Office of Utilities Regulation

National Water Commission

Regulatory Framework

2004-2006



July 8, 2004

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DOCUMENT TITLE: National Water Commission Regulatory Framework 2004-2006				
1. PURPOSE OF DOCUMENT Outlines performance benchmarks and targets as well as reporting requirements to be achieved by the National Water Commission during the period April 2004 – March 2006				
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July 8, 2004 Date				

NATIONAL WATER COMMISSION REGULATORY FRAMEWORK

(2004 - 2006)

Introduction - Legal Authority

Pursuant to Section 4(1) (a) of the OUR Act, the Office has the responsibility to regulate the provision of prescribed utility services. Various media can be used to fulfil this stipulation of the Act and it is within the purview of the Office, subject to consultation with the affected utility service provider, to determine the most appropriate means of effective regulation. The Office has determined that the regulatory framework, established at the 1999 rate review, is the most appropriate means of continuously regulating the operations of the NWC at the present time and for the foreseeable future.

The Office also has a mandate to ensure that, *inter alia*, the needs of consumers of the services are met and also that the utility service provider operates in an efficient manner. As such, the Office has incorporated into the regulatory framework, various performance targets, that will further the objective of continuous improvements in the operational efficiency of the NWC designed to secure for consumers an economical and reliable service. Additionally, to be consistent with section 10 (1) of the OUR Act, the Office has also determined that in addition to the performance targets, specific requirements for information will be necessary to provide the basis to continuously assess the operations of the NWC.

Regulatory Framework

In response to an application for a tariff review submitted by the National Water Commission (NWC), the Office issued a rate determination dated December 22nd 2003, which, in addition to approving new rates, sets out specific performance targets to be achieved by the NWC over the period ending December 31st 2006.

In accordance with such decisions, the Office of Utilities Regulation (the Office) has now developed a regulatory framework as the basis for regulating the National Water Commission (NWC) and monitoring its performance. The essence of this framework is similar to that of 1999 with the exception that the targets, as well as the reporting requirements, have been revised, to correspond with the rate determination. The Office has determined that the regulatory framework will remain in effect for two (2) years (April 2004 – March 2006.

This document is organized into two parts. The first part consists of performance targets, both financial and operational, to be achieved over the two-year period (April 2004 – March 2006). These targets form part of the decisions set out in the

Determination Notice December 22, 2003. The second part sets out the reporting requirements imposed on the NWC. These reporting requirements are issued in accordance with Section 10 of the OUR Act (as amended 2000).

PART I - PERFORMANCE TARGETS AND BENCHMARKS

In an effort to secure continued improvements in the NWC's efficiency and overall performance, the following performance targets have been established by the Office over the period April 2004 – March 2006.

FINANCIAL

1. Receivables

The Office is of the view that the level of receivables is excessive. As at year end March 2003, it was recorded at \$3,654.58M¹. The Office is of the view that the high level of receivables places pressure on cash resources of the NWC. As such net receivables shall be at most 25% of revenues at March 31, 2006.

2. Employee costs

As at March 2003, employee cost as a percentage of total revenues was 46%. Present restructuring within the NWC should improve this percentage over time. Consequently, employee costs shall be at most 35% of revenues within two years, that is, by March 2006.

3. Asset valuation

The NWC should bring assets used in the regulatory asset base by the OUR, to books within one year (March 2005).

Additionally, an indexation mechanism must be developed to update asset values annually in the intervening years. This indexation mechanism must be agreed with the auditors and applied at the 2004/05 audit.

4. Billing and Collection

The Office has set the collection rate at 92% of billed revenues. Simultaneously, the bad debt provision shall be reduced to 8% of billed revenues.

¹ Net receivables are \$1297.5M. National Water Commission Regulatory Framework 2004-2006 Document No: WAT 2004/02 Office of Utilities Regulation

OPERATIONAL

1. Unaccounted for Water (UFW)

The average UFW at March 2003 was 57%. The western and northern regions have the highest UFW, recorded in the 60 percentile. The Office expects that UFW will be reduced to below 40% over a 10-year period. This will require more aggressive UFW reduction programmes in the northern and western regions, compared to the metro and southern regions. As there are some reservations as to the accuracy of the reported UFW the Office will reserve its position on the priority areas for reduction of UFW until there is confidence in the data provided.

The Office, however, expects that UFW will be reduced to 55% by end of fiscal year 2004/05 and thereafter by at least two (2) percentage points per year.

2. Inactive Accounts

All disconnected (inactive) accounts that have not been legitimately reconnected should be revisited within 90 days of being disconnected and action taken to ensure that these customers are not illegally reconnected.

3. Functioning Meters

As at March 2003, 71% of accounts had functioning meters. The NWC should have at least 85% of accounts with functioning meters on an ongoing basis. These would include customers that are on record with active and temporarily inactive accounts.

4. Water Quality

The Ministry of Health (MOH) through the Interim Jamaica (IJAM) standards defines water quality standards. The NWC should achieve at least 99% compliance with the IJAM standards.

5. Wastewater Quality

The Office expects that the NWC will be in dialogue with National Environment and Planning Agency (NEPA) in relation to reaching agreement on the timeframe to bring its non-compliant plants into compliance. As this agreement may have consequential implications for capital expenditure and therefore an impact on tariffs, the Office would wish to be a party to any memorandum of understanding agreed to by the parties. The Office would expect these agreements to be concluded by the end of September 2004.

Other functional plants should be 100% compliant with NEPA standards.

CUSTOMER SERVICE

1. Billing Related Complaints

Billing complaints should be no more than 5% of total bills printed.

2. Meter Reading

Meters should be read at least every other month and 97% of meters should be read in each billing cycle.

PART II - REPORTING AND MONITORING

Introduction

Pursuant to Section 4 (1) (a) of the OUR (Amendment) Act, 2000, the Office shall "... regulate the provision of prescribed utility services by licensees or specified organizations". In order to effectively carry out this function, the Act empowers the Office to "... conduct such research as it thinks necessary or desirable for the purposes of the performance of its functions" In addition, the Office shall undertake such measures² to enquire into the nature and extent of the prescribed utility services provided by a licensee or specified organization³.

General Reporting and Compliance

As part of the general monitoring of the Commission's performance and in accordance with Section 10 of the OUR (Amendment) Act, 2000, the Office requires the NWC 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 (reports are summary of NWC's performance against the standards)
- 4. Reports relating to performance on Capital projects
- 5. Until completed, summary reports on status of restructuring programme

The Office expects full compliance with the reporting requirements and has decided that it will use all its powers under the Act to secure such compliance. Reports are to be submitted within 45 days of the end of the relevant period.

Accounting Separation

Additionally, pursuant to section 4(5)(e) the Office requires that the NWC develop the necessary procedures to allow for separation of accounts into its major business areas, so as to enable an appropriate determination of various charges for services provided by the Commission at the next tariff review. The Office expects that the NWC will develop a plan outlining the expected time involved in developing these systems of regulatory accounts. A copy of this time plan should be submitted to the Office within three (3) months, that is, October 2004. Accounting separation should be achieved within 2 years (December 2006).

² Prescribing specific information and documents it considers necessary.

³ See sections 4 (1)(c), 4 (2) (e) and 10 of the OUR (Amendment) Act, 2000.

PAM reporting

The NWC shall submit to the OUR monthly reporting on PAM indices and values, including details of the calculation and the resultant value of the PAM. The OUR will do an ex post review to verify the accuracy of the calculations. If the resultant value as calculated by the OUR differs from that of the NWC, appropriate corrections should be made on all affected customer bills in the next billing cycle.

Rate application

The minimum filing requirements for a rate application are also specified.

1. FINANCIAL REPORTS

A. Initially and revised each year

- 1. Five (5) Year Investment Program Water and Sewerage
- 2. Planned Financing of Investment Programme (NWC, GOJ, BOT, Bilateral, etc.)

B. Annually

- 1. Operational Plan and Budget
- 2. Capital Budget
- 3. Capital Expenditure Budget detailing:
 - List of Projects
 - Estimated cost and time for completion for each project
 - Expenditure to date
 - Sources of Financing
 - Areas to be served
 - Number of customers to be served
 - Incremental amount of water to be produced by the projects
 - Estimated amount of water to be saved through rehabilitation
 - Additional sewage treatment capacity of the project
- 4. Details of any other capital expenditure on social and/or non-economic projects. Details should include:
 - List of all projects undertaken in scheme
 - How projects are transferred to the books of the NWC
 - Terms and conditions for transfer
 - Terms and conditions for usage of funds
 - Total expenditure on completed projects
 - Annual revenue generated from completed projects
 - Year to date expenditure on incomplete projects (with variance report) and expected completion time
 - Year to date revenues
 - Annual revenue projections from projects to be undertaken
 - Assets utilized in each project
 - Areas to be served
 - Number of beneficiaries
- 5. Details of special contracts⁴. The report should include:
 - The projected and actual revenues generated from these contracts
 - List of beneficiaries
- 6. Rapid response programme:
- customers/areas served

⁴ Per section 14 OUR (Amendment) Act, 2000. National Water Commission Regulatory Framework 2004-2006 Document No: WAT 2004/02 Office of Utilities Regulation

- payments made to the programme by the NWC
- 7. Details of Water Loss Management Programme (including projects and expected targets)
- 8. Conduct study on the estimation procedure used to determine contribution to unaccounted for water (UFW) by the following categories by parish:
 - Leaks
 - Systems use
 - Under estimation of consumption
 - Under registration of meters
 - Unauthorized connections
- 9. Details of Annual Maintenance Schedule on major water and sewerage systems and infrastructure. Maintenance schedules should be prepared on a rolling three year basis.
- 10. Sewerage 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 not done and the reasons for inattention⁵.
- 11. Memorandum of Understanding (MOU) between NWC and NEPA⁶. Status report on all sewage facilities that form part of agreement.

12. 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
- 13. Separation of expenses including electricity by water and sewerage services.
- (a) Water expenses should be into the following Major Services:
 - Water Production and Treatment
 - Water Distribution and Supply
 - Customer Service
 - Administrative expenses
- (b) Sewage expenses should be by the following major services
 - Collection and Conveyance
 - Treatment
 - Sludge Handling Disposal
 - Customer Service
 - Administrative expenses
- 14. Revenue by Major Services
 - Water

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⁵ This reporting requirement becomes effective after conclusion of negotiations between NWC and NEPA and plants become functional.

⁶ This is required for the first year only. National Water Commission Regulatory Framework 2004-2006 Document No: WAT 2004/02

- Sewerage
- Service charge
- Sludge
- Other

C. Quarterly (With Monthly breakout)

- 1. Maintenance Schedule Performance reports
- 2. Water Loss Management Programme Performance reports
- 3. Accounting Information:
 - Profit and Loss Account and Balance Sheet
 - Cash flow Statement
 - Operating Expenses and Revenues by:
 - Regions
 - Parishes
 - Major Systems and Plants
- 4. Separation of expenses by water and sewerage services.
- (a) Water expenses should be into the following Major Services:
 - Water Production and Treatment
 - Water Distribution and Supply
 - Customer Service
 - Administrative expenses
- (b) Sewage expenses should be by the following major services
 - Collection and Conveyance
 - Treatment
 - Sludge Treatment and Disposal
 - Customer Service
 - Administrative expenses
- 7. Separation of expenses in the 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
- 8. Revenue by Major Services
 - Water
 - Sewerage
 - Service charge
 - Sludge

9. Price Adjustment Mechanism

Calculation and value of indices used and level of PAM by month

D. Other – Initial and revised annually

1. Procedural plan for acquisition by the NWC of future assets from private developers and other government agencies

E. Other –Annually

- 1. Indexation mechanism determined to be applied to assets on NWC's books (Initially).
- 2. Updated list of assets that have been revalued due to indexation mechanism
- List and Value of Assets used in providing water and sewerage services by NWC and funded by Government that are not recorded in NWC's books
- 4. Estimated value and types of assets handed over by developers and not recorded in NWC's books and any reasons for not recording assets.
- 5. Impact of subsidized charges to Government, Standpipes, etc. on revenue
- 6. Evaluation of the impact on revenues of 'social water' defined as
 - Red areas
 - Standpipes
 - Catchment tanks
 - Fire hydrants
 - Trucking to non-NWC customers

2. **OPERATIONS** (Statistical information)

A. Annually

Water

- 1. Production Capacity of water plants
 - Plant type (wells, treatment plants etc.)
 - Designed capacity
 - Actual capacity
 - Water produced

Sewerage

- 2. Treatment capacity of sewerage plants
 - Plant type (ponds, package etc.)
 - Designed capacity
 - Average throughput

B. Quarterly

<u>Water</u>

- 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 and bands per region and parish
- 4. Number of accounts by rate category and bands per parish
- 5. Number of metered accounts by rate category and band 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
- 8. Total number of new service applications received by parish
- 9. Number of new connections by Parish
- 10. Number of disconnections by Parish
- 11. Number of reconnections by Parish
- 12. Average time to reconnect after payment by Parish
- 13. Number of leakages reported and the time to complete repairs (within 24, 48, 72, and over 72 hours) by month by parish

- 14. Unplanned lock-offs in production, transmission and distribution by parish
 - Number
 - Reasons for lock-off
 - Customer-hours lost
- 15. Planned lock-offs in production, transmission and distribution by parish caused by drought, flood, etc⁷: -
 - Number
 - Hours lost
 - Customer-hours lost
- 16. Planned lock-offs in production, transmission and distribution by parish caused by maintenance works: -
 - Number
 - Hours lost
 - Customer-hours lost
- 17. List of communities and number of accounts without water for previous month, 3 months, 6 months, year and reason for disruption of service
- 18. Number and types of faults⁸ in the production and distribution system by
- 19. Number of faults cleared within 24, 48, 72 hours by Parish
- 20. Number of employees by Region, Corporate by category
 - Production and treatment of water
 - Transmission and distribution
 - Sewerage
 - Customer service
 - Administration
- 21.Bill summary report: by month -
 - Number of bills
 - Active accounts
 - Inactive accounts (temporarily and permanent)
 - Inactive accounts (aged by month) over the last 90 days and actions taken on these accounts.

Sewerage

- 22. Monthly water consumption of seweraged accounts by rate category by bands (as per rate schedule)
- 23. Number of new connection to sewage treatment system by parish
- 24. Number of sewerage accounts disconnected from system by parish
- 25. Faults that resulted in the discharge of untreated sewage reported in: -
 - Collection and conveyance
 - Treatment

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Other "Acts of God".

⁸ Faults can be defined as leaks, service disruption due to malfunctioning of plant, etc.

- 26. Number of faults reported, number of reported faults not cleared and average time taken to clear faults
- 27. Comparison of effluent quality with NEPA standards for effluent by plant
- 28. Average 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. Any variances from the standard should be explained. It should also include list of all treatment plants (owned/ operated by the NWC) on which testing is not done and the reasons for inattention.

3. CUSTOMER SERVICE (Statistical information)

A. Annually

1. Number of billing related complaints for the last three financial years

B. Quarterly

- 1. Number of bills produced
- 2. Number of bills not dispatched within 5 days after production
- 3. Number of billing related complaints received
- 4. Number of meters to be read (with monthly breakout)
- 5. Number of meters read (with monthly breakout)
- 6. Number of customer at beginning of period
- 7. Number of customers added during period
- 8. Number of customers at end of period

4. Quality of Service Standard Reports

A. Overall Standards Reports (Annually and quarterly with monthly breakout)

- WOS1 Reports on water quality testing at both source and distribution points by parish and region
- WOS2 Reports on number of customer complaints received in relation to the standard. Routine reports on areas affected by drought conditions.
- WOS3 Reports on planned lock-offs. Reports should include water supply system and location, areas affected, reason for interruption, notification time before interruption, period of interruption.
- WOS4 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
- WOS5 a) Number of blockage (overflowing) at sewers main.
 - b) Percentage of reported overflowing not corrected within 24 hours after being informed
 - c) In relation to customer reporting, number of customer complaints received.
- WOS7 a) Number of meters changed
 - b) Number of complaints received on customers not informed of the changes to the meter.

B. Guaranteed standards reports (annually and quarterly)

- 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 to new service
 - b) Percentage of bills not dispatched within 48 business days after connection
- WGS3 a) Number of appointments made
 - b) Number of customers not notified if appointment not kept
 - c) Number of customers not notified in writing within 5 days if none of the other specified notifications methods were possible.
 - d) Reasons for breach

- 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 customer gave a minimum of 5-business days notice
 - c) Number of meters not read on requested date of disconnection although customer gave a minimum of 5-business days notice
 - d) Percentage of bills not dispatched within 15 working days of disconnection
- WGS7 a) Number of requests for meters
 - b) Percentage of meters not installed within 30 business days of request
- WGS8 a) Number of suspected faulty meters reported
 - b) Percentage of meters not repaired within 40 business days of being informed after verification that meter is faulty
- WGS9 a) Number of meters not read within 2 months of the last actual reading
 - b) Number of accounts not billed within 2 months of last billing
- WGS10 a) Number of reconnection payments
 - 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
 - d) Average time to reconnect after payment
- WGS11 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 of claim being made

OUR Complaint Categories

- 1. Billing matters
 - Estimated billing
 - Payment not credited
 - High consumption
 - Billing adjustment (unexplained)

- Unable to understand bill
- Bill not received (verified against frank stamp date)
- 2. Disconnection (wrongful, etc)
- 3. Re-connection (awaiting, etc)
- 4. Irregular supply (inconsistent supply)
- 5. Metering (Defective, absence of, etc)
- 6. Unscheduled interruption of service (period of extended lock-off)
- 7. Poor customer service
- 8. Health and safety
- 9. Service connection
- 10. Unavailability of service (service required but not available to applicant)
- 11. Compensation payment not received
- 12. Low or high pressure
- 13. Blocked sewers
- 14. Leaks
- 15. Equipment damage
- 16. Property damage

5. RATE APPLICATION

Minimum Filing Requirements

- 1. Business Plan indicating
 - Objectives to be achieved in next five years
 - Policy framework
 - Strategies
 - Planned financing
- 2. Financial Model
- 3. Audited Financial Statements
- 4. Current year budget
- (b) All unaudited financial statements since the last audited accounts including year to date Income & Expenditure, Cash Flow and Balance sheet
- (c) Revenue and Cost separation into the following major services
 - Water production and treatment
 - Water distribution and supply
 - Sewage treatment
 - Customer service
- 5. Details of all loans and applicable rates of interest and amortization schedules. All foreign exchange denominated loans should be identified
- Five year Investment programme detailing: -
 - List of projects
 - Estimated cost and time for completion of each project
 - Expenditure to date
 - Sources and terms of financing
 - 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
- 7. Maintenance programme
- 8. Water loss management programme
- 9. Effect of above programmes on unaccounted for water
- 10. Movement of fixed assets due to revaluation
- 11. List and value of assets used by NWC, which are not recorded in books
- 12. Impact of social water on revenues
- 13. At least one year of historic 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
 - System use
 - Under estimation of consumption
 - Under registration of meters
 - Unauthorized connections
- 14. Number of new connections by Parish
- 15. Number of employees by Corporate and Region by category:
 - Production and treatment of water
 - Transmission and distribution
 - Sewerage
 - Customer service
 - Administration
- 16. Billed water consumption projection by category by band
- 17. Elasticities
 - Price
 - Income

<u>Sewerage</u>

- 1. Minimum of one year's historical billed water consumption of seweraged accounts by rate category by bands
- 2. Billed water consumption projection of sewerage accounts by category by band
- 3. Number of sewerage connections to treatment plant by parish

AMENDMENTS TO THE REGULATORY FRAMEWORK

The specified framework is for a period of 2 years, no amendments are anticipated, however, if any unforeseen circumstances should arise, which requires a revision of any of the benchmarks; the appropriate medium will be used at that time, to address such changes. The NWC may propose amendments to form the basis of the regulatory framework for the ensuing period.

Note that the reporting requirements are ongoing and amendments and waivers have to be approved by the Office.

Appendix: Summary of Performance Benchmark and Targets

Category	Targets	Achieved by
Net Receivables	At most 25% of revenues	March 2006
Bad debts	8% of revenue billed	March 2006
Employee cost	35% of revenues	March 2006
Asset Valuation	(1) Assets included in regulatory asset base brought to books	March 2005
	(2) Indexation mechanism to be developed and applied to assets	March 2005
Billing and collection	Collection rate should be 92% of billed revenues	March 2006
Unaccounted for water	Reduced by 2% per year	53% by March 2006
Inactive Accounts	Revisit disconnected accounts within 90 days of being disconnected and action taken to ensure that these accounts are not illegally reconnected	Ongoing
Functioning meters	At least 85% of accounts with functioning meters	March 2005
Water Quality	At least 99% compliance with IJAM standards	Ongoing
Wastewater quality	Establish MOU with NEPA to bring non-compliant treatment plants into compliance	September 2004
	Disaffected plants should be fully compliant with NEPA standards	Ongoing
Billing related complaints	Should be at most 5% of bills printed	Ongoing
Meter Reading	Meters to be read at least every other month and 97% of meters be read in each billing cycle	Ongoing