

**DYNAMIC
ENVIRONMENTAL
MANAGEMENT LIMITED
(DEML)**

**Public Consultation
Rate Review for Water and Sewerage**

April 8 & 10, 2014

**Dynamic Environmental Management Limited (DEML)
Public Consultation**

Dynamic Environmental Management Limited (DEML) is a limited liability company formed in April 2005, with its core business being the extraction, treatment and distribution of domestic water , the collection and treatment of sewage and the discharge of effluent .

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MISSION AND VISION

DEML is committed to providing efficient, reliable and quality service in the extraction, treatment and distribution of domestic water supply and the collection and treatment of sewage and discharge of effluent to the National Environmental Planning Agency's (NEPA) and World Health Organization's (WHO) standards, while adding value to the community and maintaining a healthy environment.

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DEML has received licences from the Office of Utilities Regulation (OUR) for the operation of Water & Sewerage Service for the following Housing Developments:

1. Vineyards Estate – 2005
2. Morris Meadows – 2006
3. Caribbean Estate – 2007
4. Portmore Country Club – 2008

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Customer Base

DEML currently provides potable water to 2,266 contracted active customers and sewerage services to 2,194 customers in the parish of St. Catherine as follows:

Housing Scheme	Water	Sewage
Vineyards Estate	420	419
Caribbean Estate	983	981
Portmore Country Club	392	385
Morris Meadows	471	409
Total	2266	2194

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Current Rate Determination Notice

Category	All Schemes
Volumetric Rate for water & sewerage	\$73.11 (per 1000 liters)
Service Charge	\$478.62
Connection Fee	\$2,000.00
Reconnection Fee	\$2,954.00
Price Adjustment Mechanism (PAM)	Yes
Effective Date of Rates	September 3, 2012

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Current Rates based on PAM adjustment

Category	All Schemes
Volumetric Rate for water & sewerage	\$87.05 (per 1000 liters)
Service Charge	\$569.89
Connection Fee	\$2,000.00
Reconnection Fee	\$3,517.33
Price Adjustment Mechanism (PAM)	Yes
Effective Date	January 01, 2014

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TARIFF APPLICATION

- DEML has made a single tariff application for all the housing developments serviced.
- The test year is based on the year for which the last audited financial statements are available with adjustments made for such changes in revenues and costs as are known and measurable with reasonable accuracy.
- The effective test year is 2012.

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TARIFF METHODOLOGY

The Rate of Return methodology as stipulated by the OUR is used in the determination of rates by DEML.

The methodology is specified as follows:

Revenue requirement = Costs of Service

$$R = O + D + T + kB$$

Where :

R = Revenue Requirement

O = Operational Expenses

D = Depreciation allowance

T = Taxes

k = a fair rate of return

B = rate base

$$\text{Price/Tariff} = \frac{\text{Revenue Requirement}}{\text{Quantity Demanded}}$$

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Proposed Capital Expenditure Projects

<i>Projects</i>	<i>Vineyards Estate</i>	<i>Caribbean Estate</i>	<i>Morris Meadows</i>	<i>Portmore Country Club</i>	<i>General</i>	<i>Total</i>
Re-Lining of Sewage Pond	\$ 4,760,330.06	\$ -	\$ -	\$ -	\$ -	\$ 4,760,330.06
Installation of changing room	\$ -	\$ 567,936.00	\$ 233,968.00	\$ -	\$ -	\$ 801,904.00
Perimeter Fencing	\$ -	\$1,965,000.00	\$ -	\$ 535,000.00		\$ 2,500,000.00
Purchasing of 4" Meters	\$ 889,488.00	\$ 889,488.00	\$ 444,744.00	\$ -	\$ -	\$ 2,223,720.00
Sub-Total	\$ 5,649,818.06	\$3,422,424.00	\$ 678,712.00	\$ 535,000.00	\$ -	\$ 10,285,954.06

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Proposed Capital Expenditure Projects Cont'd

<i>Projects</i>	<i>Vineyards Estate</i>	<i>Caribbean Estate</i>	<i>Morris Meadows</i>	<i>Portmore Country Club</i>	<i>General</i>	<i>Total</i>
b/f	\$5,649,818.06	\$3,422,424.00	\$ 678,712.00	\$ 535,000.00	\$ -	10,285,954.06
Purchasing of 4" Meters (NEPA - Influent & Effluent)	\$ 889,488.00	\$ 699,137.57	\$ 889,488.00	\$ 190,350.43		\$2,668,464.00
Pick-up					\$ 2,500,000.00	\$ 2,500,000.00
Office Furniture & Equipment					\$ 200,000.00	\$ 200,000.00
Computer					\$ 150,000.00	\$ 150,000.00
Security system					\$ 300,000.00	\$ 300,000.00
Total	\$6,539,306.06	\$4,121,561.57	\$1,568,200.00	\$ 725,350.43	\$ 3,150,000.00	\$ 16,104,418.06

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Capital Expenditure Projects completed between 2012 - 2013

<i>Projects</i>	<i>Vineyards Estate</i>
Relining of Sewage Pond	\$ 8,752,723.49
Generator	\$ 2,333,142.00
Generator Room	\$ 889,905.16
Total	\$ 11,975,770.65

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Expenses

- Cost of Sales
- Sales & Marketing Costs
- Property & Utility Costs
- Operations & Maintenance Costs
- Banking & Other
- Administrative Costs

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Cost of Sales

Cost of Sales	
Production Wages	\$ 12,274,758.86
Utility	\$ 20,765,015.18
Water Purchase	\$ 22,568,296.50
Chlorine	\$ 1,076,006.60
	\$ 56,684,077.14

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Cost of Sales Cont'd

- Production Wages

Wages for the current field staff compliment and an independent meter reader.

- Electricity

The cost proposed is based on the average consumption for 2013 for all sites. The rates used in the calculation is based on December 2013 bills.

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Cost of Sales Cont'd

- **Water Purchase**

Average water produced during 2013 for Caribbean Estate, Portmore Country Club and Morris Meadows.

A 5% provision was made for water loss.

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Cost of Sales Cont'd

- Chlorine & Re-agent
 - Cost for re-agents used to test for residual chlorine (three times daily)
 - Cost for liquid chlorine (cylinder)
 - Granular chlorine used as backup

Sales & Marketing

\$130,667.04 represents the cost associated with yellow pages directory advertising and the printing of notices.

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Property & Utilities

Property & Utilities	
Rental Cost	\$ 1,557,405.79
Office Utility	\$ 1,188,637.18
Telephone	\$ 1,351,283.64
Stationery, Supplies & Other	\$ 836,494.02
	\$ 4,933,820.63

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Property & Utilities Cont'd

- Rental Cost
 - Rent for Head Office
 - Rent for Portmore Office
 - Rent at Portmore Country Club for field staff
- Office Utility Expense
 - Projected electricity cost of \$88,000 for both offices
 - Water of \$11,053.10

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Property & Utilities Cont'd

- Telephone
 - Landline, internet and closed user group
 - Texting Service
 - Emergency Line
- Stationery, Supplies & other

This includes stationery and office supplies, cleaning supplies, refreshment for meetings etc.

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Operations & Maintenance

Operations & Maintenance	
Supplies	\$ 1,591,648.20
Security	\$ 353,225.25
Repairs & maintenance	\$ 8,422,046.44
Vehicles & Travel	\$ 1,412,531.00
Licenses, Permits & leases	\$ 2,256,016.18
Quality Testing Expenses	\$ 1,172,166.00
	\$ 15,207,633.07

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Operations & Maintenance Cont'd

- Supplies
 - Cost of cleaning supplies used by the plant attendants and plumbers
 - Plumbing materials
 - Stationery used to prepare bills, print receipts and record keeping on-site
 - Stamps
- Security
 - Fee for lodgement pickups
 - Monitoring and response fee for panic systems

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Operations & Maintenance Cont'd

- Repairs & Maintenance
 - Sewage removal
 - Equipment rental
 - Equipment maintenance – routine & scheduled
 - Fuel
 - Pond maintenance – routine & scheduled
- Vehicle & Travel
 - All cost associated with ownership of vehicle
 - Travelling by field staff to address emergencies and travelling by bearer.

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Operations & Maintenance Cont'd

- Licences, Permit & Leases
 - Renewal license for the sewage ponds
 - Effective April 1, 2014 NEPA's fee was increased from \$32,500 per pond to \$130,000 per pond. They will also be introducing a discharge fee of approx. \$195,000 per year
 - Regulatory fee for OUR
 - License fee for billing software
 - Lease at Vineyards Estate & Portmore Country Club

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Operations & Maintenance Cont'd

- Quality Testing
 - External testing of raw water, potable water and effluent
 - Raw water is tested semi-annually
 - Potable water and effluent are tested twice per month

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Banking & Other

Banking & Other	
Bank Charges	\$ 1,170,464.66
Audit & legal	\$ 800,000.00
Finance Charge	\$ 1,704,000.00
Insurance	\$ 1,150,779.06
	\$ 4,825,243.72

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Banking & Other Cont'd

- **Bank Charges**
 - Point of sales charges
 - Online payment & bill payment agency
 - Regular bank charges

- **Audit & Legal**
 - Cost to audit the financial statement
 - Legal services

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Banking & Other Cont'd

- Finance Charge
 - Interest payable as a result of the relining of the sewage pond at Vineyards Estate. The cost to reline the pond was \$8,752,723.49.
- Insurance
 - Cost to insure the equipment such as the generator, pumps, chlorinator

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Administrative Cost

Administrative Cost	
Salaries	\$ 6,873,003.89
Health Insurance	\$ 1,893,370.44
Pension	\$ 957,388.14
Uniform, Training & Safety	\$ 3,201,385.27
Management Fees	\$ 2,391,999.82
Statutory	\$ 2,297,731.53
	\$ 17,614,879.09

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Administrative Cost Cont'd

- Salaries
 - Salary for the current six (6) office staff
- Health Insurance
 - Health insurance for the entire staff (including field workers)
- Pension
 - DEML contributes 5% of staff salary

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Administrative Cost Cont'd

- Uniform, Training & Safety Requirements
 - All employees are provided with uniform
 - Training is provided by MOH and other external institutions
 - Vaccinations for all field staff
 - Safety Gears such as water boots, gloves, dust mask, waders
 - MOH has requested that an oxygen tank be placed in every chlorine room. Each tank cost app \$404,255

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Administrative Cost Cont'd

- Management Fee
 - The four directors are assigned specific responsibility to oversee Quality Control & New Business, Human Resource, Facilities Management and Commercial Operations and Accounts
 - Meet at board level monthly
- Statutory
 - As per government requirement, the company pays 12% of staff salary for statutory deduction

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Other

- Depreciation
 - Asset purchased by DEML and equipment handed over by the developers
- Property Tax
 - Bernard Lodge Sewage Pond and Vineyards Estate Well site
- Other Taxes
 - Asset Tax of \$75,000 and company annual return of \$8,000

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Other

- Return on Investment
 - A return of 10.26% was used
(The same rate as NWC since we are operating in the same market)
- Capital Expenditure
 - \$4,798,012 represents the loan cost per year to complete the projects (five (5) year loan)

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Service Charge

A service charge of Six Hundred and Eighty One Dollars and Ten Cents (\$681.10) is being proposed. This flat rate covers fixed overheads incurred for the preparation of the bills inclusive of the meter reading

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Reconnection Fee

Details	Cost
Administrative Charges	\$ 1,059.50
Labour charges for disconnection/reconnection	\$ 1,553.60
Materials (2 cap, 1 elbow, 2 coupling, tangit, pipe)	\$ 412.98
Transportation	\$ 1,000.00
Total	\$ 4,026.08

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Connection Fee

Details	Cost
Administrative Charges	\$ 794.63
Labour charges	\$ 776.80
Materials (2 female adapter, 4 elbows, tangit, pipe)	\$ 428.86
Transportation	\$ 1,000.00
Total	\$ 3,000.29

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Details	Total
Cost of Sales	\$ 56,684,077.14
Sales & Marketing	\$ 130,667.04
Property & Utilities	\$ 4,933,820.63
Operations & Maintenance	\$ 15,207,633.07
Banking & Other	\$ 4,825,243.72
Administrative Cost	\$ 17,614,879.09
Sub-Total	\$ 99,396,320.69
Depreciation	\$ 7,592,087.57
Property Tax	\$ 1,021,256.57
Other Taxes	\$ 83,000.00
Return on Investment	\$ 3,163,502.99
Capital Expenditure	\$ 4,798,012.00
Total	\$ 116,054,179.82

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Rate Calculation

Details	Annual Costs	Monthly Cost
Revenue Requirement	\$ 116,054,179.82	
Less service charge revenue	\$ 18,520,471.20	
Net revenue requirement	\$ 97,533,708.62	\$ 8,127,809.05
Total no. of customers		2,266
Cost per lots (R/S)		\$ 3,586.85
Split 50/50 for water & sewer		\$ 1,793.43
Average monthly usage	\$ 15,000.00	
Cost per 1000 litres		\$ 119.56

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DEML has applied to the OUR for a single tariff review consistent with the terms of its licences as follows:

Detail	Rate
Water Charges	\$ 119.56
Sewerage Charges	\$ 119.56
Service Charge	\$ 681.10
Reconnection Fee	\$ 4,026.08
Connection Fee	\$ 3,000.00

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DEML has also applied for the continuation of a Price Adjustment Mechanism (PAM) which will safeguard the company from future increase in consumer price index, foreign exchange and electricity.

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Challenges

- Illegal Connection
- Meter Reading Issues
- Electricity Cost

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THANK YOU

THE END