

## 8.3.2 Parks

### 8.3.2.1 What do we own and what is it worth?

Please refer to section 5.1.1 for general context and appropriate asset management interpretation of this section's specifics.

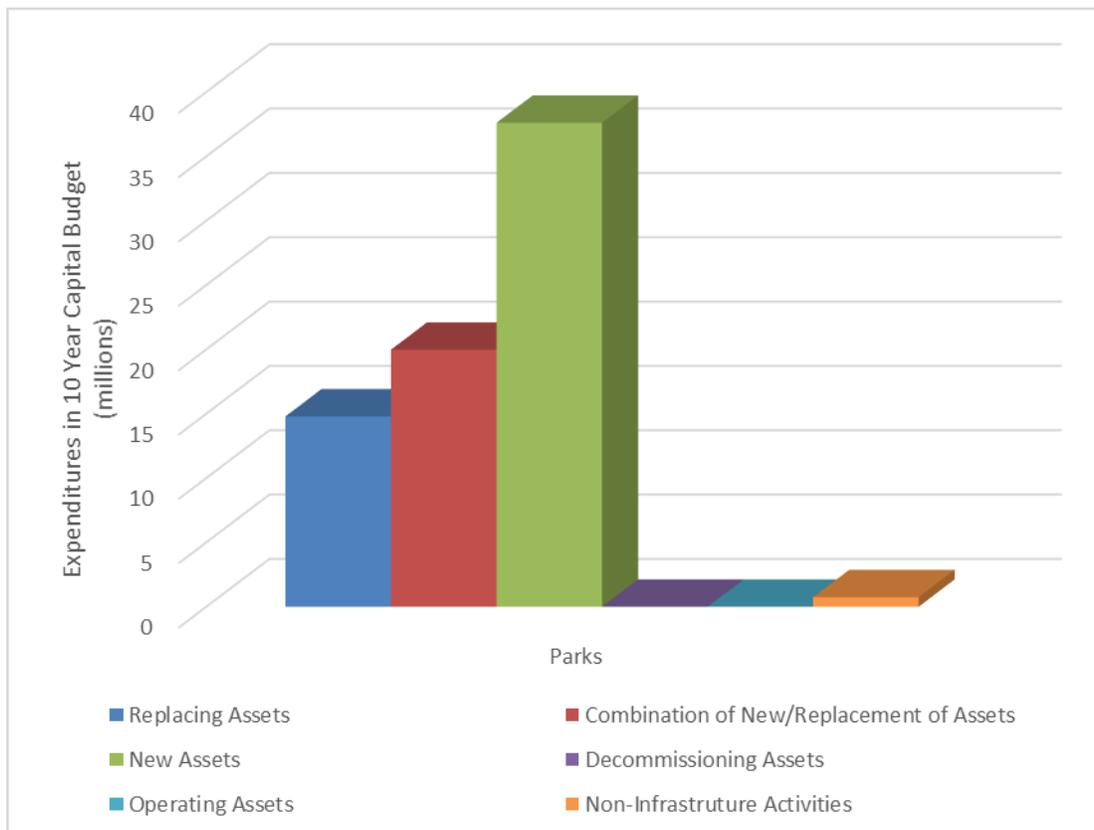
There are approximately 134 parks of varying sizes across the City, ranging from small parkettes to large neighbourhood parks. It is important to note that buildings with Parks are captured under the Facilities asset class. The estimated replacement value of Parks is \$38 million which represents approximately 1.5% of the total replacement value of the City's assets.

### 8.3.2.2 Allocation of Infrastructure Funding

Please refer to section 5.1.2 for general context and appropriate asset management interpretation of this section's specifics.

As indicated in Section 4.3, the capital budget has the most significant portion of funding allocated for the City's infrastructure assets. Park assets have an estimated \$73 million in funding allocated in the Approved 2020-2022 Capital Budget and 2023-2029 Capital Forecast. The estimated distribution of the funding is shown in **Figure 46**.

**Figure 46: 2020-2029 Capital Funding Distribution for Parks**



The City also spends money on infrastructure through its annual operating budget.

**Table 7** in Section 4.3 provides a summary of the planned expenditures in the 2020-2022 operating budget. Approximately \$870,000 or 0.5% of the operating budget is considered to be directly related to treating Park assets. For example, the Parks operating budget includes \$105,000 for treating playgrounds each year.

### **8.3.2.3 Rehabilitation or Replacement Strategies**

Please refer to section 5.1.3 for general context and appropriate asset management interpretation of this section's specifics.

Park assets are treated when they fall below the target performance for the respective component. In general, components with a higher consequence of underperformance (playgrounds, structures, etc.) have a higher target performance than those with a lower consequence of underperformance (i.e. benches, fields, etc.).

### **8.3.2.4 Lifecycle Management Activities**

Please refer to section 5.1.4 for general context and appropriate asset management interpretation of this section's specifics.

For Park maintenance the following lifecycle management activity options exist, but are not limited to:

- Localized repairs

For Park rehabilitation the following lifecycle management activity options exist, but are not limited to:

- Components replacements (e.g. benches, signs, playgrounds, etc.)

For Park reconstruction the following lifecycle management activity options exist, but are not limited to:

- Park reconstruction

The Waterloo DSS is used to forecast the Parks asset class performance and corresponding expenditure over a 25-year span. Once the forecast activities are within the one to three year span, SMEs determine the appropriate treatment within the forecasted general categories above. In doing so, all available information relating to the items listed in **Table 10 and Table 11** is considered by the SMEs in order to determine the treatment of optimal cost/benefit to the community. It is not atypical to adjust treatments and costs from the original forecast. This is because more information becomes available closer to the start of the project (i.e. through surveying, detailed design, etc.). However, the total projected performance and expenditure for the year are not impacted. This is because the limits of scientific forecasting occur at the aggregate level of asset class performance and spending.

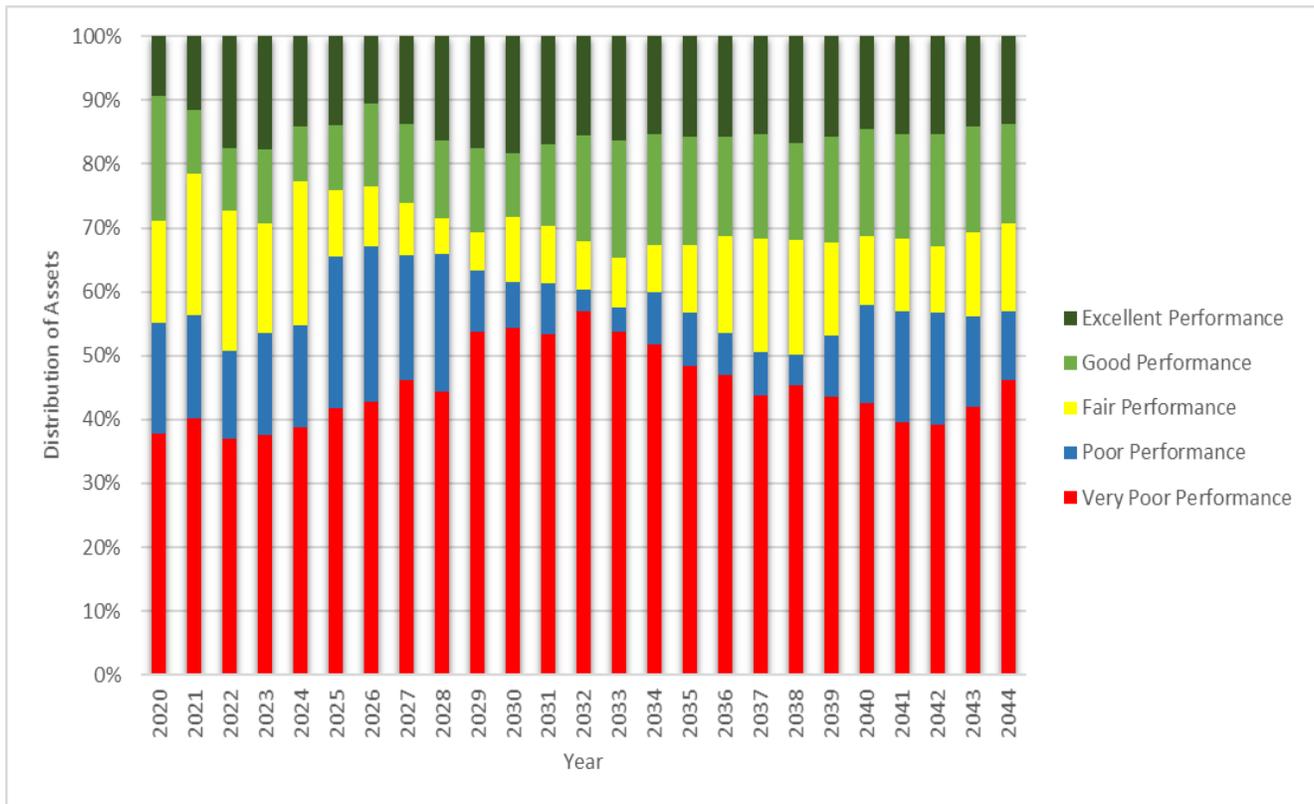
### 8.3.2.5 Level of Service

Please refer to section 5.1.5 for general context and appropriate asset management interpretation of this section’s specifics.

#### 8.3.2.5.1 Current Performance and Projected impact of Budgeted Capital Expenditures

Currently about 55% of Parks assets have poor and very poor performance profiles. The average annual budgeted capital expenditures of approximately \$1.4 million will result in a decline in the performance profile over the next 25 years, which is anticipated to be unacceptable to most stakeholders. The portion of asset class with fair, good, and excellent performance profiles fluctuates around 35% over the 25-year span. The remaining portions of the asset class have poor or very poor performance profiles for the same time span as shown in **Figure 47**.

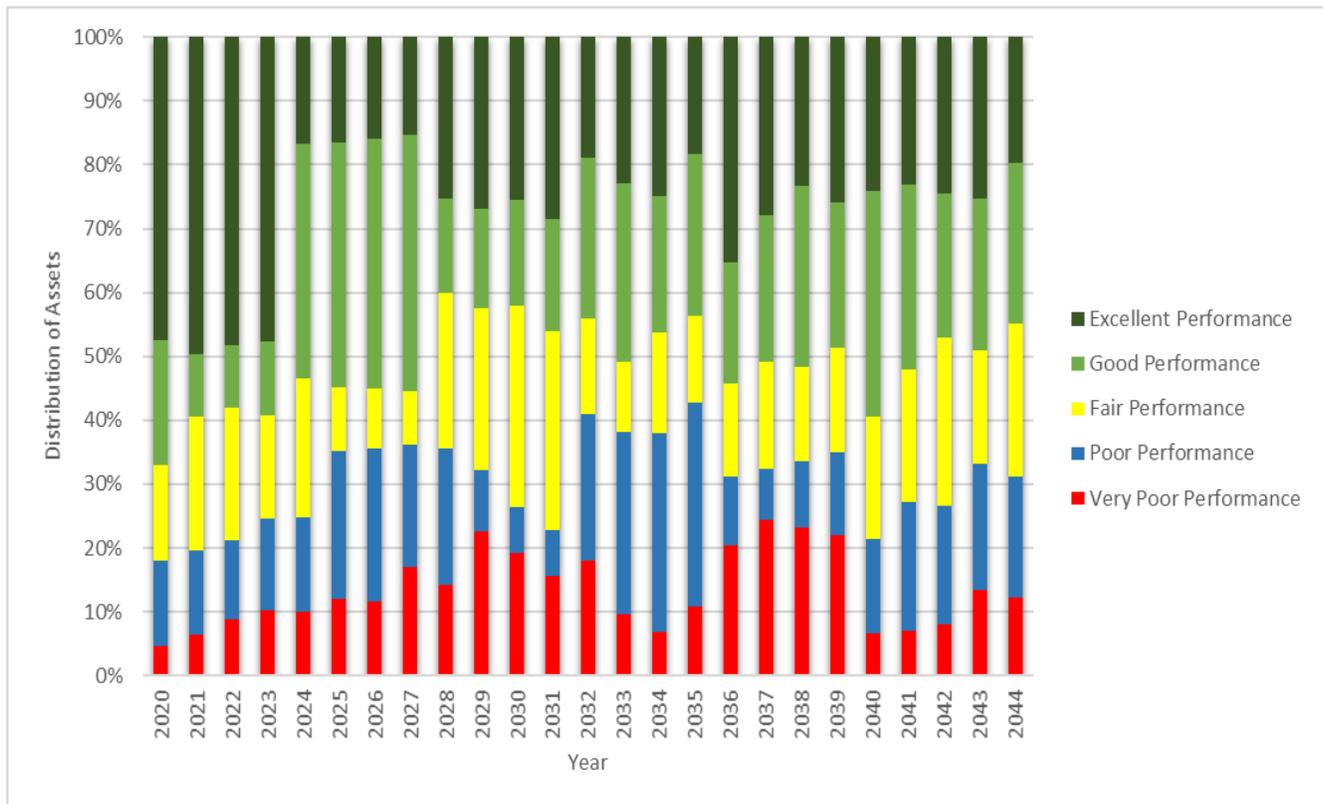
**Figure 47: Annual Performance of Park assets in the Budget Scenario**



#### 8.3.2.5.2 Target Performance and Required Expenditures

An average annual expenditure of approximately \$2.9 million over the next 25 years is required to achieve the target performance profile of the Parks asset class. The portion of asset class with fair, good, and excellent performance profiles fluctuates around 65% over the 25-year span as illustrated in **Figure 48**. The remaining portions of the asset class have poor or very poor performance profiles for the same time span.

**Figure 48: Annual Performance of Park assets in the Target Scenario**



**8.3.2.5.3 Ontario Regulation 588/17**

Service levels are defined in two terms, community levels of service and technical levels of service. O. Reg. 588/17 identifies specific metrics for core assets that municipalities must report on however metrics for non-core assets are to be developed by each municipality. As a non-core asset, Parks metrics will be developed and included in the 2023 AMP. These will be as necessary, sub-sets of the comprehensive Level of Service already developed by the City, as shown in the previous two sections.



### **8.3.2.6 Demand Management Plan**

Please refer to section 5.1.6 for general context and appropriate asset management interpretation of this section's specifics.

Demand for new services is driven by various factors such as climate change, population change, regulatory requirements, changes in demographics, seasonal factors, consumer preferences and expectations, technological changes, economic factors, and environmental awareness.

Demand will be managed through a combination of managing existing assets, upgrading existing assets, providing new assets, and demand forecasting. Demand management practices can include non-asset solutions, insuring against risks and managing performance.

The Waterloo DSS will be used to assist Parks SMEs in demand management planning.

### **8.3.2.7 Risk**

Please refer to section 5.1.7 for general context and appropriate asset management interpretation of this section's specifics.

Risk related to the Parks asset class is managed through:

- SME knowledge and expertise
- Data-driven decision making
- Performance and expenditure forecasting

This three-pronged approach ensures that Parks' Level of Service (i.e. performance) supports the community's socioeconomic growth over the short and long term. The Waterloo DSS allows staff to ensure that the future probability of underperforming infrastructure and its consequences is minimized.

In addition to their inherent expertise, in order to minimize risk, SMEs always consider a wide range of factors during infrastructure decision-making processes, the core of which are included in **Table 11**. All corporate information related to Parks asset management is centralized within the Waterloo DSS, allowing staff to make comprehensive and informed decisions. The ability to forecast the effects of contemplated decisions increases the reliability of the infrastructure's future performance.

### **8.3.2.8 Conclusion and Next Steps**

The difference between Budget (existing) and Target Levels of Service (i.e. infrastructure performance) over the next 25-years is relatively high when compared to other asset classes. In order to remedy the performance gap it is estimated that an additional \$1.5 million per annum is required.

In order to ensure management of Parks assets continues to be optimal, future asset management steps will aim to find the most efficient means of working towards remedying the performance gap.

Strategic steps will include:

- Continuous effort in increasing performance data collection capabilities
- Continuous improvement of the Waterloo DSS analysis capabilities
- Continuous improvement of forecasting logic
- Corporate awareness and training

Tactical steps will include:

- Minimizing impact on staff time with respect to sharing information required for the Waterloo DSS
- Increasing awareness of the difference between project level (most granular asset inventory) and network (asset class) level application of asset management principles
- Increasing awareness of general forecasting principles

Operational steps will include:

- Where applicable, developing data collection templates and means
- Continuous engagement with SMEs on progress
- Improving consumer-based modelling parameters

