RATE APPLICATION REVIEW

Island Waste Management Corporation

February 2020

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1 Executive Summary

The current fee structure for Island Waste Management Corporation (IWMC) was approved by the Island Regulatory and Appeals Commission on December 22, 2011 (Order WM11-01) and came into effect on January 1, 2012. Since that date, IWMC has managed its operations such that no additional rate changes were required to meet financial obligations. Based on historic, current, and projected financials, IWMC feels a modest increase at this time is the best alternative vs. having Islanders see a more significant increase as an outcome of a future rate application. IWMC seeks approval for modest increases to some of their current rates to enable IWMC to meet its financial obligations and continue their waste management programs moving forward. IWMC indicates these increases are primarily required to cover increases in contracted collection, transportation, and processing costs as well as other minor inflationary compounding increases to other costs since their last rate adjustment in 2012.

Below is a summary of proposed changes to current rates. No changes are requested for any other current rates.

Summary of Proposed Rate Changes (From Application and Supporting Information)

Fee Description	2019 Count	Current Rate	Proposed Rate	Proposed Increase Per Unit	Proposed Increase	Projected Increase in Revenue
Regular Household	66,159	$205	$213	$8.00	3.9%	$529,272
Cottage	7,832	$95	$115	$20.00	21.1%	156,640
Extended Cottage	620	$120	$140	$20.00	16.7%	12,400
	74,611					
Asphalt Shingles	2,858 tonnes	$40/Tonne	$50/Tonne	$10/Tonne	25%	Net $29,000
Residential Min-Max	6,334 transactions	$5 Min - $20 Max	$5 Min - $30 Max	$10 increase in Max	50%	47,000
Out of Province (OOP) Contaminated Material	minimal	$230/Tonne	$250/Tonne	$20/Tonne	8.7%	-
Establish New Rate Category for Out of Province (OOP) Contaminated Soil	minimal	N/A	$100/Tonne	$100/Tonne	N/A	-
Projected Annual Increase in Revenue						**$774,312**

** NOTE: Household Annual Fees and Cottage Annual Fees are charged directly on Prince Edward Island Property Tax Invoices. All other rates are paid based on product received at Waste Watch Disposal Centre (WWDC) locations and/or final disposal facilities.*

Factors considered in making a decision to approve or not approve the requested rate increases include:

- Is there an immediate overall financial need for additional revenue?
- Is the allocation of the increase fair amongst the categories of household user fees?
- Are there reasonable grounds for increasing the disposal fees?

Immediate Need for Additional Revenue

While a net loss is projected each year ranging from $320,000 to $714,000 if the rate increases are not approved, there is sufficient Net Assets balance resulting from multiple previous years of surpluses to absorb these losses until the end of 2021/22 as well as sufficient cash flow to support operations for that same time period.

IWMC would rationalize that the current Net Assets balance should be retained at its current level based on a professional opinion received in 2017 that determined that Net Assets below 30% was actually low for IWMC and that slight profits in the range of 7% to 8% would be considered reasonable. Net Assets as a percentage of total assets was 8.0% at March 31, 2019.

We disagree with this opinion as detailed in Section 5.3.4 of this report. **It is our opinion that reasonable Net Assets for a Crown Corporation should be based on estimated unfinanced future capital expenditures and other risk management assessments such as future changes in insurance, staff benefits, or future operating costs.** A specific plan for capital needs was not provided by IWMC and the risk of future changes in operating costs is low given that the majority of operating costs are under contracts which do not expire until at least 2024. It is noted that in IWMC's February 20, 2020 response to interrogatories they indicated that capital asset additions acquired with cash during the past three years had ranged from $1.3 million to $1.7 million (excess cash in the operation through multiple years of surpluses would have provided this opportunity) however no concrete plan or year to date expenditures for the 2019/20 year were provided. These capital asset additions included items such as compost and waste carts, vehicles, roll-off trucks and equipment at disposal facilities which are long term assets and could be financed with debt.

In our opinion a rate increase for household user fees is not justified at this point in time. It is recognized that a rate increase may be justified for the 2021/22 year provided current projections are realized.

Allocation to Residential, Cottage, Extended Cottage

Information provided by IWMC demonstrates that the average increase to collections costs for residences is in the range of $20 per unit and for cottages/extended cottages is $50 per unit. IWMC also showed that the average collection contract cost per unit as a percentage of collection fees is 40% for residences and 79% for cottages/extended cottages.

Based on the above the following is noted:

- that collection fees for residences are contributing at a higher rate to other areas of the operation such as administration expenditures; advertising, education and public relations; interest on long-term debt; and depreciation and unrecouped disposal costs.
- Collection costs for cottages/extended cottages increased 2.5 times what the collection costs for residences did.

Following this rationale, it would be reasonable to increase rates for cottages and extended cottages by 2.5 times the increased rate for residences when a rate increase is deemed appropriate.

Grounds for Increasing the Disposal Fees

Disposal fee revenues only cover 55% of the disposal expenditures leaving a balance of $3.4 million (2018/19 audited financial statements) not covered by disposal fees.

In our opinion an increase to some disposal fees is justified. An increase in disposal fees will assist IWMC in moving towards covering more of the disposal expenditures.

Asphalt Shingles

In our opinion a rate increase of $10 per tonne appears reasonable and should not be significant enough to deter proper disposal of these materials.

Residential Min-Max

In our opinion an increase in the Max fee to $30 is not justified.

Out of Province (OOP) Contaminated Materials

In our opinion this rate category should be established at EPWMF and an increase to $250 is justified.

Out of Province (OOP) Contaminated Soil

In our opinion a new rate category for Out of Province (OOP) Contaminated Soil should be established for disposal at the EPWMF at a rate of $100.

Summary of IWMC Financial Situation

IWMC has a relatively strong financial position with accumulated Net Assets of almost $2.3 million. Debt is at a reasonable rate of return with the majority of debt being either unconditionally secured by the Province of PEI or with the Province of PEI. IWMC has a working capital ratio of 1:1 meaning that current assets are sufficient to meet current liabilities and has access to a $1.5 million operating loan. IWMC has experienced a surplus each of the past four years.

2 Proposed Rate Changes – IWMC Introduction

The mandate of Island Waste Management Corporation is to provide a financially-responsible and environmentally-sound waste management program for both the residential and commercial sectors of Prince Edward Island. IWMC's approach has been to balance this mandate on a cost-recovery basis as much as possible. According to IWMC while having a truly user-pay system with rates set at a breakeven for each individual rendered service would seem like the best alternative, it does not always work in this manner. Some rates are fully based on cost recovery, however, if all rates were set in this manner it would lead to individuals and businesses opting out of proper disposal for some materials. Based on a review of waste management models and rates from various jurisdictions, and the overall success of waste management on Prince Edward Island, it is the opinion of IWMC that the best option, considering all the variables, is to have a waste management program that balances a user-pay system with reasonably priced options for all Islanders with consideration given to having some rates lower than costs and/or at no charge to encourage proper disposal of all waste.

The current fee structure for IWMC was approved by The Island Regulatory and Appeals Commission on December 22, 2011 (Order WM11-01) and came into effect on January 1, 2012. Since that date, IWMC has managed its operations such that no additional rate changes were required to meet financial obligations. Based on historic, current, and projected financials, IWMC feels a modest increase at this time is the best alternative vs. having Islanders see a more significant increase as an outcome of a future rate application. IWMC has indicated they are seeking approval for modest increases to some of their current rates to enable IWMC to meet its financial obligations and continue their waste management programs moving forward. IWMC indicates these increases are primarily required to cover increases in contracted collection, transportation, and processing costs as well as other minor inflationary compounding increases to other costs since their last rate adjustment in 2012.

Below is a summary of proposed changes to current rates and the rationale for requested changes. No changes are requested for any other current rates.

Table 1: Summary of Proposed Rate Changes (Application and Supporting Information)

Fee Description	Current Rate	Proposed Rate
Collection Fees		
**Household Annual Fee*	$205	$213
**Cottage Annual Fee*	$95	$115
**Cottage Extended Fee*	$120	$140
Disposal Fees		
Asphalt Shingles	$40 Per Metric Tonne	$50 Per Metric Tonne
Residential Min-Max	$5 Min - $20 Max	$5 Min - $30 Max
Out of Province (OOP) Contaminated Material	$230 Per Tonne	$250 Per Tonne
Establish New Rate Category for Out of Province (OOP) Contaminated Soil	N/A	$100 Per Tonne

** NOTE: Household Annual Fees and Cottage Annual Fees are charged directly on Prince Edward Island Property Tax Invoices. All other rates are paid based on product received at WWDC locations and/or final disposal facilities.*

IWMC has informed the proposed rate adjustments have been determined using IWMC's projected revenue and expenditures based on a combination of historical customer base, waste volumes, and materials received at final disposal facilities from prior years. In addition to looking at this historical data, they have used various assumptions based on the current economic climate, recent trends, and anticipated inflationary pressures.

IWMC notes the application for an increase at this time is based on two main reasons. They have seen significant increases to their collection contracts and have experienced compounded inflationary increases to all costs since their most recent rate change effective January 2012 (eight years ago).

The rate application review is based on information provided in the following submissions:

- Application and supporting information submitted November 2019
- December 9, 2019 response to interrogatories of December 3, 2019
- January 10, 2020 response to interrogatories of December 24, 2019
- February 20, 2020 response to interrogatories of February 11, 2020

The request for changes can be classified into two areas collection fees and disposal fees. IWMC's request and rationale for changes to collection fees is outlined and analysed in Section 3 of this report. Their request and rationale for changes to disposal fees is outlined and analysed in Section 4 of this report.

3 IWMC's Request for Rate Increase in Collection Fees

IWMC is requesting increases in the following collection fees (see Table 2).

- **Household Collection Fee** – for one family unit, for one calendar year, this fee provides for: one set of carts, consisting of a waste cart, compost cart and mini bin, replacement and or repair of waste and compost carts, monthly collection of recyclable material, bi-weekly collection of waste and compost carts on alternating weeks, a Spring and a Fall cleanup collection and a Christmas tree collection. This fee also allows for free drop off at any Waste Watch Disposal Centre (WWDC) of recyclable & metal material (excluding metals from construction and demolition e.g. bath tubs, sinks, etc.) on Saturday mornings, household hazardous waste, white goods and residential bulk material any time during operating hours;
- **Cottage Collection Fee** – for one cottage unit, for the period June 1 to September 30, this fee provides for one set of carts, consisting of a waste cart, compost cart and mini bin, replacement and or repair of waste and compost carts, monthly collection of recyclable material, bi-weekly collection of waste and compost carts on alternating weeks. This fee also allows for free drop off at any WWDC of recyclable material on Saturday mornings, household hazardous waste, white goods and residential bulk material any time during operating hours;
- **Extended Cottage Collection Fee** – provides the same as Cottage Collection Fee except the period is extended May 15 to October 31.

The fees proposed in Table 2 show a 3.9% increase in the **Household Annual Fee**, a 21.1% increase in the **Cottage Annual Fee** and a 16.7% increase in the **Extended Cottage Fee**. If a universal increase for all customers was used to achieve the same increase in revenue, each unit (cottage, extended cottage and regular household) would have to increase $9.36 ($698,312 /74,611= $9.36).

Table 2: Summary of Proposed Rate Changes in Collection Fees

Fee Description	2019 Count	Current Rate	Proposed Rate	Proposed Increase Per Unit	Proposed Increase	Projected Increase in Revenue
Regular Household	66,159	$205	$213	$8.00	3.9%	$529,272
Cottage	7,832	$95	$115	$20.00	21.1%	156,640
Extended Cottage	620	$120	$140	$20.00	16.7%	12,400
	74,611					**$698,312**
					Universal Increase for All Customers	**$9.36**

Changes to IWMC household rates must be in correlation with the process for annual property tax invoicing, therefore, it is the opinion of IWMC that this increase is just and reasonable at this time. In IWMC's opinion waiting an additional year would most likely result in larger percentage increases required from customers. IWMC seeks IRAC approval for these rate adjustments to allow the Corporation to meet its current and projected expenditures. Although their current fiscal year end is March 31, 2020, they seek rate adjustments as outlined in Table 2 to come into effect January 1, 2020.

3.1 IWMC Rationale

The proposed rate adjustments have been determined using IWMC's projected revenue and expenditures based on a combination of historical customer base, waste volumes, and materials

received at final disposal facilities from prior years. In addition to looking at this historical data, they have used various assumptions based on the current economic climate, recent trends, and anticipated inflationary pressures. It is the opinion of IWMC that the information contained in their application represents a just and reasonable representation of IWMC's current and forecasted financial position.

3.1.1 Residential Collection Costs – IWMC Rationale

Residential collection of compost and waste as well as blue bag recyclables is contracted out to several service providers. See Table 3 for Compost and Waste collection contracts and Table 4 for the Recyclables' contract.

Table 3: Compost and Waste Collection Contracts

Contractor	Region	Contract Period	Annual Household Rates	Annual Cottage Rates	Annual Extended Cottage Rates
Label Construction & Sanitation	East Prince	Sept. 1/19 – Aug. 31/24	$51.56 - $59.04	$29.00	$29.95
Label Construction & Sanitation	West Prince	Sept. 1/19 – Aug. 31/24	$76.00	$25.08	$45.08
Superior Sanitation	Capital	Nov. 1/19 – Oct. 31/24	$46.23 - $49.45	$82.58 - $88.34	$99.08 - $105.99
Superior Sanitation	Central	Nov. 1/19 – Oct. 31/24	$71.57 - $76.56	$82.58 – $88.34	$99.08 - $105.99
Superior Sanitation	Eastern Kings	Nov. 1/19 – Oct. 31/24	$65.00	$21.67	
Superior Sanitation	Southern Kings	Nov. 1/19 – Oct. 31/24	$66.90	$21.57	$41.57

Table 4: Recyclables Contract – Collection, Processing, Marketing and Transportation of Residential Recyclable Materials – Current Costs Current

Contractor	Region	Contract Period	Annual Household Rates	Annual Cottage Rates	Annual Extended Cottage Rates
GreenIsle Environmental Inc.	West Prince	Jul. 1/18 – Jul. 1/25	$31.61 - $33.68	$31.61 - $33.68	$31.61 - $33.68
	East Prince		$26.61 – $28.36	$26.61 – $28.36	$26.61 – $28.36
	Central		$23.61 - $25.15	$23.61 - $25.15	$23.61 - $25.15
	Capital		$20.61 – 21.97	$20.61 – 21.97	$20.61 – 21.97
	Eastern		$26.61- $28.35	$26.61- $28.35	$26.61- $28.35

In addition to the monthly blue bag collection, GreenIsle Environmental also provides weekly Saturday morning drop-off and haul service for locations in Charlottetown, Summerside, Montague, Brockton, East Prince Waste Management Facility (EPWMF), New London, Murray River and Dingwells Mills (Table 5).

Table 5: GreenIsle Environmental Inc. – Recyclables Drop-off and Haul Service

Region	Current Annual Rate
Saturday Mornings – 52 Annual Drop-off and Haul Locations - Charlottetown	$25,538- 27,025
Saturday Mornings – 52 Annual Drop-off and Haul Locations - Summerside	$13,707- 14,647
Saturday Mornings – 52 Annual Drop-off and Haul Locations - Montague	$11,137– 11,941
Saturday Mornings – IWMC WWDC's Drop-off locations (supply and haul containers) - Brockton	$11,986 - 12,979
Saturday Mornings – IWMC WWDC's Drop-off locations (supply and haul containers) - EPWMF	$11,986 - 12,771
Saturday Mornings – IWMC WWDC's Drop-off locations (supply and haul containers) - New London	$10,556 – 11,248
Saturday Mornings – IWMC WWDC's Drop-off locations (supply and haul containers) - Murray River	$7,696 – 8,200
Saturday Mornings – IWMC WWDC's Drop-off locations (supply and haul containers) - Dingwells Mills	$11,986 – 12,772

Since 2012 (the last rate change), IWMC has retendered these contracts. The results of these processes have seen an average increase of $11.33 ($13.18 weighted) per household for Compost and Waste collections (see Table 6) and a $6.97 average increase per household ($6.63 weighted) for Blue Bag Recycling collections (see Table 7). The total average increase is in the range of $18.30 to $19.81. The majority of these contracts also have an annual increase. Since the date of the last increased, IWMC has experienced an increase of $1.43 million to contracted collection costs (Compost and Waste Collection Contracts – increase of $914,000; Recyclables Contract – increase of $512,000). Based on these significant increases, IWMC's feels their financial position dictates that some increased costs be passed on to customers.

Table 6: Average Increase per Household in Compost and Waste Collection Contracts– 2012 to 2019

Area	# of households	% of Total	2012 Contracted Price	2019 Contracted Price	Increase	Weighted Increase
West Prince	5,179	8%	$ 68.00	$ 76.00	$ 8.00	0.63
East Prince	14,895	23%	$ 33.53	$ 51.56	$ 18.03	4.06
Central	12,889	19%	$ 52.00	$ 71.57	$ 19.57	3.81
Capital	24,328	37%	$ 36.00	$ 46.23	$ 10.23	3.76
Southern Kings	4,981	8%	$ 54.74	$ 66.90	$ 12.16	0.92
Eastern Kings	3,887	6%	$ 65.00	$ 65.00	$ -	-
	66,159	**100%**			**$ 67.99**	
Average increase each same weight					**$ 11.33**	
Average increase weighted						**$ 13.18**

Table 7: Average Increase per Household in Recyclables' Collection Contract – 2012 to 2019

Area	# of households	% of Total	2012 Contracted Price	2019 Contracted Price	Increase	Weighted Increase
West Prince	5,179	8%	$ 15.00	$ 31.61	$ 16.61	1.30
East Prince	14,895	23%	$ 15.00	$ 26.61	$ 11.61	2.61
Central	12,889	19%	$ 24.77	$ 23.61	$ (1.16)	(0.23)
Capital	24,328	37%	$ 12.49	$ 20.61	$ 8.12	2.99
Eastern	8,868	13%	$ 26.95	$ 26.61	$ (0.34)	(0.05)
	66,159	**100%**			**$34.84**	
Average increase each same weight					**$ 6.97**	
Average increase weighted						**$ 6.63**

3.1.2 Cottage and Extended Cottage Collection Costs– IWMC Rationale

Based on the most recent collection tender results, the average collection costs for cottages has resulted in 42% of cottages having collection costs above the current fee charged. For these reasons IWMC is seeking an increase of $20.00 per cottage and extended cottage collection fees.

In 2019, IWMC provided collections to a total of 8,452 cottages, and 620 of these opted for extended cottage collection. Based on these counts and current contracted prices for the collection of compost and waste carts as well as recyclable (blue bag collections), 3,533 (or 42% of 8,452 cottages) had tendered contracted collection costs actually above the current fee collected of $95.00 per cottage (Table 8). The average Island-wide contracted collection costs for cottages was $74.86 (or 78.8% of $95) (Table 8). Cottage properties are also assigned a set of carts, and are eligible for all the other 'no charge' programs such as Saturday morning recyclable drop-off, household waste (HHW), special material disposal, min/max disposal fees, etc. IWMC does not have any calculation or formula to outline what the costs are to provide other services including costs of "no charge" programs such as Saturday morning recyclable drop-off, HHW, special material disposal, min/max disposal fees, etc. for cottages, extended cottages and or full-time households. They have no way of tracking the type of property owner who utilizes these extra-free or reduced-cost services at our drop-off centers. Additionally, IWMC's Waste Watch Program is structured as a "blended rate" program and not totally structured as a fee for individual service program. Some fees and services are priced to encourage proper disposal that would not take place if true costs for such disposal where to be charged. Many fees charged to customers are actually below actual disposal costs to IWMC.

The average cost to provide service to a permanent home was $62.87 (or 30.6% of $205) (Table 9). Based on this, IWMC has determined that year-round households may be subsidizing the rates for cottages.

Table 8: Cottage Count (including Extended Cottage) – Collection Costs > $95 and 2019 Average Island-Wide Collection Costs

Area	Cottage Count	Cart Collection	Blue Bag Collection	Total Per Cottage	Total Cost
West Prince	761	$25.08	$31.61	$56.69	$43, 141
East Prince	1,937	$29.00	$26.61	$55.61	$107,716
Central	*3,345*	*$82.58*	*$23.61*	*$106.19*	*$355,205*
Capital	*188*	*$82.58*	*$20.61*	*$103.19*	*$19,399*
Eastern Kings	1,378	$21.66	$26.61	$48.27	$66,516
South Kings	843	$21.57	$26.61	$48.18	$40,615
TOTAL	**8 452**				**$632,592**
Units – Costs >$95	**3,533**				
Percentage of Total	**42%**				
				Average Cost	**$74.86**
				Cottage Collection Fee	**$95.00**
				Extended Cottage Collection Fee	**$120.00**
				IWMC Calculated Average Cost as % of Collection fee $74.86/$95.00	**78.8%**

Table 9: IWMC Calculation of 2019 Average Cost to Supply Compost and Waste Collection to Residences

Area	Expiry	Contractor	Unit price in 2012	Unit Price in 2019
West Prince	Aug/2024	Label Construction and Sanitation	$68.00	$76.00
East Prince	Aug/2024	Label Construction and Sanitation	$33.53	$51.56
Central Region	Oct/2024	Superior Sanitation	$52.00	$71.57
Capital Region	Oct/2024	Superior Sanitation	$36.00	$46.23
Southern Kings	Oct/2024	Superior Sanitation	$54.74	$66.90
Eastern Kings	Oct/2024	Superior Sanitation	$65.00	$65.00
			Total of Unit Price in 2019	**$377.26**
			IWMC Calculation of Average Unit Price 2019	**$62.87**

The average total collection costs for cottages Island wide increased from $24.38 in 2012 (Table 10) to the current level of $74.86 in 2019 (Table 8). This represents an increase of $50.48 or 207%. In 2012, cottage fees were calculated at 1/3 of the household rate in the area. From 2012 to 2019 the average cost for collection for regular households increased from $61.93 (Table 11) to $81.53 (Table 12) representing an increase of $19.60 or 31.6%. Considering the average increase for cottage, extended cottage and regular household contracted collection costs, the requested rate increase of $20.00 for cottage and extended cottage and $8.00 per household is less than half the value of the increases experienced by IWMC in its contracted collection costs for these customers. This information is provided to support IWMC's rationale that cottage and extended cottage user fee increases should be increased significantly more than the regular household proposed increase.

Table 10: Cottage Count (including Extended Cottage) – 2012 Average Island-Wide Collection Costs

Area	2012 Cottage Count	Cart Collection	Blue Bag Collection	Total Per Cottage	Total Cost
West Prince	749	$68.00 x 1/3=$22.66	$15.00 x 1/3=$5.00	$27.66	$20,717
East Prince	11,823	$33.53 x 1/3=$11.18	$15.00 x 1/3=$5.00	$16.18	$29,496
Central	3,242	$52.00 x 1/3=$17.33	$24.77 x 1/3=$8.26	$25.59	$82,963
Capital	216	$36.00 x l/3=$12.00	$12.49 x 1/3=$4.16	$16.16	$3,491
Eastern Kings	1 ,275	$65.00 x 1/3=$21.66	$26.95 x 1/3=$8.98	$30.64	$39,066
South Kings	819	$54.74 x 1/3=$18.25	$26.95 x 1/3=$8.98	$27.23	$22,301
TOTAL	**8,124**				**$198,034**
				Average Cost	**$24.38**

It was noted that in IWMC's calculations in Table 11 and Table 12 that the contract prices for Eastern Kings and Southern Kings are interchanged. The effect of this is immaterial – average cost for the residences in 2012 would be reduced to $61.76 and the average cost for residences in 2019 would be increased to $81.57 – a net change of $19.81 compared to $19.60 below.

Table 11: Residences Household Count – IWMC Calculation of 2012 Average Island-Wide Collection Costs (Compost and Waste and Blue Bag)

Area	Count	Cart Collection	Blue Bag Collection	Total Per Household	Total Cost
West Prince	5,179	$68.00	$15.00	$83.00	$429,857
East Prince	14,895	$33.53	$15.00	$48.53	$722,854
Central	12,889	$52.00	$24.77	$76.77	$989,489
Capital	24,328	$36.00	$12.49	$48.49	$1,179,665
Eastern Kings	3,887	$54.74	$26.95	$81.69	$317,529
Southern Kings	4,981	$65.00	$26.95	$91.95	$458,003
Total	**66,159**				**$4,097,397**
				Average cost calculated by IWMC	**$61.93**

Table 12: Residences Household Count – IWMC Calculation of 2019 Average Island-Wide Collection Costs (Compost and Waste and Blue Bag)

Area	Count	Cart Collection	Blue Bag Collection	Total Per Household	Total Cost
West Prince	5,179	$76.00	$31.61	$107.61	$557,312
East Prince	14,895	$51.56	$26.61	$78.17	$1,164,342
Central	12,889	$71 57	$23.61	$95.18	$1,226,775
Capital	24,328	$46.23	$20.61	$66.84	$1,626,084
Eastern Kings	3,887	$66.90	$26.61	$93.51	$363,473
South Kings	4,981	$65.00	$26.61	$91.61	$456,309
Total	**66 159**				**$5,394,295**
				Average cost calculated by IWMC	**$81.53**
				Residences Collection Fee	**$205.00**
				Average Cost as a % of Collection Fee	**39.8%**

Table 13 shows a breakdown of the average collection costs per unit type as a percentage of the fee collected for this service. This is IWMC's demonstration of their rationale for requesting an increase in cottage and extended cottage rates by $20.00 and only an increase of $8.00 for regular households. It was the opinion of IWMC that a larger increase should be charged to cottage and extended cottage users as the contracted collection costs for these specific units have increased significantly greater as a percentage of fees collected. Also as previously outlined, 42% have higher contracted collection costs than the actual fee collected from these customers and contracted collection costs have increased by 207% for cottages and 31.6% for households. IWMC has used this rationale as a better alternative than adjusting all unit types with the same increase. Below is a comparison of average cost for collection services as a percentage of fees actually collected from each unit type.

Table 13: IWMC Comparison of 2019 Average Collection Cost to Current Collection Fee by Category

Unit Type	Average Cost	Fee Collected	Average Cost/Fee Collected
Cottage	$74.86	$95.00	($74.86/$95.00) = 78.80%
Extended Cottage	$85.35	$115.00	($85.35/$115.00) = 74.21%
Regular Household	$81.53	$205.00	($81.53/$205.00) = 39.77%

Based on the average collection costs only for cottage, extended cottage and regular household, the collection costs as a percentage of fees collected are much higher for cottage and extended cottage properties (78.8% compared to 39.8%).

3.2 Collection Fee Analysis

Projections were prepared by IWMC for the four years ending March 31, 2020, 2021, 2022 and 2023 based on a “No Proposed Rate Increase” scenario as well as a “Proposed Rate Increase” scenario. Projections submitted with the original application submission were updated in response to interrogatories and revised projections were provided in January 2020. These revised projections resulted in changes to the projected expenditures for residential collection contracts for compost and waste, and recyclables. IWMC projections based on “No Proposed Rate Increase” reflect that without an increase in collection fees and disposal fees IWMC will experience a net loss in each of the years ending March 31, 2020 through to 2023 and Net Assets will be depleted during the year ending March 31, 2023 (Figure 1). It should be noted that in their February 20, 2020 response to interrogatories IWMC provided further adjustments to projected revenues and expenditures however revised financial projections were not provided. These revisions are not reflected in Figure 1.

Figure 1: Financial Projections for Years ended March 31, 2020 to 2023 Based on No Proposed Rate Increase – Prepared by IWMC

ISLAND WASTE MANAGEMENT CORPORATION
Projections for years ended March 31, 2020, 2021, 2022 & 2023
Based on No Proposed Rate Increase (Revised January 2020)

	Audited 2018/19	Projected 2019/20	Projected 2020/21	Projected 2021/22	Projected 2022/23
REVENUE					
Household user fees (sch 1)	14,292,792	14,458,400	14,602,700	14,748,400	14,895,600
Disposal fees (sch 2)	4,185,474	4,323,300	4,347,600	4,372,200	4,397,000
Tires	1,328,297	1,075,000	875,000	875,000	875,000
Decommissioning and monitoring	23,316	23,800	24,300	24,800	25,300
Other	88,462	92,000	92,000	92,000	92,000
	19,918,341	19,972,500	19,941,600	20,112,400	20,284,900
EXPENDITURES					
Administration (sch 3)	1,340,140	1,443,300	1,470,500	1,501,500	1,526,700
Advertising, education and PR (sch 4)	137,488	141,800	144,800	147,500	150,500
Operating costs					
Residental collection (sch 5)	6,428,733	6,907,100	7,137,200	7,314,600	7,496,100
Disposal (sch 6)	7,622,114	7,715,600	7,872,900	8,027,300	8,187,800
Tire collection and disposal	1,328,297	1,075,000	875,000	875,000	875,000
Decommissioning and monitoring	23,316	23,800	24,300	24,800	25,300
	16,880,088	17,306,600	17,524,700	17,890,700	18,261,400
Earnings before dep'n and interest	3,038,253	2,665,900	2,416,900	2,221,700	2,023,500
Depreciation	1,914,411	2,000,000	2,200,000	2,200,000	2,200,000
Interest on long-term debt	1,094,558	1,011,100	909,900	802,500	693,200
Net income (loss)	**29,284**	**(345,200)**	**(693,000)**	**(780,800)**	**(869,700)**
Net Assets Balance	**2,274,626**	**1,929,426**	**1,236,426**	**455,626**	**(414,074)**

3.2.1 Assumptions Used by IWMC to Prepare Projections

3.2.1.1 Inflation Rate

IWMC salary adjustments for 2020 (2.25%) and 2021(1.75%) were used based on cost of living (C.O.L.) increases scheduled by the current PEI Government employee contracts. As there are no scheduled PEI Government C.O.L. increases announced beyond 2021, IWMC used the average of 2% (from the prior two years) for 2022 and 2023. A 2% per year increase for all other expenditures was assumed. Collection and disposal contracts expenditure estimates were calculated based on the corresponding rates included in the collection/processing contracts for each year.

In our opinion these assumptions are reasonable.

3.2.1.2 Household Unit Counts

In the original submission detail was not provided on the assumptions used to project the number of households and cottage counts for the projection of user fee revenue and the housing adjustment in the Compost and Waste contracts or the Recyclables contract.

Household User Fee Revenue

In the December 9, 2019 response to interrogatories IWMC indicated that an annual increase of 1% per year was used in IWMC's projections for 2020 to 2023 to project household user fee revenue, however further detail was not provided on the count base used or the rationale to arrive at 1%.

In the February 20, 2020 response to interrogatories IWMC indicated they opted to use 1% instead of predicting the increase on a regional basis because:

- The $205 (Household Fee) and $95 (Cottage Fee) are constants across the Province;
- The increase housing count is an estimate based on historic increases seen by IWMC in the past – there is no live data to consider. Housing counts are adjusted annually in conjunction with the annual property tax billing. The housing count data used in the original submission to IRAC was based on July 2019 counts. Increases in housing counts may be higher in some regions, lower in other regions. They used 1% as a predicted average on a provincial basis.
- When projecting revenue, historical data was used as a basis with some of those number adjusted slightly based on in-house observations for recent cart requests for newly build homes and multi-family dwellings. Fluctuations in housing counts has a much larger impact on expenses in some areas than others because of the contracted collection costs for that specific region. Previously submitted calculations outlines the contracted collection costs for each region.

Housing Adjustment – Compost and Waste and Recyclables Contracts

In the response to interrogatories dated December 9, 2019 IWMC provided the following information in regards to the Compost and Waste contracts. Further detail was not provided on the count base used or the rationale for arriving at the noted percentage:

- For the East and West Prince contracts, IWMC used the original household/cottage counts at the start of the contract and multiplied this count by the corresponding household fee for that year of the contract. We then assumed a .08% increase in the number of households/cottages in each of the areas per year.
- For the Capital and Central contracts, IWMC started with the original household/cottage count at the start of the contract and multiplied this count by the corresponding household fee for that year of the contract (household/cottage rates change yearly based on contract year). We then assumed an increase in the number of households/cottages in the Capital Area of 1.9% and 1.6% in the Central Area per year.
- In calculating our projections for the Eastern and Central contracts, we started with the original household/cottage counts at the start of the contract and multiplied this count by the corresponding household fee for that year in the contract (household/cottage rates for both of these contracts do not change for the duration of the contract). We then assumed an increase in

the number of households/cottages in the Eastern Kings Area to increase .07% per year and .01% per year in the Southern Kings Area.

In the response to interrogatories dated December 9, 2019 IWMC provided the following information in regards to the Recyclables contract. Further detail was not provided on the count base used or the rationale for arriving at the noted percentage:

- IWMC used the original household/cottage counts at the start of the recycling contract and multiplied this count by the corresponding household fee for that year in the contract (household/cottage rates change yearly based on the contract year). An increase in the number of households/cottages of 1.5% per year was assumed.

In the December 24, 2019 interrogatories we noted that the assumption for household unit count increases was not applied consistently throughout as it was noted that the percentage increases used to project Household User Fee revenue was 1%, Compost and Waste Collection contract amounts (ranged from .01% to 1.9%) and Recyclables was 1.5%. In response to further interrogatories IWMC provided the following information in the January 10, 2020 response on both the counts and the rationale for the percentage increase by year (summarized in Table 14):

- The increase in East and West Prince was based on historical data and was projected at .8% per year and not .08% (previously stated in December 9, 2019 response).
- IWMC estimated that the Capital and Central areas would continue with the trend of increased counts and projected a slightly higher housing count increase than historically, given there is considerable construction of new multi-housing units (rental properties/multi-unit apartments). New home construction in the Capital and Central areas is estimated to be very strong as well over the next few years compared to the rest of the Island.
- Based on historical data, we projected increases of .7% per year in Eastern Kings and 1.0% for Southern Kings (previously stated as .07% and .01% respectively in December 9, 2019 response).
- Based on historical data, IWMC projected increases to the recyclables contract at a rate of 1% per year (the same as what the average increase has been Island wide over the past 3 years.) IWMC previously stated in Interrogatory #8 an increase of 1.5% per year in the number of cottages, extended cottage and regular households pertaining to our recyclable collection contract. This statement was in error—we had actually estimated 1.0%. We are using the rate of 1% increase per year which is the same as the percentage increase over the past three years island wide.

IWMC provided the following information in their January 10, 2020 response on both the counts and the rationale for the percentage increase by year (summarized in Table 14).

Table 14: IWMC Rationale for Housing Count Increases used in Projections

Area	2106 Count	2017 Count	2018 Count	2019 Count	Average. 3 Year% Increase	IWMC Projected Increase %
W/Prince	5,854	5,858	5,886	5,940	.50	.8
E/Prince	16,454	16,538	16,737	16,832	.80	.8
Central	15,675	15,823	16,029	16,234	1.20	1.6
Capital	23,444	23,731	24,041	24,516	1.50	1.9
E/Kings	5,187	5,208	5,221	5,265	.50	.7
S/Kings	5,671	5,722	5,786	5,824	.88	1.0
TOTAL PEI	**72,285**	**72,880**	**73,700**	**74,611**	**1.00**	**1.0**
	Recyclables Housing Count Increase					**1.0**

In our opinion to provide realistic projections, assumptions used to project the number of households and cottage counts for the projection of user fee revenue and for the cost of providing the collection should be consistent. Fifty-five percent (55%) of the 2019 count comes from Central and Capital regions, areas that are projected to grow at 1.6% and 1.9% respectively, both at a higher rate than the overall average of 1%. Revenue should be projected using the same unit increases as were applied for the projection of costs for the collection contracts. Costs for the Compost and Waste contracts were projected using the individual region projected increases which we feel is the most realistic assumption. Recyclables should also be projected on the same basis.

3.2.1.3 Fuel Prices

In the original submission detail was not provided on the assumptions used to project the fuel adjustment in the Compost and Waste contracts or the Recyclables contract.

In the December 9, 2019 response to interrogatories in regards to the assumptions used to project the fuel adjustment IWMC indicated that in the original submission they arbitrarily projected an increase in fuel adjustment as follows:

- Increased by $3,000 per year for East Prince Compost and Waste Collection contract
- Increased by $2,000 per year for West Prince Compost and Waste Collection contract
- Increased by $5,000 per year for each of Central and Capital Compost and Waste Collection contracts
- Increased from a starting point of $6,400 for Eastern Kings and $1,000 for Southern Kings by $130 per year for Eastern Kings and Southern Kings Compost and Waste Collection contracts
- For GreenIsle's Recyclables contract no increase was assumed for fuel adjustments for 2019/20, $10,000 yearly was assumed for 2020/2021/2022.

In the January 10, 2020 IWMC has indicated that they assumed a starting price of 132.0 per litre and a 3.0 cent per litre increase per year compounded annually for their projections. Based on our calculation the AMF for 2019 based on Self Service Diesel Pump Price changes provided by IRAC is calculated to be

129.5, **however given the upward trend in pump prices the last two months of the year in our opinion 132.0 was a reasonable assumption as a starting point going forward.**

In the February 20, 2020 response to interrogatories IWMC indicated that the starting point of 132.0 cents +/- 5% of the Minimum Self-Service Diesel price does not apply to the Eastern Kings contract. IWMC indicated that for the Eastern Kings contract the fuel adjustment is based on the Full-Service Diesel price with no +/- %. A starting point of 137.8 cents and a 3.0 cent per litre increase was used for the Eastern Kings contract. Based on our calculation the AMF for 2019 based on Full-Service Diesel Pump Price changes provided by IRAC is calculated to be 134.2, **however given the upward trend in pump prices the last two months of the year in our opinion 137.8 was a reasonable assumption as a starting point going forward.**

3.2.1.4 Minimum Wage

In the original application submission, detail was not provided on the assumptions used to calculate the minimum wage adjustment for the 2020 to 2023 period. In the December 9, 2019 response to interrogatories IWMC indicated that the PEI Minimum wage, already scheduled to be $12.85 by April 1, 2020 would increase a further 70 cents prior to the end of 2020. A 2.0% increase in minimum wage per year was estimated after 2020.

In further interrogatories December 24, 2019 IWMC was asked to provide the calculation for the minimum wage adjustment. In response a revised calculation for the contract wage clause costs was provided. **In our opinion the assumptions used for the wage adjustment appear to be reasonable.**

3.2.2 Verification of Calculations in IWMC's Projections

3.2.2.1 Household User Fee Revenue

Household User Fee revenue was projected using a 1% increase in household counts across all regions. As noted previously **in our opinion the percentage increase by individual regions should have been used in the projections**. Two of the regions with the highest number of households (Central and Capital representing 55% of the total households) have projected increases of 1.6% and 1.9% significantly higher than 1%. In addition, IWMC calculated household user fee revenue with extended cottage revenue being projected using the cottage rate of $95 rather than the extended cottage rate of $120 resulting in an understatement of projected revenue of $15,000 per year for extended cottage operations. The result of both of these adjustments would result in additional projected revenue between $26,000 to $156,000 over the four year period in the no proposed rate increase scenario (Table 15).

In the February 20, 2020 response to interrogatories IWMC acknowledged that the application of the $95 rate to extended cottages did result in an underestimation of projected revenue by $15,000 to $16,000 during the four-year projection period. IWMC did not agree that using the varied percentage increase in household counts on a regional basis (.7% to 1.9%) provided more realistic projections. Our calculations show that using the varied percentages by region result in an additional underestimation of projected revenue by $10,000 to $140,000 over the four-year period in the no proposed rate increase scenario (Table 15).

Table 15 shows the difference in revenue in the projections when the individual region projected increases in household units are applied and the extended cottage rate is utilized. **Projected revenue is underestimated depending on the year by $26,000 to $156,000 when there is no rate increase and by $26,000 to $162,000 with the proposed increased rates.** IWMC has acknowledged that their projections were underestimated by the $15,000 to $16,000 per year related to the Extended Cottage rate difference.

Table 15: Calculation of Household User Fee Revenue Based on Average 3 Yr. Increase in Unit Count by Region and Comparison to IWMC Projected Revenue

	3 yr. Avg. Increase	Est. Count 2020	Est. Count 2021	Est. Count 2022	Est. Count 2023	Est. Count 2024	Current Rate	No Rate Increase Projected Revenue 2020	No Rate Increase Projected Revenue 2021	No Rate Increase Projected Revenue 2022	No Rate Increase Projected Revenue 2023	Proposed Rate	Rate Increase Projected Revenue 2020	Rate Increase Projected Revenue 2021	Rate Increase Projected Revenue 2022	Rate Increase Projected Revenue 2023
Residences																
West Prince	0.8%	5,179	5,220	5,262	5,304	5,347	$205	$1,063,818	$1,072,329	$1,080,908	$1,089,555	$213	$1,074,259	$1,114,176	$1,123,089	$1,132,074
East Prince	0.8%	14,895	15,014	15,134	15,255	15,377	$205	3,059,582	3,084,059	3,108,731	3,133,601	$213	3,089,610	3,204,412	3,230,047	3,255,888
Central	1.6%	12,889	13,095	13,305	13,518	13,734	$205	2,652,814	2,695,259	2,738,383	2,782,197	$213	2,679,004	2,800,440	2,845,247	2,890,771
Capital	1.9%	24,328	24,790	25,261	25,741	26,230	$205	5,010,929	5,106,137	5,203,154	5,302,014	$213	5,060,510	5,305,401	5,406,204	5,508,921
Eastern Kings	0.7%	3,887	3,914	3,942	3,969	3,997	$205	798,229	803,817	809,444	815,110	$213	806,058	835,186	841,032	846,919
Southern Kings	0.1%	4,981	4,986	4,991	4,996	5,001	$205	1,021,360	1,022,382	1,023,404	1,024,427	$213	1,031,332	1,062,279	1,063,342	1,064,405
		66,159	67,020	67,895	68,784	69,686										
Cottages																
West Prince	0.8%	722	728	733	739	745	$95	68,707	69,256	69,810	70,369	$115	72,344	83,836	84,507	85,183
East Prince	0.8%	1,788	1,802	1,816	1,831	1,845	$95	170,162	171,523	172,895	174,279	$115	179,171	207,633	209,294	210,969
Central	1.6%	3,003	3,051	3,100	3,150	3,200	$95	286,450	291,033	295,690	300,421	$115	301,707	352,304	357,941	363,668
Capital	1.9%	167	171	174	177	181	$95	15,984	16,288	16,597	16,913	$115	16,837	19,717	20,091	20,473
Eastern Kings	0.7%	1,378	1,388	1,397	1,407	1,417	$95	131,139	132,057	132,981	133,912	$115	138,077	159,859	160,978	162,104
Southern Kings	0.1%	774	775	775	776	777	$95	73,539	73,613	73,686	73,760	$115	77,413	89,110	89,199	89,288
		7,832	7,914	7,997	8,080	8,165										
Extended Cottages																
West Prince	0.8%	39	40	40	40	40	$120	4,715	4,753	4,791	4,830	$140	4,913	5,545	5,590	5,634
East Prince	0.8%	149	151	152	153	154	$120	17,964	18,107	18,252	18,398	$140	18,717	21,125	21,294	21,465
Central	1.6%	342	347	353	358	364	$120	41,174	41,832	42,502	43,182	$140	42,910	48,805	49,585	50,379
Capital	1.9%	21	21	21	22	22	$120	2,477	2,524	2,572	2,621	$140	2,581	2,944	3,000	3,057
Eastern Kings	0.7%	-	-	-	-	-	$120	-	-	-	-	$140	-	-	-	-
Southern Kings	0.1%	69	69	69	69	69	$120	8,294	8,302	8,310	8,319	$140	8,639	9,686	9,695	9,705
Total		620	627	635	643	650		$14,427,338	$14,613,271	$14,802,111	$14,993,906		$14,604,084	$15,322,458	$15,520,136	$15,720,904
							IWMC Total	14,401,449	14,545,463	14,690,918	14,837,827		14,577,773	15,252,522	15,405,047	15,559,075
							Difference	**$25,889**	**$67,808**	**$111,193**	**$156,079**		**$26,311**	**$69,936**	**$115,089**	**$161,829**
							Amount related to Extended Cottage Rate difference	15,546	15,733	15,922	16,114		15,546	15,733	15,922	16,114
							Amount related to Variable % increases vs. 1%	$10,342	$52,075	$95,271	$139,965		$10,765	$54,203	$99,167	$145,715

3.2.2.2 Housing Adjustment

Many of the collection contracts have a housing adjustment formula which may result in an increase or decrease in the contract price at the end of the year depending on the unit numbers provided by PEI Property Tax Assessments. A more detailed explanation of the housing adjustment calculation was provided in the IWMC February 20, 2020 response to interrogatories explained as follows (Counts at the end of the previous year – counts at the beginning of the contract) x Contract Cost Yearly Rate + (# new houses/cottages added during the year x 50% of Contract Cost for that year). Some of the inputs used in the calculation of the housing adjustment are shown in Table 16. Additional inputs include projected household counts for 2020 to 2023.

Table 16: Summary of Housing Adjustment Inputs

Contractor	Region	Annual Household Rate	Annual Cottage Rate	Annual Extended Cottage Rate	Baseline Household Count
Label Construction & Sanitation					
	East Prince	$51.56 - $59.04	$29.00	$29.95	Baseline = Residences 14,435 Cottages 1,873; Ext. cottages 80
	West Prince	$76.00	$25.08	$45.08	Baseline = Residences 5,002; Cottages 731; Ext. cottages 21
Superior Sanitation					
	Capital	$46.23 - $49.45	$82.58 - $88.34	$99.08 - $105.99	Baseline = Residences 19,896; Cottages 213; Ext. cottages 11; Special 1,653
	Central	$71.57 - $76.56	$82.58 – $88.34	$99.08 - $105.99	Baseline = Residences 11,629; Cottages 3,051; Ext. cottages 183
	Eastern Kings	$65.00	$21.67		Baseline = 4,140; Cottages to be counted as 1/3 of a unit
	Southern Kings	$66.90	$21.57	$41.57	Baseline = Residences 4,750; Cottages 782; Ext. cottages 37
GreenIsle Environmental					
	West Prince Region	$31.61	$31.61	$31.61	Baseline = Residences 5,126; Cottages 711; Ext. cottages 41
	East Prince Region	$26.61	$26.61	$26.61	Baseline = Residences 14,667; Cottages 1,756; Ext. cottages 160
	Central Region	$23.61	$23.61	$23.61	Baseline = Residences 12,677; Cottages 3,036; Ext. cottages 287
	Capital Region	$20.61	$20.61	$20.61	Baseline = Residences 23,689; Cottages 178; Ext. cottages 17
	Eastern Region	$26.61	$26.61	$26.61	Baseline = Residences 8,814; Cottages 2,006; Ext. cottages 186

IWMC in their February 20, 2020 response to interrogatories indicated that subsequent to their initial rate application submission they have processed the housing adjustment for October contracts and feel the amounts used in their projections have been underestimated. They calculate that underestimation as being approximately $44,900 annually, however no detail on the inputs used in the assumption have been provided to verify the calculation. Presumably the reason would be an increase in housing counts

which would also impact the projected revenue. An adjustment was not provided by IWMC for any related increase in projected revenue.

Based on the original assumptions provided for the Compost and Waste and the Recyclables collections contracts the calculations for the contract and the housing adjustment were reviewed and appeared to be reasonable. Utilizing the rates per region does not result in a material difference in the housing adjustment for Recyclables. It is not possible to verify the new amounts that are being proposed in the February 20, 2020 response to interrogatories as no detail on the inputs used to calculate the adjustments were provided.

3.2.2.3 Fuel Adjustment

Many of the collection contracts have a fuel adjustment clause which can result in an increase or a decrease in the contract price at the end of the year depending on the annual average of monthly prices per litre (AMF) of self-serve diesel fuel as set by IRAC during the contract year, calculated by aggregating the average monthly price for January to December and dividing by 12. The AMF is reduced by a base price which is designated on the date of contract signing and then multiplied by an amount representing the deemed effect as a result of a 1 cent per litre change in diesel prices above or below five percent of the base price. An adjustment only occurs where the current price is greater than 5% above or below the base price range. All of the contracts except for the Eastern Kings contract use the above definition for AMF. For the Eastern Kings contract the AMF is based on the full-service diesel fuel price and in the case of Eastern Kings the +/- % for determining where an adjustment occurs does not apply.

Table 17: Summary of Fuel Price Adjustment Inputs – Various Contracts

Contractor	Region	Base Fuel Price	Base Fuel Price + 5%	Base Fuel Price (-5%)	Deemed Effect of 1 cent change in price
Label Construction & Sanitation	East Prince	132.0	138.6	125.4	$900
Label Construction & Sanitation	West Prince	123.6	129.8	117.4	$600
Superior Sanitation	Capital	129.7	136.2	123.2	$600
Superior Sanitation	Central	129.7	136.2	123.2	$600
Superior Sanitation	Eastern Kings	115.0	N/A	N/A	$700
Superior Sanitation	Southern Kings	121.8	127.9	115.7	$500
Green Isle Environmental	All Regions	127.9	134.3	121.5	$200
ADI International (PEI) Inc. (Diesel Adjustment)	Central Composting Facility	82.8	91.1	-	Based on litres consumed
ADI International (PEI) Inc. (Propane Adjustment)	Central Composting Facility	58.7	64.6	-	Based on litres consumed

In response to December 24, 2019 interrogatories IWMC requested to provide revised projections for the fuel adjustment. IWMC indicated that the $162,500 in fuel adjustments over the four-year period in the original projections submitted with the application were overestimated by $20,000, **however current projections for the same period reflect $160,400 in fuel adjustments indicating the**

overstatement would have been only $2,000. The amounts provided by IWMC in the revised projections are summarized in Table 18.

Table 18: Fuel Adjustment Calculated in Revised Projections Provided by IWMC

Contractor	Region	2019/20	2020/21	2021/22	2022/23
Label Construction & Sanitation	East Prince	$ -	$ 540	$2,160	$4,860
Label Construction & Sanitation	West Prince	3,132	4,932	6,732	8,532
Superior Sanitation	Capital	-	1,080	2,880	4,680
Superior Sanitation	Central	-	1,080	2,880	4,680
Superior Sanitation	Eastern Kings	18,060	20,160	22,260	24,360
Superior Sanitation	Southern Kings	3,550	5,050	6,550	8,050
Green Isle Environmental	All Regions	140	740	1,340	1,940
	Total	**$24,882**	**$33,582**	**$44,802**	**$57,102**

Using IWMC's assumptions of a starting price of 132.0 cents per litre and an annual increase of 3 cents, for all contracts (except for Eastern Kings which used a starting price of 137.8 and an annual increase of 3 cents) and the contract details shown in Table 17 **the fuel adjustment was reviewed and appears to be reasonable.**

3.2.2.4 Wage Adjustment

Some of the collection contracts have a minimum wage adjustment formula which may result in an increase in the contract price at the end of the year when the minimum wage increases over a set amount. When the new extension agreement was reached for both Southern and Eastern Kings Compost and Waste collection, the household/cottage rates remained the same for the duration of the contracts but a Minimum Wage Adjustment Formula was added that would compensate the contractor for any increases in the PEI Minimum Wage (which was $11.55 per hour at the time of the extension). A wage adjustment is also included in the GreenIsle Environmental Inc. recyclables contract.

Table 19: Summary of Minimum Wage Adjustment Inputs by Contract

Contractor	Region	Min. Wage Adj. Details	Base Wage	Benefits	Current Min. Wage	Min. Wage April 1/20
Label Construction & Sanitation	East Prince	N/A	N/A	N/A	N/A	N/A
Label Construction & Sanitation	West Prince	N/A	N/A	N/A	N/A	N/A
Superior Sanitation	Capital	N/A	N/A	N/A	N/A	N/A
Superior Sanitation	Central	N/A	N/A	N/A	N/A	N/A
Superior Sanitation	Eastern Kings	Max: 4 employees, 10,400 hrs.	$11.55	25%	$12.25	$12.85
Superior Sanitation	Southern Kings	Max: 4 employees, 10,400 hrs.	$11.55	25%	$12.25	$12.85
GreenIsle Environmental Inc.	All Regions	Max: 30 processing and 8 trucking employees, 92,430 hrs.	$11.55	21.5%	$12.25	$12.85

The assumptions and calculations used for the wage adjustment were reviewed and appear to be reasonable.

3.2.2.5 *Summary of Residential Collection Costs*

Residential collection costs after adjustments for the overestimates are projected to increase by 7% in 2020, 3% in 2021 and 2% in each of 2022 and 2023 (Table 20).

Table 20: Projected Increase in Residential Collection Costs

Residential collection	Audited Fin. Stmts. 2019	No Rate Increase Projected 2020	No Rate Increase Projected 2021	No Rate Increase Projected 2022	No Rate Increase Projected 2023
Cart purchases and write-offs	$47,259	$66,100	$67,422	$68,770	$70,146
Compost and waste collection contract	4,103,763	4,264,541	4,395,601	4,510,793	4,627,778
Recyclables collection contract	1,699,316	1,933,296	2,016,681	2,065,819	2,115,653
Operations support technician wages and benefits	506,793	572,300	585,177	595,417	607,326
Operations support technician vehicles and supplies	71,330	70,900	72,318	73,764	75,240
Total projected by IWMC	**$6,428,461**	**$6,907,137**	**$7,137,199**	**$7,314,563**	**$7,496,143**
Increase in Residential Collection Costs from Previous Year		**$478,676**	**$230,062**	**$177,364**	**$181,580**
Percentage Increase in Residential Collection Costs		**7%**	**3%**	**2%**	**2%**

3.3 Opinion on Request for Rate Increase in Collection Fees

Factors considered in making a decision to approve or not approve the requested rate increases (Table 21) include:

- Is there an immediate overall financial need for additional revenue?
- Is the allocation of the increase fair amongst the categories of household user fees?

Table 21: Summary of Proposed Rate Changes in Collection Fees

Fee Description	2019 Count	Current Rate	Proposed Rate	Proposed Increase Per Unit	Proposed Increase	Projected Increase in Revenue
Regular Household	66,159	$205	$213	$8.00	3.9%	$529,272
Cottage	7,832	$95	$115	$20.00	21.1%	156,640
Extended Cottage	620	$120	$140	$20.00	16.7%	12,400
	74,611					**$698,312**
					Universal Increase for All Customers	**$9.36**

3.3.1 Immediate Need for Additional Revenue

A summary of how the adjustments proposed in the analysis section impact the projections under the "No Proposed Rate Increase" scenario is shown in Table 22.

Table 22: Summary of the Impact of Adjustments to Revenues and Expenditures Related to Household Collections

	Projected 2019/20	Projected 2020/21	Projected 2021/22	Projected 2022/23
REVENUE				
Household user fees – Understatement	$26,000	$68,000	$111,000	$156,000
Impact on Net income (loss)	**$26,000**	**$68,000**	**$111,000**	**$156,000**
Net income (loss) – Per IWMC with no proposed rate increase	**($345,200)**	**($693,000)**	**($780,800)**	**($869,700)**
Adjusted Net income (loss)	**($319,200)**	**($625,000)**	**($669,800)**	**($713,700)**
Adjusted Net Assets balance	**$1,827,600**	**$1,202,600**	**$532,800**	**($180,900)**

IWMC noted in their February 20, 2020 response to interrogatories that the Net Assets balance reflected in the Consolidated Financial Statements for March 31, 2019 of $2,274,626 included $127,826 related to Environmental Industrial Services Inc. (EISI), a wholly-owned subsidiary of IWMC with an objective to operate water and wastewater facilities. This amount has been removed from the opening Net Assets balance used in Table 22. While a net loss will result in each year if the rate increases are not approved there is sufficient Net Assets balance resulting from multiple previous years of surpluses to absorb these losses until the end of 2021/22 and sufficient cash flow to support operations for that same time period (see Table 23).

In our opinion a rate increase for household user fees is not justified at this point in time. It is recognized that a rate increase may be justified for the 2021/22 year provided current projections are realized.

IWMC would rationalize that the current Net Assets balance should be retained at its current level based on a professional opinion received in 2017 that determined that Net Assets below 30% was actually low for IWMC and that slight profits in the range of 7% to 8% would be considered reasonable. Net Assets as a percentage of total assets was 8.0% at March 31, 2019.

We disagree with this opinion as detailed in Section 5.3.4 of this report. **It is our opinion that reasonable Net Assets for a Crown Corporation should be based on estimated unfinanced future capital expenditures and other risk management assessments such as future changes in insurance, staff benefits or future operating costs.** A specific plan for capital needs was not provided by IWMC and the risk of future changes in operating costs is low given that the majority of operating costs are under contracts which do not expire until at least 2024. It is noted that in IWMC's February 20, 2020 response to interrogatories they did note that capital asset additions acquired with cash during the past three years had ranged from $1.3 million to $1.7 million (excess cash in the operation through multiple years of surpluses would have provided this opportunity) however no concrete plan or year to date expenditures for the 2019/20 year were provided. These capital asset additions included items such as compost and waste carts, vehicles, roll-off trucks and equipment at disposal facilities which are long term assets and could be financed with debt.

Projected Statements of Financial Position and Projected Statements of Cash Flows were not provided as part of the Rate Increase Application. We prepared the following simplified cash flow based on the

projections for "No Proposed Rate Increase" for analysis purposes. Additional information in relation to cash flow was provided in IWMC's February 20, 2020 response to interrogatories indicating the cash and cash equivalents balance in the Consolidated Financial Statements for March 31, 2019 of $2,141,365 included $166,304 related to EISI. This amount has been removed from the opening cash balance used in Table 23.

Table 23: Estimated Cash Flow Based on "No Proposed Rate Increase" Projections

	Projected 2019/20	Projected 2020/21	Projected 2021/22	Projected 2022/23
Net income (loss)	**($345,200)**	**($693,000)**	**($780,800)**	**($869,700)**
Adjustments from verification				
REVENUE				
Household user fees – Understatement	26,000	68,000	111,000	156,000
Adjusted Net income (loss)	($319,200)	($625,000)	($669,800)	($713,700)
Adjusted for Cash Flow				
Add: Depreciation	2,000,000	2,200,000	2,200,000	2,200,000
Deduct: Principal Payments	(2,202,744)	(1,881,816)	(1,989,216)	(2,098,516)
Projected Annual Impact on Cash	(521,944)	(306,816)	(459,016)	(612,216)
Opening cash balance	1,975,061	1,453,117	1,146,301	687,285
Ending cash balance	**$ 1,453,117**	**$ 1,146,301**	**$ 687,285**	**$ 75,069**

3.3.2 Allocation to Residential, Cottage, Extended Cottage

Household user fees compose 72% of the total revenue of IWMC. Residential collection costs absorb 45% of the household user fees charged. Household user fees also need to contribute to overall administration expenditures; advertising, education and public relations; interest on long-term debt; and depreciation ($4.5 million, 2018/19 audited financial statements). In addition, disposal fee revenues only cover 55% of the disposal expenditures leaving a balance of $3.4 million (2018/19 audited financial statements) not covered by disposal fees.

Information provided by IWMC demonstrates that the average increase to collections costs for residences is in the range of $20 per unit and for cottages/extended cottages is $50 per unit. IWMC also showed that the average collection contract cost per unit as a percentage of collection fees is 39.8% for residences and 78.8% for cottages/extended cottages.

Based on the above the following is noted:

- that collection fees for residences are contributing at a higher rate to other areas of the operation such as administration expenditures; advertising, education and public relations; interest on long-term debt; and depreciation and unrecouped disposal costs.
- Collection costs for cottages/extended cottages increased 2.5 times what the collection costs for residences did.

Following this rationale, it would be reasonable to increase rates for cottages and extended cottages by 2.5 times the increased rate for residences when a rate increase is deemed appropriate.

4 IWMC's Request to Increase Disposal Fees

Disposal fees are collected at East Prince Waste Management Facility, PEI Energy Systems, Central Compost Facility, Brockton, Dingwells Mills, Murray River, and New London for the drop off of a wide variety of material types.

IWMC has requested the approval of increases in the following disposal fees (Table 24).

- **Asphalt Shingles Disposal Fee** – Loads containing only asphalt shingles. If the asphalt shingles are mixed with other construction and demolition (C&D) material it cannot be processed as Asphalt shingles. It must be C&D.
- **Residential Min – Max Disposal Fee** – Regular household waste, compost, and yard trimming materials (leaves, branches, grass clippings) generated by the residential sector received at WWDC's.
- **Out of Province (OOP) Contaminated Material** – Commercial bio-medical waste, sharps, petroleum contaminated absorbents, ammonium nitrate materials, creosote materials etc. from out-of-province going into PEI Energy Systems for incineration. A permit from the Dept. of Environment, Water & Climate Change is required. *(According to IWMC's February 20, 2020 response to interrogatories contaminated material is most often very bulky in nature (i.e. creosote timbers which uses up a great deal of landfill space as it cannot be compacted or disposed of in any other manner on PEI.)*

and the establishment of a new rate class for:

- **Out of Province (OOP) Contaminated Soil** – Contaminated soil received from out-of-province.

IWMC is also requesting to have Out of Province (OOP) Contaminated Material added as a material type at EPWMF at the rate of $250 per tonne.

As shown in Table 24 the rate increase will result in additional net revenue of approximately $76,000 per year. The Asphalt Shingle fee increase of $29,000 represents $12,000 in additional revenue to IWMC based on the proposed increase to the fee. Additionally, IWMC will see a corresponding $17,000 reduction in the contract with Greenlsle for handing this material as customers will pay a greater portion of the actual costs for the disposal of these materials. Historically IWMC has not received any significant volume of out of province contaminated soil, and any change in this rate would not add any significant increase to IWMC revenues.

Table 24: Summary of Proposed Rate Changes – Disposal Fees

Fee Description	Current Rate	Proposed Rate	Proposed Increase Per Unit	Proposed Increase	Projected Increase in Revenue
Asphalt Shingles	$40/Tonne	$50/Tonne	$10/Tonne	25%	Net $29,000
Residential Min-Max	$5 Min - $20 Max	$5 Min - $30 Max	$10 increase in Max	50%	47,000
Out of Province (OOP) Contaminated Material	$230/Tonne	$250/Tonne	$20/Tonne	8.7%	-
Establish New Rate Category for Out of Province (OOP) Contaminated Soil	N/A	$100/Tonne	$10 /Tonne	N/A	-
Projected Annual Increase in Revenue					**$76,000**

4.1 IWMC Rationale

The proposed rate adjustments have been determined using IWMC's projected revenue and expenditures based on a combination of historical customer base, waste volumes, and materials received at final disposal facilities from prior years. In addition to looking at this historical data, they have used various assumptions based on the current economic climate, recent trends, and anticipated inflationary pressures. It is the opinion of IWMC that the information contained in their application represents a just and reasonable representation of Island Waste Management Corporation's current and forecasted financial position.

Disposal expenditures consist of various expenditures at the EPWMF, Queen's County Regional Landfill, Energy from Waste, Central Composting Facility, WWDCs, and transportation of material. Over 60% of the costs associated with disposal are contracted out to service providers. Service provider contracts are identified in Table 25.

Table 25: Summary of Contracts for the Disposal of Various Materials

Contractor	**Contract Period**	**Description**
PEI Energy Systems	August 8, 1995 - August 8, 2025	*Waste processing agreement.* Contract to process waste at $45 per tonne indexed to Consumer Price Index (CPI) quarterly; assumption of 2% increase in contract amount per year
ADI International (PEI) Inc.	April 1, 2014 - March 31, 2024	*Operating agreement for Central Composting Facility.* Contract sets out annual amounts which increase by 2% per year. To reduce IWMC expenditures, IWMC and the operator entered into an agreement to cost-share one of these employees at approx. $30,000 per year. Additional adjustments each year based on average fuel, electrical, propane and costs for waste generated at the facility. Propane Adjustment- The posted (IRAC) price for customers that use over 70,000 liters per year for propane was 58.7 cents per liter on November 9th, 2007. Should the average yearly price increase by more than 10% during any year of the contract, IWMC pays the contractor the added costs based on consumption numbers supported by the propane supplier. Diesel Adjustment- Should posted IRAC Diesel Fuel prices increase above 91.1 cents per liter, IWMC will pay the operator the increased costs based on consumption numbers supported by the Diesel Fuel Supplier. Electrical Rates- Should the electrical costs increase by more than 2.5% per year, IWMC will pay the operator the increased costs supported by monthly invoices from Maritime Electric. Contaminating Constituents — All non-organic (waste) culled (sorted) from the materials received at the facility is charged back to the operator at a rate of 75% of the per tonne base rate paid to the operator for receiving those

		materials. If the amount of waste exceeds 10% of the total material received for the year, the operator is charged back 110% of the base fee per tonne paid to them by IWMC for processing the material. The rationale for this is to ensure the operator recovers and processes as much of the organic material as possible.
GreenIsle Environmental	July 1, 2018 – July 1, 2025	*Blue bag disposal from IWMC WWDC's* in Brockton, EPWMF, Murray River, and Dingwells Mills (included within the Recyclables contract).
GreenIsle Environmental	July 1, 2015 – June 30, 2020	*Operating agreement with GreenIsle for the operation of an IWMC Drop-off centre for the Capital area.* This is the only WWDC not owned and operated by IWMC. Rates and services provided are the same as others owned by IWMC. IWMC reimburses GreenIsle for any customers visiting the facility and charging disposal costs directly to an IWMC customer account as well as a top up of unbilled material or material subject to Min-Max residential and billed at a reduced rate to customers.

4.1.1 Asphalt Shingles – IWMC Rationale

The rate charged for Asphalt Shingles has historically been kept below the actual costs for disposal as the resulting fee due to the weight might deter individuals from proper disposal of these materials.

Asphalt shingles collected at all of the sites are transported to a C&D site. According to IWMC the current disposal costs FOB at the C&D site is $55.00 per tonne. Not included in these disposal expenditures are the loading and transportation costs involved in transporting them to the C&D facility. Based on the density of this material, the transportation costs are estimated by IWMC to be an additional $30 per tonne. The total costs for disposal of asphalt shingles is estimated at approximately $85.00 per tonne. At the proposed rate change from $40 to $50 per tonne, IWMC indicates they are still $35 per tonne below current costs for disposal; however, it does bring the rate closer to breakeven.

4.1.2 Residential Min-Max – IWMC Rationale

The Min-Max Residential Disposal rate is designed to charge a maximum cost for the disposal of residential waste, yard trim and compost material from residences only (not commercial). Currently home owners and/or cottage owners can take any of these material types into any of IWMC's WWDC locations where any volume of material (on any one load) has a Min - Max Fee that is currently capped at $20. The customers' material is weighed and charged at the WWDC posted rate of $115 per tonne but is capped at $20. For example, if a customer takes in 1 tonne of material, without a cap, the load would be charged $115.00 (the per tonne rate). However, under the Min-Max Program the residential customer is only currently charged $20 which IWMC proposes to increase to $30 per load with no change in the Minimum amount of $5. The end result will continue to allow the Corporation to provide residents with an economically low rate in that the maximum amount they would pay for any individual self-hauled load of sorted waste and compost material would be $30. Further information provided by IWMC in their February 20, 2020 response to interrogatories notes that loads eligible for the current $20 cap are capped

at 0.17 tonnes and that the new cap for tonnage will be 0.26 tonnes. The Min-Max program does not apply at PEI Energy and/or Central Compost Facility as residential loads are not received at these final disposal facilities.

IWMC indicates the actual disposal cost to IWMC for these materials is far greater than the amount collected from the customer as IWMC has to then transport these materials to the respective final disposal facility and are charged the contracted price per tonne for disposal at these facilities.

4.1.3 Out of Province (OOP) Contaminated Materials – IWMC Rationale

This material category is only for materials that may come from out of province for disposal on PEI and does not apply to any rates paid by Islanders. The rate was only posted at PEI Energy Systems. Along with the request to have this rate increased from $230 per tonne to $250 per tonne IWMC is also requesting to have it added as a material type rate at EPWMF at the rate of $250 per tonne. IWMC is not seeking an increase to the PEI posted rate, only to off-Island customers using this disposal service. Further rationale provided by IWMC in their February 20, 2020 response to interrogatories speaks to contaminated material being an undesirable material that uses up a great deal of landfill space as it cannot be compacted or disposed of in any other manner in PEI.

Any contaminated material received at PEI Energy Systems is surcharged by the operator at an additional rate of $43.00 per tonne over and above the current Consumer Price Index (CPI) monthly rate.

4.1.4 Establish New Rate Category for Out of Province (OOP) Contaminated Soil – IWMC Rationale

IWMC seeks Commission approval to establish a new category for Out of Province (OOP) Contaminated Soil with the rate set at $100 per tonne. IWMC currently has a posted contaminated soil rate for residential customers of $40 per tonne at WWDC locations and/or EPWMF. Additionally, IWMC has a rate of $85 per tonne for commercial contaminated soil at EPWMF (this is the only location where any commercial contaminated soil is received). An Out of Province (OOP) Rate for this material type has never existed. IWMC is seeking a new rate for any contaminated soil coming from out of province (OOP) and that it be set higher than the rates established for Islanders. This would be consistent with current posted OOP fees which are set higher than what the same material type charge is for Island customers.

IWMC indicated they felt it was reasonable to charge non-Islanders a higher rate for disposal in this province than currently charged to residents. Further information provided by IWMC in their February 20, 2020 response to interrogatories notes that contaminated soil as opposed to contaminated material, which is an undesirable product, can be treated and used as a resource for daily or intermediate cover material for the landfill reducing the amount of Island-sourced soil material required for cover material. IWMC also indicated the fee is not meant to provide a disincentive.

4.2 Disposal Fee Analysis

4.2.1 Assumptions Used to Prepare Projections

4.2.1.1 ADI Contract Adjustments

The ADI International (PEI) Inc. contract amount is adjusted each year based on average fuel, electrical, propane and costs for waste generated at the facility. Although specific formulas are provided in the contract, IWMC based their projections on the historical net results. These adjustments have historically resulted in a credit to IWMC. In 2019 a credit of $35,000 was projected, and they assumed a 2% increase per year on this credit.

4.2.1.2 Consumer Price Index Price Adjustment – PEI Energy Systems

The current agreement between IWMC and PEI Energy Systems includes a CPI price adjustment formula for the tip fee changes each year. IWMC assumed a 2% yearly increase to the cost of this contract. The indexed values change monthly. In the original contract, the index value was 129.2. For 2018 the index value in January was at 198.57 and in December it was 204.69. To calculate the actual per tonne charge, the formula is $45 x CPI/ 129.2. The calculation for each of these months would be:

- January: $45 x 198.57/129.2 = $69.16
- December: $45 x 204.69/129.2 = $71.29

4.2.1.3 Waste Watch Drop-off Centers Operating Agreement – GreenIsle Environmental

IWMC has an operating agreement with GreenIsle for the operation of an IWMC Drop-Off Center for the Capital Area. This is the only WWDC not owned and operated by IWMC, however all rates and services provided are the same as other sites owned by IWMC. The contract amount is projected based on actual historic results. These numbers represent reimbursement to GreenIsle for any customers visiting the facility and charging disposal costs directly to their IWMC customer accounts as well as unbilled material (material that is taken in free of charge and/or at a reduced rate by customers such as materials subject to the Min-Max Residential that has been topped at $20).

4.2.1.4 Asphalt Shingle Tonnage Received

The historic volume of asphalt shingles annually (see Table 26) was used to project disposal fee revenue and decreased contract expenditures for GreenIsle Environmental.

Table 26: Historical Volume of Asphalt Shingles – 2018/19

Location	Tonnage Received
EPWMF	594
WWDC Locations	573
GreenIsle	1,691
TOTAL	**2,858**

4.2.1.5 Residential Waste, Compost, and Yard Trimming Volume of Transactions at WWDC's

In the January 10, 2020 response to December 24, 2019 interrogatories the following detail was provided on the volume of residential waste, compost, and yard trimmings based on the number of transactions in 2018.

Table 27: Number of Transactions for Residential Self Haul of Waste, Compost and Yard Trim - 2018

Residential Material Type	# of Transactions 2018
Waste	3,868
Yard Trim	2,434
Compost	32
TOTAL	**6,334**

4.2.2 Verification of Calculations in IWMC's Projections

As noted, earlier disposal fee revenue is projected to increase by approximately $59,000 annually if the proposed rate increases are approved, as well as a reduction of $17,000 in contract fees for a net impact of $76,000.

4.2.2.1 Asphalt Shingle Disposal Fees

In the January 10, 2020 response to December 24, 2019 interrogatories detail was provided on the increased revenue associated with the proposed rate increase based on volumes of asphalt shingles received in 2018/2019 (see Table 28).

Table 28: Projected Increase in Revenue Resulting from Increase in Asphalt Shingle Disposal Fee

Location	Tonnage Received	Revenue @$40/Tonne	Revenue @$50/ Tonne	$ Increase
EPWMF	594	$23,760	$29,700	$5,940
WWDC Locations	573	22,920	28,650	5,730
				11,670
Reduction in Contract				
GreenIsle	1,691	67,640	84,550	16,910
TOTAL	**2,858**	**$114,320**	**$142,900**	**$28,580**

IWMC also indicated that the proposed increased disposal fee for asphalt shingles will actually reduce the expenditures for IWMC under its agreement with GreenIsle for the Charlottetown Waste Drop-Off Contract. Based on the proposed new rate, customers will pay $10 per tonne more, resulting in an increase of $17,000 (based on the historic volume of 1,700 tonnes received at this location). This will reduce IWMC's payment for each tonne received at the facility by the $10 (totaling the same amount of $17,000). The assumptions and calculations for the projection of expenditures for the GreenIsle WWDC location are outlined in Table 29. 2019/20 is prorated for the three months during which the asphalt shingle increase would be in effect. Currently IWMC pays GreenIsle for the cost of disposal for shingles received at that facility over and above the revenue received for disposal. The $17,000 reduction in the GreenIsle contract is estimated based on the approximately 1,700 tonnes currently received and the additional $10 per tonne ($50-$40) that GreenIsle will receive from disposal revenue.

Table 29: IWMC Calculation of GreenIsle Environmental Inc. Contract Cost for Operation of the Capital Area WWDC with Proposed Asphalt Shingle Disposal Fee Increase

Item	2019/20	2020/21	2021/22	2022/23
Contract Amount	$418,000	$418,000	$426,020	$434,200
Less Reduction in Expenditures as a result of increased disposal fee paid by customers from $40 to $50 per tonne	($4,000)	($17,000)	($17,000)	($17,000)
2% increase in expenditures per year	Nil	$8,020	$8,180	$8,344
Total Projected Cost	**$414,000**	**$409,020**	**$417,200**	**$425,544**

In our opinion the calculation of projected revenue and reduction in expenditures resulting from a fee increase appear reasonable.

4.2.2.2 Residential Min-Max Disposal Fee

The revenue associated with the Residential Min-Max Disposal Fee is included under the revenue of the EPWMF in the projections.

In the January 10, 2020 response to December 24, 2019 interrogatories the following detail was provided on the increased revenue associated with the proposed rate increase of the Residential Min-Max Disposal Fees based on the number of transactions in 2018.

Table 30: Projected Increase in Revenue Resulting from Increase in Residential Min-Max Disposal Fee

Residential Material Type	# of Transactions 2018	Cap @$20	Cap @$30	Increase $
Waste	3,868	$77,360	$105,077	$27,717
Yard Trim	2,434	$48,680	$68,375	$19,695
Compost	32	$640	$901	$261
TOTAL	**6,334**	**$126,680**	**$174,353**	**$47,674**

Note: In Table 30 the column Cap@$30 is not a direct calculation of the number of transactions multiplied by $30. The rates by which the transactions are multiplied by vary from $27.17 to $28.16 for an average of $27.50.

IWMC has explained in their February 20, 2020 response to interrogatories that the Cap@$30 is not a direct calculation on the number of transactions multiplied by $30. Loads are weighed at the facilities and IWMC is proposing to cap them at 0.26 tonnes@$30. Currently with the cap of $20 loads are capped at 0.17 tonnes.

In our opinion the calculation of projected revenue resulting from a fee increase appears reasonable.

4.2.2.3 Out of Province Contaminated Material

In the January 10, 2020 response to interrogatories of December 24, 2019 IWMC indicated that very little revenue is received from OOP Contaminated Material and that for the past 5 years it has been less than $1,000. Based on this fact, IWMC did not assume an increase in revenue for this proposed change.

In our opinion this exclusion of projected revenue appears reasonable.

4.2.2.4 *Out of Province Contaminated Soil*

In the January 10, 2020 response to interrogatories of December 24, 2019 IWMC indicated that historically no significant volume of OOP Contaminated Soil is received and very minimal revenue is projected to be received from this rate class. Based on this fact, IWMC did not assume an increase in revenue for this proposed change.

In our opinion this exclusion of projected revenue appears reasonable.

4.3 Opinion on Request for to Increase Disposal Fees

Factors considered in making a decision to approve or not improve the requested increases in disposal fees and establishment of a new rate category (Table 31) include:

- Is there an immediate overall financial need for additional revenue? (see Section 3.3.1)
- Are there reasonable grounds for increasing the disposal fees?

Table 31: Summary of Proposed Rate Changes – Disposal Fees

Fee Description	Current Rate	Proposed Rate	Proposed Increase Per Unit	Proposed Increase	Projected Increase in Revenue
Asphalt Shingles	$40/Tonne	$50/Tonne	$10/Tonne	25%	Net $29,000
Residential Min-Max	$5 Min - $20 Max	$5 Min - $30 Max	$10 increase in Max	50%	47,000
Out of Province (OOP) Contaminated Material	$230/Tonne	$250/Tonne	$20/Tonne	8.7%	-
Establish New Rate Category for Out of Province (OOP) Contaminated Soil	N/A	$100/Tonne	$10 /Tonne	N/A	-
Projected Annual Increase in Revenue					**$76,000**

4.3.1 Grounds for Increasing the Disposal Fees

Disposal fee revenues only cover 55% of the disposal expenditures leaving a balance of $3.4 million (2018/19 audited financial statements) not covered by disposal fees.

In our opinion an increase to some disposal fees is justified. An increase in disposal fees will assist IWMC in moving towards covering more of the disposal expenditures.

4.3.1.1 *Asphalt Shingles*

An increase from $40 per tonne to $50 per tonne will not cover estimated disposal costs of $85 per tonne but will cover 58% of the costs, slightly higher than the average recovery of 55% for disposal fees. Current disposal costs for asphalt shingles at the C&D site is $55 per tonne. Asphalt shingles collected at all other IWMC sites must be transported to a C&D site which based on the density of the material is estimated at $30 per tonne. In addition, larger loads (increase to 0.26 tonnes from 0.17 tonnes) will be accepted under the cap rate. **In our opinion a rate increase of $10 per tonne appears reasonable and should not be significant enough to deter proper disposal of these materials.**

4.3.1.2 *Residential Min-Max*

The requested increase represents a 50% increase in the Max fee from $20 to $30. Disposal costs from 2016 to 2019 only increased by 7% and are projected to increase by a further 7.4% by 2023.

Furthermore, residential customers are already contributing towards disposal fees with household user fee revenue. As noted previously household user fees compose 72% of the total revenue of IWMC. Residential collection costs absorb 45% of the household user fees charged. Household user fees contribute to overall administration expenditures; advertising, education and public relations; interest on long-term debt; and depreciation ($4.5 million, 2018/19 audited financial statements). In addition, household user fees cover the 45% of the disposal expenditures not covered by disposal fees. **In our opinion an increase in the Max fee to $30 is not justified.**

4.3.1.3 Out of Province (OOP) Contaminated Materials

IWMC is a Crown Corporation created for the purpose of developing, implementing and operating a waste management system to serve PEI. As such it is reasonable to assume that material coming from out of province for disposal on PEI should be charged at a higher rate than that provided to the PEI customers for whom the corporation is intended to serve. Further rationale provided by IWMC in their February 20, 2020 response to interrogatories speaks to contaminated material being an undesirable material that uses up a great deal of landfill space as it cannot be compacted or disposed of in any other manner in PEI. **In our opinion a rate category should be established at EPWMF. It is also our opinion given the undesirable nature of the product that establishing a disincentive for this product by setting a higher rate of $250 is justified.**

4.3.1.4 Out of Province (OOP) Contaminated Soil

IWMC is a Crown Corporation created for the purpose of developing, implementing and operating a waste management system to serve PEI. As such it is reasonable to assume that material coming from out of province for disposal on PEI should be charged at a higher rate than that provided to the PEI customers for whom the corporation is intended to serve. The proposed rate is $15 or 18% higher than the commercial rate currently charged in PEI. Contaminated material received is charged $75 or 48% more than for PEI customers. Further information provided by IWMC in their February 20, 2020 response to interrogatories notes that contaminated soil, as opposed to contaminated material which is an undesirable product, can be treated and used as a resource for daily or intermediate cover material for the landfill, reducing the amount of Island-sourced soil material required for cover material. The fee is not meant to provide a disincentive. **In our opinion a new rate category for Out of Province (OOP) Contaminated Soil should be established for disposal at the EPWMF and a rate of $100 is justified.**

5 Review of Financial Statements

IWMC provided copies of the audited financial statements for the years ended March 31, 2017 to March 31, 2019 and a copy of internally prepared financial statements as of July 31, 2019. All three years of audited statements received an unqualified opinion from the auditors. In our analysis below we focus on the audited financial statements only.

5.1 Cash Position - Working Capital

Cash and cash equivalents as of March 31, 2019 were at $2.1 million with short term deposits as of the same period of $1.5 million. Current assets have been compiled from the audited financial statements for the years ended March 31, 2017 to March 31, 2019.

Table 32: IWMC Current Assets 2016 to 2019

Current Assets	2016	2017	2018	2019
Cash and cash equivalents	$ 3,265,680	$ 1,569,838	$ 1,108,595	$ 2,141,365
Receivables				
Trade	815,612	895,420	845,942	727,153
Government assistance			619,536	153,435
Sales tax, net	2,673,819	345,305	464,422	267,227
Prepaids	65,439	60,671	46,546	24,204
Term deposits	-	-	2,500,000	1,500,000
	$6,820,550	**$ 2,871,234**	**$ 5,585,041**	**$ 4,813,384**

Current Liabilities as of March 31, 2019 were at $4.8 million consisting of payables and accruals of $2.6 million and current portion of long-term debt of $1.8 million. Current liabilities have been compiled from the audited financial statements for the years ended March 31, 2017 to March 31, 2019.

Table 33: IWMC Current Liabilities 2016 to 2019

Current Liabilities	2016	2017	2018	2019
Payables and accruals	$ 4,268,903	$ 2,173,642	$ 3,458,929	$ 2,601,188
Current portion of long-term debt	2,483,271	2,577,541	2,567,182	1,778,335
Debt due on demand	150,388	146,613	155,264	422,128
	$ 6,902,562	**$ 4,897,796**	**$ 6,181,375**	**$ 4,801,651**

The working capital position of IWMC was 1:1 as of the March 31, 2019 audited financial statements with current assets exceeding current liabilities by $12,000. The Corporation has an authorized operating overdraft of $1,500,000 which is sufficient to cover any short-term working capital needs. The operating overdraft bears interest at prime less 0.1% for up to $1,500,000. Prime at March 31, 2019 was 3.95%. As security, the Corporation has provided a general security agreement on its investments (term deposits) held with Toronto Dominion Bank. The overdraft protection does not require a financial guarantee.

Table 34: Calculation of Working Capital - 2016 to 2019

Working Capital	2016	2017	2018	2019
Total Current Assets	$6,820,550	$ 2,871,234	$ 5,585,041	$ 4,813,384
Total Current Liabilities	6,902,562	4,897,796	6,181,375	4,801,651
Working Capital	**$ (82,012)**	**$(2,026,562)**	**$ (596,334)**	**$ 11,733**
Working Capital Ratio	**.99/1**	**.59/1**	**.90/1**	**1/1**

5.2 Debt

IWMC had long term debt of $17.5 million as of March 31, 2019. There were six outstanding loans two of which are owed to the PEI Government, one which is unconditionally secured by the Province of PEI and three demand loans advanced to EISI, a wholly-owned subsidiary of IWMC which operates waste and wastewater facilities. Approximately $1.8 million in principal is due annually with interest of approximately $1 million annually. An additional $422,000 is due on demand.

Table 35: Summary of IWMC's Long-term Debt

Long-term Debt	2016	2017	2018	2019
6.4% Scotia Capital debenture amortized to and maturing in December 2027, payable in quarterly instalments of principal and interest of $599,547. This debenture is unconditionally secured by the Province of Prince Edward Island.	$ 19,701,444	$ 18,536,519	$ 17,295,232	$ 15,972,579
1.35% debenture amortized to and maturing in January 2019, payable in monthly instalments of principal and interest of $113,439.	3,782,000	2,463,654	1,127,400	-
1.91% PEI Government debenture amortized to and maturing in June 2022, payable in monthly instalment of principal and interest of $10,493.	-	-	513,609	396,480
2.56% PEI Government debenture amortized to and maturing in January, 2022, payable in monthly instalments of principal and interest of $22,301.	-	-	-	730,647
Prime plus 3% demand loan advanced to EISI. As security for the loan, the borrower has provided a promissory note for the full amount of the loan. The loan will not be outstanding for a period greater than 120 months.	150,388	146,613	155,264	139,027
Prime plus 1% demand loan advanced to EISI. As security for the loan, the borrower has provided a promissory note for the full amount of the loan.	-	-	-	96,762
4% demand loan advanced to EISI. As security for the loan, the borrower has provided a promissory note for the full amount of the loan. The loan will not be outstanding for a period greater than 12 months.	-	-	-	186,339
	23,633,832	21,146,786	19,091,505	17,521,834
Less: current portion	2,483,271	2,577,541	2,567,182	1,778,335
debt due on demand	150,388	146,613	155,264	422,128
	$ 21,000,173	**$ 18,422,632**	**$ 16,369,059**	**$ 15,321,371**

5.3 Net Assets

Net Assets are the total assets of the entity minus its total liabilities and represent the accumulation of surpluses and deficits of prior years. Net Assets along with cash and cash equivalents and long-term debt are used to finance capital expenditures, repay debt obligations and fund normal operations. IWMC had a Net Assets balance of almost $2.3 million as of March 31, 2019. The Net Assets balance has increased by 26% from 2016 to the 2019 fiscal year (Table 36). The current projections provided by IWMC including the proposed rate increase suggest a small decrease in Net Asset value into 2022/23 (Table 37).

Table 36: IWMC Net Asset Balance and Percentage of Total Assets Based on Historical Financial Statements

	2016	2017	2018	2019	% Change 2016 to 2019
Net Assets	$ 1,804,983	$ 2,100,188	$ 2,245,336	$ 2,274,626	
Total Assets	32,138,349	28,110,584	29,533,043	28,278,830	
Net Assets %	5.6%	7.5%	7.6%	8.0%	26%

Table 37: IWMC Net Asset Balance and Percentage Change in Net Asset Balance from Previous Year Based on IWMC Projections for 2019/20 to 2022/23 with Proposed Rate Increase

	2020	2021	2022	2023
Projected Net income (loss) based on proposed rate increase	($150,000)	$92,000	$12,000	($69,000)
Net Assets	$ 2,124,626	$ 2,216,626	$ 2,228,626	$ 2,159,626
% change from previous year	(6.6%)	4.3%	0.5%	(3.1%)

5.3.1 Professional Opinion on Net Assets Received by IWMC in 2017

IWMC was asked what reflected the need for a Net Assets balance at its current level. IWMC responded that their Management and Board of Directors had considered this question in 2017 and had their external auditors provide some guidance and opinion on this subject. Based on this professional opinion and the fact IWMC was and continues to be well below what they outlined as reasonable they feel there should be no concern with the current or projected Net Assets balance. In fact, a financially sound IWMC is good for all Islanders. IWMC when requested provided an excerpt from the "*Report to those charged with governance – Communication of audit results for the year ended March 31, 2017"* prepared by their external auditors which outlined their opinion.

Based on this communication to IWMC's Board of Directors along with the challenges related to the fact that IWMC can only seek changes to its rates once per year, it was recommended in the report that the Net Assets value in the 30%-50% range would be financially prudent, and that slight profits moving forward in a range of 7- 8% should be considered reasonable. IWMC felt that the professional opinion provided sound advice and reassurance that Net Assets values below 30-50% was actually low for IWMC.

Following is exactly what was provided to IWMC at that time by their auditors.

"Based on what was reviewed, IWMC is not like any other rate regulated entity and there is currently no other waste management corporation that is similar to IWMC. To assess the profits and net assets, we had to look at other utilities including electrical and water and sewer utilities.

Based on review of the Environmental Protection Act paragraph 18, subsection 10 allows IWMC to earn a profit to which the commission, IRAC, considers reasonable. The standard does not specify what reasonable profit is. We looked to other examples which included Maritime Electric and residential rental property owners and determined a reasonable return is somewhere in the range of 7-8%. A reasonable profit has also been determined by the Supreme Court of Canada in various case laws related to rate regulation. This case law has set the standard of "The Fair Return Standard, " which allows public utilities to earn a reasonable return. The Standard outlines the idea that the return should be reasonably sufficient to assure confidence in the financial soundness of the utility.

None of the Acts on PEI discuss the idea of an appropriate capital structure (debt-to-equity ratio). The Ontario Energy Board, which is the regulator for electrical utilities in Ontario prescribes a rate of 60% debt, 40% equity. Other Crown regulated entities in the region normally target a capital structure with equity in the range of 20-30%. This range seems reasonable based on the concept of financial soundness, in that the utility would need this capital structure to be able to raise capital for future projects.

The current debt to equity structure of IWMC is 7.5% equity and 92.5% debt and debt is 12.4 times equity. At the current time, we are not aware of any other Crown corporations that have this capital structure. Based on the numbers outlined above, an equity percentage of 20-30% for IWMC would mean net assets of $5,600,000 - $8,400,000. Given this level of equity, an 8% return would be at minimum $450,000 of profit, which is more than the $295,000 in the current year. Net assets of $5,600,000 is only 27% of the annual revenues, or 3 months of expenditures. At $8,400,000, the net assets would be $41 % of annual revenues, or 5 months of expenditures. Financially sound organizations need to have the ability to borrow money as well as prepare for significant decreases in revenues or significant increases in expenditures. This is the purpose of net assets. We would consider the 20-30% equity structure to be on the low end of what would be financially prudent for this entity. For regulated companies, that are not Crown corporations, this would be more in the 40-50% equity range. "

Excerpt from the "*Report to those charged with governance – Communication of audit results for the year ended March 31, 2017"*

5.3.2 Internal Policy on Net Assets Balance

IWMC indicated they have no set policy around the Net Assets balance but feel current and projected levels still fall well below what would be considered reasonable as per the professional opinion they received in 2017 from their auditors.

5.3.3 IWMC Specific Future Needs in Relation to the Net Assets Balance

In response to interrogatories related to the Net Assets balance IWMC provided the following - *IWMC receives all of its revenue based on the fees charged to provide either collection services and/or disposal*

services. Unlike other PEI Crown Corporations, IWMC does not receive funding from the Province of PEI. In fact, the Province outlines that IWMC is to have rates set that are to cover all costs for operations. IWMC management and Board of Directors had initial concern as to the appropriate level of Net Assets that should be maintained that would be considered reasonable based on the revenue and financial obligations of the organization. Based on the professional opinion received, and given the current billing process IWMC has in place where household, cottage and extended cottage fee invoices are only distributed once per year (and must correspond with the distribution of the annual PEI property tax invoices) it was deemed reasonable to have a Net Assets balance that would meet or exceed 12 months of current expenditures.

The Corporation's future needs will be focused on continuing to pay down the long-term debt that was over $30M when the organization was established (with a current balance of under $15M) while continuing to replace and add to assets such as collection carts, landfill cells, and repairs and maintenance to a composting facility that is approaching its 20th year in operation.

It is the opinion of IWMC Management and Board of Directors that a healthy Net Assets balance is essential to provide contingency for potential major financial situations, especially so given the Corporation's aging assets and the fact that we are significantly reliant on the services of third-party contractors. In the event of a catastrophic failure in equipment or supplied services, the Net Assets balance provides a level of assurance as well as continuity in providing waste management services for PEI.

5.3.4 Our Opinion on the Net Assets Balance

Accumulated Net Assets or surpluses are different for Crown Corporation than a for profit entity.

A for profit entity's goal is to generate profits each year for a reasonable rate of return for investors and as well to accumulate surpluses for future capital expenditures or unexpected changes in operations. The comparison to Maritime Electric or residential rental property owners is not really relevant as they would be considered for profit entities with a goal of return for shareholders.

Crown Corporations are established and regulated by government. They are wholly owned by the government but operate at arm's length from government. They are generally created to fill a need the government feels is not being met by the private sector, which is either unable or unwilling to provide certain services the government deems necessary or in the provincial interest. Often, Crown Corporations provide services that would not be economically feasible for a private enterprise to undertake.

There is an expectation of reasonable profit for IWMC as indicated in the Environmental Protection Act however, comparison to Ontario Energy Board may not be realistic as larger Ontario utilities would have significantly greater capital requirements for future capital replacements and would have need to accumulate larger surpluses or Net Assets to finance these expenditures.

Reasonable Net Assets for a Crown Corporation should be based on estimated unfinanced future capital expenditures and other risk management assessments such as future changes in insurance, staff benefits, or future operating costs.

There is a reference to a need for Net Assets to offset significant decreases in revenues or increase in expenditures. However, most of IWMC revenues are fixed user fees and significant declines are less than likely. If there are declines, it would be expected that expenditures would be decreased proportionately. In the past four years, there have been no significant changes in revenues or expenditures that support possible fluctuations in operations.

As a Crown Corporation, access to financing for capital can be provided by the Province or guaranteed by the Province at the most competitive rates in the market, so the need for Net Assets for future financing is not a relevant argument. The debt to equity ratios referred to again would be relevant to for profit enterprises.

5.4 Operations

Household user fees compose 72% of the total revenue of IWMC. Residential collection costs absorb 45% of the household user fees charged. Household user fees also need to contribute to overall administration expenditures; advertising, education and public relations; interest on long-term debt; and depreciation ($4.5 million, 2018/19 audited financial statements). In addition, disposal fee revenues only cover 55% of the disposal expenditures leaving a balance of $3.4 million (2018/19 audited financial statements) not covered by disposal fees.

Table 38: IWMC Statement of Operations Based on Audited Financial Statements

	2016	2017	2018	2019
Revenue – Note 1				
Household User Fees	$13,823,470	$13,964,992	$14,114,980	$14,292,792
Disposal Fees	4,042,878	4,153,636	4,419,103	4,185,474
Tires	1,091,469	875,000	965,751	1,328,297
Decommissioning and monitoring	22,354	20,683	21,027	23,316
Other	368,904	207,425	88,552	88,465
	19,349,075	19,221,736	19,609,413	19,918,344
Expenditures – Note 1				
Administration	1,497,376	1,484,142	1,449,261	1,341,891
Advertising, education and public relations	126,823	153,977	169,669	137,488
Operational Costs				
Residential collection	5,500,497	5,669,365	5,901,682	6,428,461
Disposal	7,136,322	7,138,752	7,320,731	7,620,631
Tire collection and disposal	1,091,469	875,000	965,751	1,328,297
Decommissioning and monitoring	22,354	20,683	21,027	23,316
Interest on long-term debt	1,319,375	1,275,444	1,189,870	1,094,558
Depreciation	2,213,939	2,309,168	2,446,274	1,914,412
	18,908,155	18,926,531	19,464,265	19,889,054
Excess of revenues over expenditures	**$440,920**	**$295,205**	**$145,148**	**$29,290**
Profit % of revenue	**2.3%**	**1.5%**	**0.7%**	**0.1%**

Note 1: For consistency with the presentation of the projections, prepared by IWMC, revenue and expenditures related to EISI and Stewardships have been removed in this table.

5.5 Summary of IWMC Financial Situation

IWMC has a relatively strong financial position with accumulated Net Assets of almost $2.3 million. Debt is at a reasonable rate of return with the majority of debt being either unconditionally secured by the Province of PEI or with the Province of PEI. IWMC has a working capital ratio of 1:1 meaning that current assets are sufficient to meet current liabilities and access to a $1.5 million operating loan. IWMC has experienced a surplus each of the past four years.