specifications for erosion control practices and ecological restoration, and schematic drawings for replacement of impervious surfaces.



Figure 4: MWMO Planning Grant Project

The last tier of stewardship support is an action grant that is available for projects that are significant in scope and cost. Funding for action grant projects may not exceed \$50,000 with a 25% match from the grant recipient. Projects eligible for funding include construction of BMPs, installation of erosion control practices and native plant buffers around water bodies, and implementation of public educational activities and workshops for an area.

The diverse funding structure of the MWMO drives multiple, mutual benefit partnerships as seen on the organization's [project description website](#). Partners are supported in their individual needs and in turn are able to provide services that they do best, whether that is large scale project implementation or creative public education. Such funding is designed to increase the organization's inclusivity and engagement with the community at large on stormwater issues.



Figure 5: MWMO Project Watershed Trash Can Mural



Figure 6: MWMO Project Regional Stormwater Treatment and Research System

*Images Taken from MWMO Website

URBAN DRAINAGE AND FLOOD CONTROL DISTRICT (UDFCD) – DENVER AREA

Key Issues

How can traditional funding sources be utilized in a way that identifies specific stormwater needs and in turn increases funding to those needs? What should be the balance of funding amongst maintenance needs and new construction?

Funding Strategies

In 1969, the Colorado legislature established the Urban Drainage and Flood Control District (UDFCD) for the Denver Metropolitan Area. UDFCD is charged with assisting local governments with multi-jurisdictional drainage and flood control problems for an area that includes Denver, all or parts of 33 municipalities, and parts of 6 surrounding counties. UDFCD offers services relating to flooding, development, planning, stormwater quality, capital improvement projects, and management of over 1600 stream miles within the UDFCD boundary. The UDFCD serves as a coordinator and advisor for local agencies and assists with criteria development.



The UDFCD currently has two programs which are managed on a county basis. The watershed services address watershed management plans, flood plain mapping and private development. The stream services program focuses on capital improvement projects, design/construction and maintenance of streams. In 2018, those programs will be combined with a project manager focusing on watershed and stream services for the 8 watersheds in the district.

Funds for the UDFCD come from four different property tax mill levies that are earmarked for specific programs. The four funds are a General Fund with a statute maximum levy of 0.1 mill, a Construction Fund up to 0.4 mill, a Maintenance Fund up to 0.4 mill, and the South Platte River Fund at 0.1 mill. The total mill levy is not to exceed one mill. Levies under the General Fund, Construction Fund, and Maintenance Fund are applied uniformly over the entire UDFCD area. The levy for the South Platte River Fund is applied uniformly to those areas that drain directly to the South Platte River.



Figure 7: UDFCD Maintenance Site

The UDFCD budget for 2017 indicated tax revenue of \$12,250,000 for the Construction Fund and \$11,540,000 for the Maintenance Fund. Funds are apportioned approximately 40 % for construction, 40% for maintenance, 10% for the South Platte and 10% for the general fund. The UDFCD also maintains a Flood Emergency Contingency Fund that is infrequently used but was heavily drawn upon following a 2013 flood.

Included in the Maintenance Fund is the Maintenance Eligibility Program that encourages responsible design in developer-initiated floodplain modification projects. The UDFCD will review and comment on

proposed development projects, and will conduct inspections during the construction of each. Projects that are approved through this process are then eligible for UDFCD maintenance. The UDFCD also has a Development Services Enterprise program which allows a developer to estimate the cost of the project and then utilize the UDFCD to oversee the project. Those projects are then maintained by the UDFCD. The UDFCD supports local agencies with the pursuit of grant monies and has teamed with other outside organization (e.g. Trout Unlimited) to fund projects in the District.

The UDFCD will fund and assist local member agencies with their watershed planning. The UDFCD will fund 100 percent of the maintenance of the open, natural channels (smaller storm drains are the responsibility of local agencies) and 100 percent of the floodplain mapping. Fifty percent of the cost of a watershed master plan and CIPs will be matched by the UDFCD.

In regards to capital improvement, the UDFCD prepares a five year capital improvement plan each year that indicates projects and participation by county. Improvements in the plan must be requested by local governments and must be master planned. Local governments provide match funding with UDFCD directing tax revenue received from a given county towards improvements benefitting local governments in that county. Efforts are also made to distribute projects throughout a county.

STORMWATER MANAGEMENT COMMISSION (SMC) – LAKE COUNTY, IL

Key Issues

How can the watershed-based organizations better leverage resources by identifying and acquiring alternative funding? What planning efforts should be done to increase accessibility to such funding?

Funding Strategies



The Stormwater Management Commission (SMC) of Lake County, Illinois was established in 1991 via state legislation. The SMC consists of municipal members and Lake County Board members responsible for coordinating stormwater management activities from a countywide and interjurisdictional perspective. Funding is provided through property tax and a mix of other funding sources including cost-share. Most notably, the SMC has been able to receive significant alternative funding from state and federal grants.

For the year 2016, the SMC was able to fund total project costs of \$4,600,000 with \$1,050,000 allocated from SMC traditional funds. This funding ratio of \$4.4 for every SMC dollar spent was in large part the result of collaborations with multiple granting agencies. Projects in 2016 included a number of river and watershed restoration efforts funded from state and tribal assistance grants, the National Fish and Wildlife Foundation, the Illinois Coastal Management Program, the US EPA Great Lakes Restoration Initiative, and Illinois EPA funding through Section 319 of the Clean Water Act.



In terms of planning efforts, the SMC is developing a Wetland Restoration and Preservation Plan which is funded by a US EPA Wetland Program Development grant. The SMC is also in the process of updating an All Natural Hazards Mitigation Plan (ANHMP) that identifies activities and projects to reduce the damages caused by natural hazards.

The ANHMP allows the County and municipalities to be eligible for hazard mitigation grants from FEMA, which are integral in the SMC’s floodplain buyout program. The program offers voluntary purchase of homes repetitively damaged from flooding. The ANHMP must be updated every five years in order to be eligible for funding. Since 1997, FEMA has provided over \$13 million towards SMC’s buyout program with over 200 homes and parcels being purchased, including a local grade school. The distribution of FEMA funding for 2016 is provided in figure 10 below.

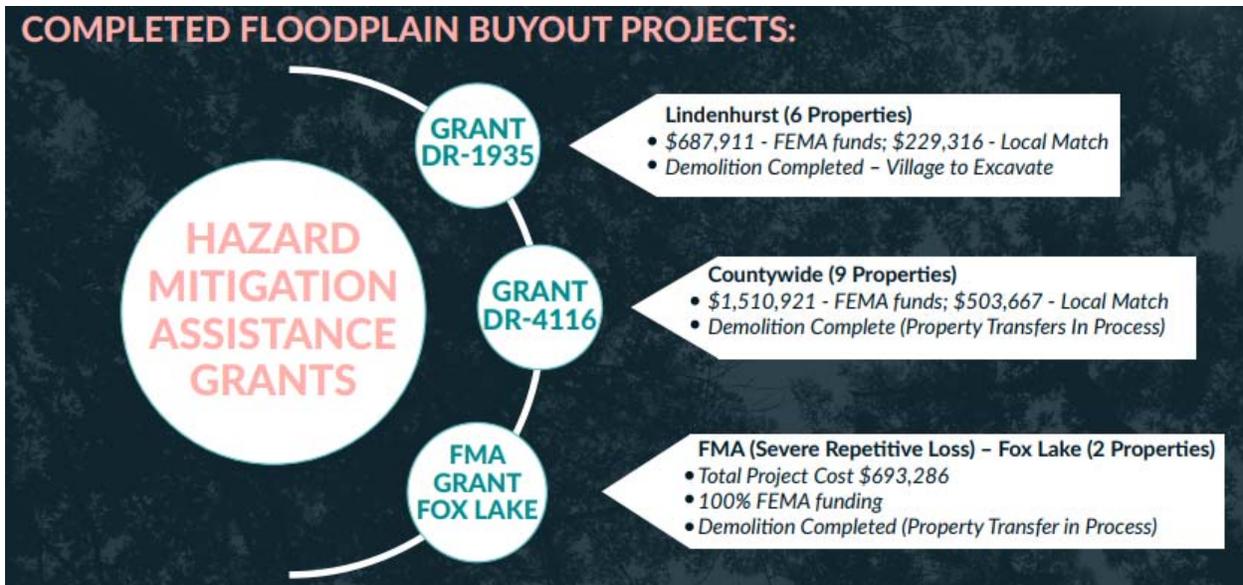


Figure 10: SMC FEMA Funding for Floodplain Buyout Program 2016

*Excerpts & Images Taken from SMC 2016 Annual Report