

Difficulty in Regulating State Owned Utilities: The Case of the National Water Commission

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Abstract

As prescribed by the Office of Utilities Regulation Act, the OUR is the designated economic regulator of the water sector in Jamaica. However, there are various other legislations that govern the regulation of the sector and which sometimes overlap with the responsibilities of the OUR. This duplication of responsibilities, the close ties between the operations of the state owned water company and the government as well as the lack of response to performance incentives and penalties by the managers contributes to the inefficient performance of service providers.

The paper identifies the main difficulties the OUR has experienced in regulating the National Water Commission (NWC) and examines how the performance of the company can be improved overtime.

The paper concludes that there will always be inherent difficulty in regulating state owned utilities. Distancing the relationship between the government and the company's operations, increased micro-management in setting targets, leveraging the power of lenders in setting performance and reporting targets, publicizing efficiency trends, extracting actions and commitment at tariff reviews and self-financing can improve the performance of the main service provider overtime.

Introduction

The water industry is highly capital intensive and requires huge amounts of capital investment in infrastructure to adequately provide the service to a large proportion of persons. Because of the capital-intensive nature of the industry, there are economic benefits, in terms of economies of scale² and scope to be enjoyed from providing additional units of service or different services.³ Given the lumpy investment that is required to provide the service, it is normally uneconomical for other competitors to replicate the existing infrastructure and compete effectively, as such companies that provide water services in small developing nations are characterized as natural monopolies.

¹ Views expressed are strictly that of the author and in no way represents the view of the OUR.

² Economies of scale and scope occur when the cost of producing an additional unit of particular good/service decreases as the output increase and cost of producing an additional service decreases respectively.

³ This is also evident in other utilities such as telecommunications, electricity and gas.

Whilst other utilities, based on their characteristics, have been and are being privatized, the water sector, because of its social nature and the large and most times uneconomic investment required, remains primarily state (municipal) controlled utilities. The experience in the Jamaican water sector is no different. Since the 1980s successive Jamaican governments have taken steps to expand the role of the private sector in the ownership and operation of the key utilities, namely light and power, airline and airport operations, telecommunications, and road transport.⁴ However, the government, from all intents, plans to remain in control of the natural resources and existing water infrastructure in the water sector even while encouraging private sector participation.

The National Water Commission (NWC) is the designated provider of potable water services in Jamaica. It was established by statute in 1980 with the passage of the NWC Act (the "Act") after the amalgamation of the National Water Authority (NWA), which provided water to the rural areas, and the Kingston and St. Andrew Water Commission that provided water services to the parishes of Kingston and St. Andrew. According to the 2001 Jamaica Survey of Living Conditions (JSLC) the NWC provides potable water to approximately 84%⁵ of the population.

In addition to the NWC, there are three other small privately owned water service providers that supply water to 273 residential and commercial customers in the parish of St. Ann.⁶

The NWC also provides sewerage services to a smaller proportion of the population.⁷ The other sewerage services are provided by housing developers as well as by private households (through on-site sewage disposal).

Prior to the establishment of the OUR, regulation of the NWC resided with the Minister with portfolio responsibilities for the water sector. Because of the likely negative repercussions of increases in water tariffs, the Ministry often rejected applications from the NWC to increase water tariffs or delayed in implementing the increases. In fact over the last two decades, there have been six (6) increases in water tariffs. In 1980 the NWC received its first increase. After 6 years, there was an 86% increase to compensate the NWC for escalation in its operation costs. The next increase was granted in 1990, to mitigate some of the costs resulting from increases in inflation. Although there was escalating inflation in the Jamaican economy in the early nineties, the Ministry was still reluctant to index the NWC rates to inflation to insulate the Commission from the rapid movement in costs. It was not until 1993 that an official index (the Price

⁴ In 2001 the Government of Jamaica sold its shares in the monopoly light and power company (JPSCo.) to Mirant Corp a subsidiary of Houston Electric of the US.

⁵ See JSLC 2001

⁶ The total population in St. Ann is estimated at 166,762. Private service providers' supply 0.1% of the parish's population.

⁷ Majority of the NWC sewerage services is concentrated in Kingston and St. Andrew and St. Catherine.

Adjustment Mechanism – PAM)⁸ was established to preserve the real value of NWC's revenues. During the years in which no increase was received, the NWC's was unable to rehabilitate its existing systems or provide service expansions. Consequently, the systems became dilapidated resulting in high inefficiencies and water losses (unaccounted for water).

The passage of the OUR Act in 1995 and subsequent amendments (2000) provides for independent regulation of the NWC. The OUR approved a rate increase in 1999, and the revenues were linked to movements in inflation, electricity charges and foreign exchange. With the setting of more realistic tariffs, the preservation of the real value of NWC's revenues and the provision of an independent funding mechanism for a meter and pump replacement programme⁹, the OUR had expected that after a few years, it could officially implement an incentive based tariff regime to force the NWC to operate more efficiently. However, the performance of the NWC did not significantly improved overtime. This could be attributed to several reasons.

- The years of neglect of the NWC's systems and its inability to adequately finance its rehabilitations have created a perennial problem of high operational costs.
- Attempts¹⁰ by the OUR to implement incentive mechanisms to induce better performance has also met with little success.
- The Commission's management does not readily respond to incentive mechanisms.
- Developing incentive based pricing regulation will not be feasible because there are no shareholders to vote out the board of commissioners for lack of performance. Implementing a rate of return regime will not incentivise the NWC.

Currently there are a number of problems plaguing the NWC. These include: operational inefficiencies, the huge (lumpy) investment in infrastructure to provide the service, and huge maintenance costs. However, there are expressed desires by the government, as reflected in the Water Sector Policy of November 2000, to restructure the operations of the NWC by modernizing the regulatory framework in order to facilitate increased private sector participation in the sector and reduce the financial burden imposed by the Commission on the consolidated fund.

The paper identifies the main difficulties experience by the OUR in regulating the National Water Commission (NWC) and examines how the performance of the Commission can be improved overtime.

⁸ This is a weighted index of inflation, electricity and foreign exchange movements, which is applied to water and sewage charges.

⁹ This was known as the K factor programme and was funded by a K factor of an additional 4% of water and sewerage charges. This programme lasted for a two-year period (February 1999-2001) and the monies collected were used to install 111,456 meters and 119 pumps.

¹⁰ See appendix 1 for summary of performance incentives and the results of the NWC.

Water Sector Policy

The Water Sector Policy of November 2000 published by the Ministry of Water and Housing (MWH) sets out governing policy on the various aspects of the water sector and the institutional framework for the regulation of the sector and the scope for private participation in the sector. In relation to the services to be provided in the rural and urban areas, the policy stated that the government intended to do the following:

- Make available potable water and adequate sanitation access to all Jamaican households by 2005;¹¹
- Ensure availability of minimum necessary water and sewerage services to all in a cost effective and efficient manner, with due regards to health and environment and at prices customers can afford;
- Expand sewerage network in high population density areas;
- Ensure improvements in sewage treatment and disposal;
- Upgrade and subsequent take-over by NWC of minor water supply systems being operated by the Parish Councils

In pursuit of these objectives, the government would mobilize additional sources of funding and investment support from both private sector and external sources and support the introduction of cost recovery mechanisms. In so doing, users should pay for the cost and supply of the service such that the systems can be maintained and expanded. Wherever this is not possible, for example in the achievement of access to potable water and adequate sanitation facilities by all Jamaican households by 2010, it will provide subsidies equal to the difference between the true economic cost of the service and the tariffs charged by the Commission.

It would also encourage having the appropriate regulatory framework to protect customers, investors and the environment, which included amending existing laws, where necessary, such that the NWC is confined to operational issues while regulatory matters lies within the purview of the OUR.

Institutional and Regulatory Framework

National Water Commission Act

The NWC Act specified the constitution of the Commission, the composition of the NWC board, and the role and duties of the Minister, its social mandate and purpose and provisions for its operations and expenses.

It is the duty of the Minister to appoint, revoke and determine the remuneration of the members of the NWC board. He may, after consultation with the Chairman of the Commission, give the NWC policy directions of a general nature, in the performance of its functions as is deemed necessary and in the interest of Jamaica and the Commission. He also has statutory powers to actively

¹¹ This was subsequently revised to 2010.

participate in the Commission's financial and daily affairs, including approval of changes¹² in the staff composition of the NWC.

The NWC Act outlines several functions for the NWC, the most important being to:

1. Prepare and submit to the Minister proposals for establishment of an efficient and economic water system that will meet the needs of the population, and seek approval from the Minister to establish these schemes to develop and supply water.
2. Constantly review the quality, reliability and availability of water supply services and the rates charged for those services and advise the Minister accordingly.
3. Provide and improve water supply services throughout the island, within the limit of its resources.

With respect to the provision of sewerage services, the Act specifies that where the NWC constructs, extends or operates any sewerage system, it should inform the owners of premises within the area (the specific locale) of such and require them to connect their premises to such sewerage system within a specific timeframe.

For all intents and purposes, the Act envisages that the NWC would, to a large extent, regulate the water sector. Thus the NWC is charged with the responsibility to make regulations to prescribe its own rates and charges, subject to ministerial approval. It also processes application and issue licences to other water service providers. The law also makes it illegal for persons to supply water without a licence from the NWC.

The NWC has the power to sell any goods or chattel of persons who are indebted to the Commission. In this regard it can seize and sell the lands of debtors to recover outstanding debts.

The Commission is also required to prepare separate financial statements and keep accounting records in such form that it distinguishes the water supply activity from other businesses the NWC undertakes, for example, sewerage services, and to show the financial and operating results for each of these activities.

The Office of Utilities Regulation (OUR) Act and the OUR

The Office of Utilities Regulation was established by the OUR Act, 1995, to regulate, electricity, water and sewerage, telecommunications, and public transportation (road, rail and ferry) sectors. A weakness of the 1995 Act is that it inadvertently excluded the OUR's authority to regulate all utility service providers

¹²This includes proposing variation of salary of existing posts and the introduction of new posts.

whose operations had pre-dated the Act (1995).¹³ This essentially rendered the OUR, for a number of years, powerless in regulating all monopoly service providers, which the Act was deliberately constructed to regulate. This deficiency was remedied with the amendments to the OUR Act in 2000 which gave the OUR a wide range of powers to regulate all utility service providers, including the NWC. The duties of the OUR include: -

- receive and process applications for licences and make such recommendations to the Minister
- give directions to any licensee with a view to ensure that the needs of consumers of the service provided by the licensee are met
- give directions to ensure that the prescribed utility service operates efficiently and in a manner designed to protect the health and well being of users of the service, protect and preserve the environment and afford its consumers economical and reliable service
- determine the rates which may be charged in respect of the provisions of prescribed utility services¹⁴
- prescribe the standards for measurement in the quality of service.

Even before the 2000 amendments to the OUR Act, the Office from as far back as 1999 developed a regulatory framework for the NWC which essentially outlined the performance targets and benchmarks that should be achieved by the NWC over a specific time period. The framework also sets out the reporting requirements that should be submitted to the OUR on a periodic basis. The initial regulatory framework was issued for a two-year period (1999-2001) and included targets on metering, various capital programmes, asset valuation and other operational and financial targets. The document was issued as a policy direction by the Minister, as the OUR did not have the power to regulate the NWC. The framework was extended for an additional year after discussions with the NWC. The OUR revised the framework and reissued it under the OUR Act in 2002, for a one-year period (2002-2003).

Difficulties in Regulating the NWC

When the NWC took over the rural local government customers in the early 1980s, it inherited mostly unmetered connections and communities served by standpipes. At that time there was no link between usage and the amounts paid for water hence there was a prevailing view that water was a social good and, if possible, should be issued free. There is therefore an innate unwillingness to pay the economic cost of supplying water in some quarters.

¹³ Including, the Jamaica Public Service Company, the National Water Commission, the National Irrigation Commission, and Cable & Wireless Jamaica, formerly Telecommunications of Jamaica.

¹⁴ The OUR Act however specified that this should be done in accordance with the enabling instrument, which in this case, is the NWC Act.

Inadequate coverage by the NWC also triggered social unrest in many communities. The need to bring water to these troubled communities, therefore gained national attention and urgency at the level of local policy makers. In an effort to remedy the situation, several uneconomic extensions in water supply were undertaken. This, coupled with delays in granting tariff increases, rendered it difficult for the NWC to carry out the necessary maintenance on its water and sewerage systems.

These realities, along with the specific difficulties cited below, ensure that the NWC poses significant challenge to regulation.

- ***Confusion in existing mandate***

The NWC, based on existing legislation, is answerable to both the Minister and the regulator. This often results in confusion as to how to fulfill various mandates. Although the regulator is entrusted with the responsibility to ensure that the consumers receive economical service, pay for the cost of the provision of the service and to ensure that the service provider operates efficiently, the prevalence of expansions without the necessary establishment of supporting revenue mechanisms, as discussed below, makes it difficult for the OUR to develop a framework that will result in an efficient outcome.

- ***Powers of Minister***

Although the NWC is designed to be operated by a board of commissioners, the direct involvement of the Minister in the selection of the Board and the determination of their salaries and tenure mean that the board may be more inclined to act in accordance with ministerial dictates even where they may not be necessarily in the best interest of the company. This could result in political decisions and job security taking precedence over economic decisions. This not only affects the efficient operations of the NWC but also results in the Commission's inability to achieve the performance targets as outlined in the regulatory framework developed by the OUR.

Furthermore, while it is expected that the NWC would operate as a commercial entity and make decisions on a more economic as opposed to social basis, because the Minister is required to approve¹⁵ proposals for expansion in water systems, there is scope for other considerations. By way of example, if the proposals are not deemed adequate, because it is not focusing on the unaffordable areas, he can simply amend the proposal to include provisions for this. Moreover, because the GOJ provides the capital for the systems expansion, it ultimately dictates the areas in which such investments should occur.

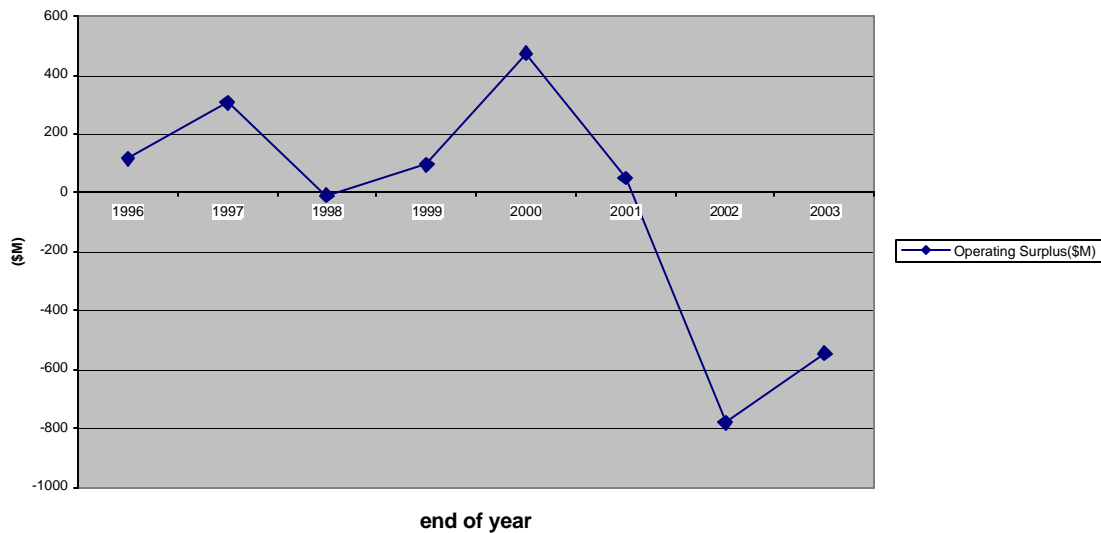
To compound this problem, it does not appear that the limitation of NWC's resources is taken into consideration in these expansions, as prescribed by the Act. Funds are often borrowed on behalf of the Commission (without agreement

¹⁵Because the GOJ provides capital financing the Minister is required to approve capital projects.

with the NWC) or given as grants (which it later has to assume loan obligations for) to fulfil various objectives. Whilst uneconomic projects should be accommodated, it should be mixed with economic projects so that the overall benefits of expansion outweighs the associated costs.¹⁶

Persisting with the present arrangements is likely to undermine the objective of the NWC to operate as a commercial entity, and further compromise the financial position of the Commission. This has already been manifested in the reported income statements of the NWC. In the financial year ending 2000, the NWC registered over \$474M in operating surplus. By 2001 this fell to \$51M and negative \$781M in 2002 (see graph 1).

Graph 1: Operating Surplus for the National Water Commission (1996-2003)



- **Lack of Cohesive planning in the provision of Sewerage Service**

The lack of holistic commercial planning in developing sewerage infrastructure is also a problem. This is evidenced in the construction of sewerage systems to provide service in the North Coast Wastewater District (NCWD).¹⁷ The capital used to finance the construction of these sewerage facilities was provided as loans by the GOJ. At the time the funding was being negotiated, no consideration was given to how to connect the persons in these areas to the systems. The high connection costs have prevented persons from connecting to the system. As a result the completed plants are presently being underutilized.

¹⁶ In this case there will be cross subsidization between customer groups. Customers in economic areas would pay amount to offset the difference the true cost of the service and tariffs being collected in the uneconomic areas. If these projects are to achieve universal service obligations then the policy stipulates the methodology that should be applied to determine who should benefit and the mix of revenues that should be used to offset the costs.

¹⁷ The NWCD comprises Montego Bay, Ocho Rios and Negril.

The NWC, in an effort to assist these customers and to improve the utilization of the systems has established a Connection Assistance Programme¹⁸ (CAP) where customers can borrow funds to offset the connection costs. The problem with the CAP, however, is that the NWC is (a) unable to recover the costs of this investment within a reasonable time; and (b) because of health implications, it cannot deny connections to persons, who have no alternative means of sewerage disposal. As at the end of March 2002, operating costs for the NCWD was estimated at J\$104M with no revenues collected.

The Act specifies that persons within 100 feet of the NWC sewerage main (pipes) should be connected and billed for the service. The NWC is required to inform these persons of the availability of the service and within a specific timeframe start billing them for the service. However, persons within this proximity have long installed their own on-site sewerage disposal, and are unable to find the resources to connect to the NWC system whilst others consider it an unnecessary expense and refuses to connect. They therefore resist paying the NWC for sewerage services. Persons who pay sewerage charges complain about high bills as the price adjustment (PAM) mechanism increases and water consumption increases. These complaints affect the billing complaints performance target specified in the regulatory framework.

At the same time, the collections for sewerage services are not used to adequately treat or dispose of the sewage but are instead diverted to the water operations. This practice not only violates the NEPA standards which dictates how sewage should be treated and disposed of, but is also non-compliant with the OUR performance target to comply with NEPA standards.

- ***Procedural Guidelines on Asset Acquisition***

There were no established procedural guidelines on asset acquisition from either the Ministry, the parish councils or private developers. Consequently, the NWC was unable to maintain an updated asset registry and was often unaware of the value of the assets that it used in its operations. Although the regulatory framework specifies that the NWC should periodically conduct asset revaluation exercises and maintain an updated asset registry, this became almost impossible if the Ministry, through the programme of expansion that it managed, was able to make capital investments without the NWC's involvement, and then give NWC the responsibility to operate it.

- ***Lack of enforcement of provision***

Even though the legislation gives NWC the authority to enter any premises that it supplies with water to conduct its business, the NWC is unable to do so in some areas. These areas, often referred to as "inner city communities", receive service from the Commission, but do not pay. Although everyone is aware of this practice, attempts made to disconnect these accounts are futile. NWC employees are frequently attacked, and although there is provision in the Act to

¹⁸ This programme was funded by a short-term high interest loan from a local commercial bank.

penalize or imprison persons who assault or obstructs the work of employees, the penalty is so small (\$200) it is not an effective deterrence.

In addition, to the inability to carry out disconnection in some areas, the NWC has not enforced,¹⁹ until recently, the provision to repossess and sell property in order to recoup water charges. The lack of enforcements results in the inability of the NWC to reduce the amount of gross receivables, and maintain continuous checks on accounts that is inactive.

- **Conflicts in existing legislation**

(a) Licencing

There is evidence to suggest that the NWC is resistant to competition in the sector. Presently, the NWC has the power, pursuant to the NWC Act, to issue licences. This conflicts with the role of the economic regulator as mandated by the OUR Act.²⁰ The NWC has been issuing licences with specific conditions for the service providers to submit their financials and other reports to it on a periodic basis and pay the NWC licence processing fee and regulatory fee.²¹ This not only frustrates and makes a mockery of the licencing process but also discourages private sector participation as these private sector interests do not want to be issued with a licence from its competitor. Furthermore, it hinders the OUR efforts to encourage competition in markets, where possible, as provided under the OUR Act.

(b) Quality of Service Standards

Conflicts also arise in the enforcement of quality of service standards. Although the OUR Act specifies that the OUR should set quality of service standards,²² there are instances whereby the NWC Act directly contradicts this provision. Because the NWC Act, with accompanying regulations, was written to protect the interests of the NWC²³, if the NWC fails to achieve certain benchmarks as outlined by the OUR, it quickly resorts to the existing legislation. This could be seen as regulatory arbitrage as the NWC uses the Act as an instrument of convenience.

¹⁹ It is presumed that this provision has not been enforced because of the small punitive charges, the likely negative social repercussions that could result as well as to prevent the public from viewing the NWC as being “oppressive”.

²⁰ The OUR Act specifies that the OUR has the authority to invite applications for and recommend licences to Minister. However, there is no existing Act under which the Minister issue licences. He therefore has to instruct the NWC to is sue the licence under the NWC Act.

²¹ Because the applications are submitted to the OUR, it collects the processing fees. The OUR is the only body authorised to collect regulatory fees.

²² The OUR had developed several quality of service standards which the NWC integrated into a customer service charter. Although this system has been effective since April 2001, the NWC is unable to submit a comprehensive report on its performance in relation to the standards.

²³ The NWC has powers to make regulations to govern the operations of its daily affairs. As such, the regulations would be designed to protect the NWC from any penalties for delivering poor quality service.

- **Data**

In addition to the difficulties outlined above, the OUR has been faced with the perennial problem of obtaining the required and adequate information from the NWC. Although the regulatory framework, which was agreed to by the OUR and the NWC, has outlined the list of information requirements required, the OUR has been unable to consistently, after 4 years, receive 80% of the information required. The NWC has complained that the reporting requirements are too onerous and that there is lack of manpower and financial resources to compile some of the information required. However, the information requirements are general statistical data that any water service provider would need on its daily operations and for strategic planning purposes. The information, whenever it is submitted is also not in the prescribed form.²⁴

This lack of adequate, and sometimes reliable, data often forces the OUR to make estimates of the costs of the provision of particular services (for example, sewerage)²⁵ and this may either severely overstate or understate the actual position of the NWC. This also affects tariff decisions by the OUR and prevents the OUR from adequately assessing NWC's quality of service performance or making changes to the present customer service standards.

Summary

Given the problems with data collection, overlapping regulatory responsibilities and the direct involvement of the Minister as well as the lack of independent financing of capital projects by the NWC, it is difficult to develop an incentive mechanism to force the NWC to operate efficiently.

The experiences of the OUR are not dissimilar to other jurisdictions in which the government owns the utility infrastructure and/or is actively involved with the daily affairs of these companies. In fact, regimes in India (electricity), Sri Lanka, South Australia and Bulgaria. The countries have also taken steps to create an independent regulatory body to improve the efficiencies of the companies, but the direct involvement of the government in the operations tend to overwhelm the objectives of the regulatory bodies.

Despite the problems that the OUR faces in effectively regulating the NWC, there are some positives associated with regulating a state owned company.

Because the OUR Act 1995 did not place regulation of NWC under the OUR purview, and given the expressed desire of the Government to have independent regulation and an "arms length" relationship between the Ministry and the NWC,

²⁴ Although the legislative and regulatory framework make provisions for accounting separation by business units, the NWC has failed to disaggregate its accounts. The NWC has stated that the lack of resources and the inability of the present system to accommodate the detailed changes as the reasons for non-compliance.

²⁵ Because the OUR is unable to determine the cost of providing the service present sewerage rates are calculated at 100% of water charges.

the OUR was able to still operate as the regulator of the water body. The Minister, in his capacity, issued several policy directions to the NWC including the regulatory framework and quality of service standards that were drafted by the OUR as well as the changes in the tariff.

Generally, the regulation of the state owned company is easier than a privately owned company as they are far less resistant to the regulatory decisions of the OUR and are less litigious. This is primarily so because the objectives of the private sector interests and the state owned company are different. The private companies are focused on improving their shareholders wealth, whereas, a state owned company (which in theory is owned by all Jamaicans) is more concerned with remaining viable and providing service to customers.

Outlook/Recommendations

Recently there have been minor amendments to the NWC Act to increase the punitive damages for trespassing on NWC properties (increase from J\$10,000 to \$250,000 and J\$500,000) as well as actions by the NWC to repossess properties that have been in arrears. These changes will hopefully prevent persons from continuing to make illegal connections and incentivise the NWC to actively check accounts that have been temporarily and permanently disconnected. This should have a positive impact on the amount of gross receivables and the number of inactive accounts targets in the regulatory framework.

In addition to this minor change, there are presently ongoing consultations to address the legislative concerns that is being experienced in the water sector. A new water sector act is drafted and awaits passage in parliament. Hopefully, this new act will clearly delineate the role of the OUR, the Minister and the NWC, the institutional, regulatory and licencing framework and customer protection.

It is envisaged that the Minister will no longer have a direct involvement in the daily operations of the NWC but will act in a policy-making capacity. The NWC will receive a licence and operate strictly as a service provider and the OUR will be able to conduct all its functions as the economic regulator. The NWC Act will also be amended to relieve the NWC of its regulatory, ratemaking and licencing capacity.

The GOJ is hoping that the new water act will pave the way for more entry by the private sector. It is presumed that the present lack of interest by private persons is as a result of the inconsistencies and shortcomings besetting the existing framework the sector.

Hopefully, the delineation of the Minister's responsibility will create a distance between the NWC and the Ministry (government) and result in an arms length relationship. If this occurs the NWC can operate like a commercial entity, and should be able to make independent investment decisions as well as independently finance its capital projects. There should be some institutional

efficiency gains from this. To further improve the operational efficiency of the NWC, consideration should be given by the OUR to (i) increased the details involved in the setting of targets, (ii) making international lenders link performance targets and reports submissions to loan conditions, (iii) publication by the OUR of efficiency trends, and (iv) incorporate expected improvements in performance targets at tariff reviews.

Effective regulation also needs quality and timely information. However, the OUR recognizes that the problem of lack of information cannot be resolved in the short term. Ideally, the lack of adequate data can only be solved with the market becoming truly competitive. However, given the impracticality of effective competition, the OUR will have to establish a timeframe in which NWC should separate its accounts and resort to the legislative provisions for non-compliance as was applied by the Haryana Electricity Regulatory Commission (HERC) in India.

Ultimately, the structure of the NWC should change to that which requires incorporation under the Companies Act. Based on the experience in privatisation of other utility companies in Jamaica (telecommunications and electricity), the profitability improves after privatisation.²⁶ There are resultant improvements in efficiency due to the absence of government interference. Services are priced at a rate that recovers costs. Consequently, there will no longer be a great dependence on receiving funds from the government out of the Consolidated Fund. Some international experience can be garnered from the change in the corporate structure of water bodies as evidenced in Malaysia that have experienced improvements in productivity and water quality and Argentina that have been insulated from public sector decisions.

Although the arms length relationship between the government and the NWC will be achieved, if it becomes a limited liability company, there are some apparent tradeoffs. NWC may become more resistant and defiant to regulatory decisions, may deliberately frustrate the regulatory process, and may bring the OUR to court on matters that it has deemed to be “harmful” to its operations. Additionally, NWC will be required to recover all its costs, as it will be incurring loan to expand its network. Although the role of universal service provider has been assigned to the NWC, it will have to be paid to extend the services to uneconomic areas.

²⁶ Although the electricity (JPS) and the telecommunications (CWJ) companies are not directly comparable to the water sector, because of their ability to more effectively curtail the free rider problem, lessons can be learnt from their eventual privatisation and subsequent performance. Plot of these companies profitability is included in Appendix B. The water, telecommunications, gas, electricity and airport sectors in the UK experienced increases in profitability after privatisation.

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Appendix A: Summary of NWC's Performance in relation to OUR Benchmarks.

<i>Standard Measure (as outlined in regulatory framework)</i>	<i>Actual</i>	
	<i>2003</i>	<i>2002</i>
(1) 85% of accounts with functioning meters	71%	NI
(2) UFW of 58%	57%	64.5%
(3) All disconnected (inactive) accounts are to be revisited within ninety (90) days of any account being disconnected and not reconnected and action taken to ensure that these customers have not illegally reconnected and outstanding balances are being collected. This performance target was set in an attempt to curtail increase in the number of inactive accounts, to force the NWC to do spontaneous checks on inactive accounts and to ensure that persons are not illegally reconnected and are taking steps to regularise their accounts.	NC	
(4) Reduce the number of billing complaints to "5% of bills printed"	2.29%	NI
(5) 5 working days to acknowledge enquiry after receipt	NI	NI
(6) Maximum of 30 working days to complete and respond to investigations	NI	NI
(7) Complete inventory and valuation of assets.	Completed	O/S
(8) Gross receivables to be at most \$1.38B.	\$3.703B	\$3.2B
(9) Employee costs, as a percentage of revenues should be at most 30%.	43%	44%
(10) Monthly collection rate at least 90%	Completed	O/S
(11) A minimum of 99% of metered accounts are to be read	NI	NI
(12) Water quality must comply with at least 99% of IJAM standards	Although the NWC has consistently met the standard for water samples tested, it has failed to meet the residual chlorine and coliform standards	
(13) Effluent must comply with NEPA effluent standards	Although periodic testing is done on NCWD plants, other wastewater facilities outside of the NCWD are not tested.	
(14) At least 95% of blocked sewerage mains must be cleared within 24 hours	Average 99%	NI

NI- means no information provided, NC means not calculated and O/S means outstanding.

Other targets include:

- install 54800 meters over a 2year period, so as to regularize and improve meter readings for customers, reduce unaccounted for water and hopefully increase revenues. UFW did not reduce and revenues did not improve.
- In order to improve quality of service the OUR outlined several overall and guaranteed standards to be achieved by the NWC. These standards were implemented in April 2001 and addressed pressure of water delivered, water lock-offs, time to reconnect and processing new accounts. The NWC has not submitted a report on its performance in relation to these standards.

Appendix B: Graph of Cable and Wireless Jamaica (CWJ) and Jamaica Public Service Company (JPSCo.) pre and post privatization

Graph of profitability of CWJ and JPS pre and post privatization

