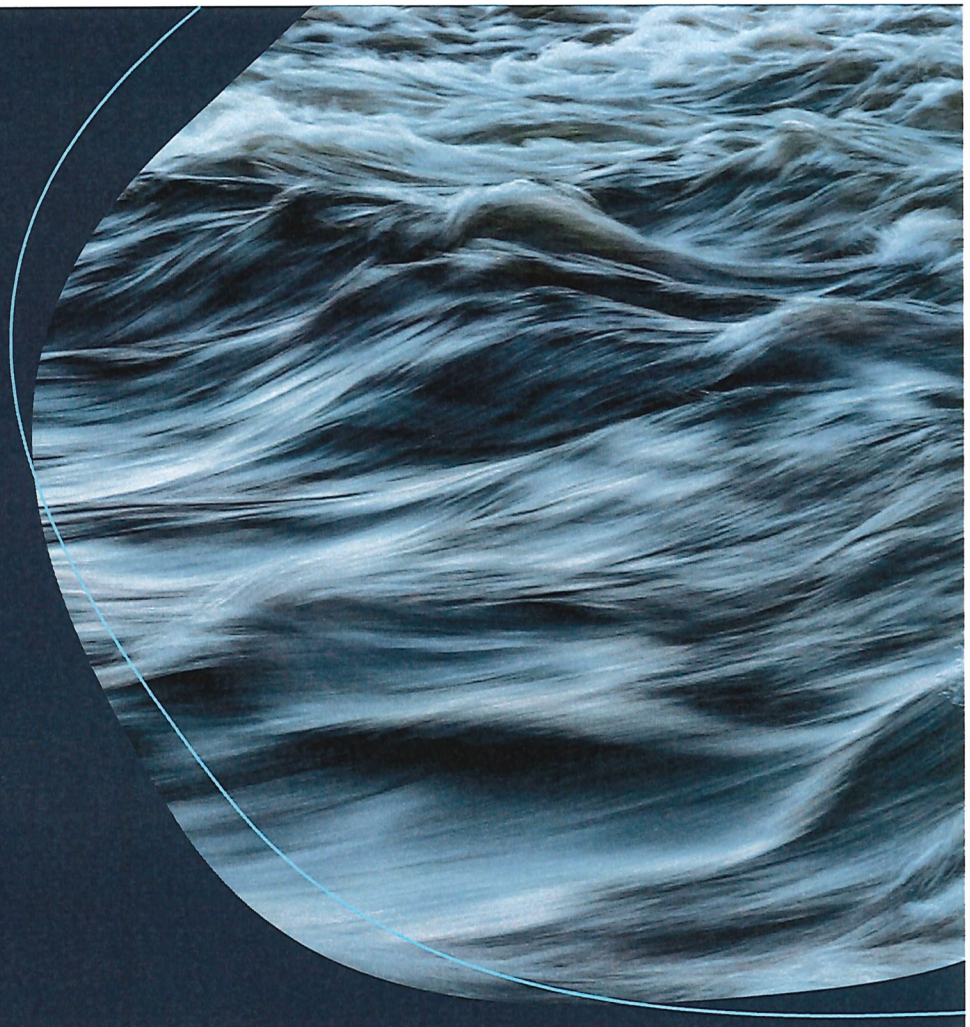
Marysville Stormwater Utility

A Management Solution for the Future

What is Stormwater?

- Stormwater is any water that falls, flows, or accumulates from rainfall or melting of ice or snow
- Each of these characteristics is impacted by the density and the duration of the rainfall or melting event



What Happens to Stormwater After It Falls?

- This depends upon the ability of the surface to absorb the water. Water falling upon an impervious surface will not absorb. The water that does not immediately absorb will "stand or flow" depending upon the grade of the surface.
- The water that flows will eventually settle or "stand" unless it has been carried away to a such as an outfall such as a creek or river
- It is when water stands that problems arise

Flooded Park

Flooded Streets

Flooded Residential Yard

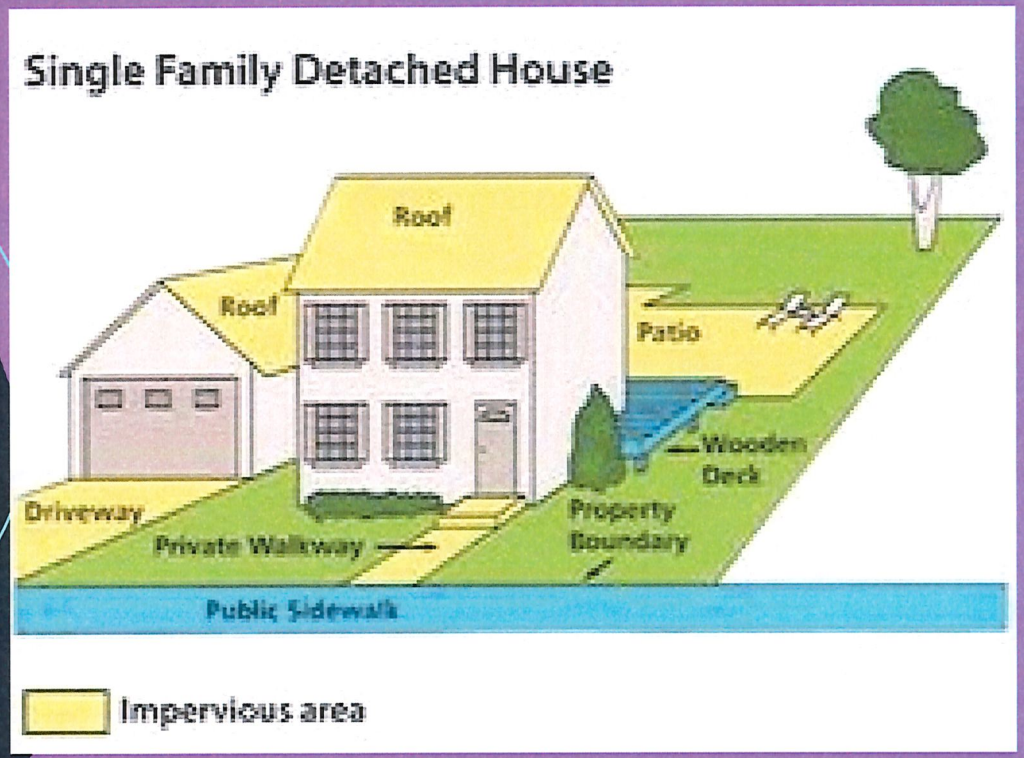
Stormwater Management Systems

- Ideally private property is developed with the means put in place to manage stormwater that falls on the property. Local ordinances require stormwater management systems for residential subdivisions, as well as for commercial and industrial developments.
- Stormwater from private property then flows into public stormwater systems that include infrastructure such as inlets, mains, and detention/retention ponds to further collect, convey, and release stormwater into an outfall or waterway
- City stormwater inlets and pipes (mains) are typically located within hard-surfaced City streets, which also contain curb & gutter to contain and convey stormwater
- Municipal stormwater conveyance systems (mains) usually run parallel to sanitary sewer mains, and in some instances have been combined. This is no longer done.

Different Classes of Private Property Contribute Stormwater Runoff to the Public Stormwater Management System Based Upon:

- Size of the property as measured in square feet
- Amount of hard or "impervious surface" area on the property as determined by the footprint of buildings, hard surface parking areas and driveways

Sources of Residential Stormwater Runoff



Stormwater Regulation

- Federal regulation of stormwater began with the 1972 Clean Water Act with the goal to reduce pollutants discharged by municipal stormwater systems into public waterways
- The National Pollutant Discharge Elimination System established the designation of MS4 for municipal stormwater systems.
- MS4 permits are required for larger municipal systems…in Kansas smaller municipal stormwater systems are covered under a Statewide MS4 Permit

Stormwater Control Measures Under NPDES

- Public Education
- Public Participation and Involvement
- Illicit Discharge Detection and Elimination
- Construction Site Stormwater Runoff and Control
- Post-Construction Stormwater Management
- Pollution Prevention for Municipal Operations

How Have Cities Historically Handled Stormwater?

- Commonly, cities have dealt with stormwater as a part of the Street system and have funded stormwater management from general taxation through their General Fund. Typically, in small towns stormwater did/does not appear as a stand-alone program in the General Fund Budget
- In many instances, stormwater is funded through the Sanitary Sewer Utility, relying upon sanitary sewer revenues to fund expenditures. Many cities, like Marysville, do not distinguish stormwater from sanitary sewer in its Budget
- Under either of these models, stormwater management lacks in focus and competes for funding from sources that are designated for other purposes

Stormwater Structures Require Means for Funding

The City of Marysville typically uses the General Fund to pay for stormwater structure replacement or expansion that occurs when roadways are constructed or replaced.

For other system components such as lift stations and lagoons, the City relies upon its Sanitary Sewer Revenue Fund for financing.

Current Funding Sources for Stormwater Improvement Projects

Sewage Revenue Fund

- This Fund supports the Sanitary Sewer Utility through the imposition of fees based upon the cost of providing wastewater collection, treatment, and discharge. This is a volume-based fee, based upon water consumption. There also exists a Sewer Replacement Fund that contains money transferred to it annually from the Sewage Revenue Fund. The annual transfer amount is currently $50,000.

Sales Tax Improvement Fund

- This Tax was originally passed to help fund the levee. Presently, this Fund is very broad in its allowable uses, including stormwater maintenance or improvement projects. It is the primary source of funding for street reconstruction, as well as small capital projects such as Parks facilities.

Sources of Funds for Which Stormwater Improvements Rely

- The Sales Tax Improvement Fund contains a balance of $797,000. as of March 1.
- The Fund generates approx. $1.1m, per year, of which $400,000 is transferred to the General Fund for operational expenditures.
- The Sewage Replacement Fund contains a balance of $804.000. as of March 1. Of that amount, $499,000 originated from the American Rescue Plan Act.
- The Sewage Revenue Fund (from which all operational expenditures of the sanitary sewer utility are made), contains $396.000 as of March 1. A substantial portion of that Fund balance is required to meet cash-flow needs of the utility as revenues and expenditures are not level from month-to-month.
- Currently, the Sewage Revenue Fund is generating little or no annual operational surplus, resulting in the reserve balance not growing or being replenished.

Projected Use of the Dollars On Hand

SALES TAX IMPROVEMENT FUND

A major reconstruction project involving 12th Road and adjacent streets is under design, for which the entire Fund balance is appropriated. In addition to that money, 12th Road Project(s) could obligate future revenues from this Fund for several years.

SEWAGE REVENUE & REPLACEMENT FUNDS

- The City currently has under contract the HW 36 Manhole Construction Project at a cost of $444,000., which will be funded entirely by money currently in the Fund.
- Sanitary Sewer Final Phase Cured In Place Project: Projected cost $325,000
- Total Cost (actual and projected) for these two projects is $769,000., which comprises 95% of the current balance in the Replacement Fund.

Other Current and Prospective Projects

- Sanitary Sewer Lagoon and Wetland (grant and borrowing)
- HW 77 Storm Sewer Main Replacement $75,000
- Sanitary Sewer Main Replacements (4 locations) $400,000
- Nordhus Stormwater Improvements $1.2m
- The Unknown $$m

Out of Sight, Out of Mind?

Current Posture Lacks Foresight and is "Reactive in Nature"

- System expansion/repair needs are identified on a "critical incidents" basis
- Project funding dependent upon use of uncommitted monies in the Sanitary Sewer Fund, or possibly the Additional Penny Sales Tax Fund

What a "Managed" or "Proactive" Stormwater Program Might Include

- City-wide Drainage Study in Place
- System components mapped
- Separate Program in City Budget with expenditure accounts
- Dedicated source of revenue to fund the Program
- Multi-year Capital Maintenance/Improvements Plan in Place

The City Should Adopt a Fiscal Policy Regarding the Source of Allowable Funding for Stormwater Projects

Fund From Sanitary Sewer (combine)

- Sanitary Sewer rates would need to be raised to generate sufficient revenue for both Sanitary Sewer and Storm Water.
- Stormwater would be established in Budget with expenditure accounts and appropriations

Fund From Sales Tax Improvement

- All capital replacements and improvements for stormwater designated for funding here.
- Could be fixed annual appropriation transferred into a "Stormwater Maintenance Fund".

Nordhus: Large Project With a Large Cost

Is this the time to consider creating a dedicated source of revenue for stormwater projects?

The timing is right to consider forming a Stormwater Utility

Partial List of Kansas Cities That Have Formed a Stormwater Utility

- Bonner Springs
- Shawnee
- Kansas City
- McPherson
- Mission Hills
- Westwood
- Hays

Topeka
Lenexa
Manhattan
Leavenworth
Overland Park
Prairie Village
Mission

Why Form A Stormwater Utility?

- To insure that there are adequate systems for collection, conveyance, retention, and release of stormwater to reduce hazards to property and individual safety
- To create a dedicated revenue stream to finance stormwater maintenance and improvements
- To improve water quality in the storm and surface water systems
- To create an equitable means for property owners to pay for stormwater services
- To provide for more focus, awareness, and attention to stormwater management

The Key to Operating a Stormwater Utility is the Stormwater User Fee

- This is a monthly fee assessed on ALL properties in Marysville regardless of taxable status
- The fee links stormwater runoff created by property owners to the amount that they pay to maintain the stormwater system
- Fees are based upon the square foot of impervious area on a property

The Monthly Fee is Calculated Using the ERU Method: Equivalent Residential Unit

- An ERU is based upon the average amount of impervious area for all residential property throughout the City; for example 2600 feet.
- The City sets a fee per ERU based upon the total amount of revenue needed to operate the utility. The ERU rate to calculate a residential fee might be $4.58 per month. A duplex is billed for two ERUs.
- For non-residential property, the fee would be determined by dividing the total impervious area of the property by 2600 sq. ft. multiplied by the ERU rate.

Determining the ERU Rate (Illustration)

- As an illustration, let's say that there are 1600 single-family residences in Marysville. That would mean 1600 ERUs. Add to that 300 more ERUs from the commercial and industrial properties and we have a total of 1900 ERUS.
- If the annual revenue requirement of the Stormwater Utility is $200,000., we divide that by the 1900 ERUS to get an ERU rate of $8.78. Each single-family residence would pay $8.78 per month and the commercial/industrial would pay based upon the number of ERUs that the respective sites were determined to have

Steps to Create a Stormwater Utility

- Identify all expenses currently associated with stormwater management from other programs in City Budget
- Project an annual capital expenditure amount for the next 5-7 years
- Adopt an Ordinance to create a Stormwater Utility, to include a stormwater management fee based using the ERU method
- Establish the Stormwater Utility in the 2025 City Budget with full set of revenue and expenditure accounts
- Conduct a Comprehensive Drainage Study for the City of Marysville