

Asset Management Financial Plan

(unconstrained)

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1 INTRODUCTION

The Village of Fruitvale has taken a proactive approach to planning for financial sustainability of community infrastructure. Based on the recently completed Asset Management Investment Plan (AMIP) Fruitvale is responsible for operating and maintaining almost \$41 million of infrastructure consisting of the: wastewater (sanitary sewer) system, stormwater system, roadway network, buildings and facilities, fleet, and parks. This infrastructure is vital to the well-being of the residents and businesses in the community; however, a significant proportion has reached, or will be reaching, the end of its service life over the next few decades and will require major investments to maintain existing levels of service.

This project (Asset Management Financial Plan) involved conducting a financial analysis of the short and long-term sustainability of the Village's currently planned capital and operational program for community infrastructure. The results of the project show a current state analysis, or an unconstrained summary, of where Fruitvale is today. This is a snapshot in time; the first iteration in an ongoing asset management process which can be updated annual as the Village takes steps to balance infrastructure revenue and expenses. It can be used to determine sustainable funding levels for the next 20 years and to inform the development of financial policy (being completed concurrently).

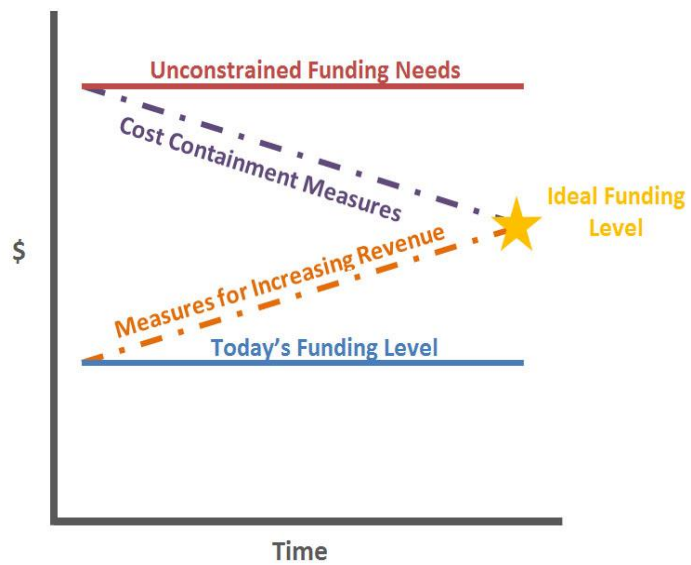
Based on the current financial plan (before solutions to closing the sustainability gap) , the analysis shows a sustainability gap (imbalance between revenues and expenses). This is primarily associated with the AALCI (asset renewal contribution), although infrastructure deficit also a factor.

A variety of opportunities are available for closing sustainability gap:

- Borrowing, Grants
- Increasing Own Source Revenue (i.e. Taxation, user fees)
- Cost Containment (Increasing Risk, Reducing Level of Services, etc)
- Prioritized Capital Planning

Approaches for cost containment (risk assessment) and prioritized capital planning have been completed previously and are essential next steps to achieving long term financial sustainability.

The results of these reports have been incorporated into the analysis/results of this plan.



2 INFRASTRUCTURE CONTEXT

The Village of Fruitvale is responsible for operating and maintaining a wide variety of infrastructure, including the:

- Wastewater (sanitary sewer) system
- Stormwater system
- Roadways
- Buildings and facilities
- Fleet
- Parks

Fruitvale's assets are vital to the well-being of residents and businesses in the community. Almost 825 parcels (residences, industry and businesses) are currently served by these assets¹. The majority of these assets are part of the Village's linear infrastructure (wastewater, stormwater, and roadways).

This infrastructure has a replacement value of almost \$41 million, and the assets have approximately 35% of their remaining life remaining. Reinvestment in Fruitvale's existing infrastructure, including renewal and replacement, is required to ensure that the asset base is preserved so future generations are able to enjoy the same quality of life. To renew this existing infrastructure over its lifecycle, ideally approximately \$1.0 million is needed annually (in addition to operations and maintenance costs).

Table 1: Asset Management Investment Plan Summary

Asset Category	Replacement Value	Expected Remaining Life	Infrastructure Deficit (Backlog)	20 Year Total	Average Annual Life Cycle Investment (AALCI)
<i>Wastewater System</i>	\$15,030,400	38%	\$2,123,800	\$7,406,000	\$240,800
<i>Stormwater System</i>	\$7,257,600	30%	\$3,434,200	\$4,375,000	\$165,200
<i>Roadway System</i>	\$9,258,809	26%	\$7,579,949	\$7,593,949	\$286,500
<i>Vehicles & Equipment</i>	\$745,850	67%	\$63,350	\$1,079,400	\$58,800
<i>Buildings</i>	\$7,069,000	57%	\$0	\$437,000	\$159,000
<i>Parks & Recreation</i>	\$1,523,000	38%	\$630,000	\$1,078,000	\$57,000
Sub-Total	\$40,884,659	35%	\$13,831,299	\$21,969,349	\$967,300

Based on the risk assessment (likelihood and consequence of failure), affordability and prioritized capital planning reports, the AALCI for the Village's assets has been reduced. The range of investment (AALCI) identified in the Asset Management Risk Assessment varies from ~\$350,000/year (high risk) to \$700,000/year (lower risk).

¹ Approximately 762 connections for wastewater; and 821 parcels for other community services

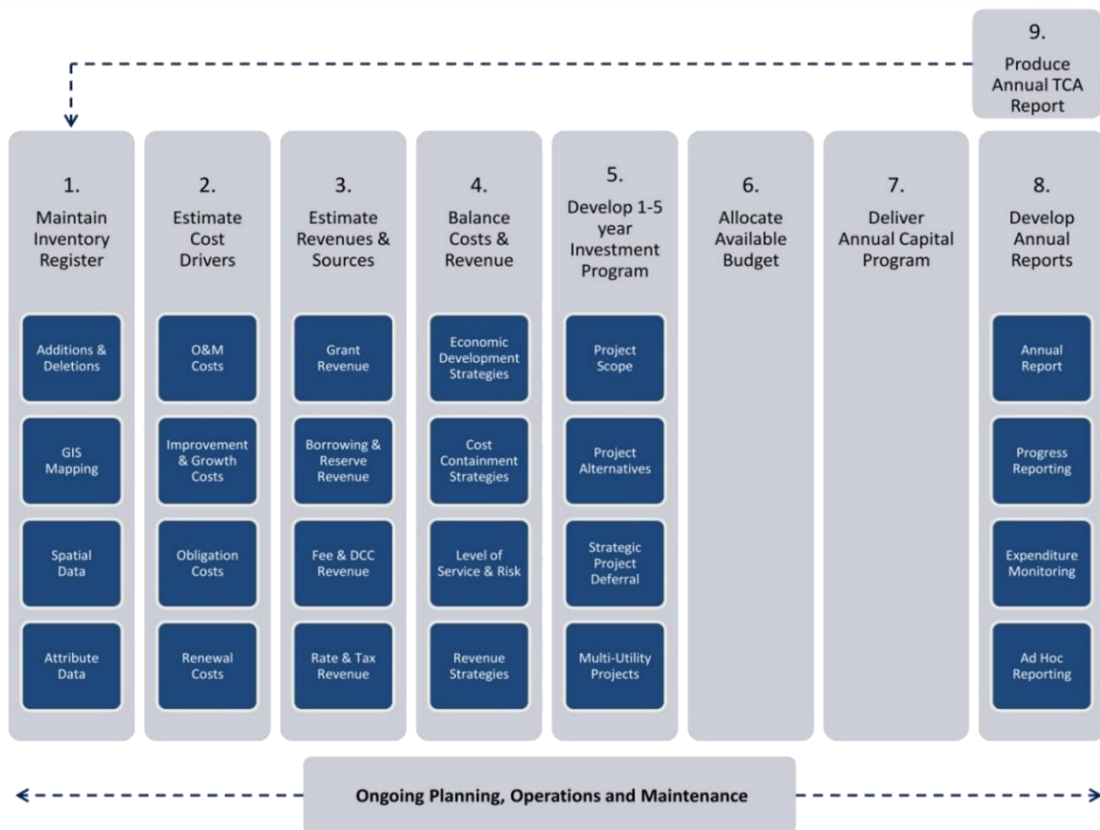
Based on the previous direction of Council, this report and analysis has assumed the high-risk scenario of investing an average of ~\$350,000/year into asset renewal (\$100,000 in wastewater and \$250,000 into other asset categories).

A list of common terms and definitions used throughout this report is provided in **Appendix A** for reference.

2.1 ASSET MANAGEMENT PROGRAM

A modern asset management program integrates all of a community's long term infrastructure costs and available funding, with a focus on infrastructure being the framework for a vibrant community. The Village's asset management program is founded on an on-going process of infrastructure decision making. This process is illustrated in the following **Figure 1**.

Figure 1: Infrastructure Decision-Making Process



The first step in this program was the Asset Management Investment Plan (AMIP), also known as a cost cash flow analysis. The AMIP was created in 2016, and encompasses Steps 1 and 2 of the process outlined above. A summary of the AMIP is shown in **Table 1** above and described further in Section 2.2. Fruitvale also completed a risk assessment framework (step 4 to contain costs and prioritize investments), which reduced the cost drivers (AALCI) by nearly 65%.

The next step is the Asset Management Financial Plan (AMFP), which encompasses Step 3 of the process and sets the stage for the development of policy and revenue strategies and onto implementation.

2.2 ASSET MANAGEMENT INVESTMENT PLAN (AMIP)

The AMIP presented an investment scenario (cost cash flow) for the Village's linear and non-linear infrastructure assets over a 20 year period. The AMIP noted that maintaining existing levels of service will require major investments in the near future, specifically for the wastewater and transportation systems. It provides community decision-makers with the information needed to better understand the level of expenditure required to maintain Fruitvale's existing infrastructure at a sustainable level.

The AMIP estimated the full replacement value of the Village's linear and non-linear infrastructure assets to be approximately \$41 million, meaning that is what it would cost if the Village's entire infrastructure base had to be replaced in 2016. This infrastructure has a remaining (deteriorated) value of over \$14 million (2016), with the average expected remaining life of these assets is 35%. The remaining life represents an overall condition level of poor to fair; however it is important to note that this does not accurately reflect the condition of specific asset components.

Based on the expected life of existing infrastructure, there is an infrastructure backlog of almost \$14 million. A backlog is viewed as a positive because it means infrastructure is lasting longer than expected, but it also means that levels of service are likely decreasing (increased potholes, customer complaints). In addition, there is a higher risk of these assets failing unexpectedly which can have increased costs and potential safety risks to customers.

To renew existing infrastructure, \$967,000 is needed annually based on the life expectancy of this infrastructure. Currently, the Village does not have an annual allocation towards asset renewal. Infrastructure renewal contributions are not something that communities have been thinking about in the past, and Fruitvale has an opportunity to build on previous financial sustainability work by taking proactive steps towards asset renewal.

Extending the service life of existing assets, for example through additional maintenance and appropriate materials for new construction, means that amount needed annually to renew this infrastructure will decrease. Furthermore, understanding the condition of assets in the field reduces the infrastructure backlog because the service life is adjusted based on actual condition.

2.3 ASSET MANAGEMENT RISK FRAMEWORK

In order to determine the sequence of existing asset replacement projects, Fruitvale determined that is necessary that asset prioritization is required using risk among other factors/inputs. The Village prioritized asset renewal projects based on a risk assessment based on the likelihood and consequence of failure for both the condition and capacity of the infrastructure. The risk assessment was completed with a focus on the two primary drivers of failure: condition and capacity.

For each of these drivers, the risk assessment was broken down into three parts:

1. Likelihood of failure (i.e., probability)
2. Consequence of failure (i.e., severity of environmental, social, and economic impacts)
3. Assignment of total risk scores (after modification, if any, and combination of scores)

Once risk scores were assigned, prioritization of asset replacement was completed according to which assets had the highest combined risk scores.

Selecting the preferred level of service to provide often comes down to community preferences and affordability. Willingness to pay for environmental protection or enhancement is also inherent in affordability. Based on discussions following the review of the preliminary results earlier in the study, it was determined that the following level of service and funding would be pursued, with confirmation occurring after the long term financial analysis is completed:

- 50% funding of the high priority assets flagged in the risk assessment (\$100,000/year)
- 50% of the high priority assets to be funded (\$246,000) and aim to gradually increase funding over time

2.4 ASSET MANAGEMENT FINANCIAL PLAN (AMFP)

This AMFP builds on the outcomes and recommendations of the AMIP, Risk Assessment Framework, Sewer Master Plan, Prioritized Capital plan and existing 5 year financial plan. The purpose of the AMFP is to forecast the revenue requirements needed to meet the capital, operational and maintenance costs for the Village's linear and non-linear infrastructure over the next 20 years. Concurrent to the development of this plan, the Village is developing a set of long term financial policy statements.

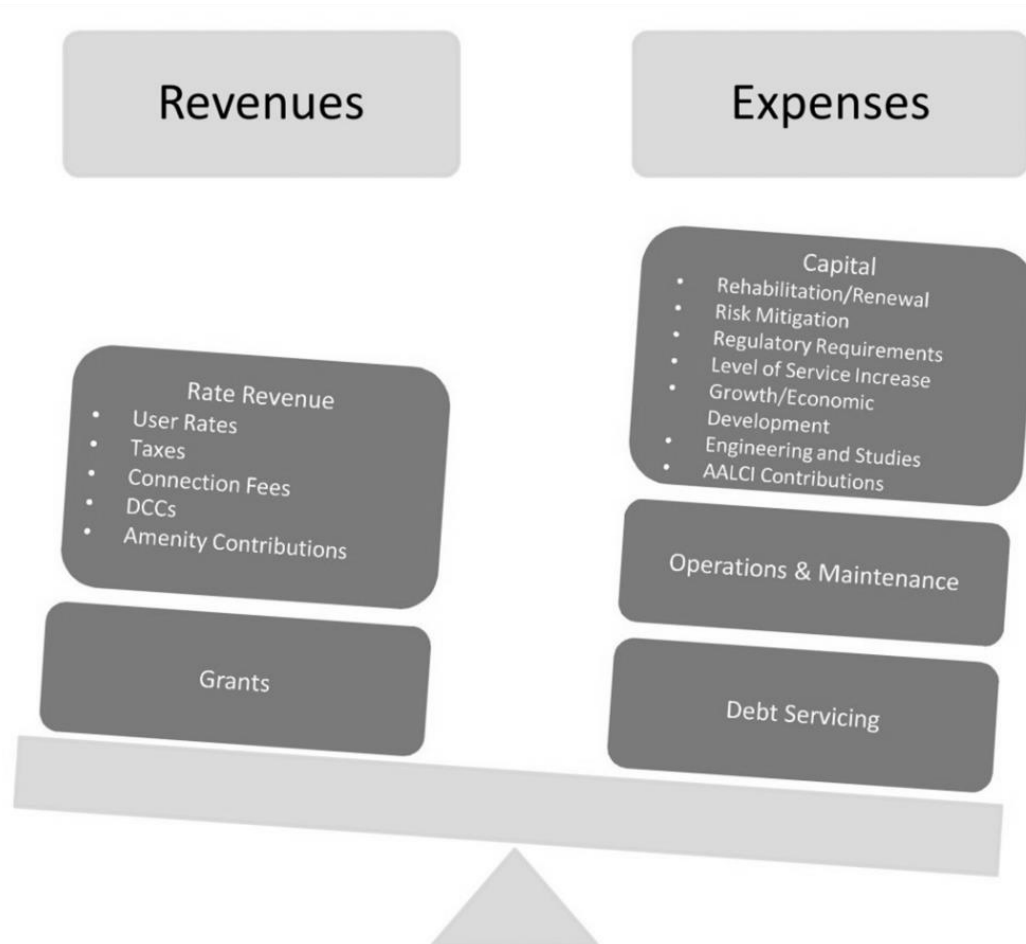
The plan presents practical funding scenarios and timing, and breakdown costs by driver (eg. renewal, regulatory (obligatory) improvements and new infrastructure, level of service improvements, growth and other desired new infrastructure) to illustrate the growing gap between revenues and expenditures.

An AMFP model was created to help understand the annual cash flow and long term implications of upcoming capital and operational works on the long term financial sustainability of the Village's infrastructure systems. The model was developed by Urban Systems Ltd. in consultation with Village Staff. Model inputs and assumptions were based on best engineering practices and the Village's most recent financial and planning information.

The remainder of this report summarizes the findings of the Asset Management Financial Plan.

3 FINANCIAL PLAN ANALYSIS

The analysis included a comparison of identified infrastructure expenditures (e.g. renewal, new capital, planning and design, operations and maintenance, debt servicing) to the revenue anticipated (e.g. rates, fees, taxes, grants, borrowing), as illustrated in the figure below.

Figure 2: Balancing Revenues and Expenses

An AMFP model (created in MS Excel) was prepared for the Village to aid in understanding cost and funding pressures, and help evaluate annual and long term infrastructure cash flow. This analysis is a snapshot in time, based on the best available information provided by the Village. It presents the first iteration in the Village's strategy for achieving financial sustainability. As such, the results are unconstrained and will require additional iterations annually to balance infrastructure expenditures and revenues and establish an approach for the ongoing financial sustainability of each utility/fund.

While the AMFP model will allow the Village to generate a wide variety of investment scenarios, this first iteration of the model was populated with the most probable baseline assumptions which were developed in consultation with senior staff:

- Growth – a growth rate of 2 units per year within the Village over the next 20 years
- Grants – an assumed level of senior government grant funding for each capital project category
- Capital investments – existing capital renewal from the AMIP, risk framework and new planned capital, based on estimated timing and associated levels of risk

The key findings highlight some important messages for consideration, and the results should be taken as a whole instead of interpreted piece by piece.

It is important to note that the AMFP model is intended to help staff, Council, and the public develop a better understanding of the general financial implications associated with their infrastructure, to support strategic and policy decision-making. While it can be used for high-level budgeting and broad scenario analysis, it is **not designed for detailed user rate and tax setting purposes**.

3.1 BASE INPUTS AND ASSUMPTIONS

The following base inputs and assumptions were used to inform the financial analysis. For the purposes of this analysis, 2017 was used as the base year.

- General Information
- Growth rate
- Interest on invested funds (reserves) and borrowing
- Borrowing term
- Maximum debt servicing limit
- Sanitary and General Fund
- Number of connections/parcels
- Operations budget
- Average Annual Infrastructure Renewal
- Reserves
- Rate revenue (parcel taxes, user rates, connection fees)
- Grants (based on assumed probability of success where unconfirmed)
- Existing debt payments

The financial model uses a constant dollar analysis (in 2017 dollars).

3.2 KEY FINDINGS

The key findings have been broken down into 2 areas:

- sanitary utility – a summary of the sanitary utility, based on its financial sustainability independent of other Village infrastructure
- general fund – a summary of the general fund, based on its financial sustainability independent of the sanitary utility

a) SANITARY UTILITY FINDINGS

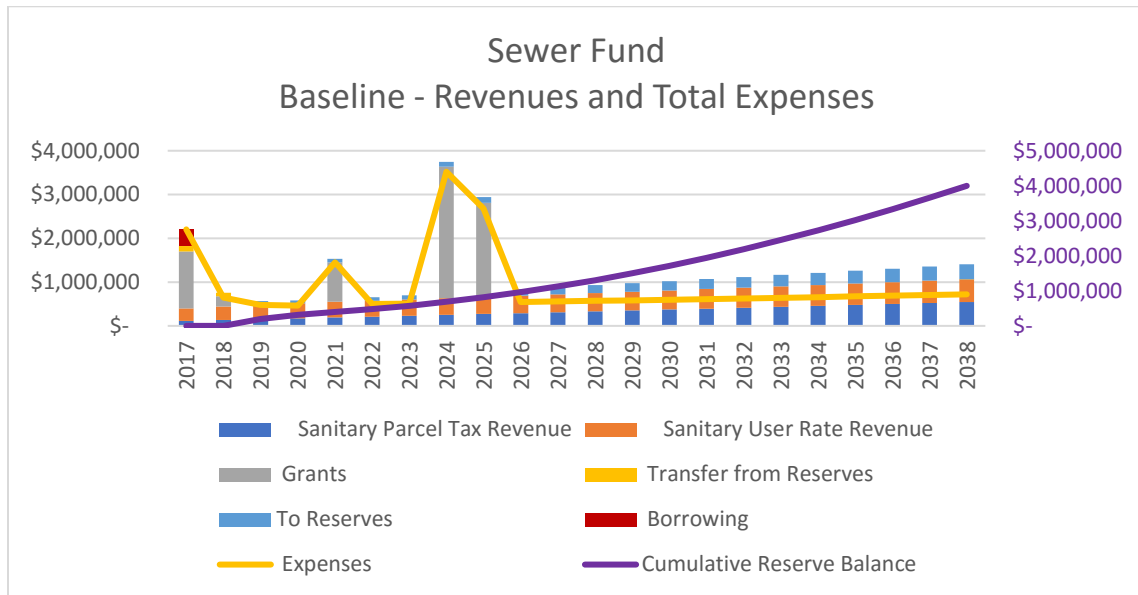
Looking at the sanitary system as a self-sustaining utility, the AMFP analysis highlights the following:

- Parcel tax (\$25/year) and user fee (5%) increase to continue over the planning horizon
- Annual cash flow is sufficient to cover anticipated expenditures
- Significant capital expenditures anticipated in 2021, 2024, and 2025
- Grants used to help balance short term peaks in expenditures (regulatory requirements)

- Non-DCC reserves depleted to base levels starting in 2017 and build steadily
- Borrowing, within the allocated debt servicing capacity, can be used to offset annual cash flow challenges

Peaks in anticipated capital expenditures are associated primarily with the planned treatment plant sewer works to meet regulatory requirements. A \$100,000/year contribution to infrastructure renewal has also been included in this analysis.

Figure 3: Total Revenue & Expenditures



On average, \$187,000/year can be contributed to reserves annually which equates to a cumulative balance of nearly \$4 million in 20 years. The major challenges relate to ensuring grants are acquired for the sanitary sewer treatment capital.

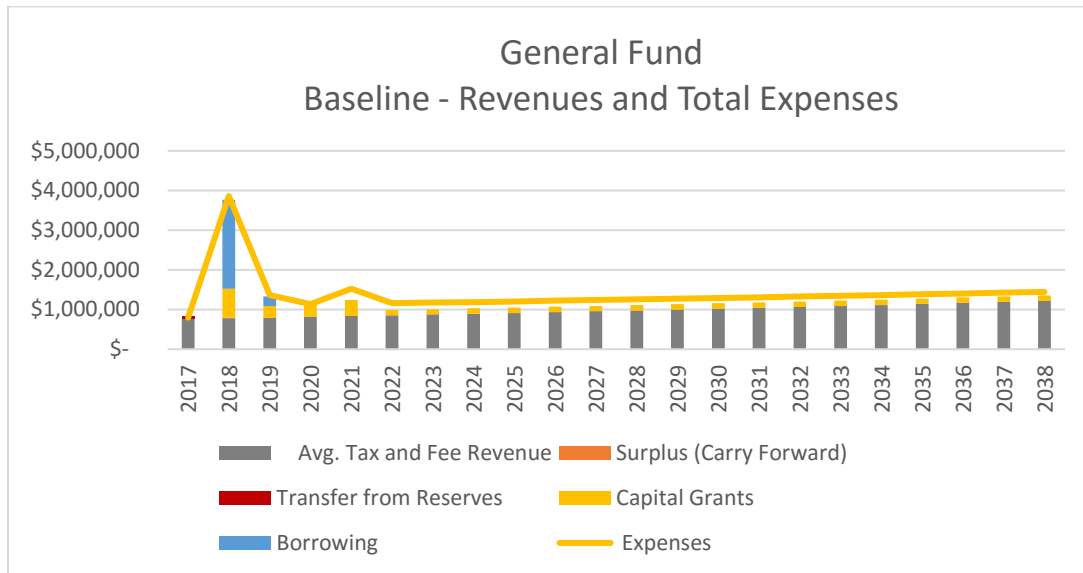
b) GENERAL FUND FINDINGS

The general fund includes stormwater, roadways, fleet, buildings and facilities, and associated program support costs.

Looking at the general fund as a self-sustaining system, the AMFP analysis highlights the following:

- Annual cash flow is insufficient to cover anticipated expenditures over 20 years
- Limited annual capital expenditures (Davis Ave only)
- Reserves cannot be built
- Average Deficit/year is \$130,000
- Tax increase of 2%/year

The peaks in anticipated capital expenditures for 2018 are associated primarily with planned rehabilitation of Davis Ave. A renewal contribution of \$247,000/year has also been included in this analysis.

Figure 4: Capital Expenditures

This causes significant cash flow challenges starting in 2021. The result is a 20-year sustainability gap in Fruitvale's general fund of \$2.2 million.

c) GENERAL FUND - CLOSING THE FINANCIAL SUSTAINABILITY GAP

To balance revenues and expenditures, Council requested that some trade-offs be considered such as utilizing a blend of:

- Borrowing
- Increasing Taxation Revenue
- Grants

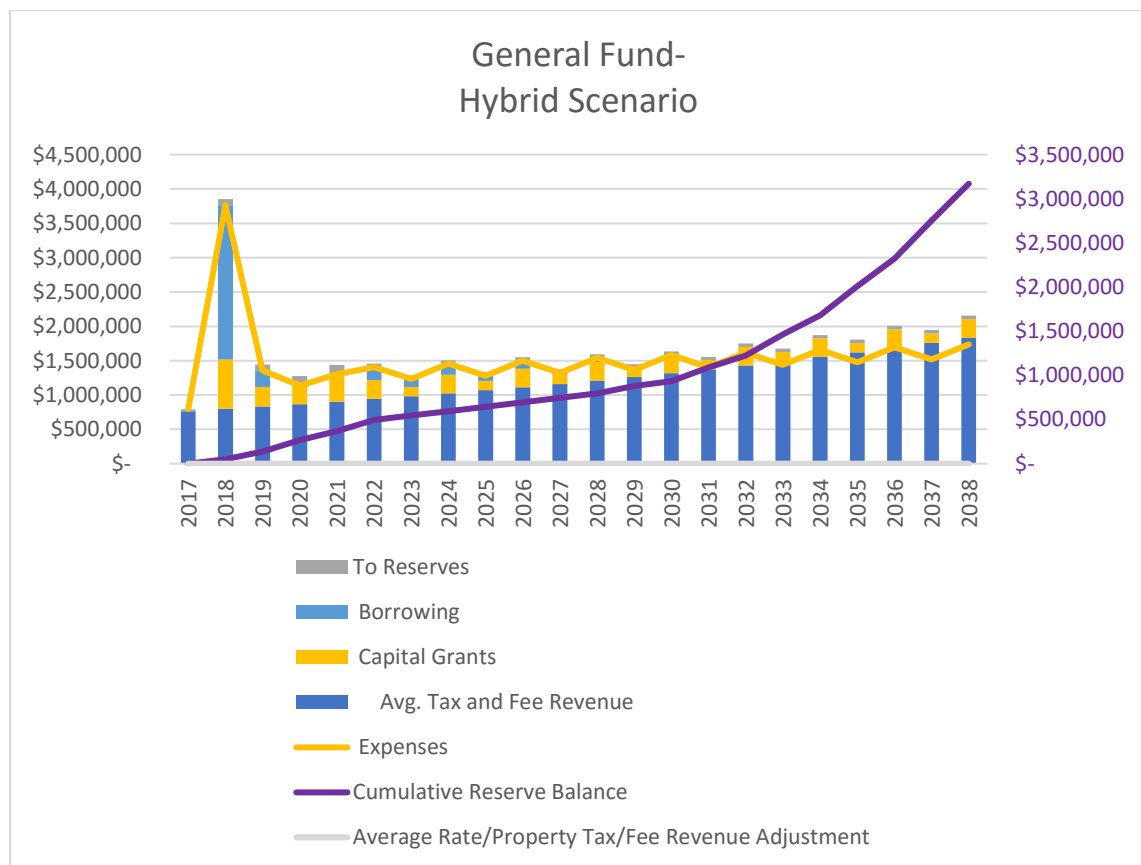
Some of these trade-offs are using tools already available and in use within the Village, while others will require further consideration of how to increase revenues, and contain costs. This will allow the Village to close the sustainability gap so that each utility/fund can be operated independently and in a fiscally responsible manner into the future, thereby achieving community-wide financial sustainability.

Appendix B contains additional information detailing the sensitivity of borrowing, taxation and grants on closing the financial sustainability gap. The following outlines the key assumptions created in a hybrid scenario (blend of all tools).

Key Assumptions - Hybrid	
Tax Increases	4%/year increase
Borrowing	3.3% @ 20 year term (MFA) to 20%
Debt Servicing	to fund new capital only (20% max)
Max. Annual Debt Servicing Limit	\$304,978.74
Grants	Community Works Fund + 67% of new capital
Capital Projects	Average \$100,000 each year
Asset Renewal	\$247,000/year

The results indicate a very positive outlook. Fruitvale can adequately fund a modest amount infrastructure and operations by utilizing a blend of all tools at its disposal. The average annual contribution to reserves is \$158,000/year which significantly increases in 2029. The total cumulative reserve balance is \$3.1 million after 20 years.

Figure 5: Hybrid Fund Scenario

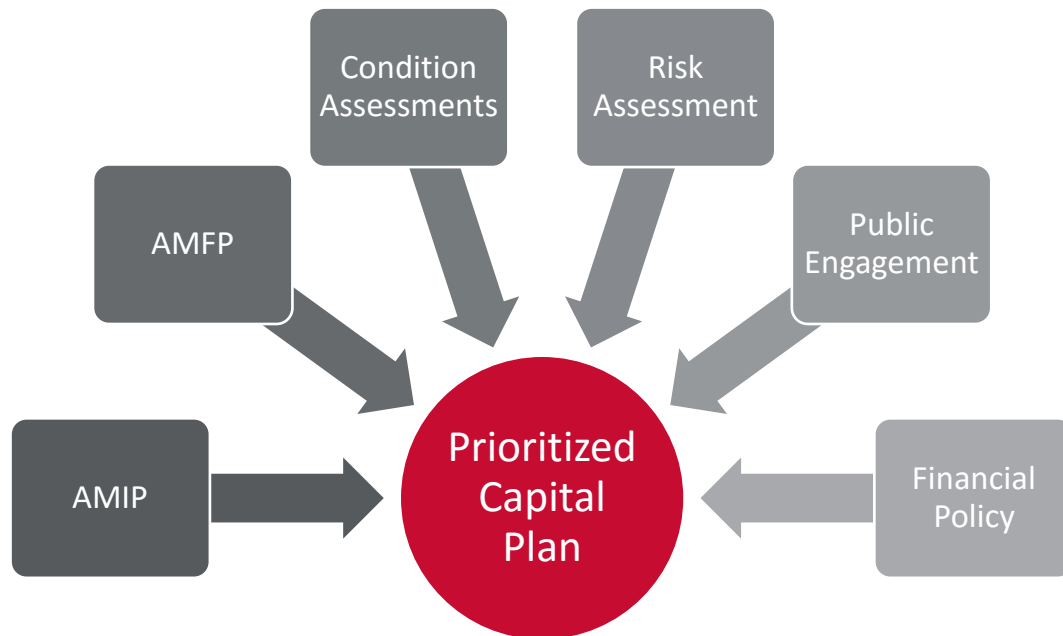


4 CONSIDERATIONS AND NEXT STEPS

The next step in the Village's Asset Management Program is to develop asset management and financial policy (currently underway) in order to implement the increases to revenue streams needed to develop an affordable and prioritized capital plan.

Figure 6 below illustrates the relationship of the steps needed to complete develop an affordable infrastructure investment plan. As part of this balancing, level of service assessments and risk models are needed to determine appropriate cost containment measures which involves a public engagement process. There has been significant effort completed in the past (i.e AMIP) to develop higher level capital planning guidance.

Figure 6: Asset Management – “Infrastructure Investment and Financing”



The following sections summarize some asset management considerations for Fruitvale to consider and an update of the next steps previously included in the AMIP.

4.1 CONSIDERATIONS

a) PUBLIC ENGAGEMENT

Public engagement is an important part of a successful asset management program, specifically assisting in setting levels of service and the Village now has a foundation of infrastructure information to begin educating and involving the public in the decision-making process. Engaging citizens early on will demonstrate stewardship of assets and set the stage

for presenting future options and capturing any necessary feedback. The first recommended phase in the public outreach program, which can begin immediately, should be educational (i.e. sharing information such as what infrastructure Fruitvale is responsible for, and the age of this infrastructure). The second recommended phase of the public outreach program would involve a public outreach strategy to discuss desired levels of service and more in depth communications program (eg. demonstrations and tours of major community assets, an interactive open house, committee meetings, surveys, etc.).

b) DECISION-MAKING THROUGH AN UNDERSTANDING OF SERVICE, RISK, AND COST

Making good decisions requires that the right people have the right information at the right time. Achieving this requires a process of communication and ongoing information management. Asset management is not about having perfect information, but it's about ensuring decisions are informed by the best information available, and then working to improve information where appropriate.

The collection and use of information about services, risk, and cost can be integrated into Fruitvale's existing budget processes based on the **Figure 7**.

Often, the best way of implementing asset management is not through building new and complicated processes or purchasing software – it is through making incremental improvements to your current processes. The collection and use of information about services, risk, and cost can be integrated into the existing budget processes.

Figure 7: Information Management Process



Figure 8: Typical Budget Process



c) INFORMATION AND DATA MANAGEMENT

As circumstances change over time, information needs to be updated or improved. Information updates may be done on an ongoing basis, or may be completed as part of an annual process. Updates should reflect new assets, retired assets, refurbished or replaced assets, replacement cost changes, updates to operating costs to repair and maintain and asset condition information.

Updates may also be made to improve the accuracy of information, such as replacing anecdotal condition information with results from a condition assessment. Collecting more data or more accurate data can be very valuable in decision making, but it can be time consuming and expensive, so it's not worth investing in unless you know it will improve your decision making. When working with vendors or consultants, ask them (at the beginning of the project) to provide you information in a format that makes updating your inventory as easy as possible.

d) NATURAL ASSETS

There is a growing recognition of the pivotal role that all natural areas play in providing services to communities. Natural Capital Assets are defined as the natural assets which provide a value and service to the community over time and are essential to the delivery of services. Fruitvale has already recognized the importance as noted in the Village's community vision.

Examples of natural assets would include Beaver Creek for receiving stormwater run-off and the Fruitvale and Kelly Creeks which provide the supply of source water for Fruitvale's drinking water system (owned by RDKB).

It will be important for Fruitvale to identify and quantify the economic benefits of protecting its natural assets and understand the costs associated with replicating these natural functions in response to the loss or destruction of any components of these 'eco-assets'. Natural capital assets do not have a market value so assessing their importance and assigning an economic value will aid in raising awareness of their importance to the community. The substitutes for natural capital can be much more expensive to duplicate and operate than those provided by nature. Also, there are many services only nature can provide.

We suggest that Fruitvale identify all of its significant natural capital assets and the value of they provide. This value could be considered in future infrastructure decision-making, planning and **budgeting for the protection** of these assets.

Software & Asset Management

Software systems are tools that can support management of information, but they can also cause problems when staff with specialized training are lost, or people who need information cannot access it. Basic asset management in small communities can be conducted with simple spreadsheets and maps. Think you probably need a software program to make sense of it all?

Here are some things you should consider before selecting one:

1. Know your information and communication needs clearly first. For example, if you want to be able to access information through GIS but you don't need to edit it regularly, you might be able to make use of an externally hosted service which could save you a lot of money.
2. Identify what existing software programs you have and whether they need to be linked to asset management software.
3. Think about who will have the training to access the system, and what you will do if those people aren't around.
4. Software needs to be maintained over time. Have a plan for who will be responsible for maintaining the system as the program changes.

4.2 KEY NEXT STEPS

#	Priority Name	BC Asset Management Framework Process	Description
1.	Cross Functional Team	People	Create a collaborative cross functional team made up of core departmental representatives to support and mentor infrastructure on decision-making and budgeting within the Fruitvale and their respective departments. The team should consider taking external training opportunities where possible.
2.	Settling Annual Infrastructure	Plan	Consider the results of the AMIP, AMFP and policy discussions to determine the affordable annual contribution to infrastructure investment.
3.	Building Assessments	Information	In order to improve your understanding of the costs and risks associated with buildings, undertake an energy audit and condition assessments for community owned buildings.
4.	Maintenance Management Plans	Implement	The importance of maintenance in extending Asset service lives of assets and deferring their Management inevitable replacement (reducing the annual Practices capital investment) is paramount to provide acceptable levels of service with fewer financial resources. Develop plans including work orders, standard operating procedures, etc) for the O&M of assets to optimize/extend asset service lives.
5.	Communications & Engagement	Core Element	Develop asset management/ infrastructure communications with staff and Council and the public (e.g. benefits, requirements, products, progress). Community buy-in will be essential for setting levels of service and achieving

		financial sustainability/full cost recovery for service delivery.
6. Performance Measures	Measure	Develop performance metrics to measure and Report report out on the service delivery/asset management status to both Council and the community. These would include a set of both “leading” and “lagging” indicators that evaluate the sustainability of services (E.g. number of m of pipe replaced, number of m ² of pavement replaced or avoided etc.)
7. Refine Asset Inventory	Information	Continually update and refine your infrastructure data over time with new spatial and attribute data to improve accuracy as it becomes available through field activities. Consider completing an inventory and valuation of your natural Assets.

Appendix A

Terms and Definitions

The following commonly used terms and definitions have been described as they relate to the Village of Fruitvale's Asset Management Program:

AMIP	the asset management investment plan, which is a 20 year cost cash flow analysis based on the renewal of existing infrastructure.
AMFP	the asset management financial plan, which is a funding cash flow analysis used to determine sustainable funding levels for the next 20 years.
AMFP Model	the model created in Microsoft Excel to analyze parallel cost and funding pressures, and evaluate the annual and long term infrastructure cash flow.
Asset	also known as a tangible capital asset, is a physical component of a system that has value, enables services to be provided, and has an economic life of greater than 12 months.
DCC	development cost charge
Expected Service Life	the anticipated age an asset can be used before it fails, based on standard engineering practices and the Village's historical experience with the use of these assets
Growth/Economic Development	new capital works that are associated with community growth or promoting economic development, including projects identified in the Village's development cost charge program.
Infrastructure Backlog	the replacement value of all assets which are in service beyond their expected service life. Infrastructure backlogs may result in public complaints, e.g. roads are unsafe, roads are flooding property, roads are falling apart, the water is brown.
AALCI	the average annual lifecycle investment, or the average cost of each asset per year, based on its replacement value and expected service life.

Level of Service Increase	capital works to improve the provision of a particular service. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental acceptability, and cost.
Linear Asset	which is also known as a continuous asset, is infrastructure that is maintained in segments, such as water mains, sanitary mains and roads.
Maintenance	the actions necessary to retain or restore an asset to functioning condition (excluding rehabilitation or renewal). Maintenance may be preventative or corrective.
Non-Linear Asset	infrastructure that is in-situ, such as buildings and water treatment facilities.
Operations	the actions necessary to keep an asset functioning and providing service (excluding maintenance, rehabilitation or renewal), for example power, consumable materials, staff salaries, etc.
Regulatory Requirement	capital works to meet existing or new provincially or federally legislated standards.
Rehabilitation/Replacement	capital works to upgrade, refurbish or replace existing facilities with facilities of equivalent capacity or performance capability.
Remaining Life	the anticipated time left that an asset will remain usable, based on its expected service life. This can be adjusted according to condition to reflect the unique conditions of each asset (eg. usage, material, soil, quality of installation).
Replacement Value	the cost (in current dollars) to upgrade, refurbish or replace existing facilities with facilities of equivalent capacity or performance capability.
Risk Mitigation	capital works to reduce risks associated with service provision.

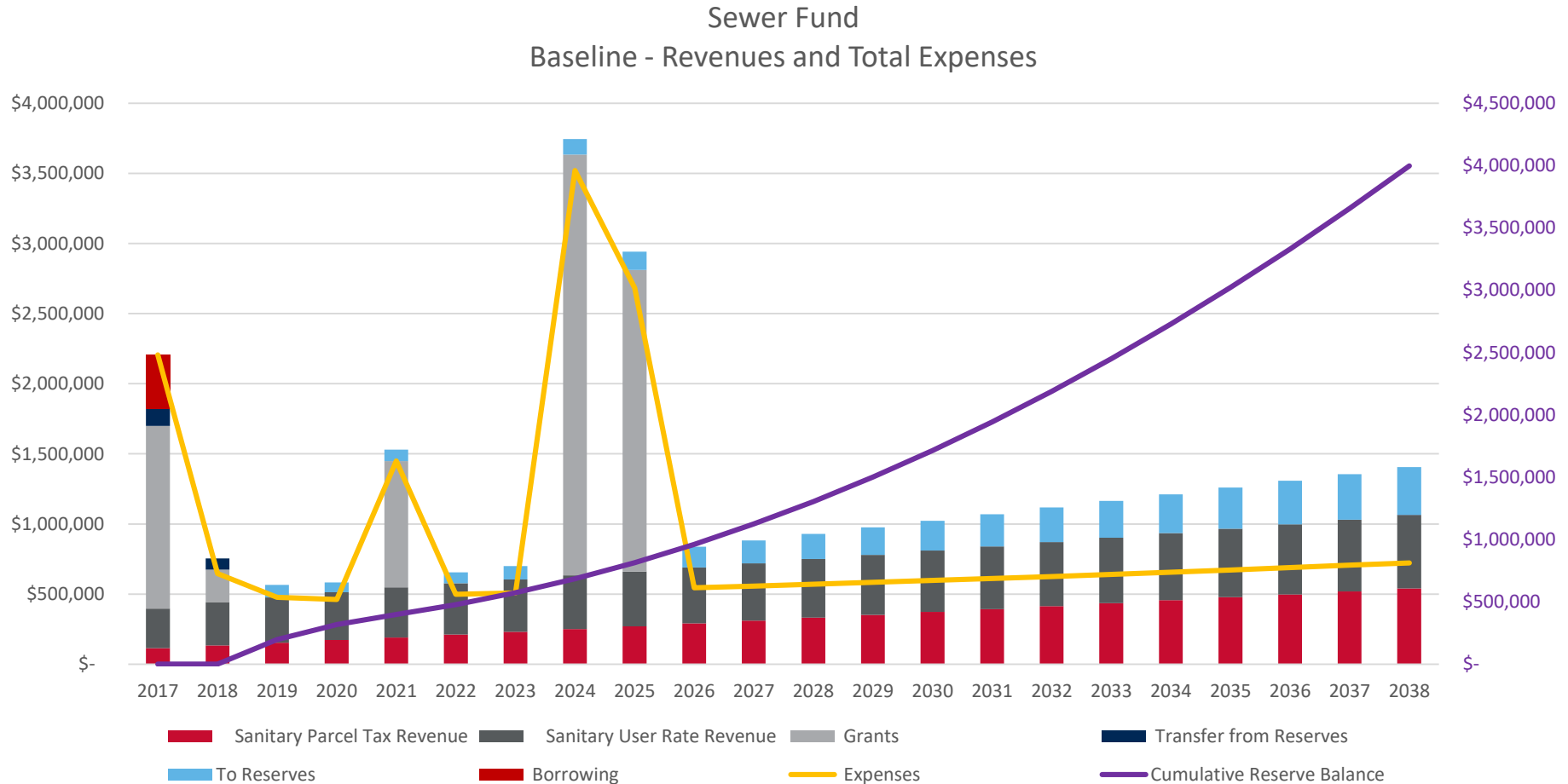
Appendix B

Scenarios

Inputs

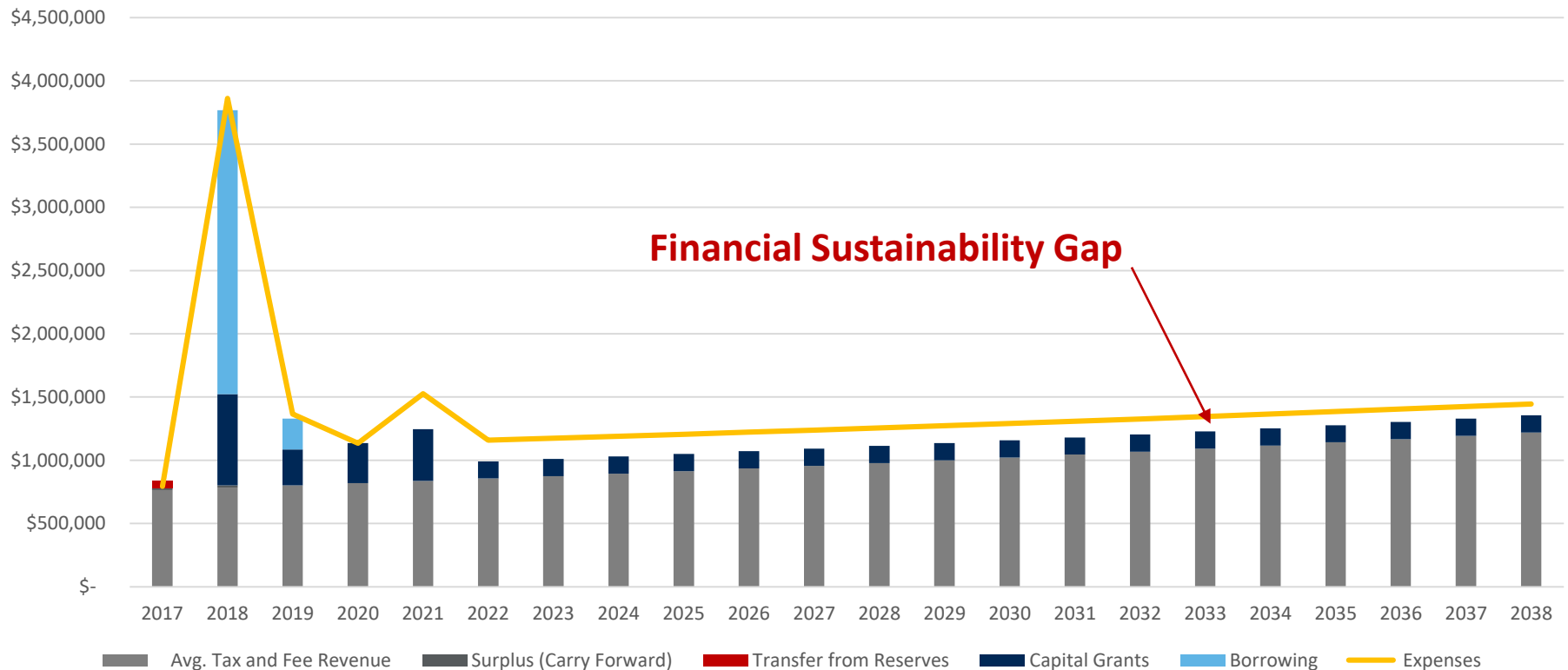
Key Assumptions - Baseline	
Planning Horizon	20 Years
# of parcels	821
# of sewer connections	762
Growth	2 parcels/yr
Operations	2% increase/year
Tax Increase	2% increase/year
Sewer Parcel Tax	\$25/yr increase
Sewer User Fee	5% increase/year
Borrowing	3.3% @ 20 year term (MFA)
Debt Servicing	Service existing debt only
Annual Debt Servicing Limit	\$304,978.74 (max.)
Grants	Community Works Fund only
New Capital Projects	None
Asset Renewal	50% of high priority assets

Baseline – Sewer Fund



Baseline Scenario – General Fund

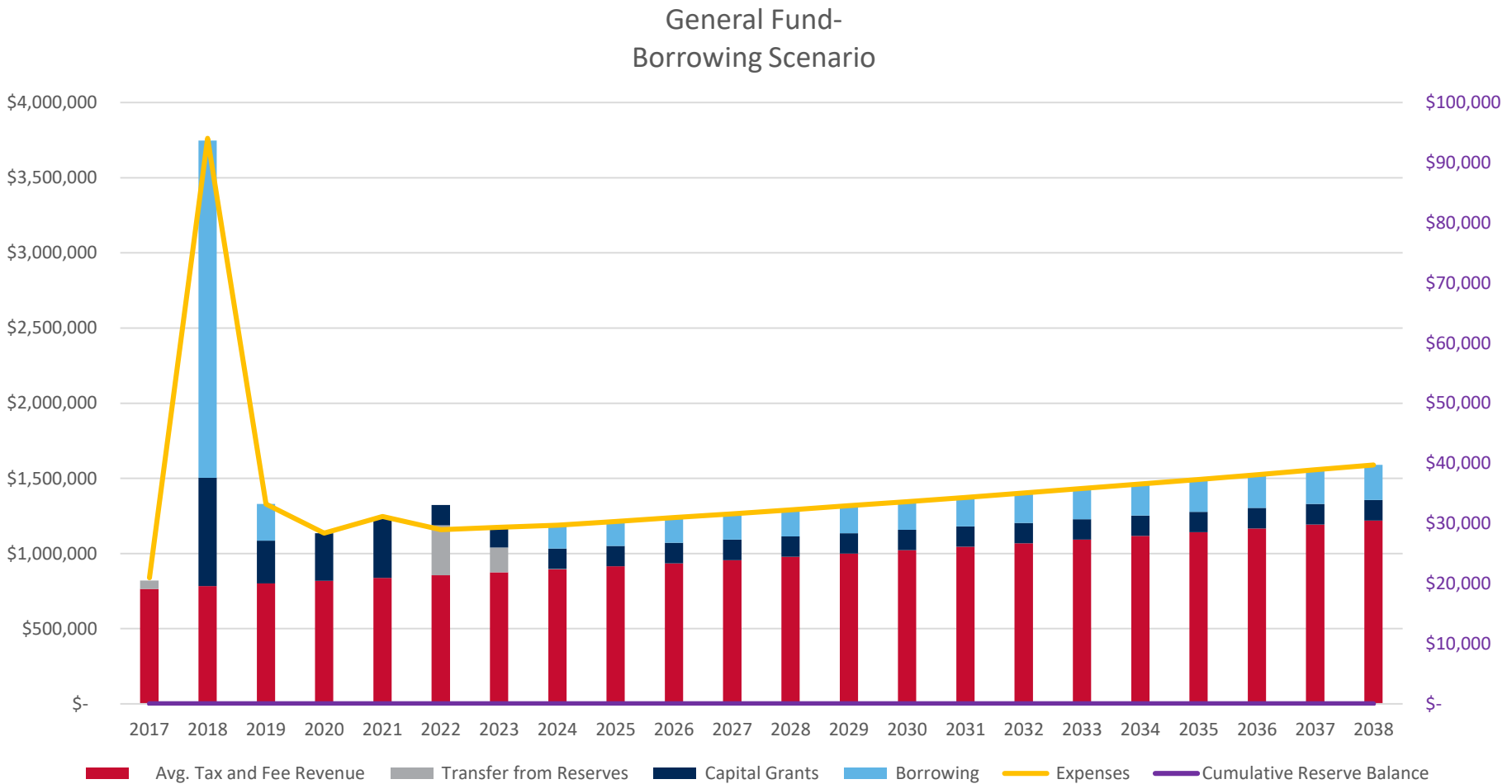
General Fund
Baseline - Revenues and Total Expenses



Key Results - Baseline

Key Results - Baseline	
Annual Asset Renewal Funding - General	\$246,975
Average Annual New Capital Funding	\$-
Borrowing	\$2,490,000
Remaining Debt Servicing Capacity after 20 years	43%
Annual Grant Amount	\$135,836
Average Surplus/Deficit /Year	(\$129,620)
General fund Cumulative Reserve Balance (20 Years)	(\$2,222,174)
Annual Asset Renewal Funding - Sanitary	\$100,000
Sewer New Capital	Grant Funded Only
Average Contribution to Reserves (Sanitary)	\$187,865
Sewer fund Cumulative Reserve Balance (20 Years)	\$3,997,591

Borrowing Scenario

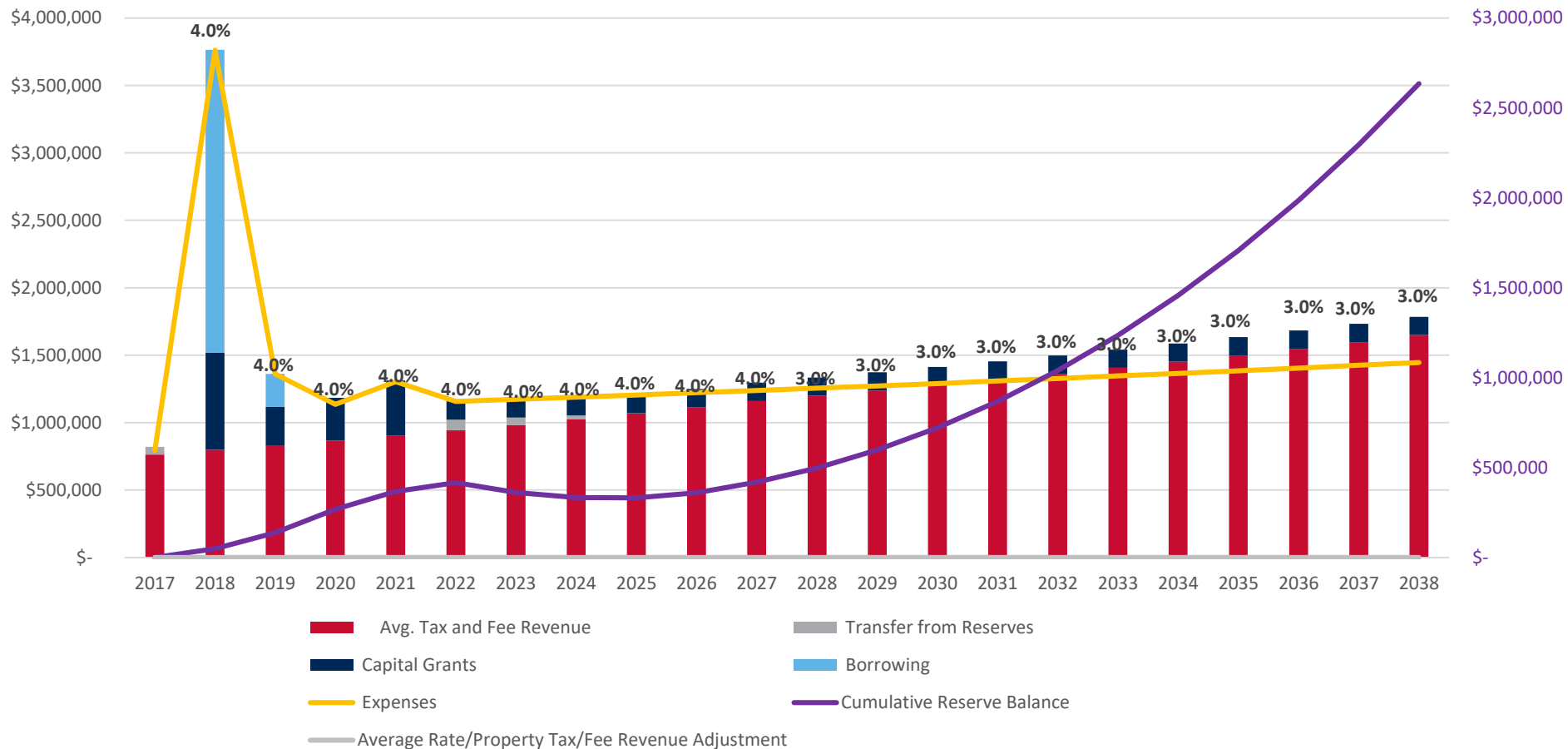


Key Results - Borrowing

Key Results - Borrowing	
Annual Asset Renewal Funding - Sanitary	\$100,000
Annual Asset Renewal Funding - General	\$246,975
Average Annual New Capital Funding (after 5 Years)	\$-
Borrowing	\$5,398,342
Remaining Debt Servicing Capacity after 20 years	0%
Annual Grant Amount	\$135,836
Average Surplus/Deficit /Year	\$-
Cumulative Reserve Balance (20 Years)	\$-

Taxation

General Fund- Taxation Scenario



Key Results - Taxation

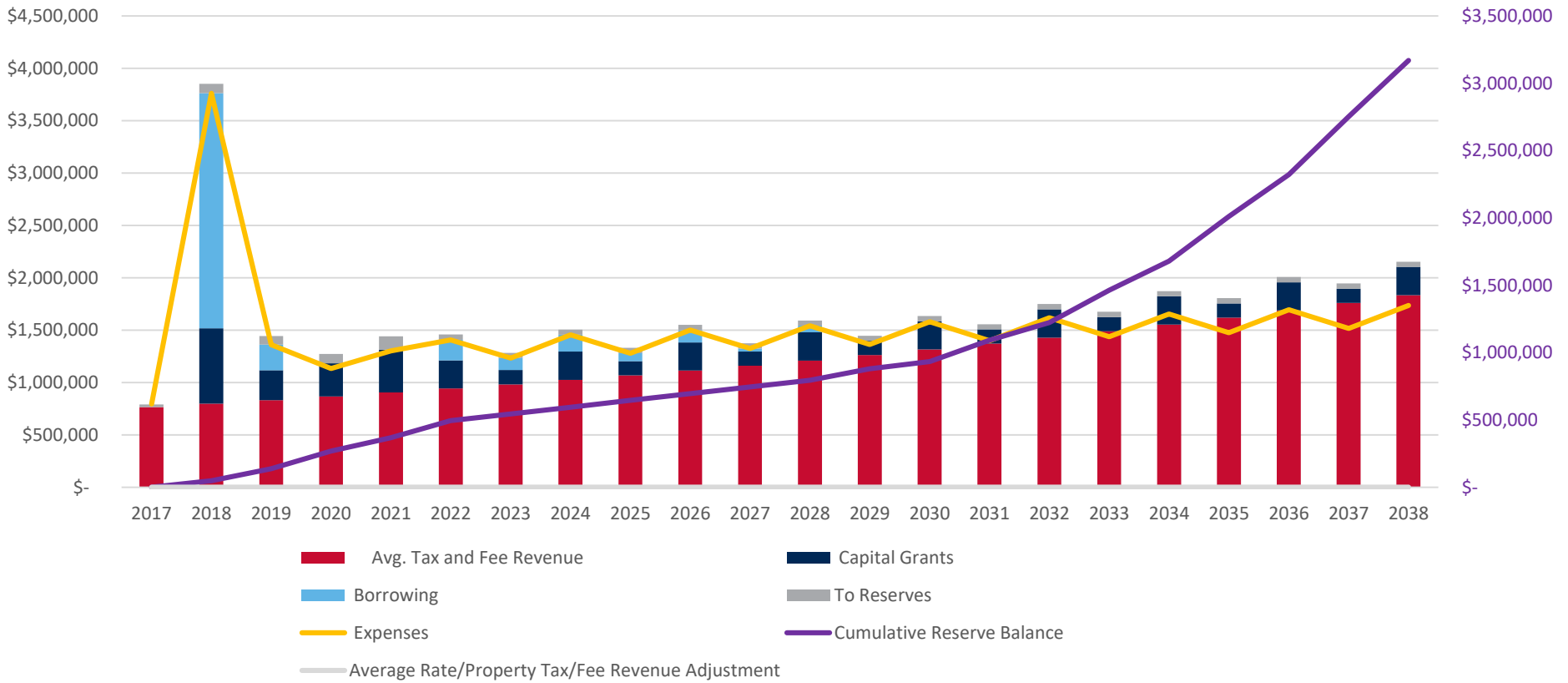
Key Results - Taxation	
Annual Asset Renewal Funding - Sanitary	\$100,000
Annual Asset Renewal Funding - General	\$246,975
Average Annual New Capital Funding (after 5 Years)	\$-
Borrowing	\$2,490,000
Remaining Debt Servicing Capacity after 20 years	43%
Annual Grant Amount	\$135,836
Average Surplus/Deficit /Year	\$121,328
Cumulative Reserve Balance (20 Years)	\$2,633,955

Key Inputs – Hybrid Scenario

Key Assumptions - Hybrid	
Tax Increases	Modest Increase to fund shortfall
Borrowing	3.3% @ 20 year term (MFA)
Debt Servicing	to fund new capital
Max. Annual Debt Servicing Limit	\$304,978.74
Grants	Community Works Fund + 67% of new capital
Capital Projects	Modest amount each year
Asset Renewal	50% of high priority assets

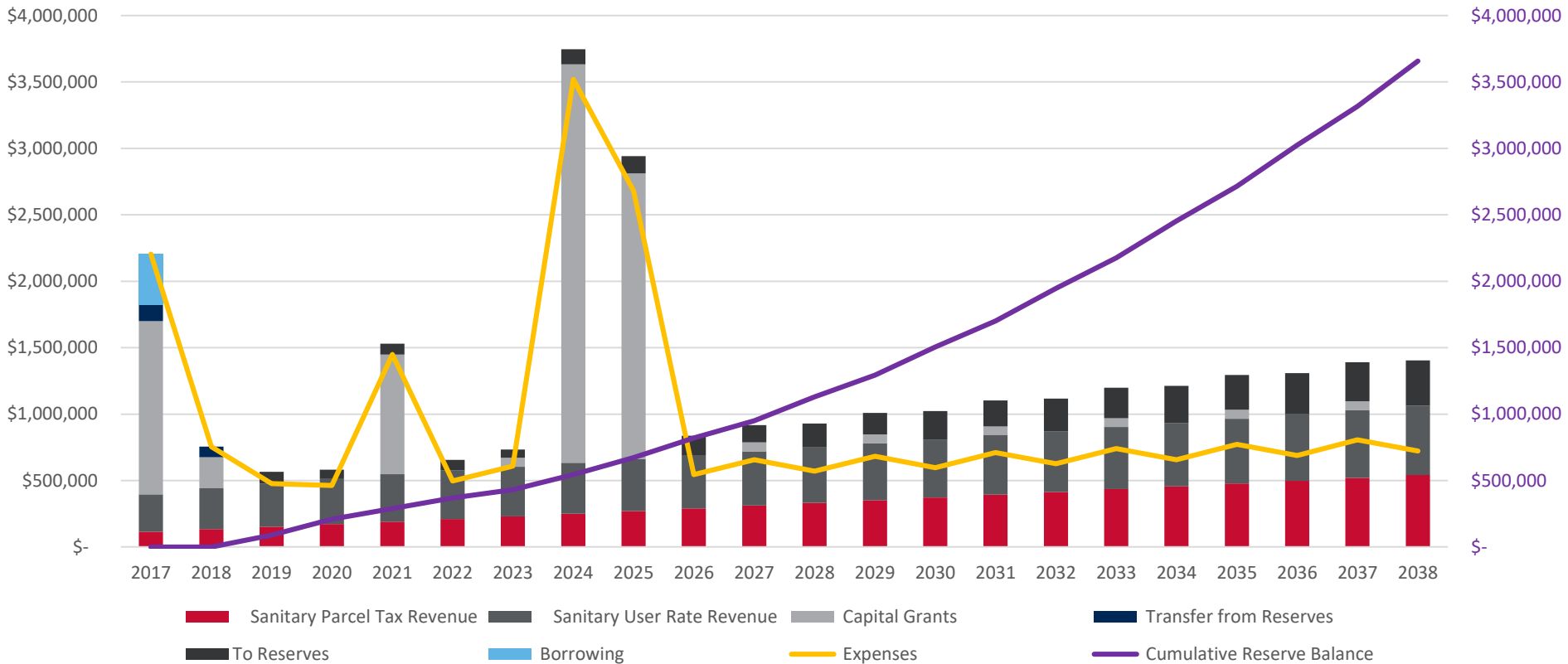
Hybrid Scenario

General Fund-
Hybrid Scenario



Hybrid Scenario

Sanitary Fund-
Hybrid Option



Key Results - Hybrid

Key Results - Hybrid

Annual Asset Renewal Funding - General	\$246,975
Average Annual New Capital Funding	\$291,660
Borrowing	\$3,244,006
Remaining Debt Servicing Capacity after 20 years	27%
Annual Grant Amount	\$262,224
Average Contribution to Reserves (General)	\$158,519
Cumulative Reserve Balance (20 Years)	\$3,170,384
Average Annual Tax Increase	4.0%
Average Contribution to Reserves (Sanitary)	\$25,000
Annual Asset Renewal Funding - Sanitary	\$100,000
Average Annual Sewer New Capital	\$448,857
Sewer fund Cumulative Reserve Balance (20 Years)	\$3,656,741