

**Executive Summary of Findings and Recommendations of the
Rochester Hills Public Safety and Infrastructure (PS&I) Committee
for the Stormwater Asset Management Plan
June 2017
Draft for final review by the PS&I Committee**

There is a system of stormwater infrastructure that was put in place as the City of Rochester Hills developed. That infrastructure collects and conveys the water from rainfall so that private property is protected from flooding. Recognizing the importance of this stormwater system in protecting property from damage, maintaining property values, and maintaining the water quality in the Clinton River, Stony Creek, and Paint Creek, Rochester Hills initiated a comprehensive assessment of its stormwater infrastructure.

This is an Executive Summary of the Asset Management Plan components that have been completed so far, including specific recommendations. The format and content is presented in a manner intended to facilitate discussion and decision-making within City leadership and with the public.

As part of the SAW Grant the City received for its stormwater system, there were two components: the Asset Management Plan (AMP) and the Stormwater Management Plan (SMP). The AMP focuses primarily on the structural, financial, and operational characteristics of the City's storm sewer system, while the SMP focuses on stormwater quality and watershed concerns. *This Executive Summary focuses solely on the AMP, as this is the component that will largely drive future funding needs.*

What does the City of Rochester Hills currently do to manage Stormwater?

- Implement infrastructure projects to enhance stormwater quality and provide flood control
- Clean catch basins and curb inlets to remove dirt and debris before it gets into local waterways.
- As City streets budget allows, repair and replace storm sewers during road reconstruction projects.

The total spent annually by the City for stormwater-related activities is approximately \$575,000, funded through the Water Resources Fund. This fund currently receives annual transfers from the General Fund.

What problems were identified?

Existing problems were identified through a City-wide inspection of the stormwater system, combined with interviews with key City public works staff to identify known physical and budgetary problems. Key issues are noted below:

- The average age of the City's storm sewer system is 33 years; approximately 22% of the sewer system is showing initial signs of disrepair and will require rehabilitation, and in some cases, replacement.
- To avoid unnecessary escalation of costs, protection of private property, and ensure protection of the local waterways from pollution, more investment must be made in the existing storm sewer system. This includes more attention to proactive maintenance and ongoing repairs.
- Currently, investment is primarily driven by annual transfers from the General Fund. There is currently no guaranteed or perpetual funding mechanism in place that is fiscally sustainable.
- The majority of the stormwater collection system within the City limits is classified by the City as privately-owned (much of it through Homeowners' Associations). If a stormwater tax or fee is established, the future ownership of the stormwater must be re-evaluated. This is important, because residents paying a fee or tax will expect a higher level of service that may include maintenance of sewer components that the City currently classifies as beyond their jurisdiction.



Providing adequate, quality service requires both a plan for strategic investment in new and existing infrastructure and a fiscally sustainable means to support that investment. This requires a systemic approach to reviewing the structural condition of the stormwater infrastructure on a perpetual basis and upgrading the system to maintain an adequate level of service to address both flood prevention and water quality. This is the purpose of an Asset Management Plan.

What does the City of Rochester Hills need to do to protect property and sustain water quality?

- Fix the identified structural problems before they become critical and costs escalate.
- Repair/Replace/Rehabilitate system components that are aging beyond their service lives.
- Reduce the volume and rate of rainfall runoff in ways that enhance stormwater quality, reduce long-term costs, and extend the life of 'grey' (traditional) infrastructure.
- Facilitate and incentivise the use of green infrastructure, such as infiltration and filtration.
- Inspect and clean the storm sewer system on a regular basis.
- Inspect privately-owned detention ponds and enforce maintenance so as to ensure proper function and protection of downstream waterways.
- Install stormwater infiltration zones during road reconstruction projects to reduce runoff volumes.
- Conduct preventative maintenance and pollution control measures (street sweeping, inlet/catch basin cleaning).
- Maintain and repair eroded drainage channels and culverts/bridges.
- Replace undersized sewers to prevent street flooding and property damage.
- Encourage (through local policy) improved management of stormwater as properties redevelop, such as stormwater infiltration and/or filtration.
- Review the stormwater collection system ownership and establish a policy on how the City will consider future ownership (e.g., assume ownership for all sewers within the right-of-way, which is typical for most communities).

What are the funding options for Rochester Hills to invest in stormwater infrastructure going forward?

There are two ways cities in Michigan can fund services: taxes and fees. The table below juxtaposes these two options and their relative implications. It was prepared to aid dialogue within the City and with its citizens in choosing a path forward.

Strategy/Decision	Positive Implications	Negative Implications
Continue Existing Program	Avoid controversy associated with any new fees or taxes.	Legacy costs will accrue, project costs will be higher than necessary, service will decline, flooding may occur, and local waterways will be subject to more pollution.
Adequately invest using Tax Revenues	The City will satisfy its short term stormwater infrastructure needs through adequate funding.	Unfair to both residents and businesses. In the longer term, may be another draw on the General Fund due to limitations by Headlee, Proposal A, and state cuts in revenue sharing. Other services may suffer. Future priorities may shift and tax revenues would be diverted away from stormwater.
Adequately invest using an Enterprise Fund (Stormwater Utility)	The City will satisfy its stormwater infrastructure needs. Investments benefiting individual businesses and residents will be much fairer and more likely to be sustained over the long run. Flooding will be less likely and water quality will improve.	Could result in protest from sectors currently receiving benefits at no cost, i.e. tax-exempt properties. Some risk of utility fee being challenged as a violation of the State Constitution.



Another option could include a combination of both taxes and fees. However, if any fee is established for stormwater, it would be ideal to allow the fee to cover *all* cost components of the stormwater infrastructure, as is consistent with the fee mechanisms for other infrastructure, such as water and wastewater.

What principles should guide us in selecting a fiscally sustainable financing mechanism?

Debate and discussion on how best to move forward will be most productive if it begins with a set of principles to benchmark the merits of ideas put forth in the process. The Stormwater Advisory Group suggests the following four principles.

1. When estimating the amount of revenue needed and the amount to be charged, the math will ALWAYS include the cost of four things: *capital*, *operation*, *maintenance*, and *replacement*. These represent the true short and long term costs of infrastructure service. Any weak link in this chain seriously compromises reliability.
2. We will not rely on federal or state government to subsidize local utility services. That approach is a recipe for failure. The subsidies are never adequate, not everyone gets them, and even those who do get them won't receive them in perpetuity.
3. We will earn and maintain the public trust by choosing a funding strategy that is both transparent and fair regarding:
 - a. How costs are calculated
 - b. How charges are allocated to customers.
4. Meeting public expectations to optimize costs and be fair means we need to make sure the actions of various City departments (i.e. public works, planning, engineering, finance, etc.) have the same end goal. That means a commitment to collaboration and partnerships. Therefore, decisions about how much, where, and when to invest will be made on a systematic basis considering:
 - a. Cost
 - b. Benefits
 - c. Alignment with other City programs
 - d. Contribution to quality of life and public safety
 - e. Alignment with services provided by others

Conclusion of the PS&I Committee

Recognizing that investment options must be more widely vetted by city leaders and with the public, the PS&I Committee understands that the investment in the City's stormwater infrastructure will need to be increased in the future and that a dedicated funding source is more financially sustainable method to do so. Prior to selecting the right way forward, the City needs to consider the implications of user fees on typical property owners and top potential ratepayers. If a dedicated funding source is pursued, the City will need to consider expanding its 'ownership' of the stormwater system to a minimum of all sewer components in the right-of-way.



How do we move forward in solving the problem?

Identification of problems without recommending a course of action was considered unacceptable. Recognizing its role as advisory, the Stormwater Advisory Group outlined a process for moving forward for consideration by city leadership.

1. Engage city leaders and the public.
 - a. City leaders endorse this Executive Summary (or a variation of it) as the basis for reaching out to the public for input.
 - b. Solicit public input.
2. Finalize the Stormwater Asset Management Plan and submit it to the MDEQ. This plan will be designed to address the problems identified during the structural evaluation of the stormwater infrastructure.
 - a. Identify the strategy needed to optimize costs.
 - b. Convey flow from the 10-year recurrence interval storm event (10% probability) without flooding. This requires two things:
 - i. All components (sewers, culverts, inlets) are large enough to carry the peak flow
 - ii. All components are in reasonable structural condition
3. Simultaneously, develop more details on a fiscally sustainable investment strategy.
 - a. Develop a model stormwater utility ordinance.
 - b. Prepare detailed information on a property tax millage needed for various levels of service and on various property categories.
 - c. Identify a stormwater utility rate structure that best reflects the guiding principles.
 - d. Continue comparing and contrasting b. and c. based on the guiding principles. Based on our early analysis of local tax data, it appears that a stormwater utility would more equitably distribute fees based on the benefit provided by the City's stormwater system.
 - e. Decide on and institutionalize a fiscally sustainable investment structure.

Where do we go from here?

Completing this effort is only the beginning of the City's Stormwater Asset Management Plan. The framework established by this effort lays the foundation for the effective long-term management of a functioning storm sewer system. City staff will continue to monitor the condition of the storm sewer system on an ongoing basis and an Asset Management Plan will provide City staff with the information they need for future capital and budgetary planning.

Key Recommendation

Pursue the development of a stormwater rate ordinance, using the draft stormwater utility bill as guidance. The SAW Grant deliverables to be provided by OHM will provide the vast majority of documentation necessary to meet the bill's framework, and will help to reduce the risk of a legal challenge, should the City pursue a utility.

Supporting Documents (attached)

Stormwater Infrastructure Deterioration Forecast Model: Existing and Proposed Funding Levels



Stormwater Infrastructure Deterioration Forecast Model: Existing and Proposed Funding Levels

The longevity of Rochester Hills’ stormwater infrastructure was evaluated by combining data on average structural condition, remaining useful life, rehabilitation costs, and deterioration. Under the current funding structure, many assets are projected to fail (Figure 1). This is indicated by the increasing percentage of red in the system. Deferred maintenance results in higher legacy costs when emergency repairs become necessary. In these figures, both start with the current structural condition and expect stormwater infrastructure to last approximately 100 years. With dedicated funding to proactively maintain and rehabilitate the system, the current level of service can be sustained as shown in Figure 2.

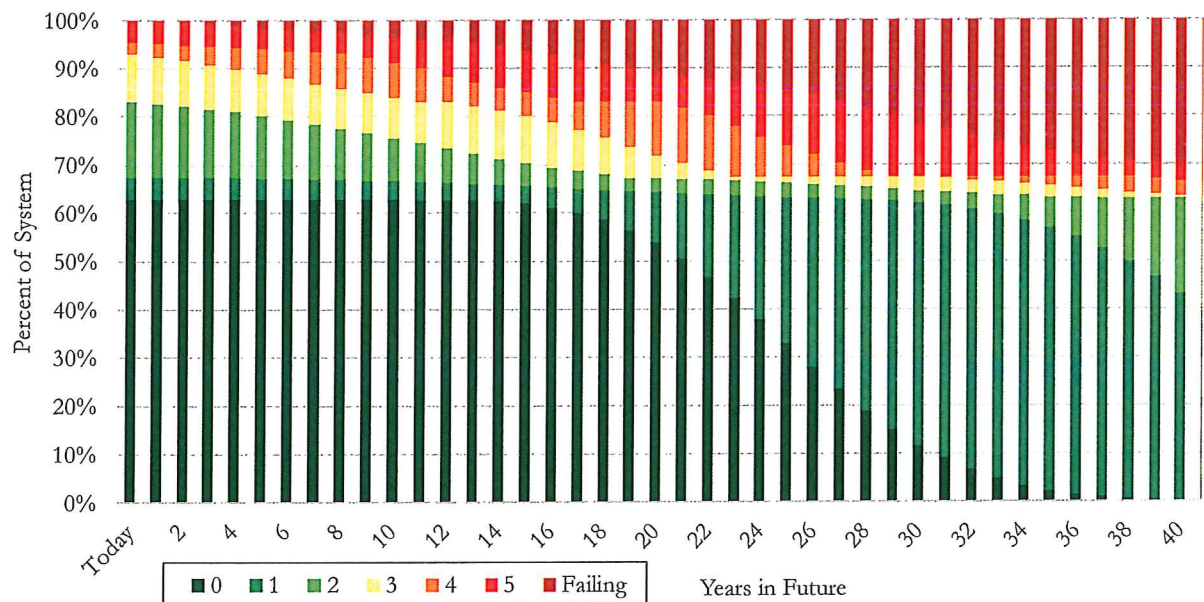


Figure 1: Structural Deterioration Under Existing Funding Level

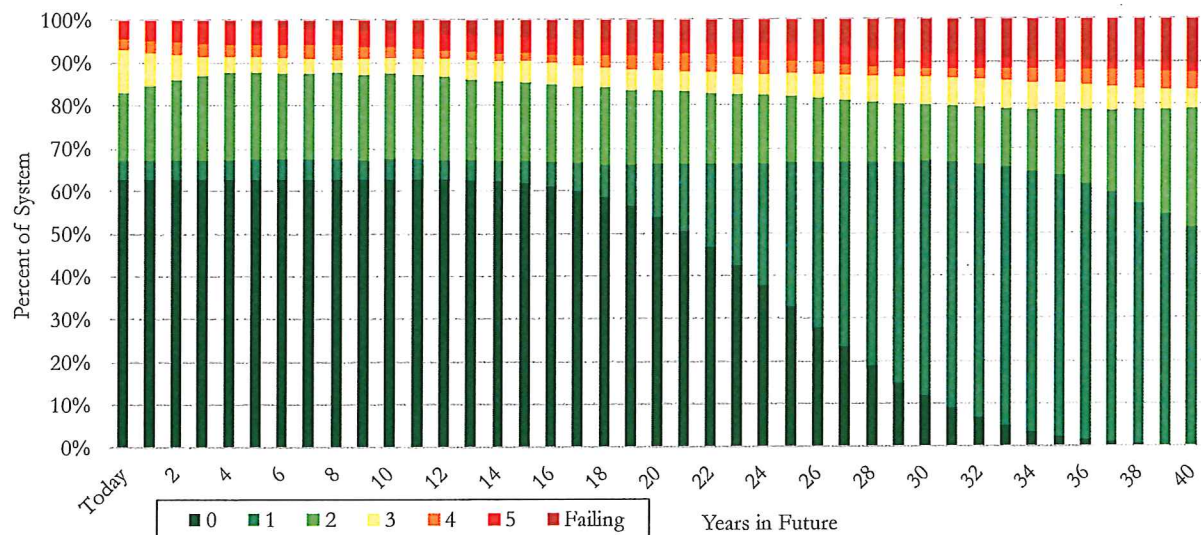


Figure 2: Maintaining Current Level of Service Under Proposed New Funding Level

