



OFFICE OF UTILITIES REGULATION

**REGULATORY FRAMEWORK
FOR THE
NATIONAL WATER COMMISSION
(2002 - 2004)**

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Introduction

The National Water Commission, under the most recent tariff adjustment (February 1999), was given a number of performance benchmarks and targets to attain. These outlined targets were to be achieved over a two-year period, (April 1999 to March 2001). There is now a need to introduce a new regulatory framework which will span over the coming two-year period (2002 – 2004). This framework will be developed taking into consideration the Commission's achievements under previous targets and the Office of Utilities Regulation's (the Office) assessment of what is possible in this period.

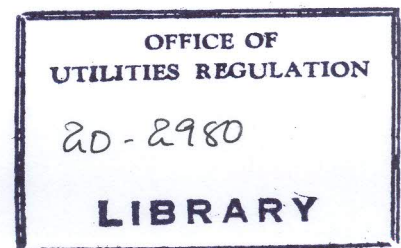
This regulatory framework is designed to ensure that there is economic efficiency, financial sustainability of the NWC, transparency, environmental sustainability and good water quality (see Section 4 (2) of the OUR Act, 1995).

Basis for New Regulatory Framework

As the National Water Commission (NWC) slogan says, "Water is Life", and as such everyone who is involved in the water sector has an important contribution to make to ensure the continued development of the sector. Water is a scarce resource, and as such the most efficient allocation has to be sought in order to ensure that everyone, especially the poor, has access to this commodity. Furthermore, the water industry is characterized as a natural monopoly so effective regulation, which is the objective of this regulatory framework, is needed. There are other important reasons why effective regulation is needed in this sector: (1) Broad access to water and sanitation facilities yields important public health and environmental benefits and (2) the level of access is critical to economic and urban development.

The Government of Jamaica (GOJ) has also expressed a desire to involve the private sector in its development of the water sector in its *Water Sector Policy Paper*, November 2000. The level of private sector participation will be a function of the level of risk that is attributed to the sector and the elimination of this risk will depend on effective regulation.

Regulation in this utility sector generally serves to protect the environment, consumers and the public at large, foster investment, competition and innovation. As such a good regulatory framework must be in place to achieve any levels of allocative and productive efficiency.



Reporting and Monitoring

As part of the general monitoring, the NWC is required to provide the following information to the Office on an annual and/or quarterly basis:

1. Financial reports
2. Statistical information on operations and customer service
3. Quality of service standards reports
4. Reports relating to performance on:
 - Capital projects
 - Customer service
 - Procurement of goods and services

The Office has also specified the minimum filing requirements for a rate application.

Performance Targets and Benchmarks

In addition to the general reporting and monitoring, specific operational and financial performance targets must be achieved by the NWC over a one or two year period. This is in an effort to secure continued improvements in the Commission's efficiency and overall performance. Over the period April 2002 – March 2004, the NWC is required to meet the following performance targets:

Operational

1. At 2001 September, unaccounted for water (UFW) was estimated at 67% of production. This is to be reduced by at least 17 percentage points to 50% by 2004 March. The Office recognizes that there has not been any improvement in this aspect of the Commission's operations and will be more vigilant with the NWC to ensure that this target will be achieved.
2. Water quality must show a minimum of at least 99% compliance with Interim Jamaican Standards as developed by the Ministry of Health.
3. Effluent from sewage treatment plants must have a 95% compliance with National Environment and Planning Agency (NEPA) standards.
4. At least 85% of customers must have functioning meters. Functioning meters is defined to include active and temporarily inactive accounts with working meters.
5. All disconnected (inactive) accounts should be revisited and action taken within ninety (90) days of accounts being disconnected and not reconnected.
6. At least 95% of blocked sewerage mains must be cleared within 24 hours.

7. NWC performance reports should be submitted within 45 days after the end of the relevant quarter.

Customer Service

1. A minimum of 97% of metered accounts is to be read in each billing cycle.
2. Reduce the number of billing related complaints to 5% of total bills printed by March 2003. Thereafter, this target should be maintained.
3. Guaranteed and overall standards report must be submitted on a quarterly basis. Reporting format should be similar to that for the Consumer Affairs Department (CAD) of the Office of Utilities Regulation. Reports should be submitted within 10 days after the end of the relevant quarter.

Financial

1. NWC shall complete an inventory of all its fixed assets inclusive of those in use but not currently on its books. Valuation of these assets should be completed by 2003 March.
2. The gross receivables at 2001 September were \$3.04B. The Office is not only concerned with the continued increase in this balance sheet item but also views it as very important aspect of the NWC's day-to-day operations which impacts on the cash available to the Commission. Consequently, the Office expects the NWC to reduce gross receivables to \$1.5B by 2003 March. Thereafter it will revise the target, after consultation, to a specific percentage of revenues.
3. As at 2001 September, employee costs was 42% of revenues. The Office is aware that extraordinary items, such as pension payments, has contributed to this high percentage. Notwithstanding this, the expectation in setting the previous target was for revenue growth and containment of employee costs. Consequently, the Office still expects the Commission to reduce employee costs as a proportion of revenues by at least twelve (12) percentage points over a two-year period. Employee costs should therefore be 30% of revenue by March 2004.
4. NWC shall maintain an average monthly collection rate of at least 90% of billing.

5. An acceptable level of energy costs as a proportion of total operating costs must be determined subsequent to negotiations between the Office and the NWC. Being as energy costs are high, unavoidable and is exogenous to the operations of the Commission, the OUR sees it as being more realistic to set a reasonable ratio that will measure the productivity of costs being incurred. That is, how much water can be generated per additional increment in energy costs.

Cost of Service Study

A comprehensive review of costs, by service type, systems, parishes and regions, shall be done by NWC. This must be completed for consideration at the next tariff review.

Customer Service Guaranteed Standards

In accordance with the stipulations in the previous Regulatory Framework (1999-2001), the NWC has since April 1, 2001, instituted a Citizen's Charter in which customers are guaranteed a certain level of service. Failing this, a compensatory payment is made to the customer(s) after a complaint is filed to the utility. The NWC is to implement a Guaranteed Standard Compensation Claim form by April 1, 2002.

The Office will monitor this system by mandating the Commission to file detailed quarterly reports. These reports should include, *inter alia*, the number of complaints on each standard it is accused of breaching, the turnaround time to investigate the complaints received, number of payments made, the time frame in which these payments were made, the number of standards breached and the potential liability for payments(see Appendix for detailed list of requirements). The report should be sent to the OUR by the 15th of the month following the end of each quarter (first report due by July 15, 2002).

It is proposed that automatic payments will be made starting January 2003.

Capital Works

In addition to providing good quality of service, the NWC has to improve its level of operational and productive efficiency. Making the most prudent capital expenditure decisions through acquiring the most effective and resourceful assets and undertaking the most beneficial programmes can achieve this. To enable the progress of the capital works proposed by the NWC to be monitored, it is required to provide the following information: -

- A. *An operating and capital budget must be submitted on an annual basis.*
- B. *Within 6 months of implementation of a new project*

1. Detailed project plans indicating: -
 - Specific projects to be implemented
 - Timing of activities
 - Timing of expenditures

C. Quarterly

1. Actual performance in relation to projections
2. Reasons for variance (if any)
3. Expenditure against physical progress

D. Collaborative Projects

A collaborative projects report shall be submitted to the Office on a quarterly and annual basis. This should include a complete list of all projects undertaken in the scheme, year to date expenditure and revenues, areas to be served by the projects, the number of beneficiaries and variance reports and expected completion time (for incomplete projects).

In addition, details of the Rapid Response program undertaken by the Ministry of Water and Housing (MOWH), outlining the customers/areas served and payments made to the programme, should be submitted on a quarterly and yearly basis.

Regulatory Fee

The OUR is funded by payment of licence fees from all the regulated utilities pursuant to the OUR Act, 1995 and as approved by the Cabinet. The NWC is therefore required to pay an amount to the OUR, which in the Office's opinion, is the best estimate of what it costs to regulate the sector.

APPENDICES

National Water Commission Information Requirements

1. FINANCIAL REPORTS

A. *Initially*

1. Five (5) Year Investment Program-Water and Sewage
2. Planned Financing of Investment Programme (NWC, GOJ, BOT etc.)
3. Copy of Financial Model

B. *Annually*

1. Operational Plan and Budget
2. Capital Budget
3. Capital Expenditure Budget detailing:
 - List of Projects
 - Estimated cost and time for completion
 - Expenditure to date
 - Sources of Financing
 - Areas to be served by these projects
 - Number of customers to be served
 - Incremental amount of water to be produced
 - Estimated amount of water to be saved through rehabilitation
 - Additional sewage treatment capacity
4. Details of Collaborative Fund. It should include:
 - How projects are transferred to the books of the NWC
 - Terms and conditions for transfer
 - Terms and conditions for usage of funds
 - Cost incurred on completed projects
 - Revenue generated from projects
 - Year to date expenditure on incomplete projects (with variance report)
 - Revenue projections from projects to be undertaken
 - Assets utilized in each project
5. Details of the Economic Development Wastewater Tariff (EDWT). The report should include:
 - The projected and actual revenues generated from the programme
 - List of beneficiaries (companies)
 - Criteria on which companies are evaluated
 - Projected impact existing and additional companies may have on the overall cash flow of the company
6. Details of Water Loss Management Programme
7. Details of Annual Maintenance Programme
8. Details of Water Quality Report and statistics by parishes, highlighting non-compliance with standards
9. Effluent Quality report highlighting areas of non-compliance. It should also include list of all treatment plants (owned/ operated by the NWC) on which testing is done. Any variances from the standard should be explained.

10. Accounting Information:
 - Audited Profit and Loss Account and Balance Sheet
 - Audited Cash flow Statement
 - Operating Expenses and Revenues by:
 - Regions
 - Parishes
 - Major Systems and Plants
11. Separation of expenses including electricity into the following Major Services:
 - Water Production and Treatment
 - Water Distribution and Supply
 - Sewage
 - Collection and Conveyance
 - Treatment
 - Sludge Treatment and Disposal
 - Customer Service
 - Administrative expenses
12. Revenue by Major Services
 - Water
 - Sewage
 - Service charge
 - Sludge
13. Price Adjustment Mechanism
 - Value of indices used and level of PAM

C. *Quarterly (With Monthly breakout)*

14. Details of Maintenance Programme
 - Performance reports
15. Details of Water Loss Management Programme
 - Performance reports
16. Water Quality Reports and Statistics by parishes, highlighting non-compliance with standards
17. Accounting Information:
 - Profit and Loss Account and Balance Sheet
 - Cash flow Statement
 - Operating Expenses and Revenues by:
 - Regions
 - Parishes
 - Major Systems and Plants
18. Separation of expenses in above statements into the following Major Services:
 - Water Production and Treatment
 - Water Distribution and Supply

- Sewage
 - Collection and Conveyance
 - Treatment
 - Sludge Treatment and Disposal
 - Customer Service
 - Administrative expenses
19. Revenue by Major Services
- Water
 - Sewage
 - Service charge
 - Sludge
20. Detailed Report of the Economic Development Wastewater Tariff (EDWT).
The reports should include:
- The revenues generated from this programme
 - List of beneficiaries (companies)
 - Criteria on which companies are evaluated
 - Projected impact additional companies in this programme have the overall cash flow of the company
21. Price Adjustment Mechanism
- Value of indices used and level of PAM

D. Other

1. Planned Programme of Asset Revaluation
2. List and Value of Assets used by NWC and funded by Government that are not recorded in NWC's books.
3. Estimated value and types of assets handed over by developers and not recorded in NWC's books
4. Details of the collaborative fund including the assets, the detailed lists of projects, funds used and how beneficial the projects are or will be.
5. Details on Rapid Response Programme. It should include:
 - Areas/customers served
 - Payments made to the programme
 - Sources from which water is extracted
6. Impact of subsidized charges (Primary Schools, Government, Standpipes etc.)
7. Evaluation of the impact of 'social water' defined as
 - Red areas
 - Standpipes
 - Fire hydrants
 - Trucking to non-NWC customers

2. OPERATIONS AND CUSTOMER SERVICE (Statistical information)

OPERATIONS

A. Quarterly

Water

1. Monthly production of water by Region, Parish and Major Systems indicating actual and estimated readings
2. Volume of water purchased by Region, Parish
3. Monthly consumption of water by rate categories per regions and parishes
4. Number of accounts by rate category per parish
5. Number of metered accounts by rate category per parish
6. Unaccounted for water by parish and Major systems
7. Estimated breakdown of Unaccounted for water by Parish as: -
 - Leaks
 - System use
 - Under estimation of consumption
 - Under registration of meters
 - Unauthorized connections
 - Un-registered supplies
8. Number of new connections by Parish
9. Number of disconnections by Parish
10. Average time to reconnect after payment by Parish (included in Guaranteed standards reporting)
11. Number of reconnections by Parish
12. Number of leakages reported and the average time it takes to be fixed
13. Unplanned lock-offs in production, transmission and distribution by parish (included in guaranteed standard reporting):
 - Number
 - Reason for lock-off
 - Customer-hours lost
13. Planned lock-offs in production, transmission and distribution by parish caused by drought, flood etc.: -
 - Number
 - Hours lost
 - Customer-hours lost
14. Planned lock-offs in production, transmission and distribution by parish caused by maintenance works: -
 - Number
 - Hours lost
 - Customer-hours lost
15. List of communities and number of accounts served by NWC, without water for last month, 3 months, 6 months, year.

16. Number and types of faults reported by Parish
17. Number of faults cleared within 24, 48, 72 hours by Parish
18. Number of employees by Region, Corporate by category
 - Production and treatment of water
 - Transmission and distribution
 - Sewerage
 - Customer service
 - Administration
19. Total number of new service applications
20. Total number of service appointments made (included in guaranteed standards reporting)
21. Bill summary report: -
 - Number of bills
 - Active accounts
 - Inactive accounts (temporarily and permanent)
 - Number of accounts inactive over the last 90 days and actions taken on these accounts.

Sewerage

22. Water consumption of seweraged accounts by rate category by bands (as per rate schedule)
23. Number of new sewage connections by parish
24. Number of sewage disconnections by parish
25. Faults reported in: -
 - Collection and conveyance
 - Treatment
26. Average time taken to clear faults
27. Comparison with PAHO standards for effluent by plant
28. Throughput/capacity ratio by plant
29. Sewerage plants in/out of service and length of time out
30. Effluent quality report highlighting areas of non-compliance. It should also include list of all treatment plants (owned/ operated by the NWC) on which testing is done. Any variances from the standard should be explained.

B. Annually

30. Production Capacity of water plants
 - Plant type (wells, treatment plants etc.)
 - Installed capacity
 - Actual capacity
 - Availability
 - Water produced
31. Treatment capacity of sewerage plants
 - Plant type (ponds, package etc.)
 - Installed capacity

- Average throughput
- Availability

CUSTOMER SERVICE

A. Annually

1. Customer satisfaction survey
2. Number of billing related complaints for the last three financial years

B. Quarterly

1. Number of bills produced
2. Number of bills not delivered within 5 days after production
3. Number of billing related complaints received
4. Number of meters to be read per month.
5. Number of meters read per month.

3 a. OVERALL STANDARDS REPORTS (quarterly and yearly)

- WOS3 a) Number and percentage of planned interruptions, of duration not more than 4 hours, where at least 12 hours notification was not given.
b) Number and percentage of planned interruptions, of duration more than 4 hours, where at least 24 hours notification was not given.
- WOS4 a) Number of reported flooding from sewers
b) Percentage of reported flooding not corrected within 24 hours after being informed
- WOS6 a) Number of meters changed
b) Percentage of customers not informed of the changes to the meter

b. GUARANTEED STANDARDS REPORTS (quarterly and yearly)

- WGS1 a) Number of new services connected
b) Percentage of new services not connected within 10 business days
c) Reasons for not connecting new services within 10 business days
- WGS2 a) Number of bills dispatched
b) Percentage of bills not dispatched within 48 business days after connection
- WGS3 a) Number of appointments
b) Percentage of appointments not kept accompanied by explanations
- WGS4 a) Number of complaints (not billing related) by category by parish
b) Percentage of written complaints (not billing related) by category, not acknowledged within 5 business days of receipt.
c) Percentage of complaints by category not investigated and responded to within 30 business days of receipt.
- WGS5 a) Percentage of written billing complaints not acknowledged within 5 business days of receipt.
b) Percentage of billing complaints not investigated and responded to within 30 business days of receipt.
- WGS6 a) Number of requested disconnections (account status)
b) Number of requested disconnections in which a minimum of 5-business days notice was given
c) Number of meters not read on requested date of disconnection although a minimum of 5-business days notice was given.
d) Percentage of bills not dispatched within 48 hours of disconnection
- WGS7 a) Number of unplanned lock-offs

- b) Percentage of unplanned lock-offs not restored within 24 hours in urban areas
- c) Percentage of unplanned lock-offs not restored within 48 hours in rural areas
- WGS8 a) Number of requests for meters
- b) Percentage of meters not installed within 30 business days of request
- WGS9 a) Number of faulty meters reported
- b) Percentage of meters not repaired within 40 business days of being informed, after verification
- WGS10 a) Number of meters not read within 3 months
- b) Number of accounts not billed within 3 months
- WGS11 a) Number of payments for reconnection
- b) Percentage of disconnected accounts (for non-payment) not reconnected within 24 hours after payment in urban areas
- c) Percentage of disconnected accounts (for non-payment) not reconnected within 48 hours after payment in rural areas
- WGS12 a) Number of complaints received on breach of each of the guaranteed standards (WGS1 to WGS11)
- b) Number of standards breached
- c) Number of payments made
- d) Number of payments made within 60 working days when it becomes due

Complaint Categories

1. Billing matters
 - Estimated billing
 - Payment not credited
 - High consumption
 - Billing adjustment (unexplained)
 - Unable to understand bill
2. Bill not received (verified against frank stamp date)
3. Disconnection (wrongful, etc)
4. Re-connection (awaiting, etc)
5. Irregular supply (inconsistent supply)
6. Metering (Defective, absence of, etc)
7. Unscheduled interruption of service (period of extended lock-off)
8. Health and safety
9. Service connection
10. Unavailability of service (service required but not available to applicant)
11. Compensation payment not received (pending discussions - OUR/NWC)
12. Equipment damage
13. Property damage
14. Low or high pressure
15. Blocked sewers
16. Leakages

4. OTHER

1. Capital Works

A. *Within 3 months of implementation of new tariff*

1. Detailed project plans indicating: -
 - Specific projects to be implemented
 - Timing of activities
 - Timing of expenditures

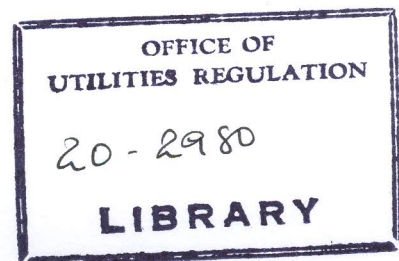
B. *Quarterly*

1. Actual performance in relation to projections
2. Reasons for variance (if any)
3. Expenditure against physical progress

II. Procurement

The OUR requires that funds are utilized in the most efficient manner and encourages the NWC to utilize prudent utility practices in its operations. In this regard therefore, the NWC must demonstrate that, in all instances, goods and services are procured efficiently and in keeping with the standard procedures for competitive bidding. The NWC will therefore have to submit reports of its procurement process for each project, indicating: -

1. Number of invitations issued
2. Number of bids received
3. Bid prices
4. Contract award value (with appropriate explanations)



5. RATE APPLICATION

Minimum Filing Requirements

1. Business Plan indicating
 - Objectives to be achieved in next five years
 - Policy framework
 - Strategies
 - Planned financing
2. Audited Financial Statements
3. Current year budget
4. Year to date Income & Expenditure, Cash Flow and Balance sheet
5. Revenue and Cost separation into the following major services
 - Water production and treatment
 - Water distribution and supply
 - Sewage treatment
 - Customer service
7. Details of all loans and applicable rates of interest and amortization schedules
8. All foreign exchange denominated loans should be identified
9. Five year Investment programme detailing: -
 - List of projects
 - Estimated cost and time for completion
 - Expenditure to date
 - Sources of financing and terms
 - Areas to be served
 - Number of additional customers to be served
 - Incremental amount of water to be produced
 - Estimated cost savings
 - Additional sewage treatment capacity
10. Maintenance programme
11. Water loss management programme
12. Effect of above programmes on unaccounted for water
13. Movement of fixed assets due to revaluation
14. List and value of assets used by NWC, which are not recorded in books
15. Impact of social water
16. At least six months data on the following
 - Monthly production of water by Region, parish and major systems indicating actual and estimated readings
 - Volume of water purchased by Region, Parish
 - Monthly consumption of water by rate categories in bands
 - Number of accounts by rate category per parish
 - Number of metered accounts by rate category per parish
 - Unaccounted for water by parish and Major systems
 - Estimated breakdown of Unaccounted for water by Parish as: -
 - Leaks

18. Number of employees by Region, Corporate by category

- Production and treatment of water
- Transmission and distribution
- Sewerage
- Customer service
- Administration

19. Elasticities

- Price
- Income

Sewerage

1. Water consumption of seweraged accounts by rate category by bands
2. Number of sewage connections by parish

AMENDMENTS TO THE REGULATORY FRAMEWORK

There is no amendment at this time. However, if changes in the existing rate structure occurs, then applicable amendments will be stated.