

# Village of Hilton Beach

## Asset Management Plan — Phases One and Two

April 21<sup>st</sup>, 2025

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## Introduction

The Village of Hilton Beach retained BDO to assist in developing this asset management plan, which serves as a tool for the Township to optimize asset management outcomes for its core and non-core assets in a cost-effective manner and brings the Township in compliance with the July 1, 2024 requirements of *Ontario Regulation 588/17: Asset Management Planning for Municipal Infrastructure* (O. Reg. 588/17). Core elements of the comprehensive asset management plan will include filling remaining data gaps, identifying proposed levels of service, establishing lifecycle management strategies to achieve those service levels, developing a financial strategy that incorporates financial sustainability and affordability factor specific to the Township, and assessing asset critically through a risk management lens.

Asset management planning is the process of making the best possible decisions regarding the building, operating, maintaining, renewing, replacing and disposing of infrastructure assets. The objective is to maximize benefits, manage risk, and provide satisfactory levels of service to the public in a sustainable manner. Asset management requires a thorough understanding of the characteristics and condition of infrastructure assets, as well as the service levels expected from them. It also involves setting strategic priorities to optimize decision-making about when and how to proceed with investments. Finally, it requires the development of a financial plan, which is the most critical step in putting the plan into action. The province's goals for municipal infrastructure include making good asset management planning universal; moving toward optimal use of a full range of infrastructure financing tools; and addressing the structural challenges facing small communities.

In developing this Asset Management Plan (AMP), reference was made to resources available from Ministry of Infrastructure's Guide for Municipal Asset Management Plans. The plan sets out a strategic framework that will guide future investments in ways that support economic growth, are fiscally responsible, and respond to changing needs. A key element of this framework is ensuring good stewardship through proper asset management. Municipalities deliver many of the services that are critical to Ontarians, and these services rely on well-planned, well-built and well-maintained infrastructure.

An asset management plan is a strategic document that states how a group of assets is to be managed over a period of time. Key steps in achieving a well-informed AMP include:

1. A description of the characteristics and condition of infrastructure assets;
2. The levels of service expected from them, including risk and performance assessment and priority planning;
3. Planned actions to ensure the assets are providing the expected level of service (LOS); and
4. Financing and monitoring strategies to implement the planned actions.

To achieve the above strategic items for the Township assets, the following Interim report provides step 1. Information to share with Council and administration for discussion and decision-making purposes regarding desired levels of service expected in Step 2. The final report (required by July 2025) will detail the financial strategy to meet the proposed levels of services outlined Step 2.



## Asset Management Plan Development

The development of this asset management plan was guided by the principles outlined in the Municipality's Strategic Asset Management Policy. It incorporated strategies and objectives identified through discussions with the Municipality's asset managers, insights from reviews of existing long-term planning documents and studies, and further refinements through staff consultations and analysis of the Municipality's capital asset data.

The key steps in the development of this asset management plan are summarized below:

1. Compile comprehensive asset inventories, detailing attributes such as size, quantity, age, expected service life, and replacement costs. Replacement costs were updated as needed, using appropriate inflation indices.
2. Assess the current condition of non-core assets through a combination of staff input and age-based condition analyses.
3. Define and document current levels of service by analyzing available data and reviewing relevant background reports.
4. Develop lifecycle management strategies to outline the activities required to maintain current levels of service.
5. Prepare a financial summary forecasting capital and significant operating expenditures associated with the identified lifecycle management activities.
6. Document the asset management plan in a formal report to guide future decision-making and communicate planning to municipal stakeholders.

## Asset Management Plan Structure

This plan has been designed to meet July 1, 2024 O.Reg. 588/17 requirements, which is an AMP that documents the current levels of service being provided and the costs to sustain them for the City's core assets. The Village of Hilton Beach has two sections of assets that will be assessed, namely core (e.g., buildings) and non-core assets (e.g., vehicles, equipment, and roads). For each asset class, the following subsections will be applied:

1. State of Local Infrastructure
2. Levels of Service
3. Lifecycle Management Strategy
4. Asset Management Strategy/Financing Strategy

The plan is concluded with the Improvement and Monitoring sections which are inclusive of both core and non-core assets. The following describes each of the subsections in detail:

## State of Local Infrastructure

The State of Local Infrastructure for both service areas include the following information:

- Summary of assets in the category;
- The replacement cost of the assets in the category;
- The average age of the assets in the category, determined by assessing the average age of the components of the assets;
- The information on the condition of the assets in the category, and;
- A description of the municipality's approach to assessing the condition of the assets in the category, based on recognized and general accepted good engineering practices, where applicable.

The average ages of assets presented in subsequent sections of this asset management plan are weighted by the estimated current replacement cost of each asset. Similarly, the average condition is also weighted by the estimated current replacement cost of each asset.

Table 1. Asset Condition Rating

Condition Rating	Definition	Service Life Remaining (%)
Very Good	The asset is fit for the future. It is well maintained, in good condition, new or recently rehabilitated	75-100
Good	The asset is adequate. It is acceptable and general within the mid-stage of its expected service life.	50-75
Fair	The asset requires attention. The asset shows signs of deterioration, and some elements exhibit deficiencies.	25-50
Poor	There is an increasing potential for its condition to affect the service it provides. The asset is approaching the end of its service life, the condition is below the standard and a large portion of the system exhibits significant deterioration.	0-25
Very Poor	The asset is unfit for sustained service. It is near or beyond its expected service life and shows signs of advanced deterioration. Elements may be unusable.	<0
Unknown	Not enough data exists to estimate condition.	

In asset management planning, the quality of data is crucial. Therefore, documenting data sources and evaluating their quality is essential in creating effective asset management plans (AMPs). By ensuring that the best available data is used, municipalities can conduct high-quality analyses, forming a strong foundation for future AMPs. This practice also enhances transparency, allowing readers to understand where assumptions were made to address data gaps.

## Levels of Service

Levels of service measure how effectively an asset meets functional or user requirements, emphasizing that assets serve as a means to deliver services rather than as ends in themselves. These assets play a crucial role in providing services to a municipality's residents and stakeholders. Municipalities must ensure that infrastructure assets meet service-level goals in an affordable, achievable, and sustainable manner.

A well-developed levels of service framework enables a municipality to:

- Communicate objectives to stakeholders and inform them of planned changes.
- Track performance against objectives to identify areas needing improvement.
- Make budget decisions based on outcomes, allowing for informed trade-offs.

To comply with the July 1, 2024 requirements of O. Reg. 588/17, asset management plans must identify the current levels of service for each in-scope asset class. While O. Reg. 588/17 prescribes specific community and technical levels of service for core assets, it does not impose similar requirements for non-core assets.

To address this, the Municipality has established its own levels of service frameworks for non-core assets, describing both qualitatively and quantitatively the objectives these assets are expected to achieve. These frameworks include performance measures that the Municipality will continue to monitor over time. The LOS tables were developed for the core service groups and comprised of the following structure:

1. **Service Attributes** consists of a phrase which describes an important area of focus for each service group. Example of Key Service Attributes include Cost Efficient, Safety, Reliability etc.
2. **LOS Statement** consists of a short sentence, which describes the outputs of the service category. Each LOS Statement corresponds to a Key Service Attribute.
3. **Performance Measures** identify specific areas of focus that can be measured to support each Key Service Attribute. One or more performance measures can be listed for each Key Service Attribute. The LOS tables provide two types of Performance Measures: Customer and Technical. Each Performance Measure is subdivided into four components, which are represented as addition columns in the LOS table.
4. **Current Performance** are values that indicate the current performance for each performance measure for the recent calendar year.

## Lifecycle Management Strategy

The Village of Hilton Beach's lifecycle strategy described the set of planned actions undertaken to sustain levels of service, while managing risk at the lowest possible lifecycle cost, in alignment with the levels of service and risk strategies. The types of lifecycle activities are shown in Table 2.

Table 2: Lifecycle Activities

Lifecycle Activity	Description
Non-Infrastructure	Actions or policies that can lower costs of extend asset life.
Maintenance	Regularly scheduled inspection and maintenance, or more significant repair and activities associated with unexpected events.
Renewal/Rehabilitation	Significant repairs designed to extend the life of the asset.
Replacement/Construction	Activities that are expected to occur once an asset has reached the end of its useful life and renewal/rehabilitation is no longer an option
Disposal	Activities associated with disposing of an asset once it has reached the end of its useful life or is otherwise no longer needed by the municipality
Expansion/Growth/Service Improvements	Planned activities required to extend services to previously unserved areas or expand services to meet growth demands

These activities form the basis of Lifecycle Management Strategy section of the Asset Management Plan. This will enable the township to establish and report on possible options for which lifecycle activities could potentially be undertaken to maintain the current levels of service as well as the associated risks and costs.



# 1.0 Condition Assessment - State of Local Infrastructure

## Asset Inventory

The assets covered by this AMP are the tangible capital assets owned by the Village of Hilton Beach (VHB), identified during PSAB 3150 documentation by BDO Canada LLP's Audit and Assurance division (*Appendix A*), an AMP for Water and Wastewater Systems by OCWA (*Appendix B*), a Building Condition Assessment by Tulloch Engineering (*Appendix C*), a roads condition assessment by VHB (*Appendix D*), and insights from the Township of Hilton on shared fire assets. During this process, asset inventories and values were categorized within the following eight asset categories:

- Buildings (core asset)
- Roads (core asset)
- Watermains (core asset)
- Equipment (non-core asset)
- Vehicles (non-core asset)
- Docks (non-core asset)
- Land Improvements (non-core asset)
- Furnishings (non-core asset)

## Asset Inventory and Valuation (Core Assets)

The Village of Hilton Beach (VHB) owns many building, road, and watermain assets, and is thus responsible for maintaining and replacing them when necessary. The goal is to ensure a high level of performance by both core and non-core assets, in order to improve their safety and reliability in their use by residents and visitors to the VHB.

The replacement valuation for the entire asset portfolio falling under the categories of Watermains (*Appendix B*), Buildings (*Appendix C*), or Roads (*Appendix D*) are displayed below in Table 3. This valuation is compared to its financial accounting valuation. The financial accounting valuation differs from the replacement valuation, as it is based on the initial construction costs and the cost of the asset's depreciation over time until the current year. In contrast, replacement costs represent the current cost to replace the asset.

Table 3: Snapshot of Core Asset Categories

Category	Financial Accounting Valuation	Replacement Valuation	# of Assets	Average Age (Years)	Average Remaining Useful Life (Years)
Buildings	\$ 1,309,042	\$ 2,241,611	24	19	22
Roads	\$ 142,105	\$ 256,921	8	16	15
Watermains	\$ 2,487,481	\$ 4,487,703	39	21	35
Totals	\$ 3,938,628	\$ 6,986,235	71	18.7	24

Figure 1 below displays both the financial accounting and replacement valuations of VHB's core assets by category, as a proportion of the total.

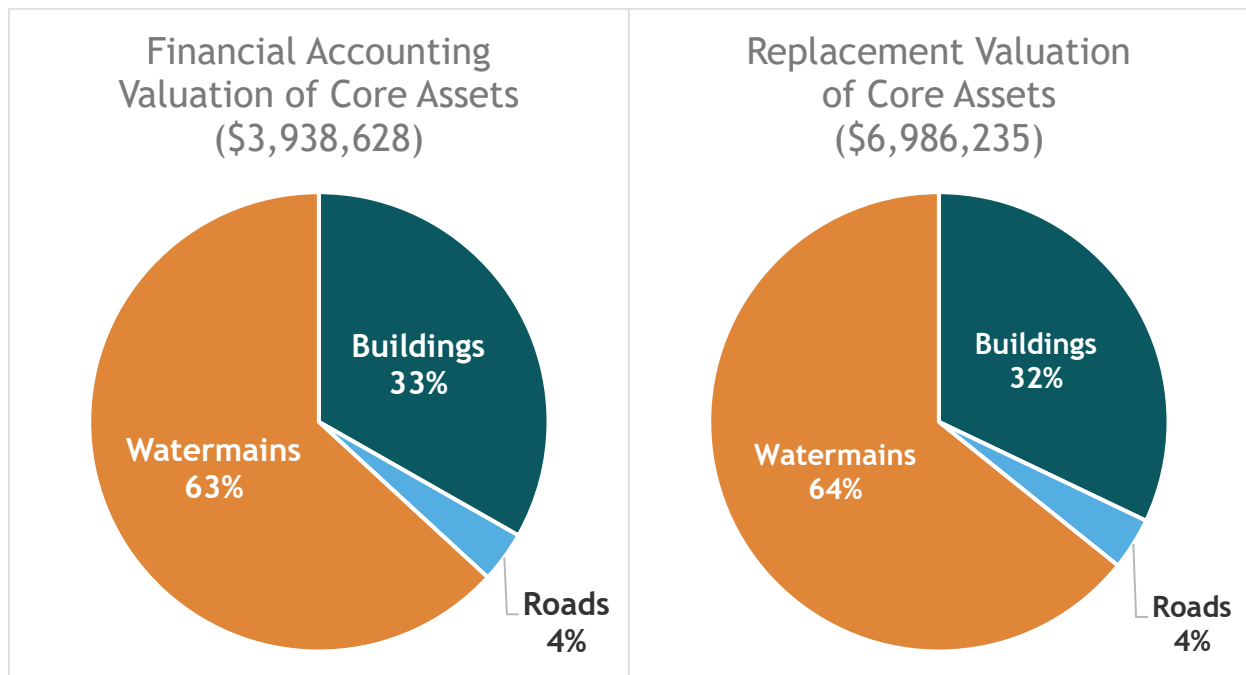


Figure 1: FAV and RV of Core Assets Categories by Proportion of Total

Figure 2 below indicates the both the financial accounting and replacement valuations of VHB's core assets per household, using the 2021 Canada Census's count of 134 households in VHB.

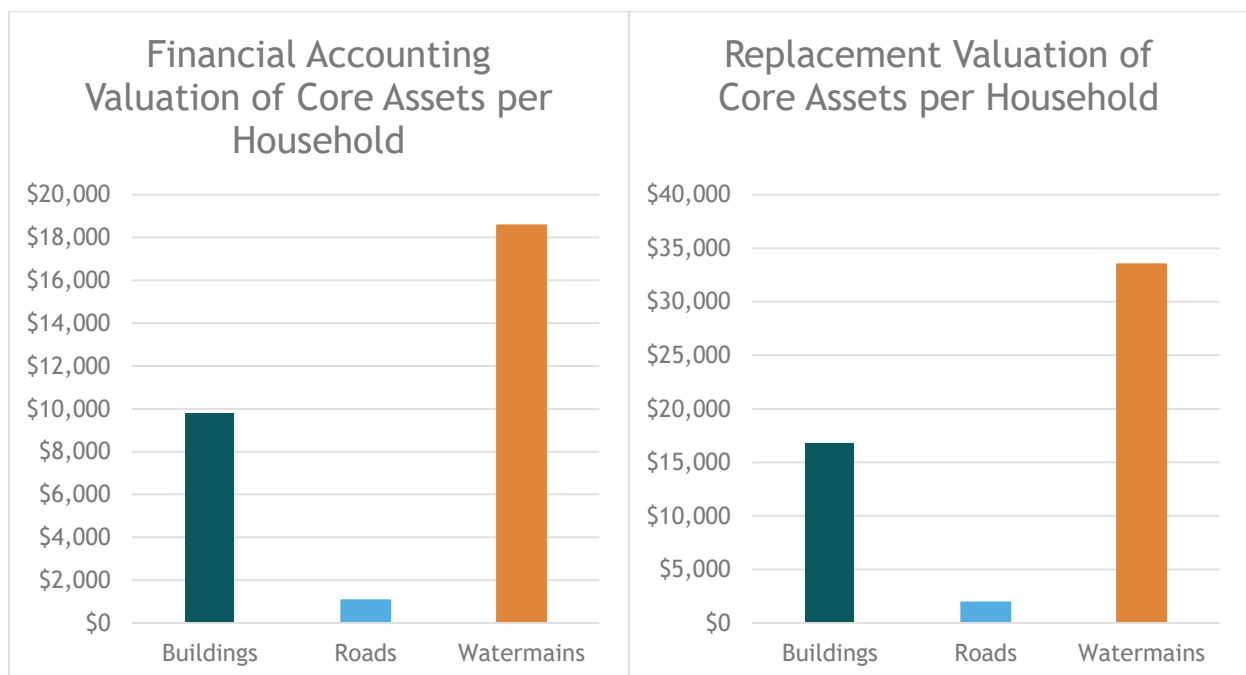
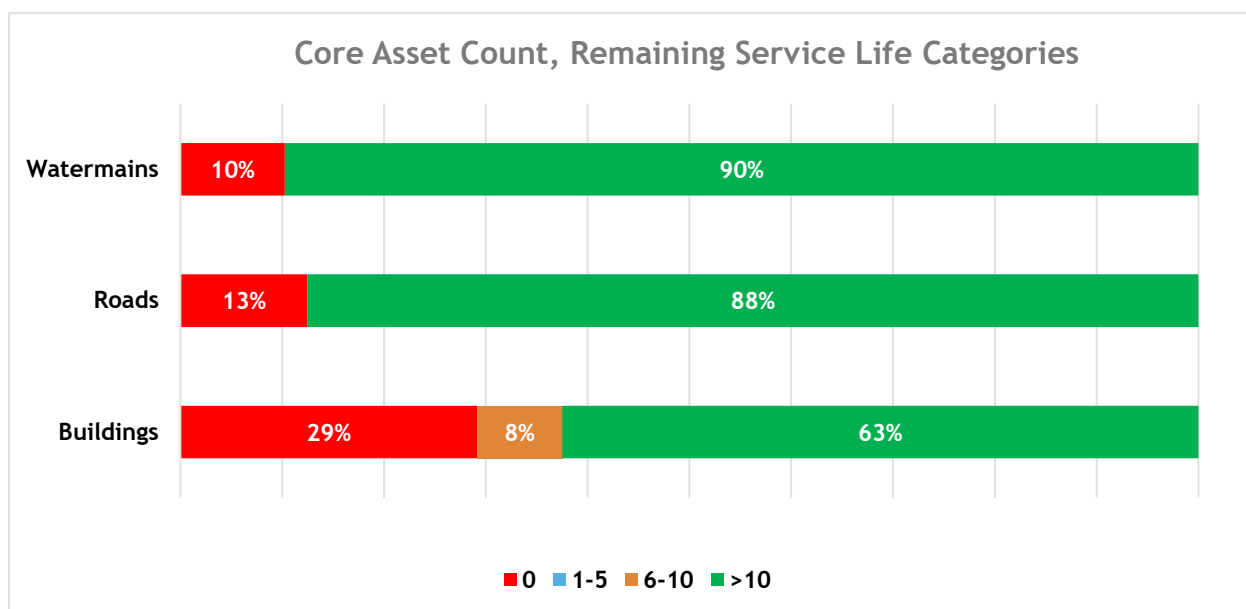


Figure 2: FAV and RV of Core Asset Categories per Household

Table 4 below shows the remaining service life (in years) of VHBs core asset categories. From this table, 12 of VHB's 71 core assets (~17%) have 0 years of remaining service life remaining, meaning these assets are fully depreciated as of 2024. Of these 12 assets, 7 fall under the Building category, 1 falls under the Roads category, and 4 fall under the Watermains category.

Table 4: Core Asset Count, Remaining Service Life Categories

Category	Remaining Service Life (Years)				Total
	0	1-5	6-10	>10	
Buildings	7	0	2	15	24
Roads	1	0	0	7	8
Watermains	4	0	0	35	39
<b>Total</b>	<b>12</b>	<b>0</b>	<b>2</b>	<b>57</b>	<b>71</b>



### Asset Inventory and Valuation (Non-Core Assets)

In addition to its core assets, VHB also owns many assets that are considered “non-core” assets, or inessential to the operations of the municipality. However, proper management of these assets is still an important task of the municipality, as doing so will allow VHB to maximize the utility of these assets and efficiently facilitate their replacement, when necessary.

These “non-core” assets fall into five categories:

- Equipment
- Furnishing
- Vehicles
- Docks
- Land Improvements

The replacement valuation for the assets falling under the non-core categories of equipment, furnishings, vehicles, docks, and land improvements are displayed below in Table 5. This valuation is compared to its financial accounting valuation. The financial accounting valuation differs from the replacement valuation, as it is based on the initial construction costs and the cost of the asset's depreciation over time until the current year. In contrast, replacement costs represent the current cost to replace the asset.

Table 5: Snapshot of Non-Core Asset Categories

Category	Financial Accounting Valuation	Replacement Valuation	# of Assets	Average Age (Years)	Average Remaining Useful Life (Years)
Equipment	\$ 261,694	\$ 716,552	38	10	4
Furnishing	\$ 5,079	\$ 54,178	4	20	1
Vehicles	\$ 70,385	\$ 134,590	4	5	3
Docks	\$ 116,385	\$ 861,034	16	22	3
Land Improvements	\$ 1,628,646	\$ 2,881,820	16	24	20
<b>Totals</b>	<b>\$ 2,082,189</b>	<b>\$ 4,648,174</b>	<b>78</b>	<b>16.2</b>	<b>6</b>

Figure 3 below displays both the financial accounting and replacement valuations of VHB's non-core assets by category, as a proportion of the total.



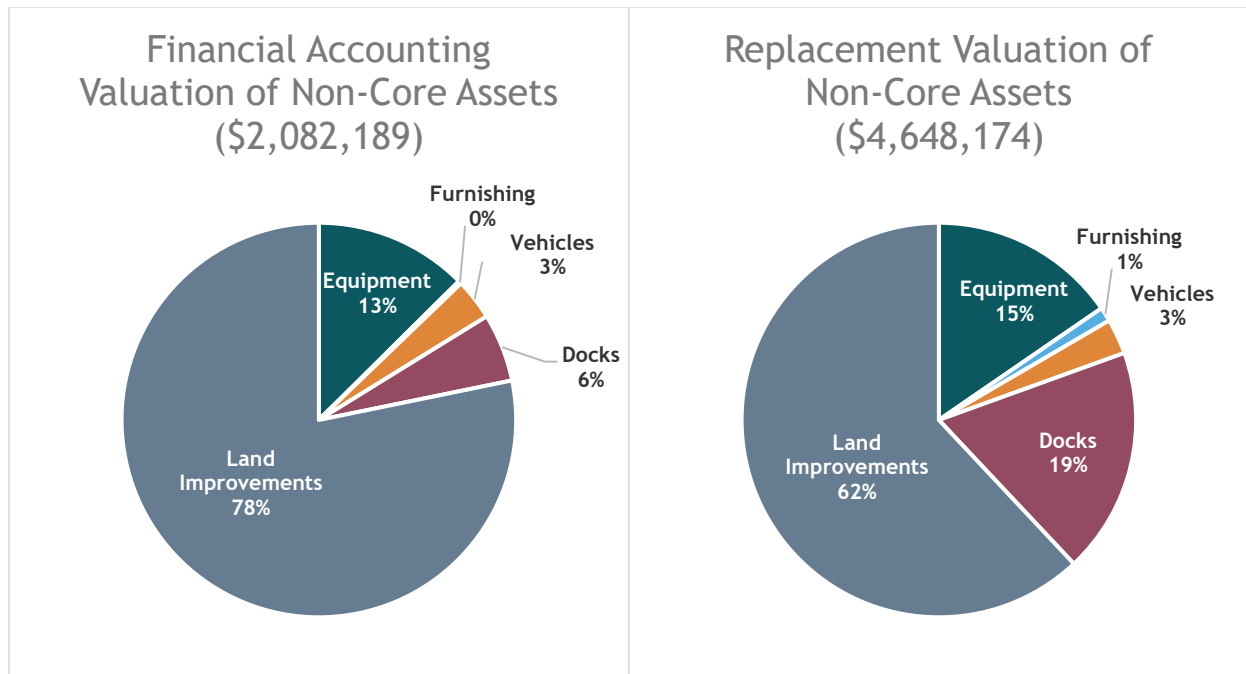


Figure 3: FAV and RV of Non-Core Asset Categories by Proportion of Total

Figure 4 below indicates the both the financial accounting and replacement valuations of VHB's core assets per household, using the 2021 Canada Census's count of 134 households in VHB.

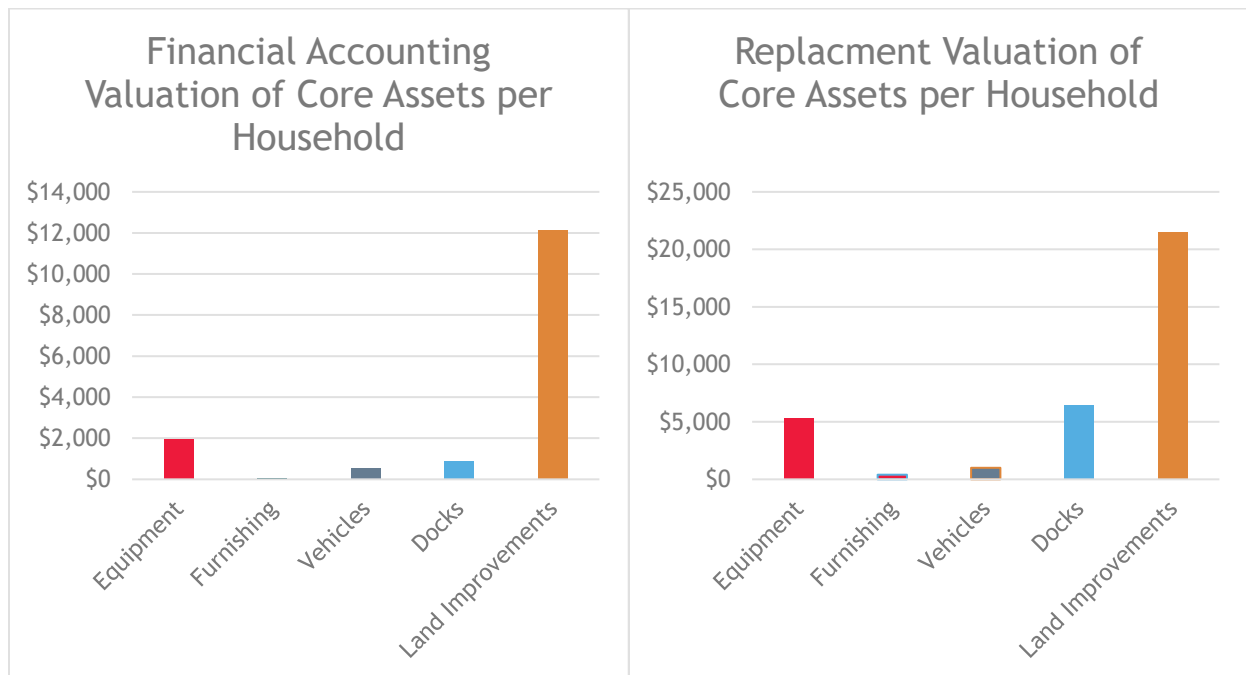
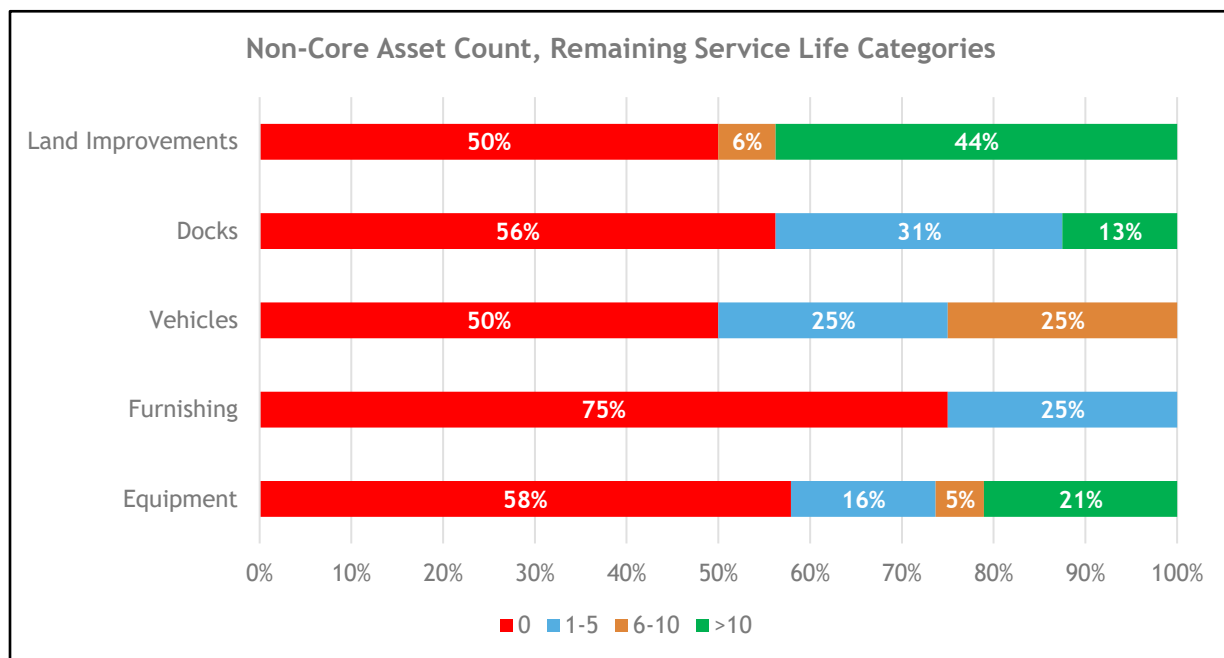


Figure 4: FAV and RV of Non-Core Asset Categories per Household

Table 6 below shows the remaining service life (in years) of VHBs core asset categories. From this table we can see 52 of VHB's 94 non-core assets (~55%) have 0 years of remaining service life remaining, meaning these assets are fully depreciated as of 2024.

Table 6: Remaining Service Life, Non-Core Asset Categories

Category	Remaining Service Life (Years)				Total
	0	1-5	6-10	>10	
Equipment	22	6	2	8	38
Furnishing	3	1	0	0	4
Vehicles	2	1	1	0	4
Docks	9	5	0	2	16
Land Improvements	16	0	2	14	32
<b>Total</b>	<b>52</b>	<b>13</b>	<b>5</b>	<b>24</b>	<b>94</b>



### Identify Candidate Assets (Long List)

Assets that are candidate for further assessment were identified by reviewing remaining service lives and other needs (e.g., unexpected asset failures) from the asset inventory and values. This review produced a list of candidate assets with remaining service lives **less than five years in length**, and assets with unexpected, emergency, or critical requirements. The remaining service life “cut-off” can be modified by VHB to develop lists that are manageable (i.e., to help manage the costs of subsequent condition review to support further assessment under the AMP).

### Remaining Service Life

Remaining service life is the key indicator when completing the review to identify assets that are candidate for repair/rehabilitate/replace. Remaining service lives are determined considering the expected useful life of assets. Assets with remaining service lives **less than five years** in length were considered candidates for replacement.

### Asset Condition

A key component of the AMP is the ongoing collection of information to facilitate condition assessments of aged and/or problematic assets (e.g., road/bridge/culvert inspections – *Appendix D*). Regarding the relevant condition of VHB's capital condition, management has acquired third-party reports and insights (i.e., OCWA AMP for Water and Wastewater Systems – *Appendix B*, Tulloch Engineering Building Condition Assessment – *Appendix C*, and Township of Hilton) and provided their own evaluations as follows:

- Establish asset values
- Identify core and non-core candidate assets and their remaining service life
- Identify unexpected, emergency, and critical needs
- Finalize asset condition assessment

## 2.0 - Desired Levels of Service

The following section will identify the Township's current and desired level of service for their asset portfolio. These metrics include technical and community service metrics that are required as part of the O. Reg. 588/17 as well as any additional performance metrics that the Township has selected for this asset management plan.

### Identify Candidate Assets (Short List)

Candidate assets identified during the initial review of remaining service life, asset condition assessment and other stakeholder needs are assessed considering the appropriate acceptable LOS, legislative compliance, condition, and quality of service provided.

### Levels of Service

LOS is a qualitative or quantitative measure to describe the accepted or expected performance of an asset or group of assets. The Municipality's objective should be to provide services at the established LOS's in the most cost-effective manner. For Village of Hilton Beach, LOS are based on:

What follows is a chart that outlines:

- qualitative LOS description that has been adopted for each asset grouping;
- observations from asset condition assessment and stakeholder consultations;
- performance and risk assessment evaluation; and,
- recommendations for Step 3 of AMP, which is the Financing/Capital Budgeting Strategy.

## Core Assets

### Buildings Assessment

There are nine (9) buildings and infrastructure as part of the Village of Hilton Beach's inventory that are owned by the Township and maintained by the departments who provide administration, transportation, and recreational and cultural services to the community.

Based on the Tulloch Engineering Building Condition Assessment in *Appendix C*, most of the facilities are in fair or good condition but some are in poor condition and may require replacement. Under the current standing, there is estimated capital improvements required over the next 10 years totalling \$1,141,000.

Assessment of the buildings are as follows:

Buildings & Infrastructure			
Levels of Service - Provides facilities that are cost effective, safe, accessible, convenient, and provide adequate amenities (e.g., HVAC, restrooms).			
Structures	Observation/Interviews	Performance/Risk	Recommendations
Waterfront Centre	<ul style="list-style-type: none"> <li>• Building was constructed in 1950, with an addition constructed in 1990.</li> <li>• Site contains one (1) building and one (1) outbuilding at approximately 7,200 square feet in ground floor area.</li> <li>• Parking lot was a combination of gravel and surface treatment.</li> </ul>	<ul style="list-style-type: none"> <li>• Building is in good condition overall</li> <li>• Building has Facility Condition Index (FCI) of 3.26% or is in Excellent Condition</li> </ul>	<ul style="list-style-type: none"> <li>• \$81,500 estimated cost of repair/replacement taking place over the next 10-years primarily consisting of roofing and stairs on the exterior</li> </ul>
Dock Infrastructure	<ul style="list-style-type: none"> <li>• Dock construction was noted to be on a wood platform framing on corrugated PVC floats.</li> <li>• Total length of floating dock infrastructure was noted to be approximately 1,000 meters.</li> </ul>	<ul style="list-style-type: none"> <li>• PVC floats were noted to be in visually good condition, while wood surfaces were noted to have advanced decay and loose surfacing fasteners</li> </ul>	<ul style="list-style-type: none"> <li>• \$650,000 estimated to remove and replace existing wood deck, wood substructure, and wood guards for full length of breakwater walkway</li> </ul>



Boardwalk, Breakwater Walkway, and Viewing Platform	<ul style="list-style-type: none"> <li>Boardwalk extends from the south extent of the marina basin, north to the marina building (260 meters total).</li> <li>Breakwater walkway extends from the south end of the boardwalk to the bridge servicing the viewing platform (110 meters total).</li> <li>Viewing platform is 36 square meters.</li> </ul>	<ul style="list-style-type: none"> <li>Boardwalk, Breakwater Walkway, and Viewing Platform are in poor condition overall</li> </ul>	<ul style="list-style-type: none"> <li>\$350,000 estimated to remove and replace existing wood deck and wood substructures for all docks</li> </ul>
Marina	<ul style="list-style-type: none"> <li>Building included two (2) changing rooms with shower facilities.</li> <li>It houses gas docks and slip rentals office.</li> <li>Approximately 1,400 square feet in ground floor area.</li> </ul>	<ul style="list-style-type: none"> <li>Marina building's exterior and interior was observed and was generally in good condition overall</li> <li>Marina building has a FCI of 3.6% or in excellent condition</li> </ul>	<ul style="list-style-type: none"> <li>\$20,000 estimated repair for a shingle replacement in the next 5 years</li> </ul>
Municipal Garages	<ul style="list-style-type: none"> <li>Site contains two (2) buildings</li> <li>Original garage is of unknown age but assumed to be in excess of 30 years old and approximately 1,200 square feet in ground floor area.</li> <li>New garage was constructed in 2022 and is approximately 1,000 square feet in ground floor area.</li> </ul>	<ul style="list-style-type: none"> <li>Original garage is in good condition overall with a few noted defects</li> <li>Several notable items should be reviewed with the Municipal Building Official to ensure garage design and construction are compliant with the Ontario building code</li> <li>Original Garage has an FCI of 6.9% or is in good condition.</li> </ul>	<ul style="list-style-type: none"> <li>\$15,000 estimated repair for the removal and replacing of asphalt shingles</li> </ul>
Municipal Library	<ul style="list-style-type: none"> <li>Site contains one (1) building.</li> <li>Building is approximately 800 square feet in ground floor area.</li> <li>Original building was assumed to be constructed more than 100 years ago, with construction of subsequent additions unknown.</li> </ul>	<ul style="list-style-type: none"> <li>Building is considered to be in good condition overall with a few defects</li> </ul>	<ul style="list-style-type: none"> <li>\$24,500 estimated repair to reinforce damage/unsupported floor joists, remove and replace existing asphalt composite panel, insulate crawl space &amp; remove concrete entrance ramp and replace with OBC compliant ramp and guards</li> </ul>

Watermains			
Levels of Service - Provide a water distribution system that is cost-effective, reliable, and safe, delivering clean and potable water at adequate pressure.			
Watermains	Observation/Interviews	Performance/Risk	Recommendations
Water Treatment Plant (WTP)	<ul style="list-style-type: none"> <li>In the 2025-2034 OCWA capital plan, a series of capital projects and major maintenance initiatives are set to occur.</li> </ul>	<ul style="list-style-type: none"> <li>Approximately 11 pieces of WTP equipment are in poor condition and require major maintenance.</li> <li>7 capital projects anticipated in the next 10 years.</li> </ul>	<ul style="list-style-type: none"> <li>Estimated capital investment in WTP and its equipment of \$185,650 over the next decade.</li> </ul>
Wastewater Treatment Plant (WWTP)	<ul style="list-style-type: none"> <li>In the 2025-2034 OCWA capital plan, a series of capital projects and major maintenance initiatives are set to occur.</li> </ul>	<ul style="list-style-type: none"> <li>Approximately 11 pieces of WWTP equipment are in poor condition and require major maintenance.</li> <li>5 capital projects anticipated in the next 10 years</li> </ul>	<ul style="list-style-type: none"> <li>Estimated capital investment in WWTP and its equipment of \$201,200 over the next decade.</li> </ul>
Distribution and Collection	<ul style="list-style-type: none"> <li>In the 2025-2034 OCWA capital plan, a series of capital projects are set to occur.</li> </ul>	<ul style="list-style-type: none"> <li>3 capital projects anticipated in the next 10 years.</li> </ul>	<ul style="list-style-type: none"> <li>Estimated capital investment in Distribution and collection of \$39,600 over the next decade.</li> </ul>

Roads - Transportation and pedestrian facilities			
Levels of Service - Provide facilities that are cost effective, safe, have smooth riding surfaces, clear directions (signage and line painting), no pot holes, no tripping hazards.			
Roads	Observation/Interviews	Performance/Risk	Recommendations
South St. (asphalt)	<ul style="list-style-type: none"> <li>Initially constructed in 1999, fully amortized as of 2024.</li> </ul>	<ul style="list-style-type: none"> <li>Road was last improved in 2022, fairly new (8.5) with no known issues.</li> </ul>	<ul style="list-style-type: none"> <li>No further capital investment is anticipated over the next decade.</li> </ul>
Sixth St. (base)	<ul style="list-style-type: none"> <li>Initially paved in 1987, with an estimated remaining life of 13 years.</li> </ul>	<ul style="list-style-type: none"> <li>Road was last improved in 2022, fairly new (8.5) with no known issues.</li> </ul>	<ul style="list-style-type: none"> <li>No further capital investment is anticipated over the next decade.</li> </ul>

Bay St. (east section)	<ul style="list-style-type: none"> <li>Initially paved in 2011, with an estimated remaining life of 12 years.</li> </ul>	<ul style="list-style-type: none"> <li>Bowker to Marina is moderately new (6.5), with improvements needed in foreseeable future.</li> <li>Cenotaph is a fairly new (8) gravel road, with improvements planned in foreseeable future.</li> </ul>	<ul style="list-style-type: none"> <li>Bowker to Marina to be improved in 2027 for \$11,993, rehabilitating the road to 10.</li> <li>Cenotaph to be improved in 2030 for \$2,363.</li> </ul>
Canoe Point Rd.	<ul style="list-style-type: none"> <li>Initially paved in 2012, with an estimated remaining life of 13 years.</li> </ul>	<ul style="list-style-type: none"> <li>Eastern portion is moderately new (7), with improvements planned in foreseeable future.</li> <li>Western portion is fairly new (8), with improvements planned in foreseeable future.</li> </ul>	<ul style="list-style-type: none"> <li>Eastern portion to be improved in 2028 for \$4,758, rehabilitating the road to 10.</li> <li>Western portion to be improved in 2030 for \$17,705.</li> </ul>
Hilton Rd.	<ul style="list-style-type: none"> <li>Initially paved in 2017, with an estimated remaining life of 18 years.</li> </ul>	<ul style="list-style-type: none"> <li>Road was last improved in 2023, fairly new (8.5) with no known issues.</li> </ul>	<ul style="list-style-type: none"> <li>No further capital investment is anticipated over the next decade.</li> </ul>
Mariners' Way (base)	<ul style="list-style-type: none"> <li>Initially paved in 2005, with an estimated remaining life of 31 years.</li> </ul>	<ul style="list-style-type: none"> <li>Gravel road is in good condition, with moderate improvements planned in foreseeable future.</li> </ul>	<ul style="list-style-type: none"> <li>To be improved in 2025 for \$17,000.</li> </ul>
Marks St.	<ul style="list-style-type: none"> <li>HCB pavement road</li> </ul>	<ul style="list-style-type: none"> <li>In fair to poor condition (5.5), requires replacement with improvements planned in foreseeable future.</li> </ul>	<ul style="list-style-type: none"> <li>To be improved in 2026 for \$50,000, rehabilitating the road to a 10.</li> </ul>
Upper Birch	<ul style="list-style-type: none"> <li>Gravel road from Sixth to Plant.</li> </ul>	<ul style="list-style-type: none"> <li>In fair to poor condition (5), requires replacement with improvements planned in foreseeable future.</li> </ul>	<ul style="list-style-type: none"> <li>To be improved in 2025 for \$22,700, rehabilitating the road to a 10.</li> </ul>

## Non-Core Assets

Vehicles			
Levels of Service - Provide safe, cost effective and reliable vehicles to support the delivery of Municipal services.			
Vehicles	Observation/Interviews	Performance/Risk	Recommendations
Tanker Replacement	<ul style="list-style-type: none"> <li>Estimated remaining life of 5 years, purchased in 2019 with a 10-year useful life.</li> </ul>	<ul style="list-style-type: none"> <li>Asset is quite dated (2001), in fair to poor condition - Management anticipates immediate replacement.</li> </ul>	<ul style="list-style-type: none"> <li>Replacement of approximately \$125,500 (50% of total) in 2025.</li> <li>Budget of \$8,500 (50% of total) annually for ongoing maintenance and repairs.</li> </ul>
Fire Pumper - 1995 HUB 1050 GPM	<ul style="list-style-type: none"> <li>Fully amortized asset, initially purchased in 2009 with a 15-year useful life.</li> </ul>	<ul style="list-style-type: none"> <li>1995 Freightliner is dated, in fair condition - Management anticipates replacement in coming years.</li> </ul>	<ul style="list-style-type: none"> <li>Replacement of approximately \$25,000 (50% of total) in 2026.</li> <li>Budget of \$1,500 (50% of total) annually for ongoing maintenance and repairs.</li> </ul>

Equipment			
Levels of Service - Provide safe, cost effective, reliable and effective equipment and machinery to support the delivery of Municipal services.			
Equipment	Observation/Interviews	Performance/Risk	Recommendations
Computers	<ul style="list-style-type: none"> <li>Estimated remaining life of 1 year, purchased in 2020 with a 5-year useful life.</li> </ul>	<ul style="list-style-type: none"> <li>In good condition and still functional, foresee replacement in the next 2 years.</li> </ul>	<ul style="list-style-type: none"> <li>Replacement of approximately \$800 for 4 PCs and \$800 for 2 laptops in next 2 years.</li> </ul>
Turnout Gear	<ul style="list-style-type: none"> <li>Fully amortized as of 2024, purchased in 2014 with a 10-year useful life.</li> </ul>	<ul style="list-style-type: none"> <li>In fair to poor condition, management foresees replacement in the next couple of years.</li> </ul>	<ul style="list-style-type: none"> <li>Replacement of approximately \$5,500 (50% of total) in the next 2-3 years.</li> <li>Budget of \$500 (50% of total) annually for ongoing maintenance and repairs.</li> </ul>
Small Playground Unit	<ul style="list-style-type: none"> <li>Fully amortized as of 2024, purchased in 1999 with a 25-year useful life.</li> </ul>	<ul style="list-style-type: none"> <li>In poor to fair condition, is being maintained but requires replacement.</li> </ul>	<ul style="list-style-type: none"> <li>Estimated replacement cost of \$40,000.</li> </ul>



Large Playground Unit	<ul style="list-style-type: none"> <li>Fully amortized as of 2024, purchased in 1999 with a 25-year useful life.</li> </ul>	<ul style="list-style-type: none"> <li>In poor to fair condition, is being maintained but requires replacement.</li> </ul>	<ul style="list-style-type: none"> <li>Estimated replacement cost of \$75,000.</li> </ul>
Mechanical (HVAC)	<ul style="list-style-type: none"> <li>Fully amortized asset</li> </ul>	<ul style="list-style-type: none"> <li>Replaced in 2023 for \$23,617.</li> </ul>	<ul style="list-style-type: none"> <li>Management does not foresee further replacements in the coming 10 years.</li> </ul>
Mechanical (HVAC) 10	<ul style="list-style-type: none"> <li>Estimated remaining life of 1 year, purchased in 2010 with a 15-year useful life.</li> </ul>	<ul style="list-style-type: none"> <li>Replaced in 2023 for \$23,617.</li> </ul>	<ul style="list-style-type: none"> <li>Management does not foresee further replacements in the coming 10 years.</li> </ul>
Dishwasher	<ul style="list-style-type: none"> <li>Estimated remaining life of 1 year, purchased in 2000 with a 25-year useful life.</li> </ul>	<ul style="list-style-type: none"> <li>Dishwasher replaced in 2024 for \$6,500.</li> </ul>	<ul style="list-style-type: none"> <li>Management does not foresee further replacements in the coming 10 years.</li> </ul>
Acoustic	<ul style="list-style-type: none"> <li>Estimated remaining life of 5 years, purchased in 2004 with a 25-year useful life.</li> <li>Acoustic tiles on walls of community hall to reduce echo during concerts.</li> <li>Sound system no longer in use.</li> </ul>	<ul style="list-style-type: none"> <li>Good condition - No known issues, damage, or repairs needed, functioning as intended.</li> </ul>	<ul style="list-style-type: none"> <li>No further capital investment is anticipated in the coming 10 years.</li> <li>Sound system will not be replaced due to inactivity.</li> </ul>
On-Demand Hot Water System	<ul style="list-style-type: none"> <li>Fully amortized as of 2024, purchased in 2009 with a 15-year useful life.</li> </ul>	<ul style="list-style-type: none"> <li>Good condition - No known issues, functioning as intended.</li> </ul>	<ul style="list-style-type: none"> <li>No immediate action required in next 10 years - maintenance as necessary.</li> </ul>
Hall Signage	<ul style="list-style-type: none"> <li>Fully amortized as of 2024, purchased in 2014 with a 10-year useful life.</li> </ul>	<ul style="list-style-type: none"> <li>Good condition - No known issues, yet minor paint corrosion - no immediate replacement needed, but ongoing maintenance.</li> <li>External sign recently repainted.</li> </ul>	<ul style="list-style-type: none"> <li>Budget for repairs of \$500 annually (i.e., painting), amounting to approximately \$5,000 over the next decade.</li> <li>Estimated replacement cost of \$1,000.</li> </ul>
Aqua Genic Pump-Out System	<ul style="list-style-type: none"> <li>Fully amortized asset</li> </ul>	<ul style="list-style-type: none"> <li>Good condition - No known issues, functioning as intended.</li> </ul>	<ul style="list-style-type: none"> <li>No immediate action required in next 10 years - maintenance as necessary.</li> </ul>

Transformer to Convert Power	<ul style="list-style-type: none"> <li>Fully amortized as of 2024, purchased in 2004 with a 20-year useful life.</li> </ul>	<ul style="list-style-type: none"> <li>Fair to good condition - functioning properly with regular maintenance.</li> <li>Management does not foresee replacement in the next 10 years.</li> </ul>	<ul style="list-style-type: none"> <li>Transformer to only be replaced if it breaks down.</li> <li>Budget for general maintenance/repairs of \$250 annually, amounting to approximately \$2,500 over the next decade.</li> </ul>
Mariners' Lounge - Commercial Dryers	<ul style="list-style-type: none"> <li>Fully amortized asset</li> </ul>	<ul style="list-style-type: none"> <li>One was replaced with a Maytag single-load coin slide gas dryer in 2023 for approximately \$2,400.</li> <li>2 remaining dryers are in fair condition - quite old yet function adequately.</li> </ul>	<ul style="list-style-type: none"> <li>Plan for replacement of remaining commercial dryers in the next 10 years for \$4,800.</li> </ul>
Mariners' Lounge - Hot Water System	<ul style="list-style-type: none"> <li>Fully amortized asset</li> </ul>	<ul style="list-style-type: none"> <li>75-gallon hot water tank replaced in 2023 at Waterfront Centre for \$7,785.70.</li> </ul>	<ul style="list-style-type: none"> <li>Management does not foresee further replacements in the coming 10 years.</li> </ul>
Fuel Tanks and Pumps	<ul style="list-style-type: none"> <li>Estimated remaining life of 4 years, purchased in 2008 with a 20-year useful life.</li> </ul>	<ul style="list-style-type: none"> <li>Good condition - no known issues or deficiencies.</li> <li>Management does not foresee replacement in the next 10 years.</li> </ul>	<ul style="list-style-type: none"> <li>No further capital investment is anticipated in the coming 10 years.</li> </ul>
Sewage Pump-Out for Boats	<ul style="list-style-type: none"> <li>Estimated remaining life of 5 years, purchased in 2009 with a 20-year useful life.</li> </ul>	<ul style="list-style-type: none"> <li>Sewage pump-out for boats replaced in 2023 for \$8,136.</li> </ul>	<ul style="list-style-type: none"> <li>Management does not foresee further replacements in the coming 10 years.</li> </ul>
Marina - Solar Panels	<ul style="list-style-type: none"> <li>Fully amortized as of 2024, purchased in 1999 with a 25-year useful life.</li> </ul>	<ul style="list-style-type: none"> <li>Fair condition - part of government program that initially incentivized installation.</li> </ul>	<ul style="list-style-type: none"> <li>No further capital investment is anticipated in the coming 10 years.</li> <li>Solar panels will not be replaced once they reach end of useful life due to discontinuation of government programming.</li> <li>To be removed from infrastructure once roofing is replaced.</li> </ul>

Docks			
Levels of Service - Provide docks that are cost-effective, safe, and well-maintaining, ensuring stable and durable structures for public and commercial use.			
Docks	Observation/Interviews	Performance/Risk	Recommendations
Electrical and Plumbing: Docks/Building/Pumps	<ul style="list-style-type: none"> <li>Fully amortized as of 2022, purchased in 1997 with a 25-year useful life.</li> </ul>	<ul style="list-style-type: none"> <li>Management notes maintenance of the systems is ongoing rather than replacing them entirely.</li> </ul>	<ul style="list-style-type: none"> <li>Management to refer to respective budgets for ongoing repairs and maintenance costs.</li> <li>Budget for ongoing general maintenance and repairs of \$5,000 annually, amounting to approximately \$50,000 over the next decade.</li> </ul>
Dock Pedestals	<ul style="list-style-type: none"> <li>First set of pedestals installed in 1989, fully amortized as of 2014 after a 25-year useful life.</li> <li>Second set of pedestals installed in 2006, fully amortized as of 2021 after a 15-year useful life.</li> <li>Third set of pedestals installed in 2009, fully amortized as of 2024 after a 15-year service life.</li> </ul>	<ul style="list-style-type: none"> <li>In poor condition and require immediate replacement.</li> </ul>	<ul style="list-style-type: none"> <li>It is suggested that the replacement of the docks, including pedestals, will be done in stages over the coming several years.</li> <li>Estimated replacement cost of \$2,500 per pedestal, amounting to \$115,000 total in the next 10 years.</li> </ul>
Anchors and Mants	<ul style="list-style-type: none"> <li>Estimated remaining life of 3 years, purchased in 2012 with a 15-year useful life.</li> </ul>	<ul style="list-style-type: none"> <li>Replacement in 2023 for \$40,116.</li> </ul>	<ul style="list-style-type: none"> <li>Management does not foresee further replacements in the coming 10 years.</li> </ul>

Land Improvements			
Levels of Service - Provide well-maintained, cost-effective, and safe public spaces that ensure accessibility for all users while minimizing hazards and environmental impacts.			
Land Improvements	Observation/Interviews	Performance/Risk	Recommendations
Boardwalk Bollards	<ul style="list-style-type: none"> <li>Fully amortized as of 2022, purchased in 2007 with a 15-year useful life.</li> </ul>	<ul style="list-style-type: none"> <li>In poor condition - while still functioning, bollards appear to be at end of life and in rough condition.</li> </ul>	<ul style="list-style-type: none"> <li>Replacement of approximately \$500 per unit, totaling \$14,500 in the next 10 years.</li> <li>Budget for ongoing repairs of \$300 annually, amounting to approximately \$3,000 over the next decade.</li> </ul>
Boardwalk Signage	<ul style="list-style-type: none"> <li>Fully amortized as of 2022, purchased in 2012 with a 10-year useful life.</li> </ul>	<ul style="list-style-type: none"> <li>Map of village and other large signage along boardwalk in good condition.</li> <li>Signs encased in a wooden frame that appears to be maintaining its integrity.</li> </ul>	<ul style="list-style-type: none"> <li>Signage will only require minor upgrades (i.e., coat of paint and/or wood frame replacement), within the next 10 years.</li> <li>Budget for repairs of \$500 annually, amounting to approximately \$5,000 over the next decade.</li> <li>Estimated replacement cost (if necessary) of \$1,000 for signage.</li> </ul>
Boardwalk Landscaping	<ul style="list-style-type: none"> <li>Landscaping occurred in 1990, becoming fully amortized in 2015 after a 25-year useful life.</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing maintenance that does not involve any major capital investments in the foreseeable future.</li> <li>Includes seasonal decorations and general upkeep.</li> </ul>	<ul style="list-style-type: none"> <li>Budget for general upkeep of \$2,000 annually, amounting to \$20,000 over the next 10 years.</li> </ul>
Landfill - Fire Break	<ul style="list-style-type: none"> <li>Fully amortized as of 2024, purchased in 2014 with a 10-year useful life.</li> </ul>	<ul style="list-style-type: none"> <li>Fair condition - Management notes no major issues, functioning as intended.</li> </ul>	<ul style="list-style-type: none"> <li>No immediate action required in next 10 years - maintenance as necessary.</li> </ul>

New Trench System	<ul style="list-style-type: none"> <li>Fully amortized as of 2024, purchased in 2019 with a 5-year useful life.</li> </ul>	<ul style="list-style-type: none"> <li>Management notes no further repairs/maintenance required.</li> </ul>	<ul style="list-style-type: none"> <li>Management does not foresee further replacements in the coming 10 years.</li> </ul>
Landfill Improvements	<ul style="list-style-type: none"> <li>Landfill improvements occurred in 2018 for roughly \$12,346.</li> <li>\$1,650 spent for landfill program development in 2024.</li> </ul>	<ul style="list-style-type: none"> <li>Management notes no further repairs/maintenance required.</li> </ul>	<ul style="list-style-type: none"> <li>Management noted that approximately \$52,500 to be spent in 2025 to meet regulatory requirements.</li> <li>Includes program development, well installations, Fall sampling, and laboratory analysis.</li> </ul>
All Season Surface	<ul style="list-style-type: none"> <li>Fully amortized as of 2024, installed in 1999 with a 25-year useful life.</li> </ul>	<ul style="list-style-type: none"> <li>In poor condition - concrete pad is weathered, requires resurfacing and recoating.</li> </ul>	<ul style="list-style-type: none"> <li>Estimated resurfacing cost of \$20,000 - \$40,000.</li> </ul>
Permanent Structures Landscaping	<ul style="list-style-type: none"> <li>Fully amortized as of 2014, occurred in 1989 with a 25-year useful life.</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing maintenance that does not involve any major capital investments in the foreseeable future.</li> </ul>	<ul style="list-style-type: none"> <li>Budget for general upkeep of \$2,000 annually, amounting to \$20,000 over the next 10 years.</li> </ul>

### Furnishings

**Levels of Service** - Provide durable, safe, and cost-effective furnishings that enhance public spaces and meet community needs.

Furnishings	Observation/Interviews	Performance/Risk	Recommendations
General Government Furnishings	<ul style="list-style-type: none"> <li>Estimated remaining life of 5 years, purchased in 2009 with a 20-year useful life.</li> </ul>	<ul style="list-style-type: none"> <li>Fair condition - some issues have been noted with regards to flooring in offices.</li> <li>Select chairs are in poor condition and require replacement.</li> <li>Other furnishings are in fair to good condition, with no known issues.</li> </ul>	<ul style="list-style-type: none"> <li>Budget of \$500 - \$1,000 annually for replacement, amounting to approximately \$5,000 - \$10,000 over the next decade.</li> </ul>

Event Tables	<ul style="list-style-type: none"> <li>Fully amortized as of 2023, purchased in 2013 with a 10-year useful life.</li> </ul>	<ul style="list-style-type: none"> <li>In fair to good condition - will not be replaced.</li> <li>Tables are wooden structures used for farmers' markets.</li> </ul>	<ul style="list-style-type: none"> <li>No further capital investment is anticipated in the coming 10 years.</li> </ul>
Hall Furnishings	<ul style="list-style-type: none"> <li>Fully amortized as of 2023, purchased in 1998 with a 25-year useful life.</li> </ul>	<ul style="list-style-type: none"> <li>Existing tables replaced with plastic ones over 5 years ago.</li> <li>Hall chairs in good condition and do not require immediate replacement.</li> </ul>	<ul style="list-style-type: none"> <li>Management does not foresee further replacements in the coming 10 years.</li> </ul>

## APPENDIX A — ASSET INVENTORY

Village of Hilton Beach  
Vehicles - Summary of Capital Replacement Cost  
As at December 31, 2023

Asset	Original Cost	Net Book Value
Ford F-450	75,320	60,256
Tanker replacement	21,238	9,802
Fire Pumper	10,557	-
Fire Pumper - 1995 HUB 1050 GPM	27,475	327
Totals	\$ 134,590	\$ 70,385



Village of Hilton Beach  
Equipment - Summary of Capital Replacement Cost  
As at December 31, 2023

Asset	Original Cost	Net Book Value
Computers 2020 & 2021	14,927	4,634
Tractor 2020	59,435	41,604
Furnace 2021	5,190	4,671
Turnout Gear	7,950	-
Small playground unit	6,588	-
Large playground unit	12,634	-
Pump & trimmer	974	-
Signage	1,783	-
Mechanical (HVAC)	27,850	-
Mechanical (HVAC)	27,850	-
Mechanical (HVAC) 10	34,400	2,298
Dishwasher	5,406	220
Acoustic	30,756	6,155
On-Demand Hot water system	8,476	-
Chair Lift 10	15,246	6,706
Stove and fridges 10	42,411	18,667
Flooring	6,881	2,753
Signage (2)	3,741	-
Solar Project	50,691	30,415
Generator	64,821	41,331
Threshold 5,000 (2)	561	-
Fuel tanks & pumps	33,156	-
Aqua Genic Pumpout System	10,990	-
Transformer to convert power	8,059	-
Mariners' Lounge: Commercial washers	4,270	-
Mariners' Lounge: Commercial dryers	6,312	-
Mariners' Lounge: hot water system	8,883	-
Fuel pumps	27,493	5,493
Sewage pump-out for boats	9,000	2,250
Fuel tank - above ground	80,024	35,210
Solar Panels	44,289	28,096
Fuel System	9,764	6,053
Signage	1,706	-
Solar Panels	44,035	26,278
Totals	\$ 831,884	\$ 262,832

Village of Hilton Beach  
Furnishings - Summary of Capital Replacement Cost  
As at December 31, 2023

Asset	Original Cost	Net Book Value
Furnishings 2009	20,334	5,079
Furnishings	14,021	-
Event Tables	6,458	-
Hall Furnishings (Threshold 5,000)	13,365	-
Totals	\$ 54,178	\$ 5,079

Village of Hilton Beach  
Docks - Summary of Capital Replacement Cost  
As at December 31, 2023

Asset	Original Cost	Net Book Value
Docks 1988	124,399	-
Dock installation 1989	11,271	-
Dock pedestals 1989	35,852	-
Electrical & Plumbing: docks/bl dg/pumps	120,457	-
Docks 1990	1,343	-
Docks 1997	1,525	-
Dock Servicing 1998	2,200	92
Dock Construction 2000	70,523	2,343
Docks 2003	74,413	11,898
Docks 2004	317,806	63,565
Dock pedestals 2006	14,403	-
Dock pedestals 2009	34,300	-
Docks 10	8,205	3,613
Installation of new pedestals 12	2,605	517
New anchors and mants	6,231	1,251
Boomtruck, Dock Anchor, Galvanized chain	35,501	33,134
Totals	\$ 861,034	\$ 116,413

Village of Hilton Beach  
Land Improvement - Summary of Capital Replacement Cost  
As at December 31, 2023

Asset	Original Cost	Net Book Value
Landscaping	5,983	2,398
Sewage pumping station (1)	36,995	22,695
Site work STP	65,015	39,874
Well pumping station	24,942	14,958
Reservoir Site Work	41,446	24,861
Fire Break	7,131	-
New trench System	5,133	-
FCP Land Improvements (1)	19,062	-
FCP Land Improvements (2)	2,714	-
Boardwalk 1992	30,387	-
Boardwalk 1993	18,150	-
Boardwalk 1994	40,301	-
All Season Surface (2)	48,447	-
Site preparation	96,127	61,526
Breakwater (1)	810,858	518,942
Construction of service area	128,512	82,250
Breakwater (2)	860,070	696,652
Erosion Control Retaining Wall	27,557	26,179
Steel retaining wall for service area	41,634	11,652
Launch Ramp	48,971	20,587
Concrete holding tank	14,101	4,231
Bridge	47,853	29,670
Landscaping 1988	1,953	-
Landscaping 1989	8,604	-
Boardwalk construction 1989	25,874	-
Landscaping 1990	84,656	-
Boardwalk lighting 1990	21,661	-
Servicing 2005	155,363	37,279
Landscaping 2005	130,731	31,375
Boardwalk bollards 2007	18,000	-
Signage 2012	5,592	-
Land Improvements	7,997	3,517
<b>Totals</b>	<b>\$ 2,881,820</b>	<b>\$ 1,628,646</b>

## APPENDIX B — OCWA CONDITION ASSESSMENT

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# **Village of Hilton Beach Asset Management Plan for Water and Wastewater Systems**

**SUBMITTED BY**

Ontario Clean Water Agency  
2085 Hurontario Street, 5<sup>th</sup> Floor  
Mississauga, ON L5A 4G1

Date: January 10, 2025

Rev: 1

## Revision History

REV. NO.	DATE	PREPARED BY:	APPROVED BY:	DESCRIPTION
1	January 10, 2025	Milos Posavljak, Nick Larson	Nick Larson	Draft

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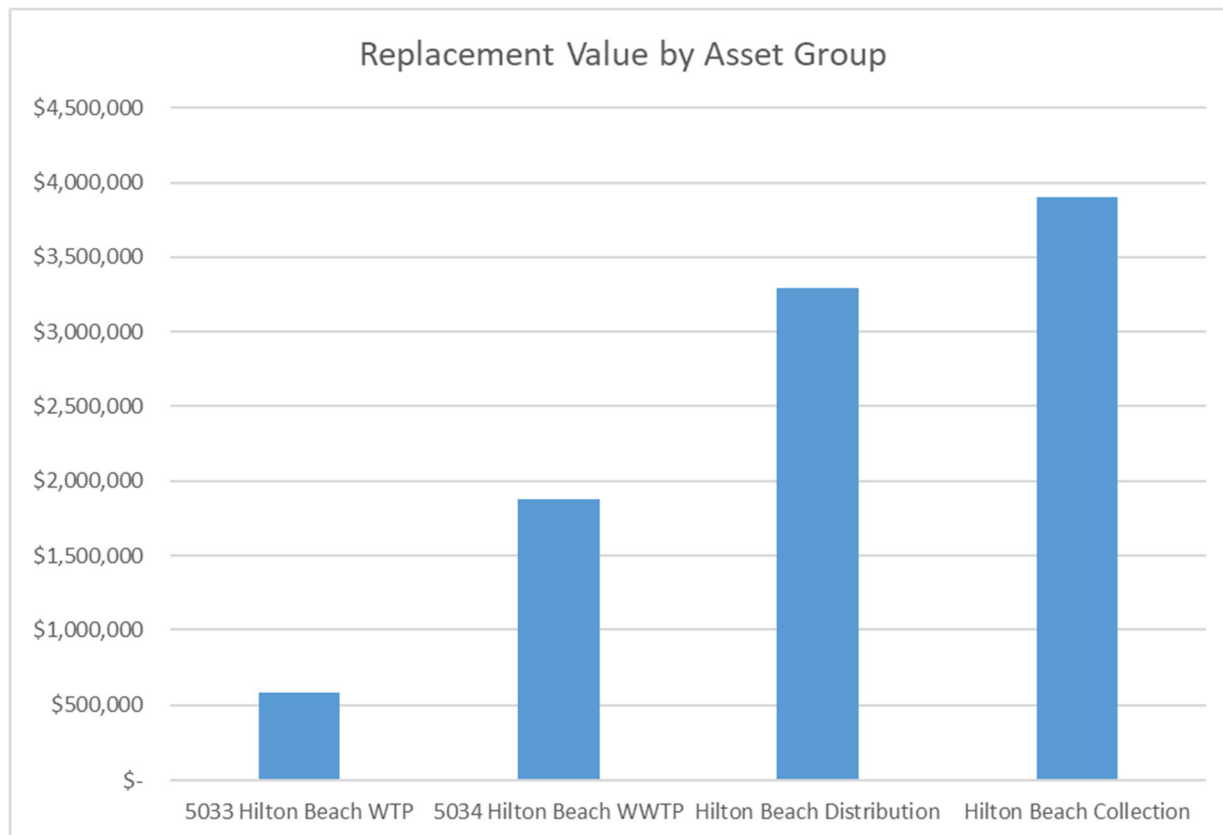
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## Executive Summary

### Water and Wastewater Facility Asset Portfolio

The scope of this Asset Management Plan (AMP) includes all water and wastewater assets. The infrastructure portfolio has an estimated replacement value of approximately \$9.6 million.

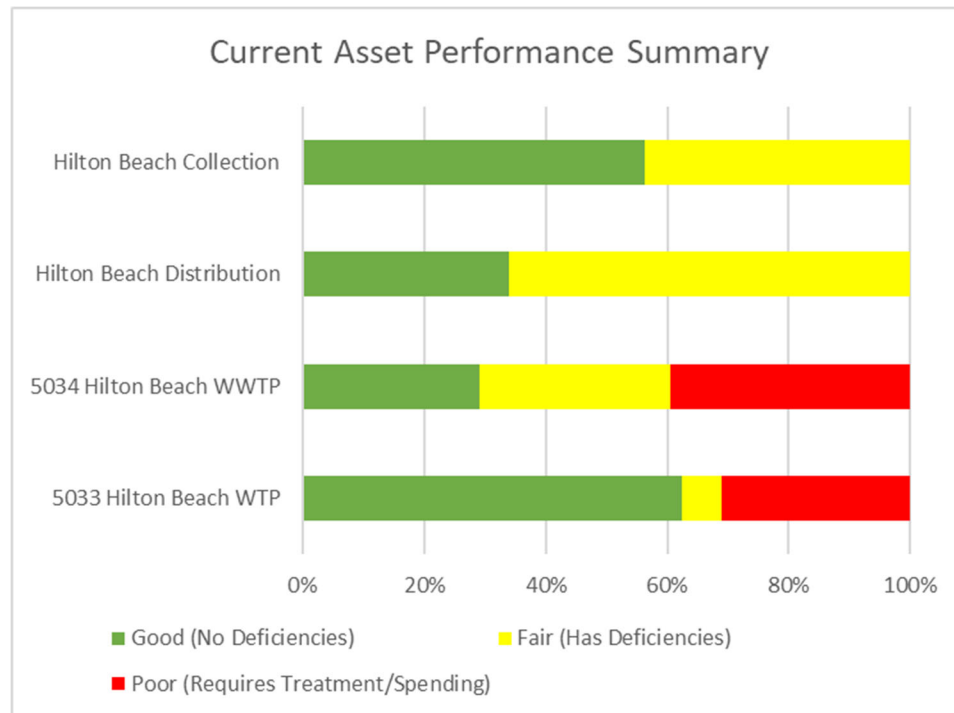


*Figure ES1: Asset Portfolio Summary*

*Note: Actual costing values are subject to market forces at the time of infrastructure construction/improvement activity, the above values are based on historical averages and industry standards.*

### Current Asset Performance

The best available asset information combines with the judgement of subject matter experts to establish the current performance of each of the individual asset records represented in the asset portfolio. The performance of individual assets aggregates to present the performance distribution of each asset group. Table ES1 and Figure ES2 presents the current asset performance results.



*Figure ES2 – Current Performance Summary*

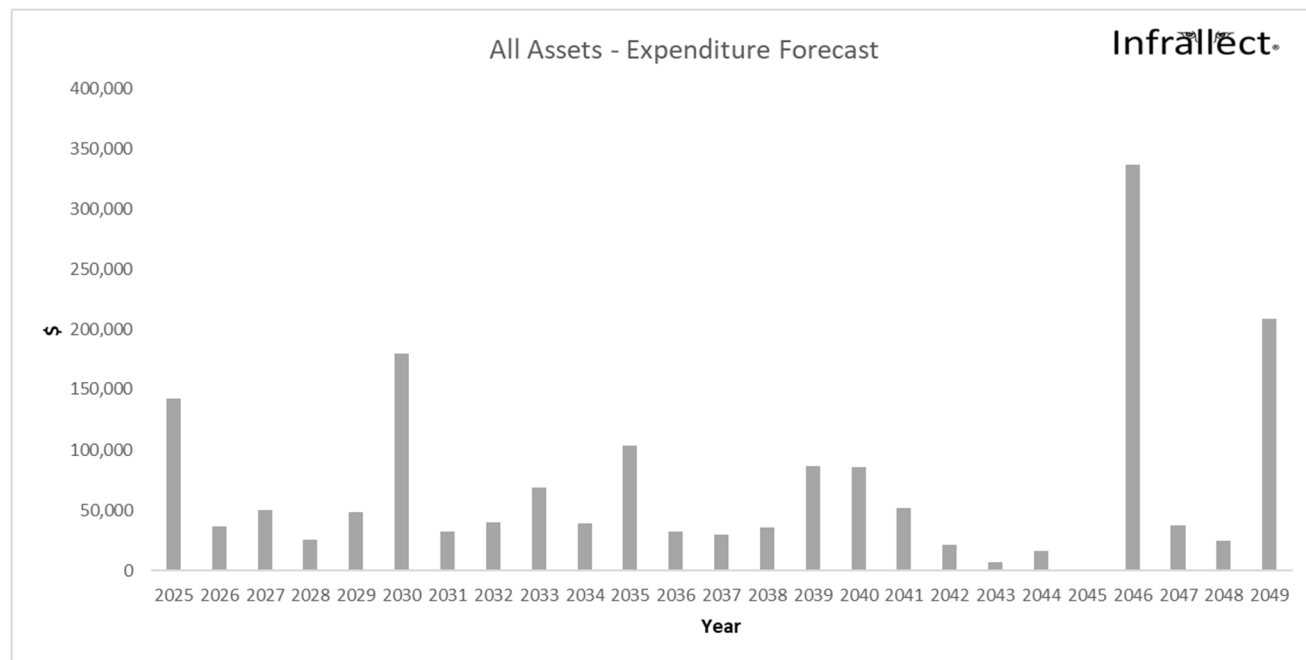
The total replacement cost of the assets in the poor performance category is approximately \$1 million, which represents approximately 10% of the total asset portfolio. The spending required to restore these assets to the good performance category is not necessarily equal to the replacement costs, since some assets only require rehabilitation while others require replacement with a more expensive asset.

*Table ES1: Current Performance by Replacement Value*

Asset				Good (No Deficiencies)	Fair (Has Deficiencies)	Poor (Requires Treatment/ Spending)	Total
			5033 Hilton Beach WTP	\$ 365,913	\$ 38,213	\$ 181,625	\$ 585,752
			5034 Hilton Beach WWTP	\$ 546,787	\$ 590,750	\$ 744,489	\$ 1,882,026
			Hilton Beach Distribution	\$ 1,118,700	\$ 2,170,000	\$ -	\$ 3,288,700
			Hilton Beach Collection	\$ 2,197,800	\$ 1,699,500	\$ -	\$ 3,897,300
			<b>Total</b>	\$ 4,229,200	\$ 4,498,464	\$ 926,114	\$ 9,653,777

## Spending Forecast

Figure ES3 summarizes the spending forecast results. An average of \$ 61,000 is required in the 5-year term, and \$ 72,000 per year over the long term to achieve asset performance requirements.



*Figure ES3: Spending Forecast Summary*

## Funding Gap

The funding gap is the difference between the Village's current capital and maintenance spending levels and the ones proposed in this AMP. Its value will be determined in future collaboration with the Village.

## Financial Strategy

The objective of the Village's financing strategy should be to maximize new assessment growth at the lowest real cost impact to ratepayers (i.e. maximize real revenue growth through expanded customer base and minimize rate increases). This would prioritize the following options:

1. Provincial/Federal Government Grants
2. Internal Financing using Reserves
3. Debt
4. Rate Increases

Future budgets will present the optimal balance of the available financing options to fund the Village's infrastructure program.

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# 1 INTRODUCTION

## 1.1 Overview

This Asset Management Plan (AMP) builds a structured relationship between infrastructure spending and asset performance. Periodic (annual) updates ensure it reflects changing circumstances and actively supports infrastructure decision-making processes.

## 1.2 Defining Asset Performance

The definition of Asset Performance is “the ability of an asset to fulfill the organization’s objectives or requirements”.

The performance of an asset directly relates to the level of service it provides:

- An asset in the good performance category is one which is meeting the expectations of the community (i.e. providing an appropriate level of service); and
- An asset in the poor performance category is one which is not meeting expectations (i.e. not providing an appropriate level of service), and requires spending to have it meet expectations.

The community’s asset performance expectations balance costs and affordability and are therefore unique to each community based on its infrastructure inventory, financial status and community/corporate priorities.

## 1.3 Provincial Asset Management Planning Requirements

The Province of Ontario developed Regulation 588/17 under the Infrastructure for Jobs and Prosperity Act (2015). The following points summarize the requirements of O.Reg. 588/17:

- An AM policy is required to articulate specific principles and commitments that will guide decisions around when, why and how to spend money on the Village’s infrastructure assets. The Policy is required by July 1, 2019.
- By July 1, 2022 the AMP will be required to establish the spending that is required **to maintain current** asset performance expectations for water, wastewater, stormwater, roads and bridges.
- By July 1, 2024 the AMP will be required to establish the spending that is required to **maintain** current asset performance expectations for all asset groups.
- By July 1, 2025 the AMP will be required to establish the spending that is required to achieve desired asset performance expectations, and the financial strategy to fund the required spending.

## 1.4 AMP Development Approach

OCWA’s Asset Stewardship Quality Management System (ASQMS) guides the approach to develop this AMP. The ASQMS Framework shows how technical asset lifecycle strategies connect to community

priorities to develop optimized spending plans that balance service levels and costs. An AMP is a tactical output of the ASQMS.

The ASQMS aligns with Ontario Regulation 588/17 Asset Management Planning for Municipal Infrastructure and the international standard for infrastructure asset management (ISO 55000).

The development of this AMP leverages the Village's best available asset and financial information to OCWA, staff input, subject matter expert professional judgement, and AM best practices, to complete the following steps:

1. Develop a complete listing of infrastructure assets to be included in the AMP.
2. Assess current performance (level of service) of the assets based on existing information.
3. Prepare an asset lifecycle management strategy (i.e. spending plan) that maintains the current performance of the Village's infrastructure assets.
4. Determine the gap between required spending levels to achieve asset performance objectives versus historic spending. This is a future step.

## **1.5 Updating the Asset Management Plan**

A periodic update to the AMP ensures it reflects the latest information and responds to evolving asset performance expectations in the community. Ideally, this update occurs annually in conjunction with the Village's budget processes, or more frequently if required to support funding applications.

## **1.6 Asset Management Plan Scope**

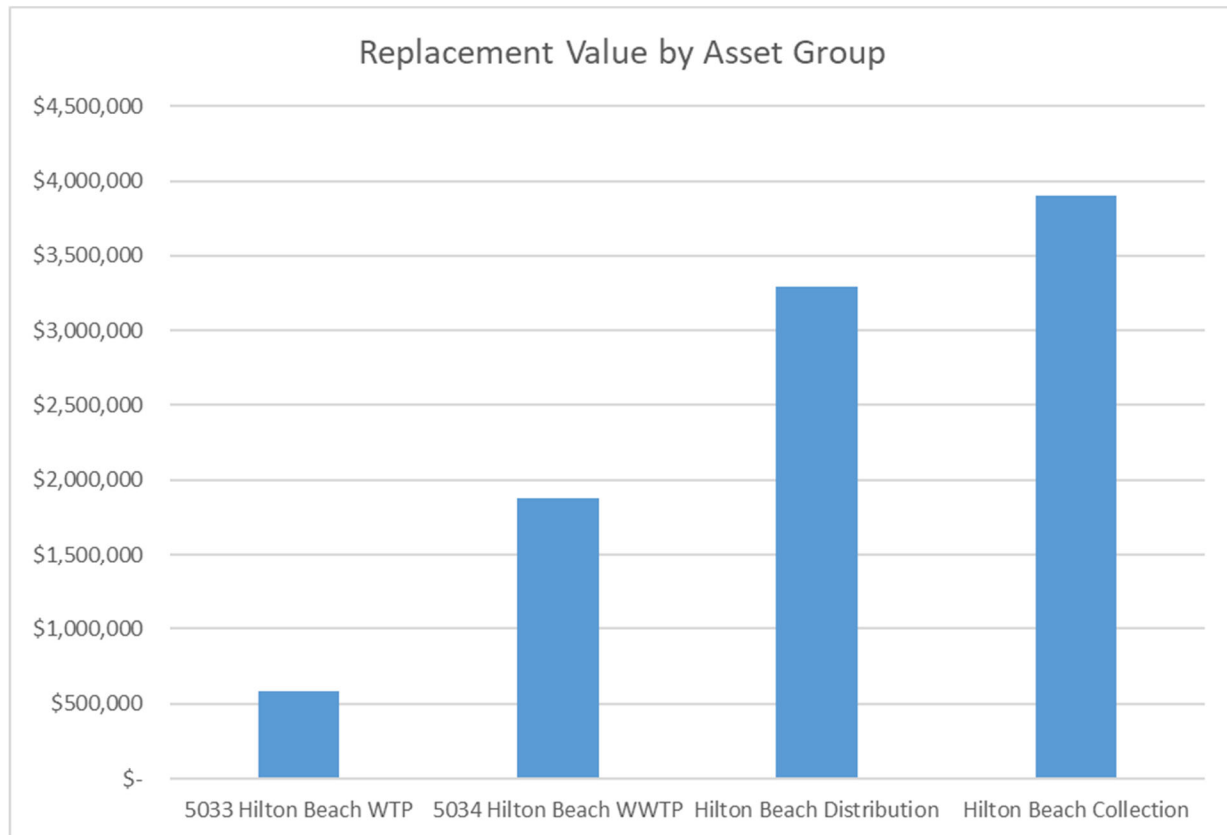
This AMP includes all water and wastewater assets owned by the Village. Section 2 summarizes the infrastructure portfolio.

## **1.7 Growth Planning**

This section will examine the Village's projected population growth to assess potential impacts on its water and wastewater system.

## 2 OVERVIEW OF ASSET PORTFOLIO

The infrastructure portfolio has an estimated replacement value of approximately \$9.6 million (Figure 2-1). A detailed asset inventory is available in Appendix C.



*Figure 2-1: Water and Wastewater Infrastructure Portfolio*

*Note: Actual costing values are subject to market forces at the time of infrastructure construction/improvement activity, the above values are based on historical averages and industry standards.*



### 3 ASSET PERFORMANCE ASSESSMENT

As described in Section 1, the new landscape of AM that aligns with ISO 55000 defines asset performance as the ability for an asset to fulfill its objectives or requirements. This means that the performance of an asset is directly proportional to the level of service it provides. Levels of service are also at the core of O.Reg. 588/17, which requires municipalities to understand the cost to achieve higher or lower levels of service.

#### 3.1 Measuring Asset Performance

The Village's asset inventory contains performance information for all infrastructure assets. This includes information related to both asset condition and asset function. The performance information is collected from a variety of sources, ranging from sophisticated technologies to investigate the assets to visual observations from qualified professionals.

All asset performance data combines with the professional judgment of subject matter experts to establish the current performance of each asset as defined in Table 3-1 below.

*Table 3-1: Asset Performance Rating Descriptions*

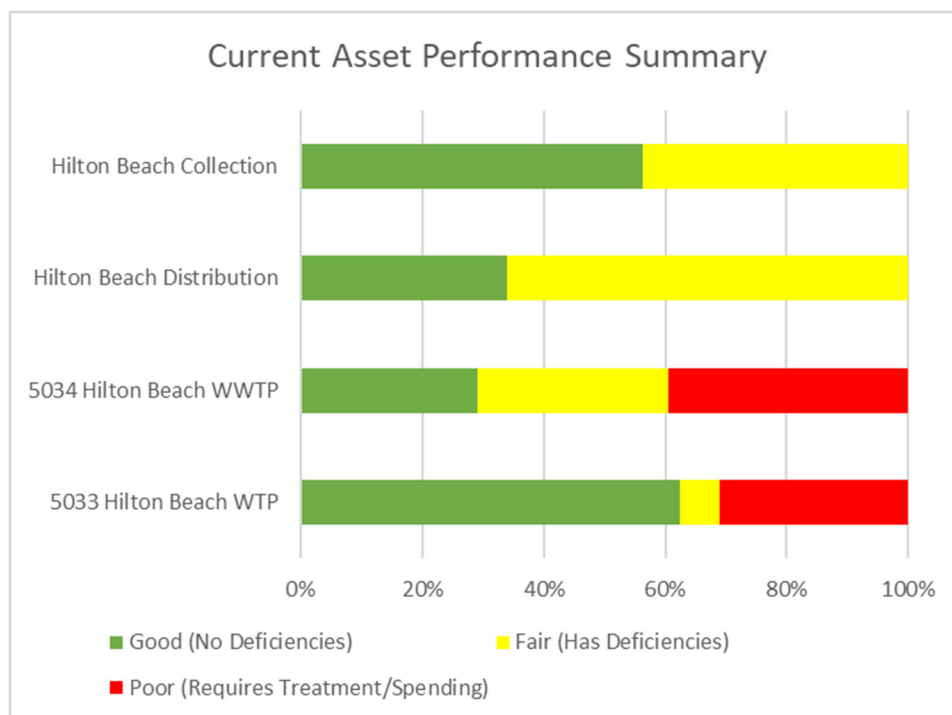
PERFORMANCE CATEGORY	DESCRIPTION	STATE OF ASSET
Good	Asset performance meets or exceeds its objectives/requirements.	No Deficiencies
Fair	Asset performance is nearing the point where it will not meet its objectives/requirements.	Has Deficiencies
Poor	Asset performance is not meeting its objectives/requirements.	Requires Treatment (Spending)

#### 3.2 Current Asset Performance

Figure 3-1 and Table 3-2 provide the current performance distribution of each asset group. The total replacement cost of the assets in the poor performance category is of approximately \$1 million, which represents approximately 10% of the total asset portfolio. Note that the spending required to restore these assets to the good performance category is not equal to the replacement costs, since some assets only require rehabilitation while others require replacement with a more expensive asset.

The performance category of each asset updates on a continual basis to reflect actual spending on assets, new asset data, and changing asset performance objectives or requirements.

Detailed performance metrics are provided in Appendix A.



*Figure 3-1: Current Performance Distribution*

*Table 3-2: Current Performance by Replacement Value*

Asset				Good (No Deficiencies)	Fair (Has Deficiencies)	Poor (Requires Treatment/ Spending)	Total
			5033 Hilton Beach WTP	\$ 365,913	\$ 38,213	\$ 181,625	\$ 585,752
			5034 Hilton Beach WWTP	\$ 546,787	\$ 590,750	\$ 744,489	\$ 1,882,026
			Hilton Beach Distribution	\$ 1,118,700	\$ 2,170,000	\$ -	\$ 3,288,700
			Hilton Beach Collection	\$ 2,197,800	\$ 1,699,500	\$ -	\$ 3,897,300
			<b>Total</b>	\$ 4,229,200	\$ 4,498,464	\$ 926,114	\$ 9,653,777

## 4 ASSET LIFECYCLE MANAGEMENT

### 4.1 Asset Lifecycle Activities Overview

Table 4-1 provides an overview of typical asset lifecycle activities applied to public infrastructure. The spending forecasts in this section represent a combination of major maintenance, rehabilitation and replacement treatments. Appendix D contains the detailed spending plan.

*Table 4-1: Typical Asset Lifecycle Activities*

LIFECYCLE ACTIVITY	DESCRIPTION
<b>Operational</b>	Operational activities, routine preventative maintenance, studies on asset performance
<b>(Major) Maintenance</b>	Repairs and component replacement to maintain asset performance, typically costing between 5-10% of asset replacement value.
<b>Rehabilitation</b>	Project to extend asset service life, typically costing between 15% - 40% of asset replacement value.
<b>Replacement</b>	A project resulting in a replacement of an asset with one asset that meets top industry and community expectations.
<b>New Asset</b>	Construction or purchase of new assets that results in net growth of the asset inventory and an enhancement in service levels provided to the community.

### 4.2 Spending Forecast

#### 4.2.1 Approach

The analysis approach involves connecting real planned projects against specific assets where feasible and iteratively adjusting annual spending levels until the forecasted performance distribution will be relatively stable (i.e. the proportion of the asset network in the poor performance category is consistent).

For example, Figure 4-1 shows a scenario where there is not sufficient spending, resulting in the proportion of assets in the poor performance category increase from 5% in 2021 to 90% in 2040, and a declining trend in the Network Average performance index. This indicates that additional spending is required. Analysis updates continue to achieve a suitable performance forecast.

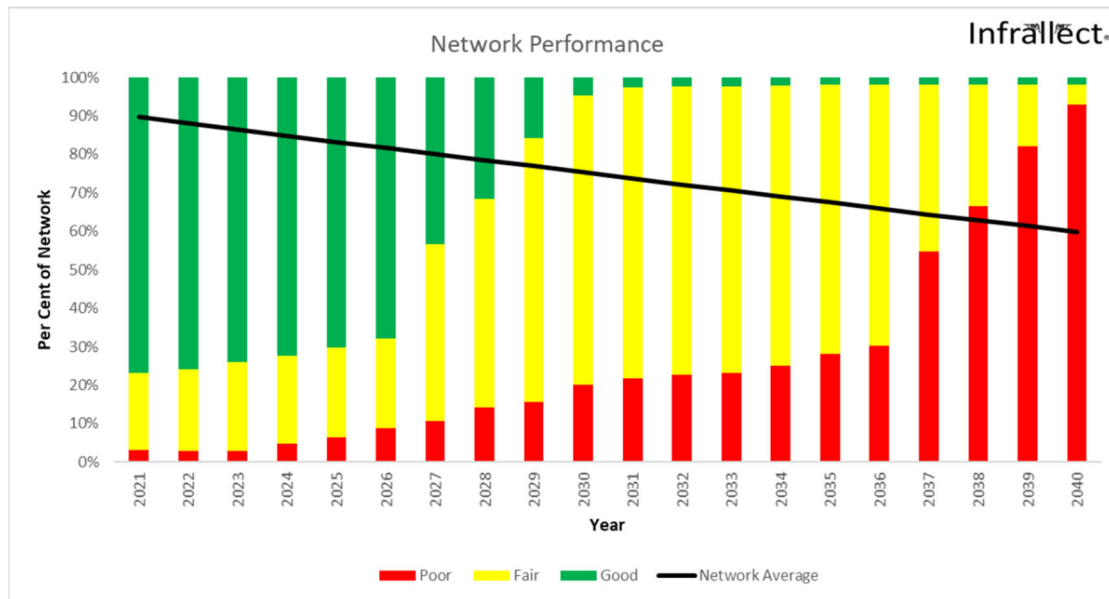


Figure 4-1: Sample Performance Forecast

#### 4.2.2 Results

Figure 4-2 to Figure 4-5 provide the performance and spending forecasts for each asset group. Figure 4-6 provides the summary of spending needs. Appendix D provides the detailed planned program.

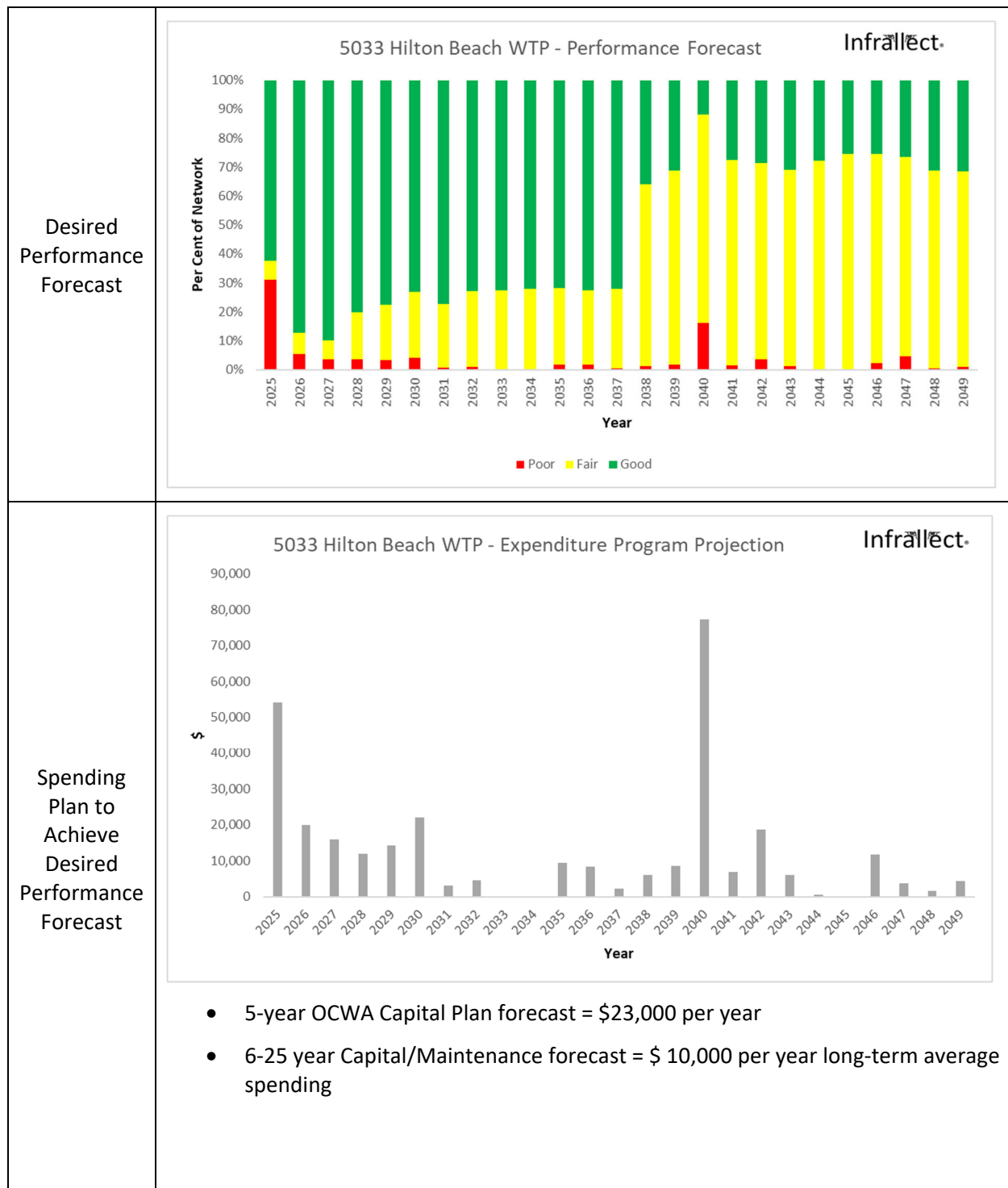


Figure 4-2: 5033 Hilton Beach WTP Performance and Expenditure Forecast

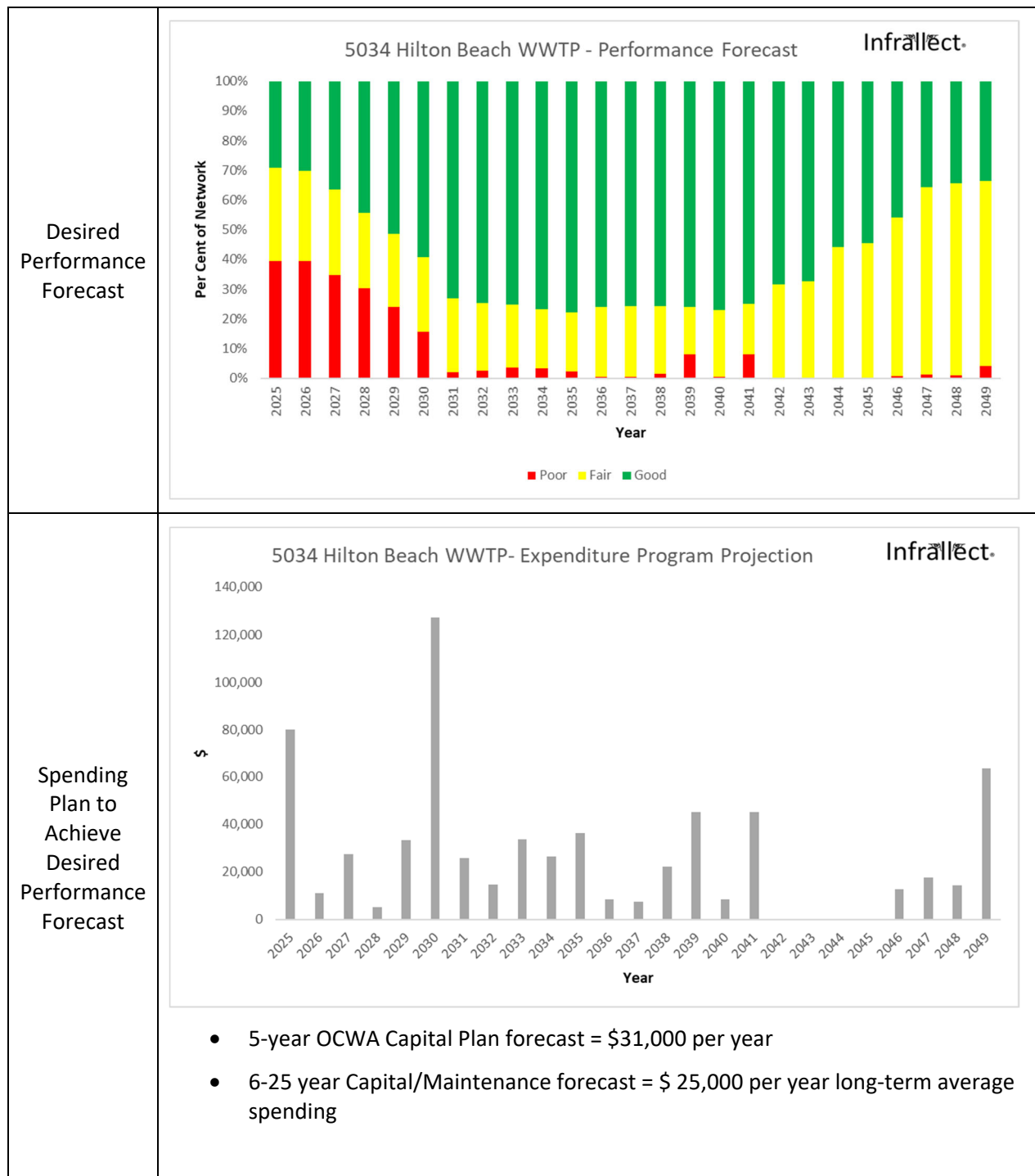


Figure 4-3: 5034 Hilton Beach WWTP Performance and Expenditure Forecast

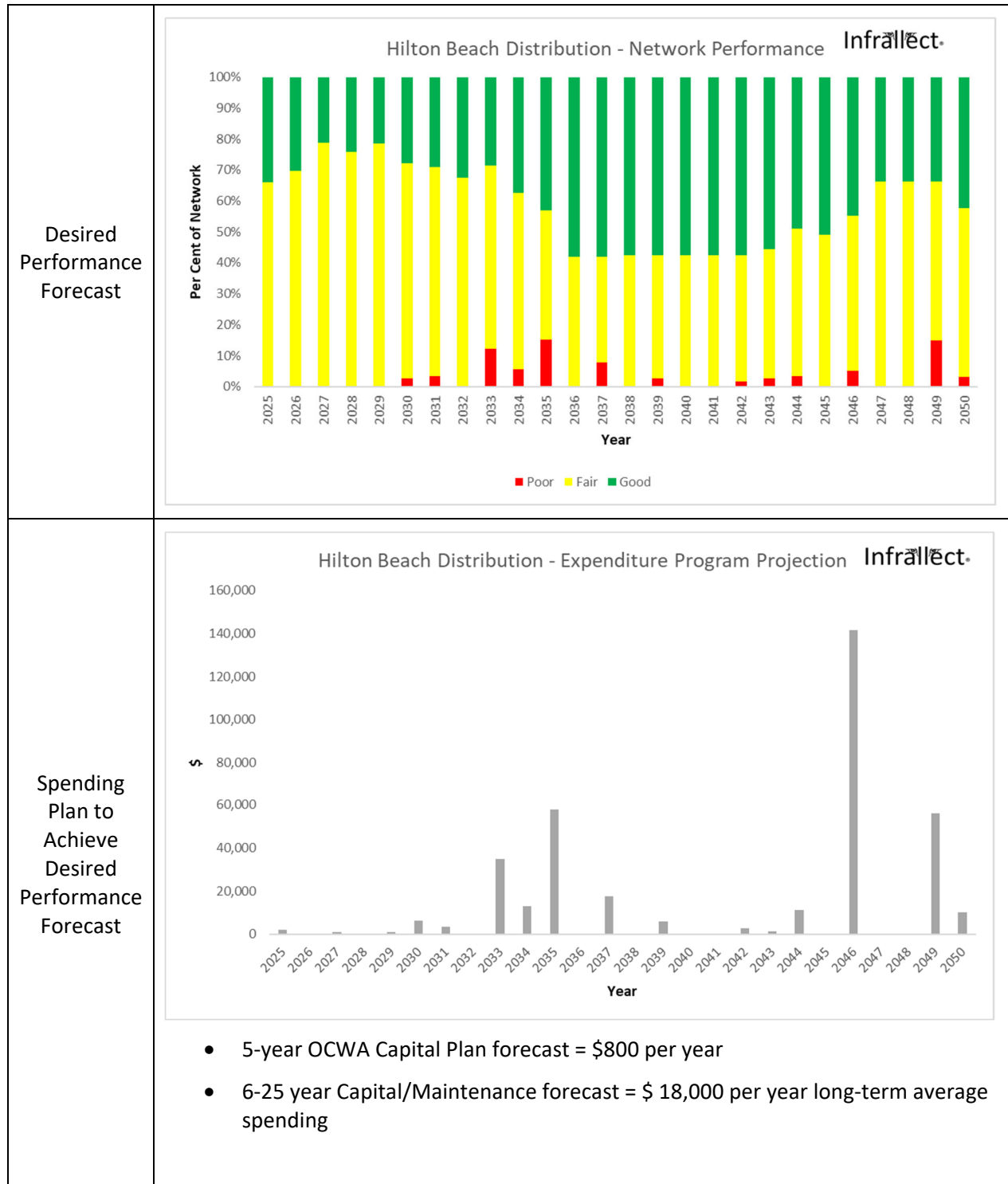


Figure 4-4: Hilton Beach Distribution Assets Performance and Expenditure Forecast



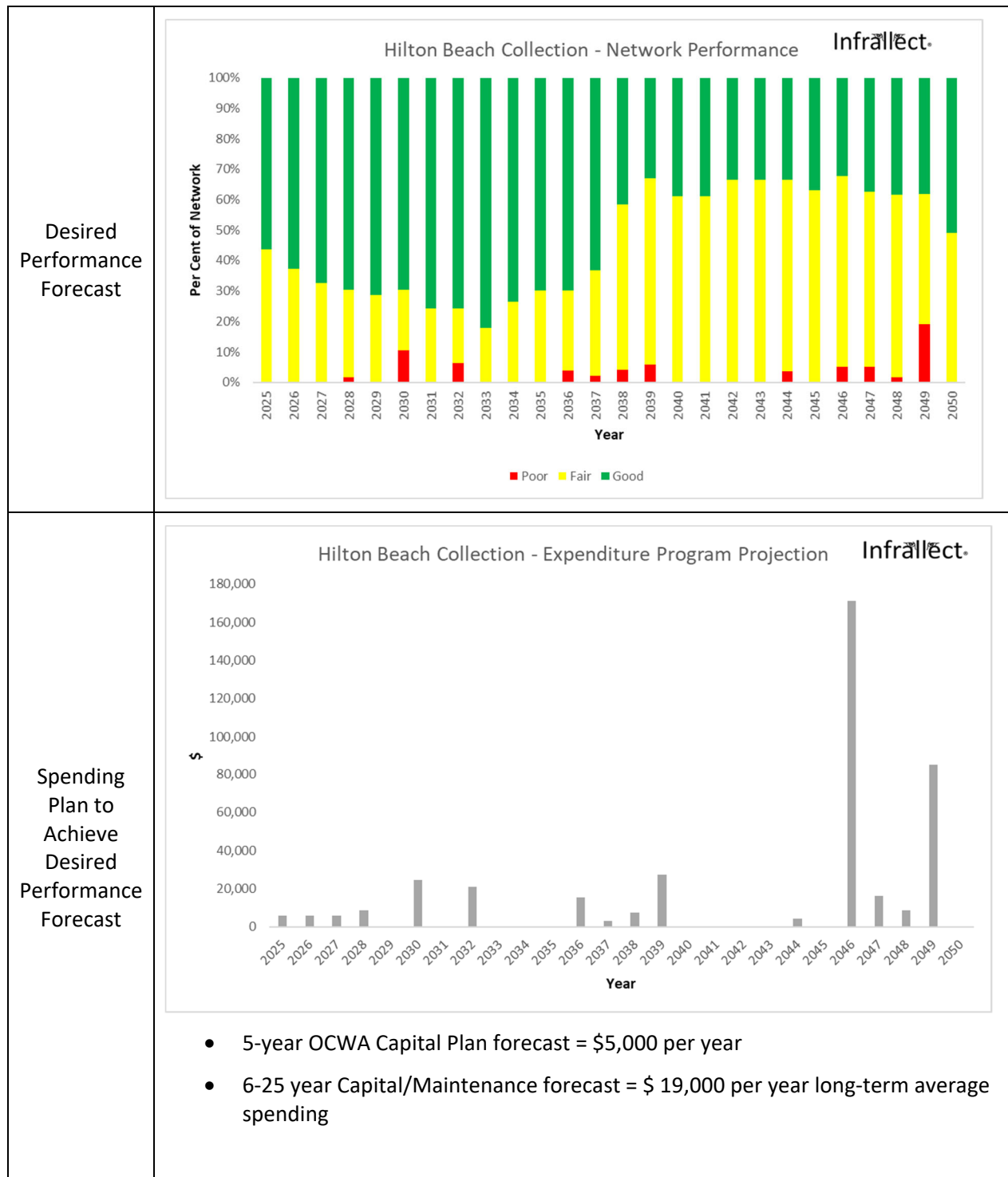


Figure 4-5: Hilton Beach Collection Assets Performance and Expenditure Forecast

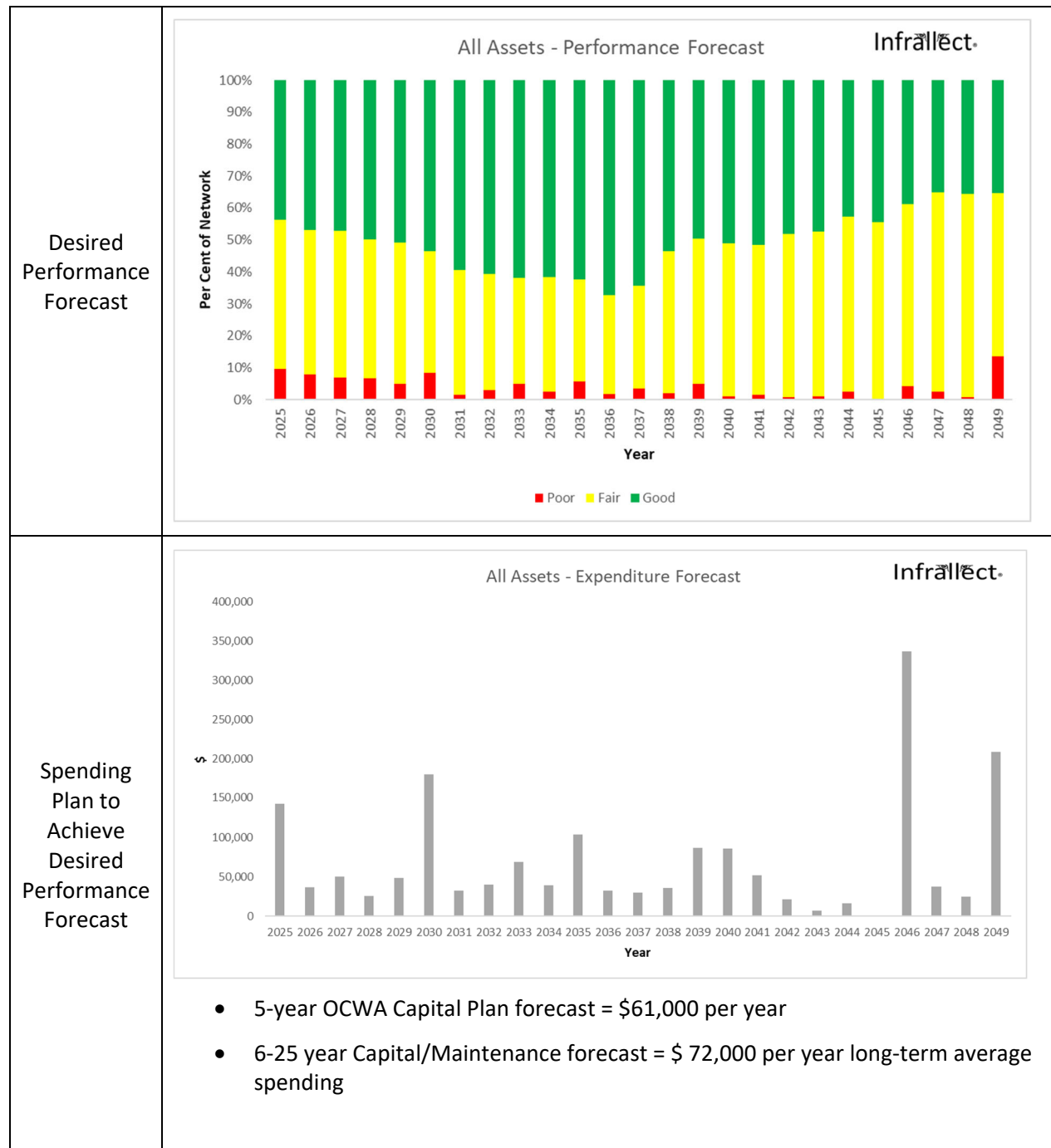


Figure 4-4: All Assets Performance and Expenditure Forecast

Figure 4-6 summarizes the combined spending forecast. An average of \$ 61,000 per year over the short term of 5-years, and \$ 72,000 over the long term of 6-25 years is required to achieve the Village's desired asset performance expectations. The detailed planned program is provided in Appendix D.

### **4.3 Funding Gap Summary**

The funding gap is the difference between the Village's current capital and maintenance spending levels and the ones proposed in this AMP. Its value will be determined in future collaboration with the Village.

### **4.4 Risk Management**

The approach to managing risk in this AMP is to consider the overall criticality of each asset related to the role it plays in providing services to the community (by understanding the required performance of each asset based on its location, function, size, etc.). This understanding establishes when an asset is not meeting its objectives or requirements based on the available technical performance indicators and subject matter expert judgement. Assets that are more critical have higher performance expectations, while less critical assets have lower performance expectations.

## 4.5 Managing Climate Change

The expected impacts of climate change have been considered and included throughout the analysis used to inform this AMP. This includes consideration of climate change when establishing the current performance category of an asset, forecasting the deterioration rate of an asset, or establishing the lifecycle activities completed on an asset.

The most prominent climate factors affecting the Village's water and wastewater infrastructure are severe wet weather events, prolonged periods of cold weather, and prolonged periods of heat or drought. The climate factors discussed are referenced to the Climate Atlas of Canada<sup>1</sup>, an online tool to learn about the impacts of climate change in the area for different scenarios.

- *Climate Factor 1 - Severe Wet Weather Events*

Severe wet weather events put added strain on the wastewater collection and treatment systems. This strain can lead to additional overflows or a reduction in treatment effectiveness. At this point, this climate factor is not causing any specific performance deficiencies as the heavy rain days are projected to increase from 5.1 to 6.0 days per year in the next 20 years. The Village should continue to monitor the impacts of severe wet weather events on the wastewater collection and treatment system.

- *Climate Factor 2 – Periods of Prolonged Heat or Drought*

This climate factor can lead to more days of high peak water demand and reductions to the quantity and/or quality of source water. Based on the climate model of Climate Atlas of Canada, the number of heat waves increases from 0.2 days to 1.1 days in the next 20 years. However, due to the stable supply of fresh water, this climate factor is not causing any specific performance deficiencies. The Village should continue to monitor the impacts of periods of prolonged heat or drought on the water supply and storage system.

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<sup>1</sup> [Climate Atlas of Canada](#)

## **5 FINANCING STRATEGY**

A number of financing strategies are available to fund infrastructure expenditures. The objective of the Village's financing strategy should be to maximize new assessment growth at the lowest real cost impact to ratepayers (i.e. maximize real revenue growth through expanded customer base and minimize rate increases). This would prioritize the following options:

1. Provincial/Federal Government Grants
2. Internal Financing using Reserves
3. Debt
4. Rate Increases

Future budgets will present the optimal balance of the available financing options to fund the Village's infrastructure program.

## **6 DISCUSSION AND NEXT STEPS**

This AMP represents the tactical output of a corporate management system. The corporate management system is the series of interconnected processes that work together to realize value from assets. This AMP uses the best available asset and financial information. The AMP is a living document that requires periodic updates to reflect new information and changing community priorities.

### **6.1 Monitoring Asset Performance**

Moving forward, Provincial Regulation requires the Village to provide an annual update on the progress of the AMP. The practical steps to complete these activities are as follows:

1. Each year, update the asset inventory with the best available asset data. This adds/removes assets as appropriate.
2. Each year, update current asset performance based on the best available information.
3. Each year, update the spending analysis to record completed spending, and to connect planned spending to assets or asset networks.

These three steps enable updates to the forecast performance versus spending analysis. Over time, the Village will be able to see connections between the changing performance distribution and annual spending levels. This will increase the confidence of the Village's AMPs each year.

### **6.2 Roadmap for Enhancing Asset Management Processes**

The following points provide a roadmap to enhance asset management planning processes in the Village:

1. Continue to maintain the inventory of all assets owned. Asset inventories should be comprehensive of all assets in an asset network.
2. Continue to strengthen the connection between actual or planned spending and specific assets (or asset networks). This will provide greater line of sight from the current or planned spending and the resulting performance improvement in an asset or asset network.
3. Continue to strengthen the quality of asset-centric performance indicator data that is available to measure the current performance of assets and asset networks.
4. Engage the community to understand their current perspective on the performance of assets and asset networks. This understanding calibrates the current performance of the asset networks and prioritizes the allocation of funding to improve the performance of asset networks relative to community expectations.

**Appendix A – Performance Indicator Tracking**

Name	System Type	Indicator	2019	2020	2021	2022	2023
5033 Hilton Beach WTP	Water Treatment	Treatment Capacity (max flow/rated capacity)	72%	69%	75%	60%	41%
		Boil Water Advisory	0	0	0	0	0
		Adverse Water Quality Incident (AWQI)	0	1	1	1	1
		Non-Compliance	1	0	0	2	0
		Watermain Breaks	0	0	0	0	0
5034 Hilton Beach WWTP	Wastewater	Capacity (average flow/rated capacity)	26%	28%	23%	23%	22%
		Effluent (or other) Non-Compliance	0	0	1	4	6
		Bypass/Spill/Overflow events	0	0	0	0	0
		Sewer Blockages	0	0	0	0	0
		Community Complaint	0	0	0	0	0

O. Reg. 588/17 Mandatory Metrics			
Asset Group	Metric	Result	Comment
Water	User groups or areas that are connected to the municipal water system	Most properties within Hilton Beach are connected to the municipal water system?	
Water	User groups or areas that have fire flow	All properties connected to the municipal water system have some fire flow coverage.	
Water	Percentage of properties connected to the municipal water system	TBD	
Water	Percentage of properties where fire flow is available	TBD	
Water	Description of boil water advisories and service interruptions	TBD	
Water	Number of connection-days per year where a boil water advisory notice is in place compared to the total number of properties connected to the municipal water system	TBD	Note: Metric results in units of 'days' which is a meaningless statistic. Province needs to better define this metric.
Water	Number of connection-days per year due to water main breaks compared to the total number of properties connected to the municipal water system	TBD	Assume Oreg metric is missing "disrupted", i.e. text should read "Number of disrupted connection-days per year due to water main breaks compared to the total number of properties connected to the municipal water system."  Assume 1 break = 20 customers impacted for 1 day
Water	Average Age of Water Treatment Assets	18 Years	
Water	Average Age of Water Distribution Assets	TBD	
Wastewater	User groups or areas that are connected to the municipal wastewater system	Most properties within Hilton Beach are connected to the municipal wastewater system?	
Wastewater	Percentage of properties connected to the municipal wastewater system	TBD	TBD Total Parcels, TBD connected to municipal system
Wastewater	Description of how combined sewers in the municipal wastewater system are designed with overflow structures in place (to prevent backups into homes by allowing overflow during storm events)	N/A - no combined sewers?	
Wastewater	Description of the frequency and volume of overflows in combined sewers in the municipal wastewater system that occur in habitable areas or beaches	N/A - no combined sewers?	
Wastewater	Description of how stormwater can get into sanitary sewers in the municipal wastewater system, causing sewage to overflow into streets or backup into homes	Infiltration inflow into sanitary sewers in both groundwater and stormwater which are not intended to be in sanitary system. Infiltration can enter through a variety of sources (cracks in pipes, weeping tile connections, cross connection, catch basins, etc.).	
Wastewater	Description of how sanitary sewers in the municipal wastewater system are designed to be resilient to avoid sewage overflow into streets or backup into homes	Sanitary sewer systems are designed with appropriate overflows to reduce likelihood of sewer backup events. Overflows are typically found in the collection system or at pumping stations.	
Wastewater	Description of the effluent that is discharged from sewage treatment plants in the municipal wastewater system	Effluent can be defined as water pollution, such as the outflow from a sewage treatment facility. The effluent from the treatment facilities have documented compliance limits, objectives, and actual performance. The effluent criteria include effluent flow rates, and parameters for suspended solids, Biochemical Oxygen Demand (BOD), phosphorous, ammonia, and E. coli.	
Wastewater	The number of connection-days per year due to wastewater backups compared to the total number of properties connected to the municipal wastewater system.	TBD	Note: Metric results in units of 'days' which is a meaningless statistic. Province needs to better define this metric.
Wastewater	Annual number of events where combined sewer flow in the municipal wastewater system exceeds system capacity compared to the total number of properties connected to the municipal wastewater system.	N/A - no combined sewers?	
Wastewater	The number of effluent violations per year due to wastewater discharge compared to the total number of properties connected to the municipal wastewater system.	4 violations, TBD wastewater connections	
Wastewater	Average Age of Wastewater Treatment and Pumping Assets	31 Years	
Wastewater	Average Age of Wastewater Collection Assets	TBD	



## **Appendix B – 5 Year Capital Plan**

5033-Hilton Beach WT

(10-Year Recommended Capital/Major Maintenance Out of Scope from 2025 to 2034)

The Ontario Clean Water Agency has identified the following Out of Scope capital projects/major maintenance for your review and approval.

The recommendations constitute the projects that Qualified Professionals deem necessary to ensure regulatory compliance or achieve client community objectives. The recommendations are informed by data from OCWA's Work Management System (Maximo), data from OCWA's Process Data Management System (WISKI), commissioned engineering or consultant reports, OCWA's review of industry including energy saving opportunities, innovative technologies, optimization opportunities, system capacity, emerging environmental trends, changing climatic conditions, system resiliency and discussions with a range of subject matter experts as necessary to identify appropriate spending needs that are not within the scope of activities included in OCWA's Operating and Maintenance Agreement.

Project No.	Facility/System Name	Project Type (drop down list)	Project Name	Relevant Asset ID(e) or Functional Location(s) from WMS	Cost Estimate*										Compliance Impact	DWQMS RA Outcome**	Health & Safety	Repair / Maintenance	Lifecycle Replacement	Improvement	Spare Parts/Materials Inventory	OJ/ECA	Innovation/Energy/Optimized or Bio Solids	Growth/Development Infrastructure Planning and Permitting	Resiliency/Emerging Trends/Climatic Changes		Approved by Client to Develop into an Expenditure Request Package	WMS Workorder Number		Scope Summary Comment/Additional Rationale/Supporting Information
					2025	2026	2027	2028	2029	2030	2031	2032	2033	2034																
1	5033-Hilton Beach WT	Capital Project	Turbidity Analyzer Upgrade/Replacement		\$10,500										x				x											Lifecycle Replacement
2	5033-Hilton Beach WT	Capital Project	Well #2 Singer Valve Replacement		\$12,000													x												Life Cycle Replacement
3	5033-Hilton Beach WT	Capital Project	Clearwell Inspection		\$3,000										x		x													Predictive Maintenance
4	5033-Hilton Beach WT	Capital Project	Well inspection Below Grade		\$10,000										x															Predictive Maintenance
5	5033-Hilton Beach WT	Capital Project	Distribution Pipework Revisions		\$3,000												x													Predictive Maintenance
6	5033-Hilton Beach WT	Capital Project	Well Building Pipe Replacement Staged		\$3,000	\$3,000	\$3,000											x												Predictive Maintenance
7	5033-Hilton Beach WT	Capital Project	Valve replacements Staged		\$2,500	\$2,500	\$2,500	\$2,500			\$5,000		\$5,000					x												
8	5033-Hilton Beach WT	Major Maintenance	Chlorine Probes Refurbishing and Maintenance Kit/standards		\$2,500	\$2,500	\$2,500	\$2,800	\$2,500	\$2,800	\$3,000	\$3,200	\$3,200	\$3,200				x												Critical Process component
9	5033-Hilton Beach WT	Major Maintenance	pH probe		\$1,000		\$1,200		\$1,200		\$1,200		\$1,200		x			x												Critical Process component
10	5033-Hilton Beach WT	Major Maintenance	Chemical Systems Parts, eg. valves, sensors, PRVs/daytank		\$2,500	\$2,200	\$2,500	\$2,000	\$2,200	\$2,500	\$2,600	\$2,600	\$2,600	\$2,600	x			x												Predictive Maintenance
11	5033-Hilton Beach WT	Major Maintenance	generator batteries/repairs		\$900	\$900	\$900	\$900	\$900	\$950	\$950	\$950	\$950	\$950				x												As Required
12	5033-Hilton Beach WT	Major Maintenance	UPS batteries		\$900	\$800	\$800	\$800	\$800	\$800	\$800	\$800	\$800	\$800				x												Back Up Power
13	5033-Hilton Beach WT	Major Maintenance	Pipe/Fittings/Connectors		\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200				x												As Required
14	5033-Hilton Beach WT	Major Maintenance	alarm upgrades			\$1,200					\$1,200							x												as required
15	5033-Hilton Beach WT	Major Maintenance	DWQMS, onsite audit			\$4,200			\$4,200			\$4,200			x															Mandatory 3 year cycle
16	5033-Hilton Beach WT	Major Maintenance	DWQMS off site audit		\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	x															Mandatory every two years between on site audits
17	5033-Hilton Beach WT	Major Maintenance	PTTW renewal									\$1,000			x															every 10 years
18	5033-Hilton Beach WT	Major Maintenance	MDWL, MDWP renewal					\$500							x															Every 5 years
Total					\$54,300	\$19,800	\$15,900	\$12,000	\$14,300	\$9,750	\$17,450	\$15,450	\$16,450	\$10,250																

Notes  
\*The above noted Cost Estimates have been developed to aid the client to understand the order of magnitude cost and will be further refined based on Client acceptance in principle of the proposed work. OCWA uses the AACE cost estimating framework to identify our cost estimate classification. Estimates are considered to be Class 5 cost estimates (+/- 50%), with increasing accuracy in shorter term projects as quotations are solicited from contractors.

5034-Hilton Beach WWTP

**(10-Year Recommended Capital/Major Maintenance Out of Scope from 2025 to 2034)**  
The Ontario Clean Water Agency has identified the following Out of Scope capital projects/major maintenance for your review and approval.

The recommendations constitute the projects that Qualified Professionals deem necessary to ensure regulatory compliance or achieve client community objectives. The recommendations are informed by data from OCWA's Work Management System (Maximo), data from OCWA's Process Data Management System (WISKI), commissioned engineering or consultant reports, OCWA's review of industry including energy saving opportunities, innovative technologies, optimization opportunities, system capacity, emerging environmental trends, changing climatic conditions, system resiliency and discussions with a range of subject matter experts as necessary to identify appropriate spending needs that are not within the scope of activities included in OCWA's Operating and Maintenance Agreement.

Project No.	Facility/System Name	Project Type (drop down list)	Project Name	Relevant Asset ID(s) or Functional Location(s) from WMS	Cost Estimate*										Compliance Impact	DWQMS RA Outcome**	Health & Safety	Repair / Maintenance	Lifecycle Replacement	Improvement	Spare Parts/Materials Inventory	CUI/ECA	Innovation/Energy/Optimization/Big Solids	Growth/Development	Process/Procedure Planning and Permitting	Resiliency/Emerging Trends/Climatic Changes		Approved by Client to Develop into an Expenditure Request Package	WMS Workorder Number		Scope Summary	
					2025	2026	2027	2028	2029	2030	2031	2032	2033	2034																		Comment/Additional Rationale/Supporting Information
1	5034-Hilton Beach WWTP	Capital Project	STP Equalization Pump		\$12,000				\$12,000				\$1,200				x														Predictive Maintenance	
2	5034-Hilton Beach WWTP	Capital Project	Lift stations - clean outs		\$6,000		\$6,000		\$6,000		\$6,000		\$6,000				x														Predictive Maintenance	
3	5034-Hilton Beach WWTP	Capital Project	Sludge Tank Cleaning		\$7,500		\$7,500		\$7,500		\$10,000		\$10,000				x														Predictive Maintenance	
4	5034-Hilton Beach WWTP	Capital Project	Generator Batteries/Repairs			\$800		\$1,000		\$1,000		\$1,000		\$1,200			x														Predictive Maintenance as required	
5	5034-Hilton Beach WWTP	Capital Project	Sodium Hypo Chlorite Chemical Feed Panel		\$10,000													x													Lifecycle Improvements	
6	5034-Hilton Beach WWTP	Major Maintenance	Emergency Pump Repairs		\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000			x														as required	
7	5034-Hilton Beach WWTP	Major Maintenance	Collection System Flushing (1/3 For 3 years)		\$6,000	\$6,000	\$6,000					\$6,000	\$6,000	\$6,000			x														as required	
8	5034-Hilton Beach WWTP	Major Maintenance	Alarm and Telecommunications Upgrades		\$2,500		\$2,500		\$2,500		\$2,500		\$2,500				x														Predictive Maintenance	
9	5034-Hilton Beach WWTP	Major Maintenance	Sodium Hypo Panel Replacement		\$10,000												x															
Total					\$57,000	\$9,800	\$25,000	\$4,000	\$31,000	\$4,000	\$21,500	\$10,000	\$28,700	\$10,200																		

**Notes**  
\*The above noted Cost Estimates have been developed to aid the client to understand the order of magnitude cost and will be further refined based on Client acceptance in principle of the proposed work. OCWA uses the AACE cost estimating framework to identify our cost estimate classification. Estimates are considered to be Class 5 cost estimates (+/- 50%), with increasing accuracy in shorter term projects as quotations are solicited from contractors.

Hilton Beach Distribution & Collection

(10-Year Recommended Capital/Major Maintenance Out of Scope from 2025 to 2034)  
The Ontario Clean Water Agency has identified the following Out of Scope capital projects/major maintenance for your review and approval.

The recommendations constitute the projects that Qualified Professionals deem necessary to ensure regulatory compliance or achieve client community objectives. The recommendations are informed by data from OCWA's Work Management System (Maximo), data from OCWA's Process Data Management System (WISKI), commissioned engineering or consultant reports, OCWA's review of industry including energy saving opportunities, innovative technologies, optimization opportunities, system capacity, emerging environmental trends, changing climatic conditions, system resiliency and discussions with a range of subject matter experts as necessary to identify appropriate spending needs that are not within the scope of activities included in OCWA's Operating and Maintenance Agreement.

Project No.	Facility/System Name	Project Type (drop down list)	Project Name	Relevant Asset ID(e) or Functional Location(s) from WMS	Cost Estimate*										Compliance Impact	DWQMS RA Outcome**	Health & Safety	Repair / Maintenance	Lifecycle Replacement	Improvement	Spare Parts/Materials Inventory	CJ/ECA	Innovation/Energy/Optimized or/Bo Solids	Growth/Development Infrastructure Planning and Permittance	Resiliency/Emerging Trends/Climatic Changes		Approved by Client to Develop into an Expenditure Request Package	WMS Workorder Number		Scope Summary Comment/Additional Rationale/Supporting Information
					2025	2026	2027	2028	2029	2030	2031	2032	2033	2034																
1	Hilton Beach Distribution & Collection	Capital Project	Reservoir Cleaning		\$20,000													x												as required
2	Hilton Beach Distribution & Collection	Capital Project	Distribution Vavle Maintenance		\$2,000		\$1,000		\$1,000		\$1,000		\$1,000	\$1,000				x												as required
3	Hilton Beach Distribution & Collection	Capital Project	Electrical Maintenance		\$1,000	\$1,200	\$1,200	\$1,200	\$1,400	\$1,400	\$1,000	\$1,400	\$1,400	\$1,400				x												as required
Total					\$23,000	\$1,200	\$2,200	\$1,200	\$2,400	\$1,400	\$2,000	\$1,400	\$2,400	\$2,400																

Notes  
\*The above noted Cost Estimates have been developed to aid the client to understand the order of magnitude cost and will be further refined based on Client acceptance in principle of the proposed work. OCWA uses the AACE cost estimating framework to identify our cost estimate classification.  
Estimates are considered to be Class 5 cost estimates (+/- 50%), with increasing accuracy in shorter term projects as quotations are solicited from contractors.

## **Appendix C – Detailed Asset Inventory**

Asset ID	Asset	Location	Reconstruction Value (\$) 2025	2025 Performance	2025 Qualitative Performance
0000114652	PANEL COMMUNICATION Outpost		5033	6,303	0.03 Fair, has deficiencies.
00000115558	GENERATOR	5033-WTHB-F-PD		113,000	-1.00 Poor, requires treatment.
0000126584	VALVE GATE Main Stop Valve		5033	2,720	-1.00 Poor, requires treatment.
0000126585	LIGHTING EMERGENCY Chlorination Room		5033	813	0.05 Fair, has deficiencies.
0000126586	SAFETY EYE WASH/SHOWER Entrance		5033	3,000	0.06 Fair, has deficiencies.
0000126588	VALVE GATE Well #1 Above Singer valve		5033	2,720	0.07 Fair, has deficiencies.
0000126589	SAFETY SPILL KIT		5033	1,113	0.08 Fair, has deficiencies.
0000126590	VALVE GLOBE Well #2 West Header		5033	2,720	0.10 Fair, has deficiencies.
0000126591	VALVE GATE Well #1 West Header		5033	2,720	-1.00 Poor, requires treatment.
0000126592	VALVE GATE Well #1 East Header		5033	2,720	-1.00 Poor, requires treatment.
0000126593	VALVE GATE Below CL2 injection		5033	2,720	-1.00 Poor, requires treatment.
0000126594	VALVE GATE Well #2 East Header		5033	2,720	0.18 Fair, has deficiencies.
0000126597	VALVE RELIEF Well #1		5033	2,720	0.20 Fair, has deficiencies.
0000126598	VALVE RELIEF Well #2 East Header		5033	2,720	0.22 Fair, has deficiencies.
0000126599	UPS Chlorination Room		5033	1,723	0.25 Fair, has deficiencies.
0000126602	FIRE EXTINGUISHER		5033	300	0.28 Fair, has deficiencies.
0000126603	FIRE EXTINGUISHER		5033	300	0.31 Fair, has deficiencies.
0000126604	RECORDER DATA LOGGER FLOW, Turb, Cl2		5033	5,087	0.34 Fair, has deficiencies.
0000126605	LIGHTING EMERGENCY MCC Room		5033	813	0.38 Fair, has deficiencies.
0000126607	HEATER Chlorination Room		5033	2,581	0.41 Fair, has deficiencies.
0000126608	HEATER MCC Room		5033	2,581	0.45 Fair, has deficiencies.
0000126610	UPS MCC Room		5033	1,723	-1.00 Poor, requires treatment.
0000127446	VALVE BACKFLOW EYE WASH	5033-WTHB-P-PI		5,000	0.52 Good, no deficiencies.
0000127449	METER FLOW WELL #1	5033-WTHB-P-PC		10,500	0.55 Good, no deficiencies.
0000127526	MCC	5033-WTHB-F-PD		60,032	0.59 Good, no deficiencies.
0000127527	TRANSFORMER AIR PHASE CONVERTER	5033-WTHB-F-PD		8,288	0.62 Good, no deficiencies.
0000127528	PANEL CONTROL WATER PLANT	5033-WTHB-F-PD		11,250	0.66 Good, no deficiencies.
0000127530	PANEL ALARM/DIALER	5033-WTHB-P-PC		6,303	-1.00 Poor, requires treatment.
0000127535	PUMP SUBMERSIBLE 01 HL	5033-WTHB-P-HL		8,377	0.72 Good, no deficiencies.
0000127536	PUMP SUBMERSIBLE 02 HL	5033-WTHB-P-HL		8,377	0.75 Good, no deficiencies.
0000127537	VALVE GATE Well #2	5033-WTHB-P-PI		2,720	-1.00 Poor, requires treatment.
0000127541	ANALYZER CHLORINE I RESIDUAL - SPARE	5033-WTHB-P-PC		7,000	0.80 Good, no deficiencies.
0000127661	PUMP 1 CHLORINE	5033-WTHB-P-DI		1,500	0.82 Good, no deficiencies.
0000127662	PUMP 2 CHLORINE	5033-WTHB-P-DI		1,500	0.85 Good, no deficiencies.
0000127663	METER FLOW WELL #2		5033	10,500	0.87 Good, no deficiencies.
0000142972	METER PRESSURE Well #2	5033-WTHB-P-PI		7,795	0.88 Good, no deficiencies.
0000142974	METER PRESSURE Well #1	5033-WTHB-P-PI		7,795	0.90 Good, no deficiencies.
0000258649	ANALYZER CHLORINE Treated Water Free		5033	7,000	-1.00 Poor, requires treatment.
0000258650	ANALYZER TURBIDITY Raw Water		5033	8,000	-1.00 Poor, requires treatment.
0000313200	ANALYZER CHLORINE Injection		5033	7,000	-1.00 Poor, requires treatment.
0000313201	VALVE REGULATING I Singer Pressure Control		5033	5,000	0.95 Good, no deficiencies.
0000313237	GENERATOR	5033-WTHB-F-PD		113,000	1.00 Good, no deficiencies.
TBD_53	building			50,000	1.00 Good, no deficiencies.
TBD_54	pipes			25,000	-1.00 Poor, requires treatment.
TBD_55	site			50,000	1.00 Good, no deficiencies.

Asset ID	Asset	Location	Reconstruction Value (\$) 2025	2025 Performance	2025 Qualitative Performance
0000127434	TANK PROCESS 01 MIXING RBC	5034-WWHB-P-ST	150,000		0.03 Fair, has deficiencies.
0000127435	MOTOR AC 01 GEAR DRIVE RBC	5034-WWHB-P-ST	8,125		0.03 Fair, has deficiencies.
0000127438	TANK STORAGE ALUM	5034-SPHB-P-SH-ALUM	25,000		0.04 Fair, has deficiencies.
0000127439	PUMP DIAPHRAGM CHEMICAL	5034-SPHB-P-TT	4,836		0.04 Fair, has deficiencies.
0000127440	PUMP DIAPHRAGM 01 CHEMICAL	5034-SPHB-P-TT	4,836		0.05 Fair, has deficiencies.
0000127441	PUMP DIAPHRAGM 02 CHEMICAL	5034-SPHB-P-TT	4,836		0.06 Fair, has deficiencies.
0000127442	PUMP DIAPHRAGM 03 CHEMICAL	5034-SPHB-P-TT	4,836		0.06 Fair, has deficiencies.
0000127443	PUMP DIAPHRAGM CHEMICAL	5034-SPHB-P-TT	4,836		0.07 Fair, has deficiencies.
0000127484	MCC	5034-WWHB-F-PD	60,032		0.08 Fair, has deficiencies.
0000127485	SWITCH TRANSFER GENSET HILTON WWTP	5034-WWHB-F-PG	8,000		0.10 Fair, has deficiencies.
0000127486	PANEL CONTROL GENERATOR HILTON BEACH W	5034-WWHB-F-PG	6,303		0.11 Fair, has deficiencies.
0000127487	GENERATOR DIESEL HILTON WWTP	5034-WWHB-F-PG	120,000		-1.00 Poor, requires treatment.
0000127488	PANEL CONTROL GENERATOR HILTON BEACH W	5034-WWHB-F-PG	6,303		0.13 Fair, has deficiencies.
0000127489	RECORDER CHART	5034-SPHB-P-PC	5,087		0.15 Fair, has deficiencies.
0000127490	PANEL CONTROL PROCESS	5034-SPHB-P-PC	6,303		-1.00 Poor, requires treatment.
0000127491	PANEL ALARM/DIALER	5034-SPHB-P-PC	6,303		-1.00 Poor, requires treatment.
0000127492	FAN EXHAUST BLOWER RM	5034-SPHB-F-HV	1,500		0.20 Fair, has deficiencies.
0000127493	FAN EXHAUST MAIN RM	5034-SPHB-F-HV	1,500		0.22 Fair, has deficiencies.
0000127494	BLOWER POSITIVE DISPLACEMENT 01	5034-WWHB-P-ST	30,000		0.25 Fair, has deficiencies.
0000127495	MOTOR AC 01 BLOWER	5034-WWHB-P-ST	8,125		0.27 Fair, has deficiencies.
0000127496	BLOWER POSITIVE DISPLACEMENT 02	5034-WWHB-P-ST	30,000		0.29 Fair, has deficiencies.
0000127497	MOTOR AC 02 BLOWER	5034-WWHB-P-ST	8,125		0.31 Fair, has deficiencies.
0000127498	BLOWER POSITIVE DISPLACEMENT 03	5034-WWHB-P-ST	30,000		0.34 Fair, has deficiencies.
0000127499	MOTOR AC 03 BLOWER	5034-WWHB-P-ST	8,125		0.37 Fair, has deficiencies.
0000127500	VALVE BUTTERFLY BLOWER RM	5034-WWHB-P-ST	2,720		0.39 Fair, has deficiencies.
0000127501	GEAR DRIVE 01 RBC	5034-WWHB-P-ST	9,750		0.42 Fair, has deficiencies.
0000127502	TANK PROCESS 02 MIXING RBC	5034-WWHB-P-ST	150,000		0.45 Fair, has deficiencies.
0000127503	MOTOR AC 02 GEAR DRIVE RBC	5034-WWHB-P-ST	8,125		0.47 Fair, has deficiencies.
0000127504	GEAR DRIVE 02 RBC	5034-WWHB-P-ST	9,750		0.50 Good, no deficiencies.
0000127505	TANK PROCESS 03 MIXING RBC	5034-WWHB-P-ST	150,000		0.53 Good, no deficiencies.
0000127506	MOTOR AC 03 GEAR DRIVE RBC	5034-WWHB-P-ST	8,125		0.55 Good, no deficiencies.
0000127507	GEAR DRIVE 02 RBC	5034-WWHB-P-ST	9,750		0.58 Good, no deficiencies.
0000127508	PUMP SUBMERSIBLE 03 RBC	5034-WWHB-P-ST	8,377		-1.00 Poor, requires treatment.
0000127509	PUMP SUBMERSIBLE 02 RBC	5034-WWHB-P-ST	8,377		-1.00 Poor, requires treatment.
0000127510	PUMP SUBMERSIBLE 01 RBC	5034-WWHB-P-ST	8,377		-1.00 Poor, requires treatment.
0000127511	TANK PROCESS CLARIFIER SECONDARY	5034-WWHB-P-ST	150,000		-1.00 Poor, requires treatment.
0000127512	TANK PROCESS CLARIFIER SECONDARY	5034-WWHB-P-ST	150,000		-1.00 Poor, requires treatment.
0000127513	TANK PROCESS CLARIFIER SECONDARY	5034-WWHB-P-ST	150,000		-1.00 Poor, requires treatment.
0000127514	SAMPLER FINAL EFFLUENT	5034-SPHB-P-PC	6,630		0.75 Good, no deficiencies.
0000127515	PUMP SUBMERSIBLE 01 LIFT STN	5034-SPHB-P-HW-PUMP	8,377		-1.00 Poor, requires treatment.
0000127516	PUMP SUBMERSIBLE 02 LIFT STN	5034-SPHB-P-HW-PUMP	8,377		-1.00 Poor, requires treatment.
0000127517	PANEL CONTROL GENERATOR HILTON BEACH PS	5034-WWHB-F-PG	6,303		0.82 Good, no deficiencies.
0000127518	GENERATOR DIESEL HILTON MAIN PS	5034-WWHB-F-PG	120,000		-1.00 Poor, requires treatment.
0000127519	PANEL CONTROL GENERATOR HILTON BEACH PS	5034-WWHB-F-PG	6,303		0.85 Good, no deficiencies.
0000127520	VALVE BUTTERFLY BLOWER AREA	5034-WWHB-P-ST	2,720		0.87 Good, no deficiencies.
0000127521	VALVE BUTTERFLY BLOWER AREA	5034-WWHB-P-ST	2,720		0.88 Good, no deficiencies.
0000127522	VALVE BUTTERFLY BLOWER AREA	5034-WWHB-P-ST	2,720		0.89 Good, no deficiencies.
0000127523	VALVE BUTTERFLY BLOWER AREA	5034-WWHB-P-ST	2,720		0.90 Good, no deficiencies.
0000127524	VALVE BUTTERFLY BLOWER AREA	5034-WWHB-P-ST	2,720		0.92 Good, no deficiencies.
0000127525	VALVE BUTTERFLY BLOWER AREA	5034-WWHB-P-ST	2,720		0.93 Good, no deficiencies.
0000127531	MCC HILTON BEACH PS	5034-WWHB-F-PD	60,032		0.94 Good, no deficiencies.
0000127532	SWITCH TRANSFER GENSET HILTON MAIN PS	5034-WWHB-F-PG	8,000		0.94 Good, no deficiencies.
0000127533	TRANSFORMER 01 DRY HILTON BEACH PS	5034-WWHB-F-PD	8,288		0.95 Good, no deficiencies.
0000127534	TRANSFORMER 02 DRY HILTON BEACH PS	5034-WWHB-F-PD	8,288		0.96 Good, no deficiencies.
0000313221	ANALYZER CHLORINE	5034-WWHB	8,750		0.96 Good, no deficiencies.
TBD_66	building		100,000		0.97 Good, no deficiencies.
TBD_67	site		100,000		0.97 Good, no deficiencies.
TBD_68	pipes		50,000		0.98 Good, no deficiencies.

Asset ID	Asset	Location	Reconstruction Value (\$) 2025	2025 Performance	2025 Qualitative Performance
1	Ringham St	East St to Canoe Point Rd	270,000	0.25	Fair, has deficiencies.
2	East St	Ringham St to Canoe Point Rd	147,600	0.3	Fair, has deficiencies.
3	Ringham St	Hilton Rd to East St	207,000	0.35	Fair, has deficiencies.
4	Park St	North St to Bowker St	83,700	0.4	Fair, has deficiencies.
5	Canoe Point Rd	East St to Park St	49,500	0.45	Fair, has deficiencies.
6	Bowker St	Park St to Marks St	111,600	0.5	Good, no deficiencies.
7	Bowker St	Marks St to Hilton Rd	84,600	0.65	Good, no deficiencies.
8	Hilton Rd	Ringham St to Marks St	163,800	0.6	Good, no deficiencies.
9	Marks St	Hilton Rd to North St	126,000	0.75	Good, no deficiencies.
10	Marks St	North St to Bowker St	90,900	0.25	Fair, has deficiencies.
11	Marks St	Bowker St to Bay St	55,800	0.3	Fair, has deficiencies.
12	Bay St	to Mark St	64,800	0.35	Fair, has deficiencies.
13	Bay St	Marks St to Hilton Rd	135,000	0.4	Fair, has deficiencies.
14	Hilton Rd	Maple St to Marks St	117,000	0.45	Fair, has deficiencies.
15	Hilton Rd	Maple St to 3rd St	279,000	0.5	Good, no deficiencies.
16	Maple St	Hilton Rd to 1st St	54,000	0.65	Good, no deficiencies.
17	Maple St	1st St to 2nd St	113,400	0.85	Good, no deficiencies.
18	3rd St	2nd St to Hilton Rd	135,000	0.6	Good, no deficiencies.
19	South St	Hilton Rd to 1st St	51,300	0.75	Good, no deficiencies.
20	South St	1st St to 2nd St	112,500	0.25	Fair, has deficiencies.
21	South St	2nd St to 6th St	337,500	0.3	Fair, has deficiencies.
22	1st St	South St to Maple St	198,000	0.35	Fair, has deficiencies.
23	2nd St	South St to Maple St	200,700	0.4	Fair, has deficiencies.
24	Well House		100,000	0.45	Fair, has deficiencies.



Asset ID	Asset	Location	Reconstruction Value (\$) 2025	2025 Performance	2025 Qualitative Performance
1	Ringham St	East St to Canoe Point Rd	330,000	0.03	Fair, has deficiencies.
2	East St	Ringham St to Canoe Point Rd	180,400	0.05	Fair, has deficiencies.
3	Ringham St	Hilton Rd to East St	253,000	0.07	Fair, has deficiencies.
4	Park St	North St to Bowker St	102,300	0.10	Fair, has deficiencies.
5	Canoe Point Rd	East St to Park St	60,500	0.13	Fair, has deficiencies.
6	Bowker St	Park St to Marks St	136,400	0.17	Fair, has deficiencies.
7	Bowker St	Marks St to Hilton Rd	103,400	0.22	Fair, has deficiencies.
8	Hilton Rd	Ringham St to Marks St	200,200	0.27	Fair, has deficiencies.
9	Marks St	Hilton Rd to North St	154,000	0.33	Fair, has deficiencies.
10	Marks St	North St to Bowker St	111,100	0.40	Fair, has deficiencies.
11	Marks St	Bowker St to Bay St	68,200	0.47	Fair, has deficiencies.
12	Bay St	to Mark St	79,200	0.53	Good, no deficiencies.
13	Bay St	Marks St to Hilton Rd	165,000	0.60	Good, no deficiencies.
14	Hilton Rd	Maple St to Marks St	143,000	0.67	Good, no deficiencies.
15	Hilton Rd	Maple St to 3rd St	341,000	0.73	Good, no deficiencies.
16	Maple St	Hilton Rd to 1st St	66,000	0.78	Good, no deficiencies.
17	Maple St	1st St to 2nd St	138,600	0.83	Good, no deficiencies.
18	3rd St	2nd St to Hilton Rd	165,000	0.87	Good, no deficiencies.
19	South St	Hilton Rd to 1st St	62,700	0.90	Good, no deficiencies.
20	South St	1st St to 2nd St	137,500	0.93	Good, no deficiencies.
21	South St	2nd St to 6th St	412,500	0.95	Good, no deficiencies.
22	1st St	South St to Maple St	242,000	0.97	Good, no deficiencies.
23	2nd St	South St to Maple St	245,300	0.98	Good, no deficiencies.

## **Appendix D – Planned Program**

note: actual costs are subject to respective tendering/bidding processes, system averages are shown below  
note II: actual Asset IDs to be treated are subject to latest in-year available performance information and subject matter expert judgement  
note III: totals may not add up to Capital Program totals (Appendix B) due to asset inventory cross-referencing limitations

Line #	Location	Asset ID	Asset	Treatment Description	Forecast Cost (\$)	Forecast Year
1	5033	115558	GENERATOR	Maintenance	900.00	2025
2	5033	126593	VALVE GATE Below CL2 injection	Reconstruction	2,500.00	2025
3	5033	126610	UPS MCC Room	Rehabilitation	900.00	2025
4	5033	127537	VALVE GATE Well #2	Reconstruction	12,000.00	2025
5	5033	258650	ANALYZER TURBIDITY Raw Water	Reconstruction	10,500.00	2025
6	5033	313200	ANALYZER CHLORINE injection	Maintenance	2,500.00	2025
7	5033	TBD_54	pipes	Maintenance	4,000.00	2025
8	5033					
9	5033					
10	5033	115558	GENERATOR	Maintenance	900.00	2026
11	5033	126584	VALVE GATE Main Stop Valve	Reconstruction	2,500.00	2026
12	5033	126610	UPS MCC Room	Rehabilitation	800.00	2026
13	5033	127530	PANEL ALARM/DIALER	Maintenance	1,200.00	2026
14	5033	258649	ANALYZER CHLORINE Treated Water Free	Maintenance	2,500.00	2026
15	5033	TBD_54	pipes	Maintenance	4,000.00	2026
16	5033					
17	5033					
18	5033	115558	GENERATOR	Maintenance	900.00	2027
19	5033	126592	VALVE GATE Well #1 East Header	Reconstruction	2,500.00	2027
20	5033	126610	UPS MCC Room	Rehabilitation	800.00	2027
21	5033	313200	ANALYZER CHLORINE injection	Maintenance	2,500.00	2027
22	5033	TBD_54	pipes	Maintenance	4,000.00	2027
23	5033					
24	5033					
25	5033	115558	GENERATOR	Maintenance	900.00	2028
26	5033	126591	VALVE GATE Well #1 West Header	Reconstruction	2,500.00	2028
27	5033	126610	UPS MCC Room	Rehabilitation	800.00	2028
28	5033	258649	ANALYZER CHLORINE Treated Water Free	Rehabilitation	2,800.00	2028
29	5033	TBD_54	pipes	Maintenance	1,000.00	2028
30	5033					
31	5033					
32	5033	115558	GENERATOR	Maintenance	900.00	2029
33	5033	126610	UPS MCC Room	Rehabilitation	800.00	2029
34	5033	313200	ANALYZER CHLORINE injection	Maintenance	2,500.00	2029
35	5033	TBD_54	pipes	Maintenance	1,000.00	2029
36	5033					
37	5033					
38	5033	114652	PANEL COMMUNICATION Outpost	Reconstruction	5,609.38	2030
39	5033	126585	LIGHTING EMERGENCY Chlorination Room	Reconstruction	756.44	2030
40	5033	126586	SAFETY EYE WASH/SHOWER Entrance	Reconstruction	2,730.00	2030
41	5033	126588	VALVE GATE Well #1 Above Singer valve	Reconstruction	2,393.60	2030
42	5033	126589	SAFETY SPILL KIT	Reconstruction	1,013.14	2030
43	5033	126590	VALVE GLOBE Well #2 West Header	Reconstruction	2,393.37	2030
44	5033	126594	VALVE GATE Well #2 East Header	Reconstruction	2,393.60	2030
45	5033	126597	VALVE RELIEF Well #1	Reconstruction	2,393.37	2030
46	5033	126599	UPS Chlorination Room	Reconstruction	1,636.67	2030
47	5033	126602	FIRE EXTINGUISHER	Reconstruction	300.00	2030
48	5033	126603	FIRE EXTINGUISHER	Reconstruction	300.00	2030
49	5033					
50	5033					
51	5033	126598	VALVE RELIEF Well #2 East Header	Reconstruction	2,393.37	2031
52	5033	126605	LIGHTING EMERGENCY MCC Room	Reconstruction	756.44	2031
53	5033					
54	5033					
55	5033	126604	RECORDER DATA LOGGER FLOW, Turb, Cl2	Reconstruction	4,527.58	2032
56	5033					
57	5033					
58	5033	127449	METER FLOW WELL #1	Reconstruction	9,345.00	2035
59	5033					
60	5033					
61	5033	126607	HEATER Chlorination Room	Reconstruction	2,245.15	2036
62	5033	127541	ANALYZER CHLORINE 1 RESIDUAL - SPARE	Reconstruction	6,020.00	2036
63	5033					
64	5033					
65	5033	126608	HEATER MCC Room	Reconstruction	2,245.15	2037
66	5033					
67	5033					
68	5033	126610	UPS MCC Room	Reconstruction	1,636.67	2038
69	5033	127446	VALVE BACKFLOW EYE WASH	Reconstruction	4,400.00	2038
70	5033					
71	5033					
72	5033	126599	UPS Chlorination Room	Reconstruction	1,636.67	2039
73	5033	258650	ANALYZER TURBIDITY Raw Water	Reconstruction	6,880.00	2039
74	5033					
75	5033					
76	5033	127526	MCC	Reconstruction	46,825.25	2040
77	5033	127535	PUMP SUBMERSIBLE 01 HL	Reconstruction	7,120.16	2040
78	5033	127536	PUMP SUBMERSIBLE 02 HL	Reconstruction	7,120.16	2040
79	5033	127663	METER FLOW WELL #2	Reconstruction	9,345.00	2040
80	5033	142972	METER PRESSURE Well #2	Reconstruction	6,937.50	2040
81	5033					
82	5033					
83	5033	142974	METER PRESSURE Well #1	Reconstruction	6,937.50	2041
84	5033					
85	5033					
86	5033	127528	PANEL CONTROL WATER PLANT	Reconstruction	10,012.50	2042
87	5033	127661	PUMP 1 CHLORINE	Reconstruction	1,275.00	2042
88	5033	127662	PUMP 2 CHLORINE	Reconstruction	1,275.00	2042
89	5033	258649	ANALYZER CHLORINE Treated Water Free	Reconstruction	6,020.00	2042
90	5033					
91	5033					
92	5033	313200	ANALYZER CHLORINE injection	Reconstruction	6,020.00	2043
93	5033					
94	5033					
95	5033	126602	FIRE EXTINGUISHER	Reconstruction	300.00	2044
96	5033	126603	FIRE EXTINGUISHER	Reconstruction	300.00	2044
97	5033					

98	5033				
99	5033	126585 LIGHTING EMERGENCY Chlorination Room	Reconstruction	756.44	2046
100	5033	126586 SAFETY EYE WASH/SHOWER Entrance	Reconstruction	2,730.00	2046
101	5033	126589 SAFETY SPILL KIT	Reconstruction	1,013.14	2046
102	5033	127527 TRANSFORMER AIR PHASE CONVERTER	Reconstruction	7,210.21	2046
103	5033				
104	5033				
105	5033	126605 LIGHTING EMERGENCY MCC Room	Reconstruction	756.44	2047
106	5033	126610 UPS MCC Room	Reconstruction	1,636.67	2047
107	5033	TBD_54 pipes	Maintenance	1,385.04	2047
108	5033				
109	5033				
110	5033	126599 UPS Chlorination Room	Reconstruction	1,636.67	2048
111	5033				
112	5033				
113	5033	313201 VALVE REGULATING 1 Singer Pressure Control	Reconstruction	4,400.00	2049
114	5033				
115	5033				
116	5033	115558 GENERATOR	Reconstruction	96,050.00	2050
117	5033	127541 ANALYZER CHLORINE 1 RESIDUAL - SPARE	Reconstruction	6,020.00	2050
118	5033	313237 GENERATOR	Rehabilitation	62,150.00	2050
119	5033	TBD_55 site	Maintenance	2,770.08	2050

<i>note: actual costs are subject to respective tendering/bidding processes, system averages are shown below</i> <i>note II: actual Asset IDs to be treated are subject to latest in-year available performance information and subject matter expert judgement</i> <i>note III: totals may not add up to Capital Program totals (Appendix B) due to asset inventory cross-referencing limitations</i>						
Line #	Asset Class	Asset ID	Asset	Treatment Description	Forecast Cost (\$)	Forecast Year
1	5034	127490	PANEL CONTROL PROCESS	Reconstruction	10,000.00	2025
2	5034	127491	PANEL ALARM/DIALER	Rehabilitation	2,500.00	2025
3	5034	127511	TANK PROCESS CLARIFIER SECONDARY	Maintenance	7,500.00	2025
4	5034	127515	PUMP SUBMERSIBLE 01 LIFT STN	Maintenance	3,000.00	2025
5	5034					
6	5034					
7	5034	127510	PUMP SUBMERSIBLE 01 RBC	Maintenance	3,000.00	2026
8	5034	127518	GENERATOR DIESEL HILTON MAIN PS	Maintenance	800.00	2026
9	5034					
10	5034					
11	5034	127512	TANK PROCESS CLARIFIER SECONDARY	Maintenance	7,500.00	2027
12	5034	127516	PUMP SUBMERSIBLE 02 LIFT STN	Maintenance	3,000.00	2027
13	5034					
14	5034					
15	5034	127487	GENERATOR DIESEL HILTON WWTP	Maintenance	1,000.00	2028
16	5034	127509	PUMP SUBMERSIBLE 02 RBC	Maintenance	3,000.00	2028
17	5034					
18	5034					
19	5034	127508	PUMP SUBMERSIBLE 03 RBC	Maintenance	3,000.00	2029
20	5034	127513	TANK PROCESS CLARIFIER SECONDARY	Maintenance	7,500.00	2029
21	5034					
22	5034					
23	5034	127434	TANK PROCESS 01 MIXING RBC	Maintenance	45,000.00	2030
24	5034	127435	MOTOR AC 01 GEAR DRIVE RBC	Reconstruction	7,312.50	2030
25	5034	127438	TANK STORAGE ALUM	Maintenance	7,500.00	2030
26	5034	127439	PUMP DIAPHRAGM CHEMICAL	Reconstruction	4,110.72	2030
27	5034	127440	PUMP DIAPHRAGM 01 CHEMICAL	Reconstruction	4,110.72	2030
28	5034	127441	PUMP DIAPHRAGM 02 CHEMICAL	Reconstruction	4,110.72	2030
29	5034	127442	PUMP DIAPHRAGM 03 CHEMICAL	Reconstruction	4,110.72	2030
30	5034	127443	PUMP DIAPHRAGM CHEMICAL	Reconstruction	4,110.72	2030
31	5034	127484	MCC	Reconstruction	46,825.25	2030
32	5034					
33	5034					
34	5034	127485	SWITCH TRANSFER GENSET HILTON WWTP	Reconstruction	7,120.00	2031
35	5034	127486	PANEL CONTROL GENERATOR HILTON BEACH WWTP	Reconstruction	5,609.38	2031
36	5034	127488	PANEL CONTROL GENERATOR HILTON BEACH WWTP	Reconstruction	5,609.38	2031
37	5034	127489	RECORDER CHART	Reconstruction	4,527.58	2031
38	5034	127492	FAN EXHAUST BLOWER RM	Reconstruction	1,350.00	2031
39	5034	127493	FAN EXHAUST MAIN RM	Reconstruction	1,350.00	2031
40	5034					
41	5034					
42	5034	127495	MOTOR AC 01 BLOWER	Reconstruction	7,312.50	2032
43	5034	127497	MOTOR AC 02 BLOWER	Reconstruction	7,312.50	2032
44	5034					
45	5034					
46	5034	127494	BLOWER POSITIVE DISPLACEMENT 01	Reconstruction	26,400.00	2033
47	5034	127499	MOTOR AC 03 BLOWER	Reconstruction	7,312.50	2033
48	5034					
49	5034					
50	5034	127496	BLOWER POSITIVE DISPLACEMENT 02	Reconstruction	26,400.00	2034
51	5034					
52	5034					
53	5034	127498	BLOWER POSITIVE DISPLACEMENT 03	Reconstruction	26,400.00	2035
54	5034	127500	VALVE BUTTERFLY BLOWER RM	Reconstruction	2,393.37	2035
55	5034	127503	MOTOR AC 02 GEAR DRIVE RBC	Reconstruction	7,312.50	2035
56	5034					
57	5034					
58	5034	127501	GEAR DRIVE 01 RBC	Reconstruction	8,385.00	2036
59	5034					
60	5034					
61	5034	127506	MOTOR AC 03 GEAR DRIVE RBC	Reconstruction	7,312.50	2037
62	5034					
63	5034					
64	5034	127504	GEAR DRIVE 02 RBC	Reconstruction	8,385.00	2038
65	5034	127514	SAMPLER FINAL EFFLUENT	Reconstruction	6,298.71	2038
66	5034	313221	ANALYZER CHLORINE	Reconstruction	7,525.00	2038
67	5034					
68	5034					
69	5034	127502	TANK PROCESS 02 MIXING RBC	Maintenance	45,000.00	2039
70	5034					
71	5034					
72	5034	127507	GEAR DRIVE 02 RBC	Reconstruction	8,385.00	2040
73	5034					
74	5034					
75	5034	127505	TANK PROCESS 03 MIXING RBC	Maintenance	45,000.00	2041
76	5034					
77	5034					
78	5034	127515	PUMP SUBMERSIBLE 01 LIFT STN	Reconstruction	7,120.16	2046
79	5034	127517	PANEL CONTROL GENERATOR HILTON BEACH PS	Reconstruction	5,609.38	2046
80	5034					
81	5034					
82	5034	127510	PUMP SUBMERSIBLE 01 RBC	Reconstruction	7,120.16	2047
83	5034	127519	PANEL CONTROL GENERATOR HILTON BEACH PS	Reconstruction	5,609.38	2047
84	5034	127520	VALVE BUTTERFLY BLOWER AREA	Reconstruction	2,393.37	2047
85	5034	127521	VALVE BUTTERFLY BLOWER AREA	Reconstruction	2,393.37	2047
86	5034					
87	5034					
88	5034	127516	PUMP SUBMERSIBLE 02 LIFT STN	Reconstruction	7,120.16	2048
89	5034	127522	VALVE BUTTERFLY BLOWER AREA	Reconstruction	2,393.37	2048
90	5034	127523	VALVE BUTTERFLY BLOWER AREA	Reconstruction	2,393.37	2048
91	5034	127524	VALVE BUTTERFLY BLOWER AREA	Reconstruction	2,393.37	2048
92	5034					
93	5034					
94	5034	127509	PUMP SUBMERSIBLE 02 RBC	Reconstruction	7,120.16	2049
95	5034	127525	VALVE BUTTERFLY BLOWER AREA	Reconstruction	2,393.37	2049
96	5034	127531	MCC HILTON BEACH PS	Reconstruction	46,825.25	2049
97	5034	127532	SWITCH TRANSFER GENSET HILTON MAIN PS	Reconstruction	7,120.00	2049

98	5034				
99	5034				
100	5034	127508 PUMP SUBMERSIBLE 03 RBC	Reconstruction	7,120.16	2050

note: actual costs are subject to respective tendering/bidding processes, system averages are shown below  
note II: actual Asset IDs to be treated are subject to latest in-year available performance information and subject matter expert judgement  
note III: totals may not add up to Capital Program totals (Appendix B) due to asset inventory cross-referencing limitations

Line #	Class	Asset ID	Facility	Type	Treatment Description	Forecast Cost (\$)	Forecast Year
1	Distribution	10	Marks St	Watermains	Maintenance	6,111.03	2030
2	Distribution						
3	Distribution						
4	Distribution	1	Ringham St	Watermains	Maintenance	37,325.04	2031
5	Distribution	20	South St	Watermains	Maintenance	3,567.99	2031
6	Distribution						
7	Distribution						
8	Distribution	12	Bay St	Watermains	Maintenance	2,456.50	2033
9	Distribution	21	South St	Watermains	Maintenance	32,432.43	2033
10	Distribution						
11	Distribution						
12	Distribution	5	Canoe Point Rd	Watermains	Maintenance	6,925.86	2034
13	Distribution	13	Bay St	Watermains	Maintenance	6,093.54	2034
14	Distribution						
15	Distribution						
16	Distribution	8	Hilton Rd	Watermains	Maintenance	13,087.64	2035
17	Distribution	18	3rd St	Watermains	Maintenance	19,071.84	2035
18	Distribution	22	1st St	Watermains	Maintenance	25,757.35	2035
19	Distribution						
20	Distribution						
21	Distribution	2	East St	Watermains	Maintenance	10,269.25	2037
22	Distribution	16	Maple St	Watermains	Maintenance	3,316.52	2037
23	Distribution	23	2nd St	Watermains	Maintenance	14,120.63	2037
24	Distribution						
25	Distribution						
26	Distribution	7	Bowker St	Watermains	Maintenance	5,935.75	2039
27	Distribution						
28	Distribution						
29	Distribution	19			Maintenance	2,763.64	2042

note: actual costs are subject to respective tendering/bidding processes, system averages are shown below  
note II: actual Asset IDs to be treated are subject to latest in-year available performance information and subject matter expert judgement  
note III: totals may not add up to Capital Program totals (Appendix B) due to asset inventory cross-referencing limitations

Line #	Class	Asset ID	Facility	Type	Treatment Description	Forecast Cost (\$)	Forecast Year
1	Collection	1	Ringham St	Sanitary	Maintenance	6,000.00	2025
2	Collection						
3	Collection						
4	Collection	2	East St	Sanitary	Maintenance	6,000.00	2026
5	Collection						
6	Collection						
7	Collection	3	Ringham St	Sanitary	Maintenance	6,000.00	2027
8	Collection						
9	Collection						
10	Collection	5	Canoe Point Rd	Sanitary	Maintenance	8,464.94	2028
11	Collection						
12	Collection						
13	Collection	4	Park St	Sanitary	Maintenance	1,415.75	2030
14	Collection	7	Bowker St	Sanitary	Maintenance	7,254.80	2030
15	Collection	8	Hilton Rd	Sanitary	Maintenance	15,996.00	2030
16	Collection						
17	Collection						
18	Collection	6	Bowker St	Sanitary	Maintenance	13,626.03	2032
19	Collection	10	Marks St	Sanitary	Maintenance	7,469.03	2032
20	Collection						
21	Collection						
22	Collection	9	Marks St	Sanitary	Maintenance	15,415.42	2036
23	Collection						
24	Collection						
25	Collection	12	Bay St	Sanitary	Maintenance	3,002.39	2037
26	Collection						
27	Collection						
28	Collection	13	Bay St	Sanitary	Maintenance	7,447.65	2038
29	Collection						
30	Collection						
31	Collection	16	Maple St	Sanitary	Maintenance	4,053.52	2039
32	Collection	18	3rd St	Sanitary	Maintenance	23,310.02	2039



## APPENDIX C — TULLOCH CONDITION ASSESSMENT

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## **VISUAL BUILDING CONDITION ASSESSMENT**

**3100 Bowker Street, Municipal Office, Village  
of Hilton Beach, Ontario**

***FINAL REPORT***

**January 2025**

**TULLOCH Project 241139**

## 1. INTRODUCTION

The scope of work undertaken by TULLOCH Engineering (TULLOCH) was the visual building condition assessment of the interior and exterior elements of the building, including but not limited to the roof, foundation, interior and exterior walls, interior finishes (ceilings, walls, floors etc.), mechanical/electrical systems and overall site condition. The intent of the assessment was to inform the client of the condition of the building for their asset management program.

The site contained one (1) building, and one (1) outbuilding (small shed). The parking lot was a combination of gravel and surface treatment, accessible from Bowker Street. The building was a two-storey, multi-use structure that houses the Municipal Office, as well as several tenant units, on both the main and lower levels. Tenants included, residential suites, Canada Post, Mariner's Lounge (serving the Marina patrons), a dental hygienist's office, various spas / salons, and vacant spaces. The building was approximately 7,200 square feet in ground floor area. The original building was assumed to be constructed around 1950, with an addition constructed in 1990. There were two separate patios serving the upper-level tenants and a walkout precast concrete paving stone patio at grade for the lower-level tenants. (Refer to photos 1&2 below for general building overview).

The building was serviced by Municipal sanitary and water infrastructure.

The following items are expressly excluded from TULLOCH's scope of work for this assignment:

- Structural load evaluation for current or potential future uses
- Review of the Ontario Building Code or other applicable code/standard/regulation
- Review of building materials for the presence of hazardous materials
- Intrusive or destructive investigation of concealed structural elements



**Photo 1: Building Elevation (Looking Northeast)**





**Photo 2: Building Elevation (Looking Southwest)**

## **2. METHODOLOGY**

### **2.1 Visual Assessment**

An on-site visual assessment of the building's exposed elements was carried out by Dan Moody, A.Sc.T. and Meagan Figures, C.E.T., rcsi on July 29<sup>th</sup>, 2024. During the assessment, the building's accessible components were visually reviewed to identify construction, and overall condition.

This assessment does not wholly eliminate uncertainty regarding the potential for existing or future costs, hazards, or losses in connection with a property. Inaccessible units and areas that were covered with finishes or were obstructed by stored materials, permanent furnishings or coverings were not assessed.

No drawings were made available to TULLOCH prior to commencing with the visual assessment.

## **3. OBSERVATIONS**

During the visual assessment of the building's exterior and interior construction, only a few defects were observed and noted, as the building was generally in good condition overall. The building can be broken down into three (3) distinct areas: upper level, lower level, and building exterior.

### 3.1 Upper Level

The upper level included an entrance vestibule, reception area, office spaces, meeting spaces, washrooms, a hair salon, a spa, and residential units. The upper-level construction was largely unavailable for observation due to the presence of ceiling, wall, and floor finishes; however, it is assumed to be of conventional wood frame construction. There were two (2) patios on the upper level.

The upper level included the following features of construction:

- The building had two unique roofing systems. The original building (rental units / Canada Post) was noted to have a prefinished, low-profile corrugated metal roofing, while the addition had asphalt shingles.
- Entrance stairs – concrete stair construction serving the addition (Municipal Office), with wood stairs and ramps serving the original building (Canada Post).
- There were two (2) rear patios. The patio serving the original building was of wood construction. The patio serving the addition was of wood construction with a membrane topping, and a PVC/glass guard.
- Suspended Acoustic Ceiling Tile (ACT) throughout.
- Painted drywall wall finishes throughout.
- Heat welded vinyl and laminated flooring throughout.
- There were smoke detectors located throughout; however some had been removed, and minimal emergency lighting present.
- There were cameras and detection devices throughout.
- The building had a 400amp, single phase electrical service. Areas within the building were serviced by a variety of distribution panels, of varying age and manufacture.
- There was a roof mounted solar generating system present on the building.

The main floor overall was in good condition with only localized defects noted. A summary of the observations and defects are listed below:

- The asphalt shingles were heavily stained by moss and organics.
- The wooden stairs and ramps servicing Canada Post were assumed to be 20 years old and were in very poor condition.
- The “Duradek” membrane topping on the elevated patio appeared weathered, but no perforations were noted.



**Photo 3: Weathered and Decayed Wood Ramp at Entrance to Canada Post**



**Photo 4: Membrane on Patio**



**Photo 5: Heavy Organic Staining on Asphalt Shingles**

### **3.2 Lower Level**

The lower level included the Mariner's Lounge (housing a kitchenette, dining area, laundry services, showers and washroom facilities, as well as storage areas, and a mechanical/electrical room), a spa, and other rental units. Only the Mariner's Lounge was available for observation during the time of the assessment. Foundation walls were accessible for observation at the building's exterior only and were noted to be constructed as such:

- The addition to the building was constructed on a cast in place concrete foundation.
- The original building was constructed on masonry block foundation.

The lower level included the following features of construction:

- Parged foundation walls (building exterior).
- Cast in place concrete floor slab (where accessible). The concrete floor slab was visible in limited locations, while the remainder was concealed with floor tile. There were no signs of significant cracking observed within the lower level.
- Ceramic floor tile finishes.
- Painted drywall wall finishes.
- ACT or painted panel ceiling.
- The heating and cooling for the building was provided by two (2) propane fired, forced air furnaces located in the lower-level mechanical room:
  1. Unit #1 – 2013 Carrier Infinity

## 2. Unit #2 – 2020 Payne

- There was a combination of electric convection heaters and baseboard heaters installed throughout the building.
- There was one (1) electric water heater located in the mechanical room. It was a 2023 vintage, 75-gallon Bradford White unit.

The lower level was in good condition overall with only localized defects. A summary of the observations and defects are listed below:

### 3.3 Building Exterior

The building exterior included the following features of construction:

- The building was clad with a mixture of vertical and scalloped vinyl siding, with prefinished metal soffit and fascia.
- The original building's windows were noted to be 20 + years old.
- The addition's windows were noted to be newer (less than 10 years old) PVC units.
- Personnel doors were noted to be prefinished insulated metal doors.
- There were solar panels located on the roof.

The building exterior was in good condition overall. During the visual assessment of the building components, several defects were observed and noted. A summary of these observations and defects are listed below:

- The block foundation without stucco was noted to have mortar joints that have separated from the block in the majority of locations.
- The building's exterior was noted to be heavily stained, covered with insect debris.

## 4. CONCLUSIONS & RECOMMENDATIONS

The assessment consisted of a visual observation of the building and the site at the subject property to assess the current condition of the individual building components. Components with an observed material physical deficiency of more than \$2,000.00 per item have been identified if repair is required over the next 10 years. Items requiring repair or replacement for which the anticipated cost is less than \$2,000.00 are considered to be part of the regular facility maintenance and have not been included in this report.

A detailed list of recommended repairs to restore/maintain the building's optimal level of performance is included in the table below. The building elements received a condition rating based on the following criteria:

1 – Recommended immediate repair or replacement

2 – Poor condition



3 – Fair condition

4 – Good condition

**Table 1: Building Element Condition Rating and Cost Estimates**

Building System	System Condition	Recommendation	Estimated Cost	Timeline for Repair/Replacement
Foundations	4	Repointing of failed mortar joints.	\$5,000.00	2027
Superstructure	4	N/A	\$0.00	N/A
Exterior Enclosure	4	Repair damaged stucco over masonry block at northwest corner of the original building.	\$2,500.00	2026
		Prepare and paint wood cladding at main entrance.	\$1,500.00	2027
		Prepare, paint, and repair masonry cap stones on rear balcony columns.	\$2,500.00	2027
Roofing	2	Remove and replace existing asphalt shingles on the addition.	\$30,000.00	2027
Interior Construction	4	N/A	\$0.00	N/A
Stairs – Exterior (Original Bldg)	2	Remove and replace existing wood stair and ramp servicing the original building.	\$20,000.00	2027
		Remove and replace existing wood stairs servicing rear rental units.	\$20,000.00	2027

Stairs – Exterior (Addition)	4	N/A	\$0.00	N/A
Interior Finishes	4	N/A	\$0.00	N/A
Plumbing	4	N/A	\$0.00	N/A
HVAC	4	N/A	\$0.00	N/A
Electrical	4	N/A	\$0.00	N/A
Site Development	4	N/A	\$0.00	N/A
<b>TOTAL</b>			<b>\$81,500.00</b>	

Notes:

*Prior to proceeding with the removal of any finishes, TULLOCH recommends that a Designated Substance and Hazardous Materials Assessment be completed in accordance with The Designated Substance Regulation (Reg. 490).*

*All remedial repairs should be designed by a Professional Engineer, licensed in the Province of Ontario.*

## 5. FACILITY CONDITION INDEX (FCI)

Facility Condition Index (FCI) is a scale used to assist in building management to assess the general condition of the building. The FCI is calculated by taking the total cost of the existing deficiencies (over the next 10 years) divided by the current replacement value of the building. The Village of Hilton Beach Municipal Office has an FCI value of (3.26%) or is in (excellent) condition.

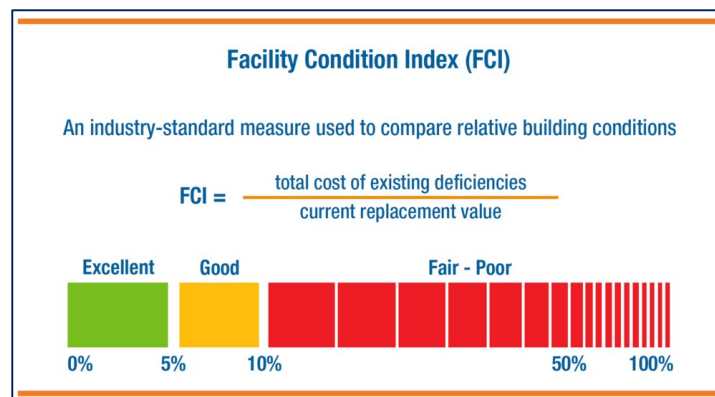


Figure 2 – Facility Condition Index

## 6. CLOSURE

We trust this report is sufficient for your purposes at this time, should you require any further assistance or would like clarification on the above, please do not hesitate to contact the undersigned.

Respectfully submitted,

**TULLOCH Engineering Inc.**

A handwritten signature in black ink, appearing to read 'Dan Moody'.

Dan Moody, A.Sc.T.  
Project Manager  
[dan.moody@tulloch.ca](mailto:dan.moody@tulloch.ca)

A handwritten signature in black ink, appearing to read 'Meagan Figures'.

Meagan Figures, C.E.T., rcsi  
Associate Project Manager



## **VISUAL BUILDING CONDITION ASSESSMENT**

**3085 Marks Street, Municipal Library, Village  
of Hilton Beach, Ontario**

***FINAL REPORT***

**January 2025**

**TULLOCH Project 241139**

## 1. INTRODUCTION

The scope of work undertaken by TULLOCH Engineering (TULLOCH) was the visual building condition assessment of the interior and exterior elements of the building, including but not limited to the roof, foundation, interior and exterior walls, interior finishes (ceilings, walls, floors etc.), mechanical/electrical systems and overall site condition. The intent of the assessment was to inform the client of the condition of the building for their asset management program.

The site contains one (1) building. Access to the building was provided by a concrete ramp off the Municipal sidewalk, and parking is available on the side of Mark's Street at the main entrance to the building. There was rear access to the building by way of wooden stairs. The building was one-storey and houses the Municipal Library. The building was approximately 800 square feet in ground floor area. The original building was assumed to be constructed more than 100 years ago, with the construction of subsequent additions unknown. The unheated wood framed lean-to was assumed to have been constructed in approximately 20 years.

The building is serviced by the Municipality sanitary and water infrastructure.

The following items are expressly excluded from TULLOCH's scope of work for this assignment:

- Structural load evaluation for current or potential future uses
- Review of the Ontario Building Code or other applicable code/standard/regulation
- Review of building materials for the presence of hazardous materials
- Intrusive or destructive investigation of concealed structural elements



**Photo 1: Building Elevation (Looking East)**

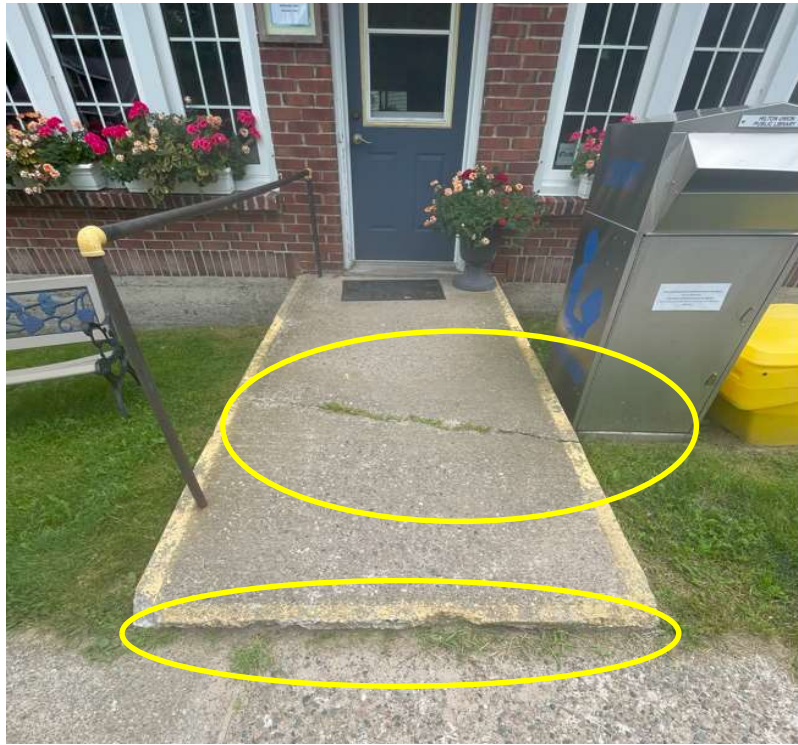




**Photo 2: Building Elevation (Looking South)**



**Photo 3: Building Elevation (Looking North)**



**Photo 4: Main Entrance Concrete Ramp with Step and Large Crack**

## **2. METHODOLOGY**

### **2.1 Visual Assessment**

An on-site visual assessment of the building's exposed elements was carried out by Dan Moody, A.Sc.T. and Meagan Figures, C.E.T., rcsi on July 29<sup>th</sup>, 2024. During the assessment, the building's accessible components were visually reviewed to identify construction, and overall condition.

This assessment does not wholly eliminate uncertainty regarding the potential for existing or future costs, hazards, or losses in connection with a property. Inaccessible units and areas that were covered with finishes or were obstructed by stored materials, permanent furnishings or coverings were not assessed.

No drawings were made available to TULLOCH prior to commencing with the visual assessment.

## **3. OBSERVATIONS**

During the visual assessment of the building's exterior and interior construction, only a few defects were observed and noted, as the building was generally in good condition overall. The building can be broken down into two (2) distinct areas: the original building and the addition with a lean-to.

### **3.1 Original Building**

The original building included an open concept reception area and open storage shelves. The original building construction was noted to be clay brick on concrete foundations, with uninsulated wood floor joists on timbers, on cast in place concrete piers.

The original building included the following features of construction:

- There was a mix of painted drywall / lath and plaster and paneling throughout.
- There was hardwood flooring throughout.

The original building overall is generally in good condition. However, as noted in a previous report (*Tulloch Building 240670 rpt ja Hilton Union Public Library – Building Review 240215*) there were cracked floor joists present within the crawl space.

### **3.2 Addition**

The addition included an open space, a small computer area, washroom, and mechanical space.

The addition included the following features of construction:

- Typical finishes of the original building.
- The addition had a crawlspace.
- There was one (1) electric water heater located in the mechanical room. It was noted to be 10-20 years in age.
- The building had a window unit air conditioner located within the addition of the building.
- The building had uninsulated plumbing, running within the heated and partially insulated crawlspace.
- The building was heated by a gas fired forced air furnace (Lennox), with the duct work located in the crawlspace.
- The building had a 200amp, single phase electrical service.

The addition was noted to be in good condition overall.

### **3.3 Building Exterior**

The building exterior included the following features of construction:

- The building was clad with a mix of clay brick, vinyl siding, asphalt brick siding panels, and pressure treated plywood, with unvented pressure treated wood soffit and fascia.
- There were PVC windows present throughout the building.
- Personnel doors were noted to be prefinished insulated metal doors.
- The building had architectural tab asphalt shingles.



- The rear entrance was serviced by a set of wood stairs.
- The main entrance was serviced by a concrete ramp, there was a large step onto the ramp from the municipal sidewalk and significant cracking noted.
- There was a single storey “lean-to” constructed on the west face of the addition, that was assumed to be for cold storage at the time of the assessment.

The building exterior was in good condition overall.



**Photo 5: Asphalt Brick Siding Panels**

#### **4. CONCLUSIONS & RECOMMENDATIONS**

The study consisted of a visual observation of the building and site at the subject property to assess the current condition of the individual building components. Components with an observed material physical deficiency of more than \$2,000.00 per item have been identified if repair is required over the next 10 years. Items requiring repair or replacement for which the anticipated cost is less than \$2,000.00 are considered to be part of the regular facility maintenance and have not been included in this report.

A detailed list of recommended repairs to restore/maintain the building’s optimal level of performance is included in the table below. The building elements received a condition rating based on the following criteria:

- 1 – Recommended immediate repair or replacement
- 2 – Poor condition

3 – Fair condition

4 – Good condition

There was an odor noted in the building that may be indicative of mold growth, it is recommended that an assessment be completed by a professional.

Although an accessibility audit is outside the scope of this assignment, visual review of the entrance ramp suggests that it is not constructed within the requirements of the Ontario Building Code, and it is recommended that a review is completed to ensure compliance with provincial and municipal accessibility requirements.

**Table 1: Building Element Condition Rating and Cost Estimates**

Building System	System Condition	Recommendation	Estimated Cost	Timeline for Repair/Replacement
Foundations	4	N/A	N/A	N/A
Superstructure	1	Reinforce damaged/unsupported floor joists.	\$2,000.00	N/A
Exterior Enclosure	2	Remove and replace existing asphalt composite panel with new vinyl siding.	\$2,500.00	2026
Roofing	4	N/A	N/A	N/A
Interior Construction	4	N/A	N/A	N/A
Stairs	N/A	N/A	N/A	N/A
Interior Finishes	4	N/A	N/A	N/A
Plumbing	2	Insulate crawlspace.	\$5,000.00	2026
HVAC	4	N/A	N/A	N/A
Electrical	4	N/A	N/A	N/A
Site Development	1	Remove concrete entrance ramp. Replace with new OBC compliant ramp and guards.	\$15,000.00	2025
TOTAL			\$24,500.00	

*In preparation for the Building Condition Assessment we consulted TULLOCH report “Tulloch Building 240670 rpt ja Hilton Union Public Library – Building Review 240215.”*

Notes:

*Prior to proceeding with the removal of any finishes, TULLOCH recommends that a Designated Substance and Hazardous Materials Assessment be completed in accordance with The Designated Substance Regulation (Reg. 490).*

*All remedial repairs should be designed by a Professional Engineer, licensed in the Province of Ontario.*

## 5. FACILITY CONDITION INDEX (FCI)

Facility Condition Index (FCI) is a scale used to assist in building management to assess the general condition of the building. The FCI is calculated by taking the total cost of the existing deficiencies (over the next 10 years) divided by the current replacement value of the building. The Village of Hilton Beach Municipal Library has an FCI value of (12.25%) or is in (fair) condition.

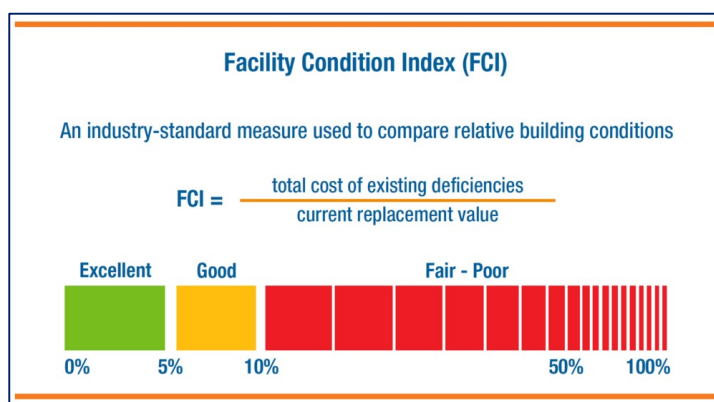


Figure 2 – Facility Condition Index

## 6. CLOSURE

We trust this report is sufficient for your purposes at this time, should you require any further assistance or would like clarification on the above, please do not hesitate to contact the undersigned.

Respectfully submitted,

**TULLOCH Engineering Inc.**

A handwritten signature in black ink, appearing to read 'Dan Moody'.

Dan Moody, A.Sc.T.  
Project Manager  
[dan.moody@tulloch.ca](mailto:dan.moody@tulloch.ca)

A handwritten signature in black ink, appearing to read 'Meagan Figures'.

Meagan Figures, C.E.T., rcsi  
Associate Project Manager

## STATEMENT OF QUALIFICATIONS AND LIMITATIONS

The attached Report (the “Report”) has been prepared by TULLOCH Engineering Inc. (“Consultant”) for the benefit of the client (“Client”) in accordance with the agreement between Consultant and Client, including the scope of work detailed therein (the “Agreement”).

The information and data contained in the Report:

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- represent Consultant’s professional judgement in light of the Limitations and industry standards for the preparation of similar reports
- may be based on information provided to Consultant, which has not been independently verified
- have not been updated since the date of issuance of the Report and their accuracy is limited to the time period and circumstances in which they were collected, processed, made or issued
- must be read as a whole and sections thereof should not be read out of such context
- were prepared for the specific purposes described in the Report and the Agreement
- in the case of subsurface, environmental or geotechnical conditions, may be based on limited testing and on the assumption that such conditions are uniform and not variable either geographically or over time

Unless expressly stated to the contrary in the Report or the Agreement, Consultant:

- shall not be responsible for any events or circumstances that may have occurred since the date on which the Report was prepared or for any inaccuracies contained in information that was provided to Consultant
- agrees that the Report represents its professional judgement as described above for the specific purpose described in the Report and the Agreement, but Consultant makes no other representations with respect to the Report or any part thereof
- in the case of subsurface, environmental or geotechnical conditions, is not responsible for variability in such conditions geographically or over time

The Report is to be treated as confidential and may not be used or relied upon by third parties, except:

- as agreed by Consultant and Client
- as required by law
- for use by governmental reviewing agencies

Any use of this Report is subject to this Statement of Qualifications and Limitations. Any damages arising from improper use of the Report or parts thereof shall be borne by the party making such use.

This Statement of Qualifications and Limitations is attached to and forms part of the Report.

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## **VISUAL BUILDING CONDITION ASSESSMENT**

**Ringham Street, Municipal Garages, Village  
of Hilton Beach, Ontario**

***FINAL REPORT***

**January 2025**

**TULLOCH Project 241139**



## 1. INTRODUCTION

The scope of work undertaken by TULLOCH Engineering (TULLOCH) was the visual building condition assessment of the interior and exterior elements of the building, including but not limited to the roof, foundation, interior and exterior walls, interior finishes (ceilings, walls, floors etc.), mechanical/electrical systems and overall site condition. The intent of the assessment was to inform the client of the condition of the building for their asset management program.

The site contains two (2) buildings. Access to the buildings was provided by a gravel driveway off Ringham Street. The buildings are both one-storey and house the Municipal Public Works equipment. The original garage is of unknown age but assumed to be in excess of 30 years old and approximately 1,200 square feet in ground floor area. The newly constructed garage was built in 2022 and is approximately 1,000 square feet in ground floor area.

The original building was serviced by the Municipal sanitary and water infrastructure. The new garage was not connected to Municipal water and sanitary services. There was an overhead electrical service on site.

The following items are expressly excluded from TULLOCH's scope of work for this assignment:

- Structural load evaluation for current or potential future uses
- Review of the Ontario Building Code or other applicable code/standard/regulation
- Review of building materials for the presence of hazardous materials
- Intrusive or destructive investigation of concealed structural elements



**Photo 1: Original Building Elevation (Looking Northeast)**





**Photo 2: Original Building Elevation (Looking Southwest)**



**Photo 3: New Building Elevation (Looking Southwest)**



**Photo 4: New Building Elevation (Looking Southwest)**

## **2. METHODOLOGY**

### **2.1 Visual Assessment**

An on-site visual assessment of the building's exposed elements was carried out by Dan Moody, A.Sc.T. and Meagan Figures, C.E.T., rcsi on July 29<sup>th</sup>, 2024. During the assessment, the building's accessible components were visually reviewed to identify construction, and overall condition.

This assessment does not wholly eliminate uncertainty regarding the potential for existing or future costs, hazards, or losses in connection with a property. Inaccessible units and areas that were covered with finishes or were obstructed by stored materials, permanent furnishings or coverings were not assessed.

No drawings were made available to TULLOCH prior to commencing with the visual assessment.

## **3. OBSERVATIONS**

During the visual assessment of the original building's exterior and interior construction, only a few defects were observed and noted, as the building was generally in an overall good condition.

### **3.1 Original Garage**

The original garage includes an open space for vehicular repairs, storage area, and washroom. The building was assumed to be of wood frame construction on a cast in place concrete floor slab.

The original garage includes the following features of construction:

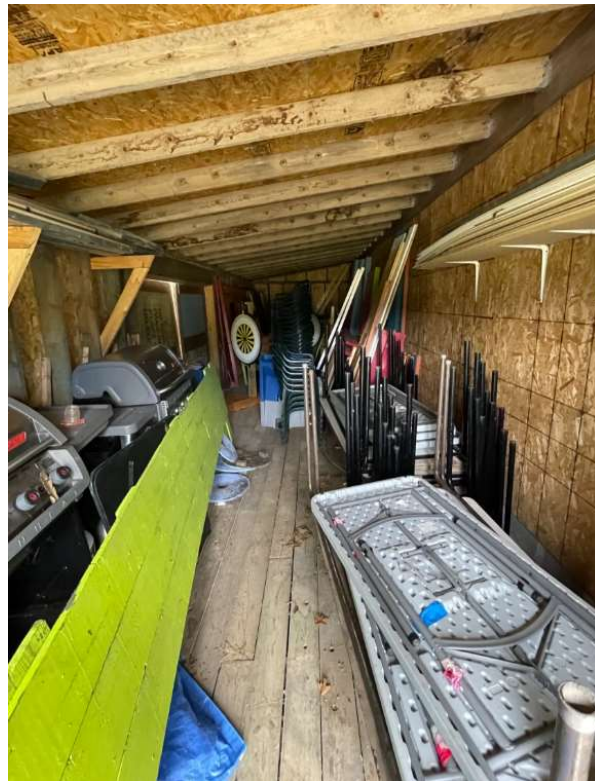
- There were PVC windows throughout, approximately 20 years old.
- The wall and ceiling finishes were a combination of painted drywall and plywood throughout.
- The building was clad with vinyl siding, with prefinished metal soffit and fascia.
- The roofing system is comprised of three-tab asphalt shingles.
- There was one (1) washroom, with a sink and toilet.
- There was a 40-gallon electric hot water heater (2002 vintage).
- The building was heated by a combination of electric baseboard heaters and three (3) electric forced air unit heaters.
- There was a combination of hollow metal and exterior residential steel doors.
- The overhead door was an insulated 7'x9' sectional door.
- There was a cold storage lean-to on the side of the building. It was constructed with wood flooring, plywood walls, and repurposed 2x6 joists at 24" centers, with metal roofing.
- There was a 200amp, 40-circuit Square D panel.

The original garage is in good condition overall. During the visual assessment of the building components, few defects were observed and noted. A summary of these observations and defects are listed below:

- The floor slab was noted to be extensively cracked with heavy spalling throughout.
- The asphalt shingles were noted to be in very poor condition.



**Photo 5: Extensively Cracked and Spalled Concrete Floor Slab**



**Photo 6: Interior of Lean-to on Original Garage**

### **3.2 New Garage**

The new garage included unfinished open space.

The new garage includes the following features of construction:

- Constructed on a concrete slab on grade.
- The building was of wood frame construction on a cast in place concrete floor slab with a central trench drain.
- The building was clad with vinyl siding, and prefinished vented metal soffit and fascia.
- The building had a 16'x18' insulated sectional overhead door.
- The building's roofing system included screw down, corrugated metal.
- Access was provided by a residential steel door.

A preliminary drawing package, used in the tendering process for construction of the new Municipal garage was provided to TULLOCH for reference. A review of these drawings for code compliance was outside of the scope of work for this assignment. However, several items were noted that should potentially be reviewed with the Municipal Building Official to ensure that the garage design and construction are compliant with the requirements of the Ontario Building Code:

1. The drawings indicate that a trench drain was included as part of the design, yet no oil interceptor is specified. As the building is reportedly used for tractor storage as well as refueling and oil changes, an oil interceptor may be required.
2. Further to the above, there is no mention on the drawings of a gas detection or motorized exhaust system, as required by OBC Section 6.2.2.3. Ventilation of Storage and Repair Garages.
3. No emergency lighting or illuminated exit lighting was noted.
4. There is a note present on drawing 2/5 referencing construction of a garage serving a house.

Both garages are functioning as part of the Municipality's public works department. This is a use that would be considered to be commercial in nature, not residential. As such, construction of a new building would be expected to conform to the requirements for an industrial facility (general F2 – medium hazard industrial vehicle storage or vehicle repair garage).

## **4. CONCLUSIONS & RECOMMENDATIONS**

The assessment consisted of a visual observation of the building and site at the subject property to assess the current condition of the individual building components. Components with an observed material physical deficiency of more than \$2,000.00 per item has been identified if repair is required over the next 10 years. Items requiring repair or replacement for which the anticipated cost is less than \$2,000.00 are considered to be part of the regular facility maintenance and have not been included in this report.



A detailed list of recommended repairs to restore/maintain the building's optimal level of performance is included in the table below. The building elements received a condition rating based on the following criteria:

- 1 – Recommended immediate repair or replacement
- 2 – Poor condition
- 3 – Fair condition
- 4 – Good condition

**Table 1: Building Element Condition Rating and Cost Estimates (Original Garage)**

Building System	System Condition	Recommendation	Estimated Cost	Timeline for Repair/Replacement
Foundations	3	Although defects were noted within the surface of the garage, we have not included costs for potential repairs. The concrete floor slab appears to be functioning adequately in its present condition. Cosmetic repairs and potential surface sealing would improve the performance of the concrete slab but are not considered to be required at this time.		
Superstructure	4	N/A	N/A	N/A
Exterior Enclosure	4	N/A	N/A	N/A
Roofing	1 – Original Garage	Remove and replace asphalt shingles.	\$15,000.00	2025
	4 – New Garage	N/A	N/A	N/A
Interior Construction	4	N/A	N/A	N/A
Stairs – Exterior	N/A	N/A	N/A	N/A
Interior Finishes	N/A	N/A	N/A	N/A

Plumbing	3 – Original Garage	Review washroom in original garage for compliance with provincial workplace standards.	\$0.00	2024
	N/A – New Garage	N/A	N/A	N/A
HVAC	N/A	N/A	N/A	N/A
Electrical	N/A	N/A	N/A	N/A
Site Development	N/A	N/A	N/A	N/A
<b>TOTAL</b>			<b>\$15,000.00</b>	

Notes:

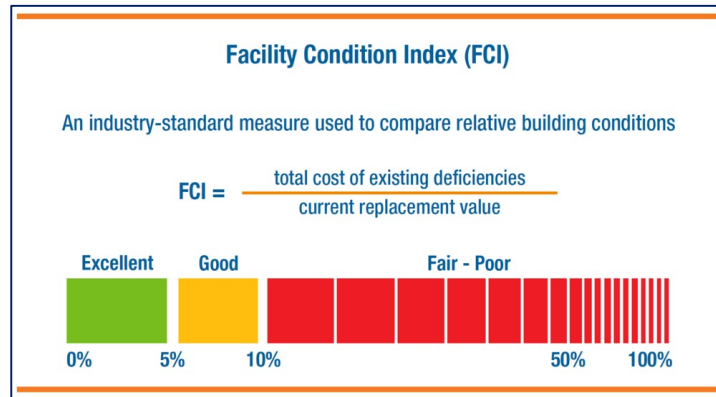
*Prior to proceeding with the removal of any finishes, TULLOCH recommends that a Designated Substance and Hazardous Materials Assessment be completed in accordance with The Designated Substance Regulation (Reg. 490).*

*All remedial repairs should be designed by a Professional Engineer, licensed in the Province of Ontario.*

## 5. FACILITY CONDITION INDEX (FCI)

Facility Condition Index (FCI) is a scale used to assist in building management to assess the general condition of the building. The FCI is calculated by taking the total cost of the existing deficiencies (over the next 10 years) divided by the current replacement value of the building. The Village of Hilton Beach Municipal Garage (original garage) has an FCI value of (6.9%) or is in (good) condition.

The new garage has not been given an FCI rating due to it being constructed within the last five years.



**Figure 2 – Facility Condition Index**

## 6. CLOSURE

We trust this report is sufficient for your purposes at this time, should you require any further assistance or would like clarification on the above, please do not hesitate to contact the undersigned.

Respectfully submitted,

**TULLOCH Engineering Inc.**

Dan Moody, A.Sc.T.  
Project Manager  
[dan.moody@tulloch.ca](mailto:dan.moody@tulloch.ca)

Meagan Figures, C.E.T., rcsi  
Associate Project Manager



## STATEMENT OF QUALIFICATIONS AND LIMITATIONS

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## **VISUAL BUILDING CONDITION ASSESSMENT**

**3130 Marks Street, Marina Building and Dock  
Infrastructure, Village of Hilton Beach,  
Ontario**

***FINAL REPORT***

**January 2025**

**TULLOCH Project 241139**

## 1. INTRODUCTION

The scope of work undertaken by TULLOCH Engineering (TULLOCH) was the visual building condition assessment of the interior and exterior elements of the building, including but not limited to the roof, foundation, interior and exterior walls, interior finishes (ceilings, walls, floors etc.), mechanical/electrical systems and overall site condition. The intent of the assessment was to inform the client of the condition of the building for their asset management program.

The site contained one (1) building, and five (5) finger docks. The parking lot was a combination of gravel and surface treatment, accessible from Bowker Street.

The building was serviced by Municipal sanitary and water infrastructure.

The following items are expressly excluded from TULLOCH's scope of work for this assignment:

- Structural load evaluation for current or potential future uses
- Review of the Ontario Building Code or other applicable code/standard/regulation
- Review of building materials for the presence of hazardous materials
- Intrusive or destructive investigation of concealed structural elements



**Photo 1: Building Elevation (Looking South)**





**Photo 2: Building Elevation (Northeast)**



**Figure 1: Dock Infrastructure (Aerial Imagery from Google Earth)**

## **2. METHODOLOGY**

### **2.1 Visual Assessment**

An on-site visual assessment of the marina building's exposed elements was carried out by Dan Moody, A.Sc.T. and Meagan Figures, C.E.T., rcsi on July 29<sup>th</sup>, 2024. During the assessment, the

building's accessible components were visually reviewed to identify construction, and overall condition.

This assessment does not wholly eliminate uncertainty regarding the potential for existing or future costs, hazards, or losses in connection with a property. Inaccessible units and areas that were covered with finishes or were obstructed by stored materials, permanent furnishings or coverings were not assessed.

No drawings were made available to TULLOCH prior to commencing with the visual assessment.

### **3. OBSERVATIONS**

During the visual assessment of the marina building's exterior and interior construction, only a few defects were observed and noted, as the building was generally in good condition overall. The assessment can be broken down into the following distinct sections:

- Marina Building
- Dock Infrastructure
- Boardwalk, Viewing Platform and Breakwater Walkway

#### **3.1 Marina Building**

The marina building included two (2) changing rooms with shower facilities, toilets, and sinks. It also houses the gas docks and slip rentals office. The building was approximately 1,400 square feet in ground floor area. The fuel dispensing system was located at the rear of the building and was not included in this assessment. There were precast concrete paving stones, concrete and wooden walkways located along the building's perimeter. The building was assumed to be of conventional wood frame construction, on cast in place concrete foundations. There were two (2) principle floating docks, as well as four (4) finger docks. The total length of floating dock infrastructure servicing the marina building was noted to be approximately 140 meters.

- The building was serviced by Municipal sanitary and water infrastructure.
- The marina building was heated by a combination of electric baseboard heaters and a mini split.
- The marina building had solar panels on the roof.
- There was an overhang canopy on the east side of the marina building.
- The marina building had a precast paving concrete brick patio around its perimeter. There was a concrete sidewalk accessing wood ramps to the docks and slips.
- The marina building had architectural tab shingles.
- The marina building was clad with vertical prefinished vinyl siding, and prefinished metal soffit and fascia.
- The marina windows were PVC and appeared to be less than 20 years in age.
- There was brick wainscotting on the perimeter of the marina building, with a limestone sill.

- The interior finishes of the marina building included a combination of painted concrete epoxy floors and ceramic tile. The doors were noted to be wood framed. There was painted drywall throughout the building's interior.
- There was a concrete boat launch with a concrete approach slab and ramp at the marina building.
- There was fuel equipment at the marina building that was positioned on a sheet piled dock.
- There were wood ramps and slips at the marina building. The gas docks are on PVC dock floats with wood perimeter guards.
- There was electrical and water services for each slip.

The marina building is in good condition overall with only localized defects noted. A summary of the observations and defects are listed below:

- All perimeter wood guards on the gas docks were noted to be in poor condition.
- The wood walkway at grade was noted to be in poor condition.
- The concrete ramp accessing the boat launch was noted to be in fair condition.

### **3.2 Dock Infrastructure**

The dock construction was noted to be wood platform framing on corrugated PVC floats. The PVC floats were noted to be in visually good condition, all observed dock surfaces appeared to be level with no significant deviation in freeboard, while the wood surfaces were noted to have advanced decay and loose surfacing fasteners, resulting in an uneven walking surface. The total length of floating dock infrastructure functioning as boat slips was noted to be approximately 1,000 meters.

This assessment was not intended to be intrusive or exhaustive, and as such below water infrastructure was not reviewed.

- The remaining lifespan of the wood on the dock surfaces is less than five years.



**Photo 4: Dock Infrastructure**



**Photo 5: Deteriorated Wood Construction on Boardwalk**





**Photo 6: Wood Shim Support on Underside of Dock Structure**

### **3.3 Boardwalk, Breakwater Walkway, and Viewing Platform**

The boardwalk generally extends from the south extent of the marina basin, north to the marina building. The breakwater walkway extends from the south end of the boardwalk to the bridge servicing the viewing platform (refer to figure 1 for general arrangement of marina infrastructure). The total length of the boardwalk is 260 meters. The total length of the breakwater boardwalk is 110 meters. The total area of the viewing platform is 36 squared meters. It is recommended that the bridge on the breakwater walkway be added to the Municipal bridge appraisal program, and as such, it has not been included in this assessment.

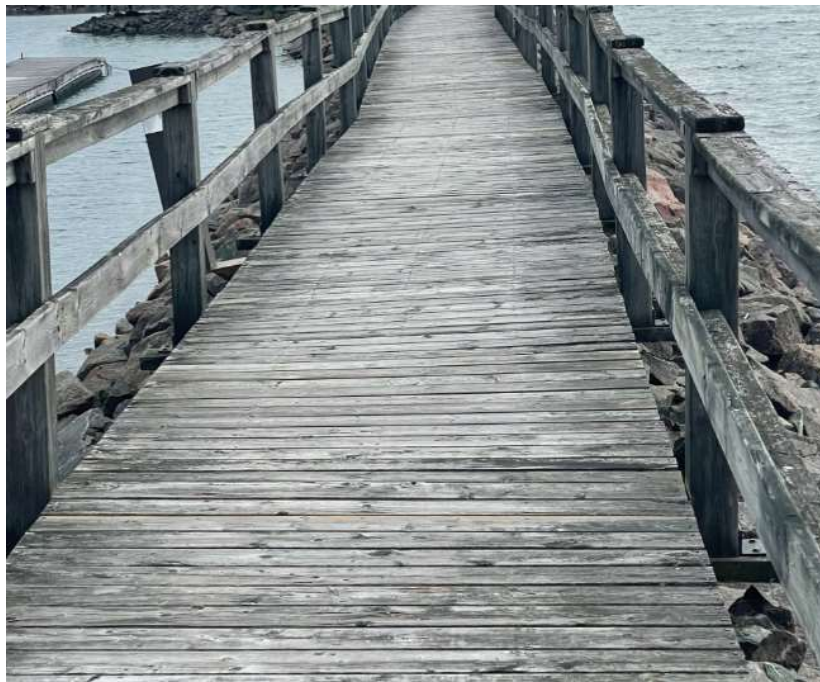
The boardwalk, breakwater walkway, and viewing platform are in poor condition overall. During the visual assessment of the building components, several defects were observed and noted. A summary of these observations and defects are listed below:

- The lifespan remaining on the wood boardwalk is less than five years.
- The wood boardwalk and guard at the top of the breakwater was in very poor condition and closing it immediately to public access is recommended.
- There was lighting along the boardwalk.
- The pedestrian bridge from the breakwater to a viewing platform was a combination of steel and wood construction.
- The wood surface of the viewing platform and wood guard were noted to be in very poor condition.





**Photo 7: Boardwalk Access**



**Photo 8: Breakwater Walkway**



**Photo 9: Decayed Wood on Boardwalk**



**Photo 10: Bridge over Breakwater to Viewing Platform**





**Photo 11: Loose Guard at Viewing Platform**



**Photo 12: Bridge over Breakwater**

## 4. CONCLUSIONS & RECOMMENDATIONS

The assessment consisted of a visual observation of the building and the site at the subject property to assess the current condition of the individual building components. Components with an observed material physical deficiency of more than \$2,000.00 per item have been identified if repair is required over the next 10 years. Items requiring repair or replacement for which the anticipated cost is less than \$2,000.00 are considered to be part of the regular facility maintenance and have not been included in this report.

A detailed list of recommended repairs to restore/maintain the building's optimal level of performance is included in the table below. The building elements received a condition rating based on the following criteria:

- 1 – Recommended immediate repair or replacement
- 2 – Poor condition
- 3 – Fair condition
- 4 – Good condition

**Table 1: Building Element Condition Rating and Cost Estimates**

Building System	System Condition	Recommendation	Estimated Cost	Timeline for Repair/Replacement
Foundations (Marina Building)	4	N/A	\$0.00	N/A
Superstructure (Marina Building)	4	N/A	\$0.00	N/A
Exterior Enclosure (Marina Building)	4	N/A	\$0.00	N/A
Roofing (Marina Building)	3	Replace shingles in the next 5 years.	\$20,000.00	2030
Interior Construction (Marina Building)	4	N/A	\$0.00	N/A

Boardwalk	1	Remove and replace the existing wood deck and wood sub-structure for full length of boardwalk.	\$170,000.00	2030
Dock Infrastructure	1	Remove and replace existing wood deck and wood sub-structure for all docks.	\$650,000.00	2030
Breakwater Walkway	1	Remove and replace the existing wood deck, wood sub-structure, and wood guards for full length of breakwater walkway.	\$75,000.00	2025
Viewing Platform	1	Remove and replace the existing wood deck, wood sub-structure, and wood guards for all of the viewing platform.	\$25,000.00	2025
Marina Building Dock Infrastructure	1	Remove and replace existing wood deck and wood sub-structure for all docks.	\$80,000.00	2030
Electrical	4	N/A	\$0.00	N/A
Site Development	4	N/A	\$0.00	N/A
<b>TOTAL</b>			<b>\$1,020,000.00</b>	

The total replacement cost for the dock infrastructure is estimated to be \$1,000,000.00 (+/-). The above cost estimate is generally reflective of required labour and materials, requirements for removal and reconstruction of the wood components of the marina docks, boardwalks, walkways, etc. This is based on removal and replacement to generally match the materials and existing configuration of construction. We recommend that a detailed review of all available options be undertaken as more cost-effective options may be available.

It is assumed that no in-water work will be required.

It is assumed that no repairs or replacement of steel, floats, or interconnection hardware will be required.

Notes:

*Prior to proceeding with the removal of any finishes, TULLOCH recommends that a Designated Substance and Hazardous Materials Assessment be completed in accordance with The Designated Substance Regulation (Reg. 490).*

*All remedial repairs should be designed by a Professional Engineer, licensed in the Province of Ontario.*

## 5. FACILITY CONDITION INDEX (FCI)

Facility Condition Index (FCI) is a scale used to assist in building management to assess the general condition of the building. The FCI is calculated by taking the total cost of the existing deficiencies (over the next 10 years) divided by the current replacement value of the building. The Village of Hilton Beach Marina Building has an FCI value of (3.6%) or is in (excellent) condition. The value is applicable to the building proper only. The dock infrastructure has not been included.

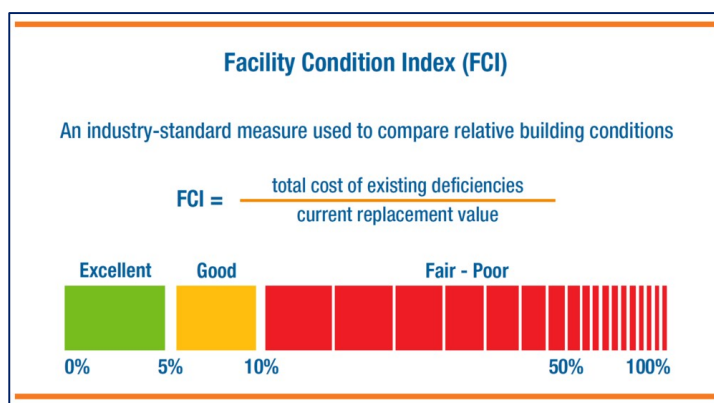


Figure 2 – Facility Condition Index

## 6. CLOSURE

We trust this report is sufficient for your purposes at this time, should you require any further assistance or would like clarification on the above, please do not hesitate to contact the undersigned.

Respectfully submitted,

**TULLOCH Engineering Inc.**

A handwritten signature in black ink, appearing to read 'Dan Moody' in a cursive style.

Dan Moody, A.Sc.T.  
Project Manager  
[dan.moody@tulloch.ca](mailto:dan.moody@tulloch.ca)

A handwritten signature in black ink, appearing to read 'Meagan Figures' in a cursive style.

Meagan Figures, C.E.T., rcsi  
Associate Project Manager

## STATEMENT OF QUALIFICATIONS AND LIMITATIONS

The attached Report (the “Report”) has been prepared by TULLOCH Engineering Inc. (“Consultant”) for the benefit of the client (“Client”) in accordance with the agreement between Consultant and Client, including the scope of work detailed therein (the “Agreement”).

The information and data contained in the Report:

- are subject to the scope, schedule, and other constraints and limitations in the Agreement and the qualifications contained in the Report (the “Limitations”)
- represent Consultant’s professional judgement in light of the Limitations and industry standards for the preparation of similar reports
- may be based on information provided to Consultant, which has not been independently verified
- have not been updated since the date of issuance of the Report and their accuracy is limited to the time period and circumstances in which they were collected, processed, made or issued
- must be read as a whole and sections thereof should not be read out of such context
- were prepared for the specific purposes described in the Report and the Agreement
- in the case of subsurface, environmental or geotechnical conditions, may be based on limited testing and on the assumption that such conditions are uniform and not variable either geographically or over time

Unless expressly stated to the contrary in the Report or the Agreement, Consultant:

- shall not be responsible for any events or circumstances that may have occurred since the date on which the Report was prepared or for any inaccuracies contained in information that was provided to Consultant
- agrees that the Report represents its professional judgement as described above for the specific purpose described in the Report and the Agreement, but Consultant makes no other representations with respect to the Report or any part thereof
- in the case of subsurface, environmental or geotechnical conditions, is not responsible for variability in such conditions geographically or over time

The Report is to be treated as confidential and may not be used or relied upon by third parties, except:

- as agreed by Consultant and Client
- as required by law
- for use by governmental reviewing agencies

Any use of this Report is subject to this Statement of Qualifications and Limitations. Any damages arising from improper use of the Report or parts thereof shall be borne by the party making such use.

This Statement of Qualifications and Limitations is attached to and forms part of the Report.



Village of Hilton Beach

Asset Management Plan – Phases One and Two Phase 1 - State of Local Infrastructure

## APPENDIX D – ROADS CONDITION ASSESSMENT

10 = NEW     ≤5 = REPLACE

Road	Length (m)	Width (m)	m <sup>2</sup>	Surface	Last Treated	Condition (1-10)	2025	2026	2027	2028	2029	2030
Parking Lot	-	-	701	LCB	2023	8	7.5	7	6.5	6	5.5	\$ 5,258
Ringham	446	7.60	3,390	LCB	N/A	7	6.5	6	5.5	\$ 22,032	10	9.5
Boundary	143	6.10	872	LCB	N/A	6	5.5	\$ 4,798	10	9.5	9	8.5
East	173	6.10	1,055	LCB	N/A	6	5.5	\$ 5,804	10	9.5	9	8.5
Canoe Point East	120	6.10	732	LCB	N/A	7	6.5	6	5.5	\$ 4,758	10	9.5
Canoe Point West	387	6.10	2,361	LCB	N/A	8	7.5	7	6.5	6	5.5	\$ 17,705
Park	88	6.10	537	LCB	N/A	7	6.5	6	5.5	\$ 3,489	10	9.5
Bowker East	88	6.10	537	LCB	N/A	7.5	7	6.5	6	5.5	\$ 3,758	10
Bowker West	125	6.10	763	LCB	N/A	6.5	6	5.5	\$ 4,575	10	9.5	9
Bay St (bowker to marina)	263	7.60	1,999	LCB	N/A	6.5	6	5.5	\$ 11,993	10	9.5	9
Bay St (cenotaph)	105	3.00	315	Gravel	N/A	8	7.5	7	6.5	6	5.5	\$ 2,363
Marks	317	12.00	3,804	HCB	N/A	5.5**	5	4.5	\$ 50,000	10	9.5	9
Hilton St	106	8.50	901	LCB	2023	8.5	8	7.5	7	6.5	6	5.5
Maple St (paved)	218	6.10	1,330	LCB	2021	8	7.5	7	6.5	6	5.5	\$ 9,974
Maple St (gravel)	75	3.70	278	Gravel	N/A	9.5	9	8.5	8	7.5	7	6.5
1st	218	5.80	1,264	LCB	2023	9.5	9	8.5	8	7.5	7	6.5
2nd	218	5.80	1,264	LCB	2021	9.5	9	8.5	8	7.5	7	6.5
3rd	118	5.50	649	LCB	2023	9.5	9	8.5	8	7.5	7	6.5
South	558	6.10	3,404	LCB	2022	8.5	8	7.5	7	6.5	6	5.5
6th	458	5.80	2,656	LCB	2022	8.5	8	7.5	7	6.5	6	5.5
Birch 6th - Plant	350	6.00	2,100	Gravel	N/A	5*	\$ 22,700	10	9.5	9	8.5	8
Birch 548-6th	-	-	500	LCB	2022	8	7.5	7	6.5	6	5.5	\$ 3,750
Ash	-	-	-	LCB	2020	9	8.5	8	7.5	7	6.5	6
Cherry Upper	81	3.70	300	Gravel	2022	8.5	8	7.5	7	6.5	6	5.5
Mariners Way	193	7.60	1,467	Gravel	N/A	9*	\$ 17,000	10	9.5	9	8.5	8
Birch (Lower)	-	-	500	Gravel	N/A	8	7.5	7	6.5	6	5.5	\$ 3,750
Cherry Lower	-	-	500	LCB	N/A	4	\$ 2,500	10	9.5	9	8.5	8
Pine	-	-	500	Gravel	2021	8	7.5	7	6.5	6	5.5	\$ 3,750
<b>Totals</b>							<b>\$ 42,200</b>	<b>\$ 10,602</b>	<b>\$ 66,568</b>	<b>\$ 30,280</b>	<b>\$ 3,758</b>	<b>\$ 46,549</b>

### Notes

\*Management noted amendment - repairs necessary in 2025, rehabilitating asset to 10.

\*\*Management noted amendment - repairs necessary in 2026, rehabilitating asset to 10.