Submission to Office of Utilities Regulation

TRYALL GOLF & BEACH CLUB

Water Services to
The Tryall Club and Villas

TARIFF APPLICATION

October 16, 2018

Table of Contents

1.0 Executive Summary

1.1 The Tryall Golf & Beach Club Limited Overview

The Tryall Golf & Beach Club Limited ("TGBC") was established on the Tryall Estate lands by the Tryall Corporation in 1976. The Estate has been 2,200 acres of land for almost a century but up to 1994 less than 400 acres of it was developed. In 1995 an additional 23 lots on the southern half of the property and a further 3 lots on Barnes Hill along with the Tryall Water Storage was first commissioned (See Map 1). So historically there were:

- Initial Phase: 50 homes were originally built as part of the 1960's Tryall Corporation plan for the expansion of the property as a private villa living along the Beach and Copperwood Ridge to Little Hill, the center of the developed area.
- Second Phase: A further 26 lots were developed in the 1990's in the southern section of the property beyond the Great House. These lots added 36 hectares to the developed area, and included the installation of Water Storage Tanks on Barnes Hill.
- Third Phase: A subdivision on the western section of the property was formed by Maffesantti Development in the early 2000s. That added 10 new lots and new scheme to the property demand.
- Most Recent Phase (2016): additional 20 acres off Ocean View Drive with new roads and other facilities to be added.

TGBC has been delivery water to its community throughout history. Its National Heritage site status was established on its water resource management structures - the 18th century Water Wheel and Aqueduct has been delivering water to Tryall residents since its inception in 1749. Though times and use may have changed, The Tryall Club continues to keep the water flowing and meet international standards of quality in water resource management, which we hope to provide for the next generation of our residents.

1.2 TGBC Existing Water System

Due to the phased expansion of the Property with the addition of new villas at Garden Hill and Ocean View Drive, growth of the existing water supply system is necessary to meet the current requirements of the development.

As recent as 2011 the average daily consumption was 835,603 liters. Today the average daily consumption can range anywhere from 1,082,235-1,078,407 liters, an almost thirty percent rise. This happened in less than a decade; sustainable development requires TGBC to take a much more proactive stance in ensuring water supplies are assured for the next decade, not only in water sources but in storage and distribution planning.

1.2.1 Potable Water Services

TGBC water sources are on property and owned by the company. The water is extracted by an underground well and a surface channeling system which captures some but not all the flow from Flint River, Tryall's primary water source. Extracted water is transmitted through 6 inch lines from the Treatment Facility along the River to the Distribution Centre which is on one of Tryall peaks (See Appendix B). Water is pumped to a series of three steel bolted storage tanks before being gravity fed to the entire property, excluding the golf course. The distribution trunk lines are SCH. 40 PVC with laterals of 1 or 2 inch.

TGBC provides water that meets the water quality standard of the Ministry of Health. It is tested regularly onsite at multiple locations across the property and a communication system is set up with our Homeowners to address any quality or supply needs, such a water softeners and rapid pool water supply.

The water supply system includes the following:

Surface water is collected by a continuous aqueduct from 3 and half miles up the Flint River to a treatment facility at Aqueduct Gardens. This aqueduct on average supplies 664 cubic meters per day, while the Tryall subsurface Well supplies 1155 cubic meters per day.

The daily supply is collected in clear tanks at the Treatment substation where chlorine gas is injected for disinfection before the supply is pushed by two 25 horse power water pumps up a 169 m incline to Barnes Hill, the distribution hub. There are a series of storage tanks with a 280,000 gallon capacity at this high point. The average volume of water distributed daily as of September 2018 is 366,000 gallons, which necessitates the expansion of that storage capacity.

1.3 Plans for Expansion of the Tryall Club

It is expected that several new lots will be added to the existing 92 residential units that TGBC currently supplies at no cost. There is also a planned expansion of the Club commercial operations to create an office block and additional recreational areas. This is expected to change the water demand for the Club operations from 366,000 gpd demands to the 479,014.5 gpd at peak by 2020.

See Appendix B on Water Supply System and Expansion.

Current Club Demand (l/day)

Taxi Stand	757.08
Maintenance	1135.623
Kids Club	151.4164
Tennis	2725.495+529.9574
Nurse	113.5623
Golf Staff	5678.115
Restaurant	757.082+1514.164+378.541+6965.154
Laundry	7570.82+908.4984

Future Demand (l/day)

Taxi Stand	10409.88
Maintenance	46371.27
Kids Club	Same
Tennis	Same
Nurse	same
Golf Staff	5478.115
Restaurant	3028.328+7570.82
Laundry	908.4984+7570.82
Spa	6056.656
Beach Facility	18169.97

2016 Homeowner Demand (l/day) (as per JATCO est. 2017)

416 bedrooms @ 1636.59 lpd = 680,822.438 litres per day

Assumption: daily domestic consumption per person is 818.296 lpd

Future Demand (l/day) (as per JATCO est. 2017)

712 bedrooms @ 1636.59 lpd = 1,165,253.79 litres per day

Assumption: daily domestic consumption per person is 818.296 lpd

1.4 Plans for Upgrade of the Water System

The 2018 Property Improvement includes expanded storage facilities at Barnes Hill from 280,000 gallons to 420,000 gallons. There is also a plan to replace and retrofit some of the existing piping including replacing the main truck lines of the Barnes Hill piping system. A booster pump will be added to a new Little Hill substation to ensure the required head flow meets the psi requirement from the OUR of 20 – 60 psi.

The current estimated cost of the modifications is USD $1.9 million which are slated for completion before January 2020.

The current water system, including the Flint River Abstraction does have the capacity to be expanded to service the additional 19 lots as less than half of the WRA allowance is currently being captured. An expansion of the River abstraction is not being contemplated at this juncture, but has been analyzed as a part of the Property Improvement Plan commissioned by JATCO Consultants Ltd. in 2017 on behalf of Tryall Estate.

1.5 Water Services Licence

Tryall Club was originally granted an abstraction and water use license from WRA in 2004 for a Well from the Flint River Aquifer and the historic surface catchment. The NWC supply at that time was unreliable due to poor infrastructure development common to the parish and the consumptive demands of a homeownership that included an 18-hole golf course and 97 pools.

In response to the growing need The Tryall Golf & Beach Club Limited applied for, and was granted, a license by the Office of Utilities Regulations (OUR) in 2018. The Licence, among other things, sets out the basis for application for a tariff to be charged to the residents of Tryall Club as approved by our Proprietary Board on October 12, 2018.

1.6 Proposed Tariff

Based on the Licence, TGBC is hereby applying for a tariff that would allow us to recover capital investments costs over the next 6 years.

Operational expenses include all incurred costs associated with investment in capital plant and other operating costs are being covered by the Management Investment.

The rate decision was based on an examination of the cost to purchase water from NWC for homeowners versus the investment to continue to supply water with an upgrade to the system to adjust for the property expansion and development plans.

The proposed tariff is as follows:

Table 1: Summary of proposed rates

Tariff Parameter	Tariff Request
Tariff yield on revenue (test year)	$ 30,000,000
Residential Usage Charge (Variable Costs)	$144 /1000 liters/month

Legal Framework

TGBC is a regulated utility pursuant to the Office of Utilities Regulation Act and operates under a Licence issued by the government. The Licence sets out, among other things, the procedures for determining the rates that TGBC may charge consumers. TGBC and its activities are also subject to regulation by other relevant government agencies such as the National Environment and Planning Agency (NEPA), the Water Resource Authority (WRA) and the Ministry of Health.

Tariff Methodology

The mechanism for calculating the rates to be paid to TGBC for the delivery of the water utility is set out in Schedule 3 of the Licence granted to TGBC by the OUR.

The basic approach to establishing the rates involves the following:

1. Establishment of a test year which shall be 12 months starting January 2019.
2. Adjustment of the results of that test year will be done to reflect normal expected operating conditions, revenues and costs that would come into effect following the 12 month period.
3. Determination of a Rate Base reflects net investments with adjustments as appropriate.
4. Determination of the Revenue Requirement as the sum of:
   a. Capital Investment;
   b. Depreciation;
   c. Operating costs; and
   d. Taxes;

Test Year

The Test Year as defined in the Licence is twelve months of operation for which there are audited accounts. TGBC is expected to begin that test year in January 2019. After this test year TGBC will be in a position to separate the licensed business from the resort/residential operations and provide the requisite financial records, operational data and performance results specific to the supply and distribution of water to facilitate a tariff review and make the determinations set out by the OUR as a valid Tariff determination Methodology.

Summary of TGBC's Tariff Application

The Summary of the TGBC's Tariff Application for Test Year 2019:

TARIFF REQUEST 1

To operate the proposed test year of the application starting January 2019 a variable rate would be applied based on volumetric flow measurements taken monthly from every customer using already installed water meters purchased on island from Automatic Control Engineering Ltd.

TGBC proposes the following:

- Base Revenue Requirement of JMD $ 30,000,000 per annum for 6 years

The Base Tariff structure is based on:

- A Volumetric tariff of J$ 144/1,000 litres taken from mechanical meters attached to 1 inch lateral lines which provide service to all customers.

*Based on current usage data collected from metering done in 2017, a rough projection of what TGBC customers charged at 75% the NWC rate would accrue. This projection shows an estimated income for the provision of water at $28,609,474 Jamaican for the 2019 test year. Please see Appendix A

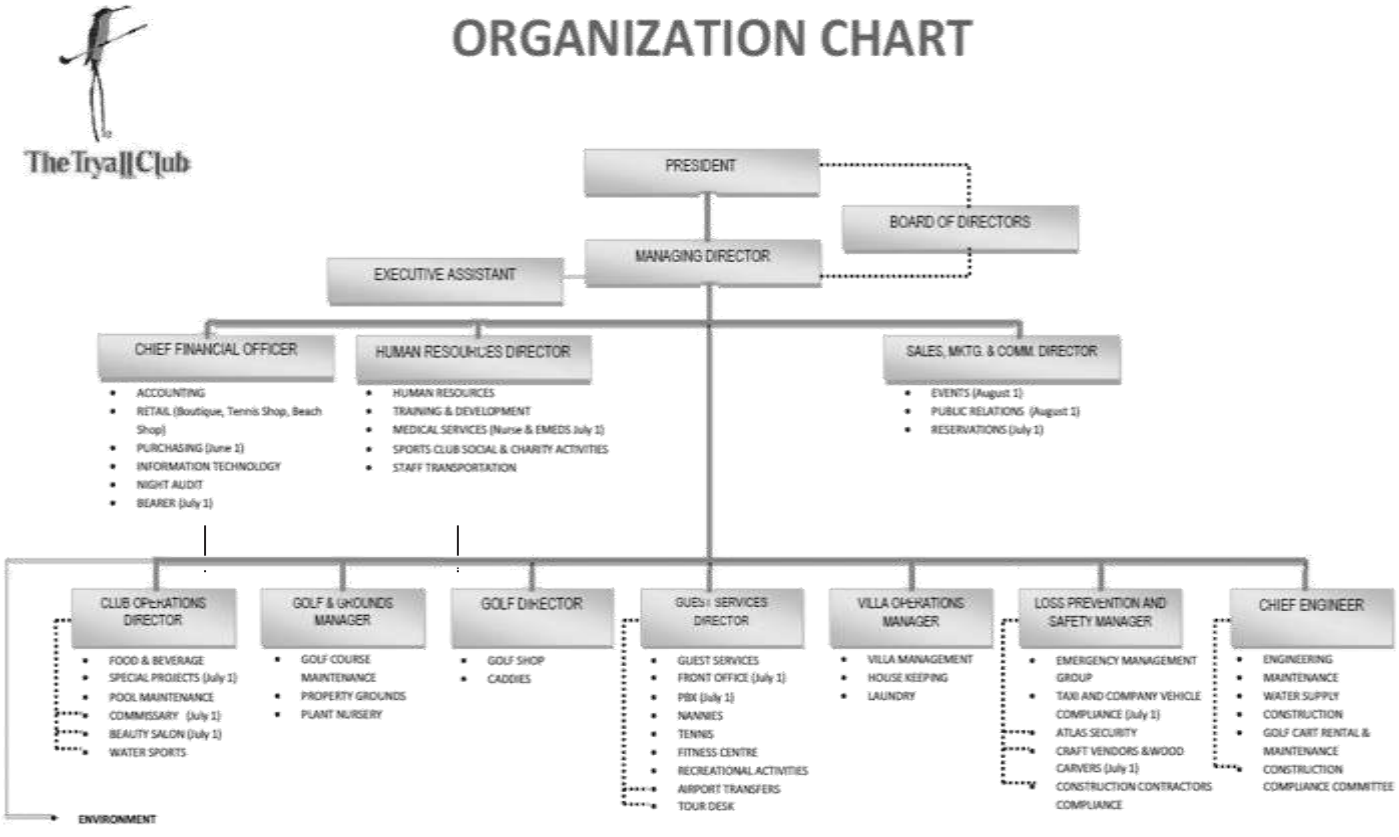
2.0 Company Background

The Tryall Club was originally established in 1957 on land that has been occupied as Tryall since the 1600s. The Limited Company is a residential property which grew out of an 18th Century Coconut and Sugar Estate that boasted a country Club lifestyle as a selling point. In 1975 on the death of Pollard Simons the Tryall Homeowners purchased the bulk of the property and formed the Proprietary Board made of elected representatives. Each Homeowner is a proprietary member who elects that Board, which makes all decisions as to the development and management of the property, including the infrastructural development and the provision of basic utilities.

TGBC Executive Management Team reports to this Proprietary Board and handles the day to day operations of the property under a Managing Director. There is a Chief Engineer in charge of Water Supply and support services that oversee the operational systems management.

The Proprietary Board Members regularly elect a President who administers various committees including an Infrastructural Committee which made the decision to apply a tariff to the water supply for the planned development. The Executive Management Team functions as the representatives of these various Committees and the Board to the government and regulatory bodies of Jamaica.

Organization Structure of TGBC



2.1 TGBC Customers

TGBC provides potable water to 93 residential and commercial customers on the Tryall Club Property:

91 Homeowners with Villas and Condos (metered billing)

1 Commercial Customer (non-billing)

2. 2 Ownership and Management

The TGBC facilities are owned by The Tryall Club Ltd which has a full complement of Maintenance and Engineering staff: including a full time Chief Engineer with experience in engineering, operations management and customer service.

The Chief Engineer has the support of the Environment and Conservation Department and a full Accounting team to assist in record keeping and quality service performance to ensure product delivery.

2.3 Vision and Mission Statement

TGBC is committed to providing efficient, reliable and quality service in the extraction, treatment and distribution of domestic water supply. TGBC is committed to preserving our traditional systems in the form of our heritage source while using the best most cost effective technology and infrastructure to utility provision on Tryall. Our team will work with every member to assure quality service every day.

3.0 Tariff Rate Determination

3.1 ASSUMPTIONS

Operational Funding Assumptions

Funding Source	Amount	%
Share Holders Equity	35,000,000	75.00%
Management Equity	28,000,000	25.00%
TOTAL FUNDING	63,000,000	100%
TARIFF CLOSE TARGET DATE	31/12/2019	

Operating Budget Assumptions	Year 1	Year 3
Monthly Water Usage Charge	$144/1000 litres	144/1000 litres
Number of Existing Dwelling	92	95
Recovery Factor for Customers	100%	100%
Number of recovered Customers	92	95

Tariff Rate Assumptions
The calculated Base Revenue Requirement is the total Tariff per year
The Fixed Component of the Tariff = ((Fixed Administrative Costs + Finance Costs) / Total Operations Cost)
The Variable Component of the Tariff = ((Variable Administrative Costs) / Total Operations Cost)
The Fixed Service Charge = (The Annual Fixed Tariff /12) /Number of Recovered Customers
The Variable Service Charge or Usage Charge = (The Annual Variable Tariff /12) /Number of Recovered Customers

Rate Base Assumptions	
Total Financing (Management Equity + Shareholder Investment)	= $63,000,000
Equity Ratio	8:2
Tax Rate (GCT)	16.00%
Return on Investment = Allowed Rate on Return x Asset Base: where Asset Base = Audited Net Book Value of Asset as at December 2017 + the cost of the upgrade to the existing plant and works across property including volumetric metering	

3.2 RATE BASE DETAILS

	Test Year 2019 (Projected)
Fixed Administrative Costs	$ 7,043,397.66
Variable Administrative Costs	$ 27,148431.96
Expected Base Operating Costs	$ 34,191,829.62
Depreciation:	3% per annum
Net Book Value (Asset Base) (Dec 2018)	$49,313,925.68
Cost of Capital / Allowed Rate of Return	$77,133,552.63
Total Return on Investment	$28,609,474.03
TOTAL BASE REVENUE REQUIREMENT	$30,000,000.00

RATE STRUCTURE	
	Test Year 2019 (Projected)
EXPECTED TOTAL TEST YEAR TARIFF	$35,601,820.28
Fixed Component Percentage	0%
Variable Component Percentage	100.00%
FIXED SERVICE CHARGE FOR YR. 1 (After Completion of Water System Upgrade)	$0
VARIABLE SERVICE CHARGE FOR YR. 1 (After Completion of Water System Upgrade)	JMD$144.00/1000 liter

3.3 OPERATIONAL DETAILS

	Year 1	Year 3+
Number of Existing	92	95
Recovery Factor	100%	100%
Number of Recovered	92	95

Year 1 - Water Service Revenue				
	Item	**Number Customers**	**Price/ month per Bedroom**	**Annual Revenue**
Water Service Revenue	Usage Charge	92	$4,902	$28,609,474.03
	Total (First Year)			**$28,609,474.03**

Year 1 - Monthly & Annual Operating Costs		
Cost Category	**Per Month**	**Per Year**
Fixed Plant Operating Costs (See Budget Detail)	$524,505.74	$6,294,060
Variable Plant Operating Costs (See Budget Detail)	$1,760,616	$21,127,392
Total Administrative Costs	$576,379.44	$4,456,759
Total Operating Cost	$2,861,493.77	$34,338,015

Years 3+ Water Service Revenue				
	Item	**Number of Recovered Customers**	**Price/ month per Customer**	**Annual Revenue**
Water Service Revenue	Usage Charge	95	144/1000 liter	$30,955,060
	Total (Years 3+)	**95**	27,154	**$30,955,060**

Years 3+ Monthly & Annual Operating Costs		
Cost Category	**Per Month**	**Per Year**
Fixed Plant Operating Costs (See Administrative Detail)	$629,406.89	$7,552,882.66
Variable Plant Operating Costs (See Administrative Detail)	$33,169.30	$398,031.55
Total Administrative Costs	$662,576.19	$7,950,914.28
Total for Plant Operating Cost	$3,033,183.40	$36,398,200.75

3.4 ADMINISTRATIVE DETAIL

PLANT OPERATING COSTS		
Fixed Operation & Maintenance Costs	Annual Total	Monthly
Salaries & Wages	7,043,398	$586,950
Staff benefits	$2,459,794	$204,983
Insurance	$429484	$35,790
Motor Vehicles	$1,063,706	$88,642.17
Distribution System & Equipment	$2,875,940	$239,661.63
Maintenance & Repairs	$542,323	$45,193.59
Lab Services	$331,588	$27,632.34
Aqueduct & Dam	$1,344,204	$112,016.97
Sub Total	$13,074,449	$1,100,808
Variable Costs	$2,091,912	$174,326
TOTAL	$31,256,798	$2,616,004

PLANT OPERATING COSTS		
Variable Operation & Maintenance Costs	Annual Total	Monthly
Equipment Maintenance	$5,423,542	$1,834,153
Electricity	$21,127,392	$1,761,616
Transportation - Fuel, Gas, Oil & Grease	$351,056	$29,255
Chlorination	$519,382	$43,282
Sub Total	$21,997,830	$1,834,153
TOTAL ADMINISTRATIVE COSTS	**27,421,372**	**$2,285,114**

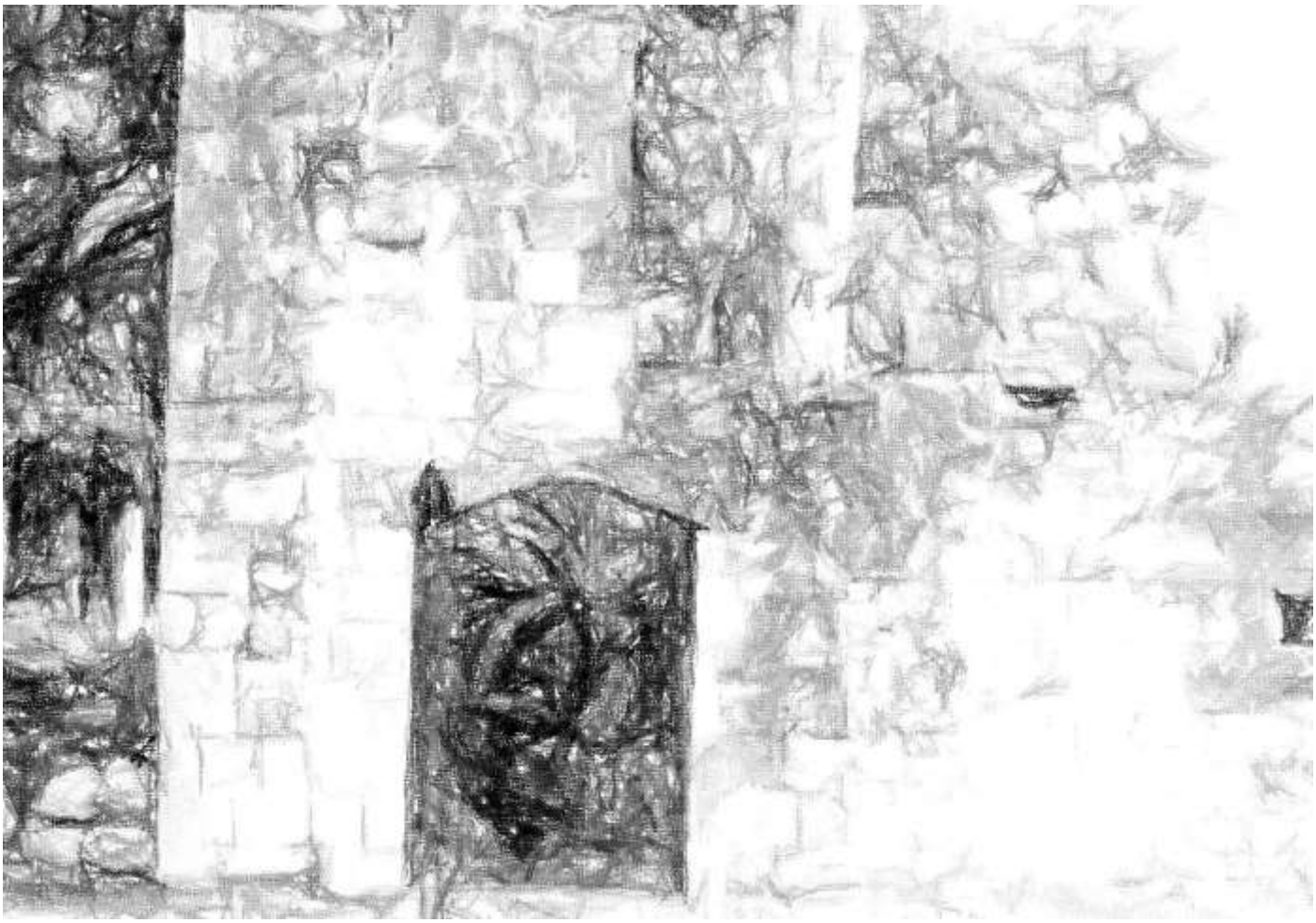
3.5 DEPRECIATION & AMORTIZATION

	YEAR 2017	YEAR 2018	YEAR 2019	YEAR 2020	YEAR 2021
Water Operational Plant Cost	$32,757,927	$31,775,189	$30,504,181	$28,673,930	$31,293,915
Water Plant Upgrade and Modification Cost		$215,301,729			
Plant Equipment	$19,269,122	$17,554,929	$15,642,173	$13,139,425	$9,854,569
Works & Fixtures		$193,547,851			
Annual depreciation-percentage for Water Plant	3%	3%	3%	7%	9%
Annual depreciation – percentage for Pumping	10.0%	10.0%	10.0%	15.0%	25.0%
Annual depreciation-percentage for Storage	10.0%	10.0%	10.0%	10.0%	10.0%
Annual depreciation for Water Plant-dollars	(17,203,441)	(19,269,122)	$6,551,586	$5,241,269	$1,695,952
Cumulative depreciation			$13,065,839	$20,905,343	$25,609,046
Net Property, Plant & Equipment Value	$15,554,486	$13,488,804	$46,833,804	$28,100,283	$16,860,170
Net Start up Year expenses	$29,826,436	$35,314,356			

3.10 FINANCIAL SUMMARY

Periods	1 Jan-19	2 Jan-20	3 Jan-21	3 Jan-22
Usage Charge	144/1000 liter	144/1000 liter	144/1000 liter	144/1000 liter
Total Revenues	$35,601,820	$36,437,280	$36,541,379	$34,699,630
Cost of Water Service				
Fixed Plant Operating Costs	$28,811,360	26,676,000	$27,743,680	$27,743,680
Variable Plant Operating Costs	$7,202,841	$6,669,000	$5,601,320	$6,750,580
Total Administrative/Plant Operational Expenses	$36,014,201	$33,345,000	$33,345,000	$33,345,000
EBITDA		$2,267,320	2,442,381	1,404,360
Depreciation & Amortization	77,419,140	46,451,484	27,870,890	16,722,534
Taxes		5,696,291	5,725,981	5,551,941
Total Other Expenses	266,360	-	-	-
Net Income	0	2,267,320	2,442,381	1,354,630
Plus Depreciation & Amortization		6,551,586	5,241,269	3,612,067
Free Cash Flow	0	0	0	0

APPENDIX A



The Tryall Golf & Beach Club Limited

Financial Statements
10 October 2018

Projected Pricing estimates for TGBC based on per bedroom consumption data:

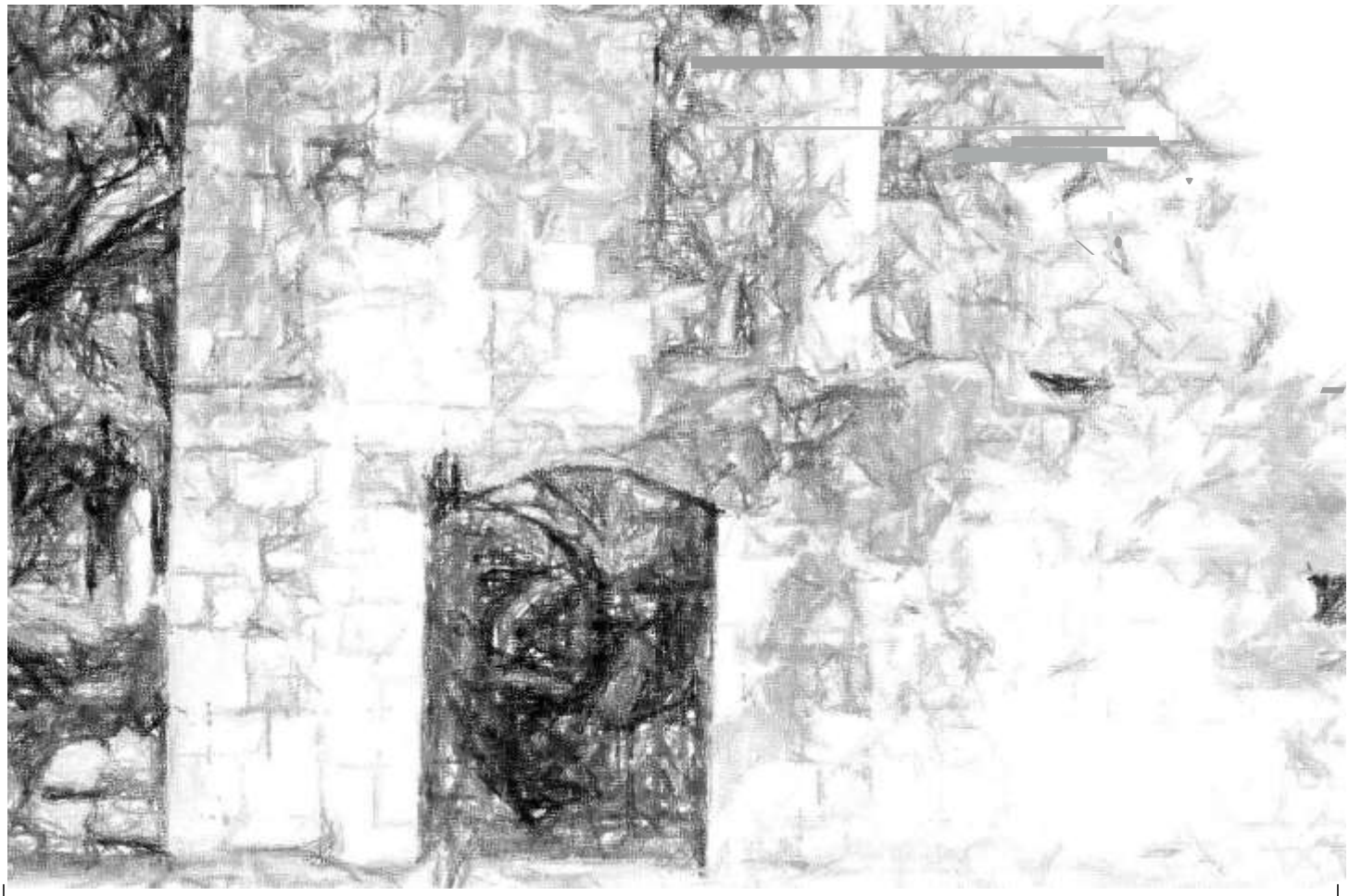
	Average payment										
	1 bedroom	2 bedroom	3 bedroom	4 bedroom	5 bedroom	6 bedroom	7 bedroom	8 bedroom	Higher bedroom		
Monthly	$ 4,902.00	$ 9,120.00	$ 17,214.00	$ 24,337.67	$ 26,579.10	$ 30,449.90	$ 35,342.15	$ 37,296.72	$ 48,866.39		
Annual	$ 58,824.00	$ 109,440.00	$ 206,568.00	$ 292,052.08	$ 318,949.20	$ 365,398.79	$ 424,105.84	$ 447,560.64	$ 586,396.62		
BD	9	5	11	22	20	16	9	1	4		
TTL Annual	$ 529,416.00	$ 547,200.00	$ 2,272,248.00	$ 6,425,145.79	$ 6,378,984.00	$ 5,846,380.56	$ 3,816,952.56	$ 447,560.64	$ 2,345,586.48	$ 28,609,474.03	JMD
									USD	$ 229,132.42	Fx @ April 2018 Rate
	Litres of water										
	1 bedroom	2 bedroom	3 bedroom	4 bedroom	5 bedroom	6 bedroom	7/> bedroom	8 bedroom	Higher bedroom	41%	
Monthly	23,222	46,600	102,182	173,845	276,454	301,490	325,000	327,164	428,652		
Annual	278,666	559,200	1,226,181	2,086,143	3,317,452	3,617,878	3,899,997	3,925,971	5,143,827		
BD	9	5	11	22	20	16	9	1	4	97	
	2,507,998	2,795,998	13,487,991	45,895,153	66,349,046	57,886,041	35,099,977	3,925,971	20,575,306		

Tryall Golf & Beach Club Ltd.
Operational Budget Breakdown

WATER SUPPLY DEPARTMENT				
	2016	2017	2018	2019
Payroll				
Salaries & Wages	4,174,394	3,973,790	4,178,395	4,456,759
Overtime	230,881	237,683	132,180	118,975
NIS	112,039	113,373	130,712	135,381
NHT	160,723	169,126	184,198	170,460
Heart Fund	160,723	160,590	184,198	170,460
Education Tax	182,731	188,333	193,668	180,730
Employee Meals	366,662	358,659	336,651	423,615
Uniforms	152,720	90,965	146,318	165,391
Travel & Laundry	579,136	572,200	578,069	674,636
Medical	168,726	223,412	256,490	429,484
Pension	5,202	108,971	105,370	109,638
Vacation Accrual	234,082	- 14,405	133,513	-
Retirement	-	-		
Other benefits		4,402		
Total Payroll	6,528,017	6,187,098	6,559,762	7,035,528

Other Costs				
NWC Charges	20,807	-	-	-
Laboratory Charges	248,940	298,728	331,588	272,940
Water Recovery Charge	- 5,735	- 1,843,312	- 6,766,101	-
Fuel	55,886	344,120	757,999	668,100
MV expenses	598,076	713,183	563,264	395,605
Bushing & Building Repair	1,752,480	849,364	331,049	456,827
Miscellaneous	360,526	351,056	139,649	-
Distribution System	3,654,078	4,325,113	3,339,035	1,585,355
Pump Equipment	1,863,585	766,001	1,542,673	1,290,585
Aqueduct & Dam	1,508,394	962,737	1,344,204	1,007,019
Chemical Supplies	755,731	313,310	519,382	490,838
Road Repairs	56,153	63,089	19,740	-
Small Tools	101,636	3,868	3,201	126,711
Electricity	12,674,034	16,790,808	20,188,797	21,127,392
Total Other Costs	23,395,652	23,639,338	21,982,891	27,421,372
Total Expenses	29,923,670	29,826,436	28,542,653	34,456,900

APPENDIX B



The Tryall Golf & Beach Club Limited

Water Supply System Plans

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