



# CBWMP INC.

CARIBBEAN BASIN WATER MANAGEMENT PROGRAMME INC.

## InThis Issue

- [President and Executive Director Attended Successful ABC Conference](#)
- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

## Feature Article

### President and Executive Director hail successful ABC Conference

CBWMP President Bernard Ettinoffe and Executive Director Victor Poyotte of CBWMP Inc were both in optimistic moods after they attended the 22<sup>nd</sup> Annual Conference of the Association of Boards of Certification (ABC) at the Embassy Suites Hotel in La Quinta, California, from 27<sup>th</sup> to 30<sup>th</sup> January 2009.

On January 27, the ABC held a half-day pre-conference workshop which dealt with a round table discussion on trainers. The workshop took the form of small group assigned to discuss and report on topics related to current issues and visioning.

Among the topics were: *The Role of Trainers in Certification and ABC; Defining Trainers -- Who we are talking about; Trainer Involvement in Developing NTK and Certification Exams; Current Networking/Support Systems for Trainers and Needed Resources; Additional Resources that would be helpful to Trainers; Future Avenues for Trainer Involvement and Distance Education Review Program.*

The two CBWMP representatives participated in and contributed to the roundtable discussions on the topic "Defining Trainers - Who We Are Talking About."



President Bernard Ettinoffe led the CBWMP's delegation to the successful and very fruitful 2009 ABC Conference.



Executive Director Victor Poyotte says the CBWMP's participation at the ABC's 22nd Annual Conference was quite fruitful.

In the view of the two CBWMP representatives, the joint presentation by their team was well received. Many participants asked questions and following the discussions a few gave their undertaking to provide support in any way they could.

The two top CBWMP officials made a number of useful contacts at the conference that require follow-up. They also secured offers of assistance and commitments from a number of persons attending the



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- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

conference.

Some of the offers made included training in various areas with the Secretariat and making available copies of relevant manuals required for the training of Water Operators/Analysts. ABC's participation in the CBWMP Inc Operator's Conference of June 2009 was also assured.

Steps have already been taken by the Secretariat to ensure that the association obtains tangible benefits from these offers.

Meanwhile, the following dozen topics were proposed for the training to be conducted by Curtis Truss Jr: *Basics of Wastewater Treatment, Disinfection of Water Mains, Distribution Systems Flushing Techniques, Water Safe for Small Systems, Distribution Systems Breaks and Repairs, Chlorine Residuals and Sampling Techniques; Leak Detection and Data Logging Management, Pumps and Pumping Hydraulics, Water and Environmental Sanitation, Fundamentals of Water Systems, Sewerage Treatment Plant Maintenance and Chlorinating Ground Water.*

The ABC's 23<sup>rd</sup> Annual Conference will be held at the Crowne Plaza Hotel in Jacksonville, Florida from January 26 to 29, 2010.



# CBWMP INC.

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## InThis Issue

- [President and Executive Director Attended Successful ABC Conference](#)
- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

## Feature Article

### Saint Lucia has a new National Water & Sewerage Commission

The Government of Saint Lucia has launched a new National Water & Sewerage Commission (NW&SC). The decision was taken under the Water & Sewerage Act (2005), which makes provision for the establishment of a commission to regulate the delivery of water supply and sewerage services throughout Saint Lucia.

On Friday 27<sup>th</sup> March 2009, the Commission was launched at a special ceremony arranged by the Ministry of Communications, Works, Transport and Public Utilities at the Bay Gardens Resort.

Addressing the ceremony, Acting Permanent Secretary in the Ministry, Mrs. Allison Jean, announced that the five persons appointed by Cabinet to the commission are: Truscott Augustin (Chairman), Hennix Joseph, Marcel Fevrier, Samantha Charles and Jeff Deveaux. She also indicated that Mr. Barrymore Felicien had been appointed as the new Chief Utilities Officer at the Ministry.



Chairman of the Water Commission Truscott Augustin promises that "the commission will be guided by the principle of transparency..."



New Chief Public Utilities Officer  
Barrymore Felicien

Mr Augustin, who delivered brief remarks, indicated that the NW&SC "will be guided by the principles of transparency, objectivity, efficiency, professionalism and independence." He also stated that "the operations of the Commission will be financed by a broad-based levy in order to avoid regulatory capture."

According to General Manager of the Water & Sewerage Company (WASCO), Mr. John Joseph, the event culminated "ten years of toiling by a few dedicated persons." He also said he believed that "regulation represents third-party

intervention and is an attempt to protect the public interest."



# CBWMP INC.

CARIBBEAN BASIN WATER MANAGEMENT PROGRAMME INC.

## InThis Issue

- [President and Executive Director Attended Successful ABC Conference](#)
- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

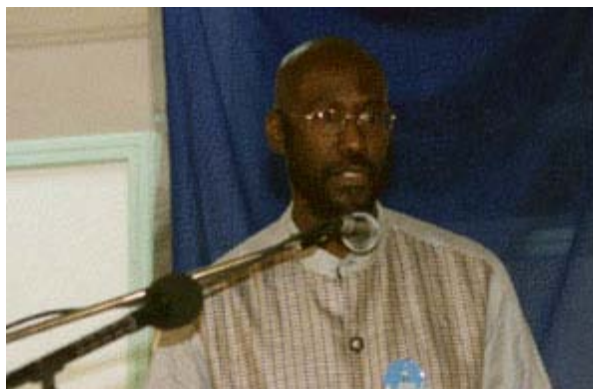
The feature speaker was Minister of Communications, Works, Transport and Public Utilities, Mr Guy Joseph, who gave credit to the previous administration for moving the process forward.

He indicated that the establishment of the Commission is critical to the accomplishment of national development goals. He also suggested to the gathering that with the Commission in place, St. Lucians can rest assured that "there will be no political interference" in regulating activities in the water sector.

Following the launching ceremony, members of the Commission participated in a workshop facilitated by Neils Janson of Castardia and Basil Sutherland, a regional Consultant. The training was intended to expose members of the Commission to the tools, methods and techniques of water regulations.



Public Utilities Minister Guy Joseph credited the previous administration and promised "there will be no political interference..."



WASCO General Manager John Joseph said the launching of the new commission was "an attempt to protect the public interest."



# CBWMP INC.

CARIBBEAN BASIN WATER MANAGEMENT PROGRAMME INC.

## InThis Issue

- [President and Executive Director Attended Successful ABC Conference](#)
- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

## Feature Article

### *CBWMP coordinates regional seminar as* **Experts examine Climate Change and Water Use in Caribbean Tourism**

The Caribbean Basin Water Management Programme Incorporated (CBWMP Inc), in collaboration with the Global Water Partnership-Caribbean Chapter and the Saint Lucia Hotel and Tourism Association (SLHTA), organized a one-day seminar on *Climate Change and Water Use Efficiency in the Tourist Industry*. The Seminar was held at the Conference Room of the Palm Haven Hotel on 25<sup>th</sup> February 2009.

The workshop, which was co-sponsored and coordinated by the CBWMP, addressed the impact of Climate Change on the Tourist Industry and the need for the effective water use efficiency measures. It was a follow-up to a regional workshop on the same topic held in December 2008, in Barbados.

One of the main reference documents used for the workshop was a manual on produced on the seminar's main topic by Dr. Adrian Cashman of CERMES.



Workshop participants addressed several papers on Climate Change and Tourism issues.



Presenters at the meeting spanned topics ranging from Climate Change to Water Quality...

There was a brief opening ceremony chaired by Ms Angela Alphonse, Project Manager of the SLHTA and Mr. McHale Andrew, Executive Vice President of the SLHTA, who delivered the welcome remarks.

Six thematic presentations were delivered during the business session.

Crispin d'Auvergne, Saint Lucia's Chief Sustainable Development Officer, Ministry of Physical Development, made a presentation entitled *The Impact of Climate*

*Change on the Tourist Industry in St. Lucia*; Keron Niles, Research Consultant & CIE Coordinator, UWI, Cave Hill spoke on *Policy Responses to Climate Change Threat to*



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CARIBBEAN BASIN WATER MANAGEMENT PROGRAMME INC.

## InThis Issue

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- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

the Caribbean; and Dr Cashman of CERMES also made a presentation entitled *Climate Change Contribution to the Tourist Industry in the Caribbean*.

Shanta King, Water Engineering Consultant in Saint Lucia, presented on *Water Resources in St. Lucia - A case Study of Water Supply to the Tourist Industry*; Kailas Narayan, Chief Hydrologist of CIMH spoke on *Climate Change and Water Resources in the Caribbean*; Christopher Cox of the Caribbean Environmental Health Institute (CEHI) addressed *Mitigation, Adaptation and Water Efficiency Use*; and Dawn Pierre-Nathaniel, Sustainable Development Officer in Saint Lucia's Ministry of Physical Development and the Environment, spoke on *Implementing Climate Change Adaptation at Coconut Bay* in Vieux Fort, on the island's south coast.



Participants examined local and regional experiences of Climate Change effects.

The presentations were followed by a general discussion in plenary on *Water Efficiency Use Practices in the Hotel Industry*. Participants provided information on current practices in the hotels and in the ensuing discussion they considered measures that could be taken in the future to improve Water Efficiency Use Practices in the Hotel Industry.



CBWMP Executive Director Victor Poyotte addressed the organizers' expectations.

Participants at the meeting recommended that the St. Lucia Hotel and Tourism Association (SLHTA) do the following: *Work with the hotels to introduce the Green Globe Certification for its members so as to enable them to market themselves as Green Globe Hotels; Conduct a separate workshop on the same subject for small properties (i.e. those under 75 rooms); Prepare a brochure/flyer introducing best water practices or include them in a Newsletter; Continue to work alongside the Ministry of Tourism and the Ministry of Physical*

*Planning and the Environment on environmental issues; and Provide information to the member hotels on the conduct of water audits.*



# CBWMP INC.

CARIBBEAN BASIN WATER MANAGEMENT PROGRAMME INC.

## InThis Issue

- [President and Executive Director Attended Successful ABC Conference](#)
- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

The participants felt that the individual hotels should: *Introduce a towel re-use programme so as to minimize back washing (i.e. morning and afternoon); Look into water harvesting and introduce low flow showerheads, kitchen and water flow devices; Introduce environment measure systems to ensure that both guest/staff report leaks; Conduct water audits and monitor water meters daily for leakages; Use rain water to water gardens and do not top up pools; and Contract the Caribbean Environmental Health Institute's (CEHI) to test the water quality etc.*

With respect to WASCO, participants felt that the company should: *Offer leak detection services to hotels; and Introduce system to manage both burst pipes and small leaks within twenty-four (24) hours; Work along with the Government to introduce national water use policy; Develop and implement public sensitization programmes; and Conduct assessments to determine the sector's vulnerability to Climate Change.*

The participants felt that the Government of Saint

Lucia/Ministry of Tourism should: *Introduce an educational campaign on climate change and basic water conservation measures; Provide incentives for water conservation measures for new hotels projects; and Appoint staff to monitor the incentives provided to new hotel projects and existing ones.*



Dr Adrian Cashman of CERMES produced the main manual on the seminar's main topic



Executive Vice President of the SLHTA Mc Hale Andrew welcomed participants.

CBWMP's Executive Director, Victor Poyotte, expressed pleasure about the event. He said: "With increasing global concern about the effects of Climate Change on the world's important natural resources, it was a timely effort by global, regional and local partners to bring into sharper focus the importance of proper management of water resources in the Tourism industry."

He also said the objective had been met: "Participants expressed satisfaction at having examined

various aspects of Climate Change and their implications for the Caribbean and Saint Lucia's tourism sector, as well as the policy responses to Climate Change threats to the Caribbean."



# CBWMP INC.

CARIBBEAN BASIN WATER MANAGEMENT PROGRAMME INC.

## InThis Issue

- [President and Executive Director Attended Successful ABC Conference](#)
- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

The seminar was attended not only by representatives of the island's hotel sector, but also by local and regional experts on water management and hotel and tourism industry representatives.

The presenters were drawn from Saint Lucia, Barbados and other regional states.

(EDITOR'S NOTE: Also see related story in this issue entitled: [Did you know... Why Water? Why Tourism?](#))



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CARIBBEAN BASIN WATER MANAGEMENT PROGRAMME INC.

## InThis Issue

- [President and Executive Director Attended Successful ABC Conference](#)
- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

## Feature Article

### *Did you know... Why Water? Why Tourism?*

The 1992 Earth Summit in Rio de Janeiro (Brazil) identified Tourism as a key sector that could potentially contribute to the sustainable utilization of the environment. But while this is a stated fact, the Caribbean's experience has been one of inability to sufficiently ensure the sustainable use of our resources for the tourism industry.

Take our water resources and its relation to the tourism industry. There is a dire need to harness minds, resources and technology and pool the political will to address the factors involved in managing and sustaining our water resources in this sector.

The facts speak for themselves:

- **Tourists generate substantial amounts of *solid waste* – up to twice as much as locals;**
- **Tourists generate a substantial amount of *liquid waste*, much of which goes untreated. (Indeed, many waste water facilities in the Caribbean do not meet basic effluent discharge standards.)**
- **Tourist facilities are often built in *environmentally sensitive areas*. In the Caribbean, the majority of facilities are located within 800 metres of the high water mark.**
- **Tourists and their facilities use much higher amounts of *energy and fresh water resources* than local residents.**
- **The presence of tourists can have an adverse impact on *sensitive ecosystems* (such as coral reefs).**
- **Tourists are vulnerable to food and water-borne *diseases*, insect-borne diseases and *Malaria*.**

All of the above have varying degrees of impact on water resources and water-dependent resources. How water is used in the tourism industry, therefore, is a very important issue.

The issue is not being neglected. Indeed, it was discussed at a conference in Barbados in December 2008, which was co-sponsored by the Global water partnership (Caribbean), Cap-Net and Caribbean WaterNet.





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CARIBBEAN BASIN WATER MANAGEMENT PROGRAMME INC.

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- [President and Executive Director Attended Successful ABC Conference](#)
- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

It was also discussed two months later at a seminar in Saint Lucia in February 2009, which focused on the experiences of the smaller Caribbean island that comprise the OECS (Organization of Eastern Caribbean States).

However, while case studies and successes were examined, in both cases, participants stressed the urgency for continued advocacy and action, as well as for increased efforts to encourage the main players in the state and tourism sectors to understand the implications of inaction in the face of current global changes.

Many are of the view that future wars will be over water. The acceleration of Climate Change globally has been accompanied by accelerated changes in weather, climate and environmental conditions across the Caribbean. The effects are being seen and felt on land, under the sea and in the air.

Water resources are dwindling the world over; and more countries that still can are moving swiftly to conserve what they have left. In some places (like Australia) drinking water comes from the sea. And in several places in Africa, Asia, Europe and the Americas, water has either run out or is about to.

In the Caribbean, we cannot afford to wait for a water war to protect this important national and regional resource. We can ensure the future of our water resources only through proper management and implementation of effective policies.

Otherwise, all our efforts will be like water under the bridge!



# CBWMP INC.

CARIBBEAN BASIN WATER MANAGEMENT PROGRAMME INC.

## InThis Issue

- [President and Executive Director Attended Successful ABC Conference](#)
- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

## Feature Article

### CBWMP prepares WASCO staff to manage organizational change

With Privatization of Saint Lucia's Water and Sewerage Company (WASCO) on the cards, the Caribbean Basic Water Management Programme (CBWMP) has facilitated a series of training sessions in Organizational Change Management for administrative and management staff at various levels of the national water utility.

The ten one-day workshops, the last of which took place on March 9, 2009, were held island-wide to examine the myriad issues facing WASCO ahead of the change from a public to a private entity.

Executive Director of the CBWMP, Victor Poyotte, who facilitated the sessions, indicated that participants "examined the critical issues facing WASCO as the organization gets ready for that fundamental change that will require so many adjustments and readjustments" in the way they manage both the change and the entity itself."

"We listed the critical problems facing WASCO and their causes," he said of the sessions, which took place in the north and south of the island, in Castries and Vieux Fort, respectively.



WASCO's Financial Comptroller Darnell Martial (centre) makes a point during the discussion on the pros and cons of privatization.



CBWMP Executive Director Victor Poyotte leads one of the sessions at the WASCO leadership workshops ahead of the company's.

"We also looked at WASCO as a service delivery organization and examined both the services offered and how they were delivered. And, of course, we also examined the list of complaints and the entity's own shortcomings and how they could be overcome by what solutions," he added.

The sessions also addressed the critical issues of organizational change policies as they relate to the Private and Public sectors and the implications for WASCO in the



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CARIBBEAN BASIN WATER MANAGEMENT PROGRAMME INC.

## InThis Issue

- [President and Executive Director Attended Successful ABC Conference](#)
- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

current scenario.

Participants also examined government policy options and zoomed in on the various components of the option selected by the government for WASCO's future. In that context, they also examined how they would have to implement the process of change at WASCO by taking a closer look at the reason for the planned change, the factors influencing that change, and the change process itself.

Participants were led by Mr Poyotte through the various institutional approaches to organizational change, including the legal, structural, technological and People-oriented approaches.

"But in all of that," Mr Poyotte said, "we also had to take into consideration the natural expectation of resistance to change. So, in order to prepare ahead for this eventuality, we also discussed methods and techniques of overcoming the expected resistance to change."

During and following any privatization process, staff and managers are required to go through a constant process of adjustment. Therefore, the sessions concluded with an assessment of the possible and likely impact of organizational change.

"We also discussed the emotional, financial, social and organizational impacts of the transition of WASCO from a public to a private entity," Mr Poyotte concluded.



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CARIBBEAN BASIN WATER MANAGEMENT PROGRAMME INC.

## InThis Issue

- [President and Executive Director Attended Successful ABC Conference](#)
- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

## Feature Article

### WASCO Privatization on Hold! *But there's a silver lining...*

In March 2009, the Government of Saint Lucia announced that it has put the process for privatization of the island's lone Water and Sewerage Company (WASCO) on hold – at least for the time being. The announcement was made by the island's Minister of Communications & Works, Guy Joseph, who said the government was forced to take that decision after one of the two bidding international water companies threatened to sue over the bidding process.

Two companies were involved in bidding to finance and run WASCO – the French company **Suez** and the UK-based company **Cascal**. No details have been disclosed, but Suez expressed strong reservations about the tendering process and the French company threatened to go to court if the British firm was awarded the contract.

With privatization on hold, WASCO's Directors have had to return to the drawing board, as the process was expected to have been completed in December 2008. WASCO is therefore facing 2009 without the urgently needed injection of private survival capital – what, in many CBWMP member-countries, would be described as "life water".

However, privatization or not, WASCO has had to fulfill its basic mandate - to produce and deliver water. And it is still doing so, even with the heavy debt burden it has carried over the years - especially the cost of the massive, modern Roseau Dam, built with loans and grants several years ago just outside the city of Castries.

The dam is to serve the north of the island, where almost half of the population resides. The island's major tourism sector is also almost exclusively based in the north.

Taking water to a growing population and expanding tourism industry is no cheap undertaking. WASCO has therefore had to continue to invest heavily in water infrastructure development and expansion island-wide in recent years, even as its own bills run up and customers continue to be careless or callous about paying their water bills.

WASCO's expenditure in water sector infrastructure development has been steady in the last two fiscal years. According to the Government of Saint Lucia's *2007 Economic and Social Review*, WASCO's Water Supply and Infrastructure project -- which involved



The government of Saint Lucia has assured that the Sir John Compton Dam at Roseau would not be up for sale in any privatization arrangement.



# CBWMP INC.

CARIBBEAN BASIN WATER MANAGEMENT PROGRAMME INC.

## InThis Issue

- [President and Executive Director Attended Successful ABC Conference](#)
- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

installation of mains and pumps to improve the availability and reliability of water supply to the north of the island and which began in 2006 -- continued in 2007 and saw \$7.5 million spent over the two years.

In addition, WASCO's Water Sector Reform project concluded in 2007, with \$900,000 spent that year; and \$2.4 million was spent through the Fifth Water Supply Project on the Water Treatment System at Dennerly (on the island's East Coast), replacement of various water mains and ongoing works.

WASCO's infrastructural works in the water sector accounted for 11% of the total spent on Public Sector Construction in 2007.

The company's task is still huge – especially in the absence of the badly-needed cash injection that was expected to come with the privatization deal.

The *CDB's Annual Economic Review for 2007* indicated (at the time) that water supply services were “stretched and have to be expanded to meet growing demands for household as well as for business use, and to mitigate the effects of dry weather spells.” Sewerage systems, it said, were “either non-existent or inadequate in many areas.”

WASCO's coffers have not been faring well in the two years since, with the increased cost of fuel in the past year adding to its electricity ills and reducing its ability to spend on expansion as it would have liked.

With more WASCO customers opting to buy bottled water at several times more than the cost of WASCO water, and the government unable to provide the massive capital outlay needed to bail the company out of its financial bind, hope is in the air once more.

The CDB noted that the privatization option was on the table with a view to “the development of an effective institutional and regulatory framework for the management and operation of the water and sewerage sector.”

But the CDB also had a warning: “Making participation in WASCO an attractive prospect is an important task for the Government of Saint Lucia. However, if private sector participation cannot be secured in a timely manner, other options for undertaking critical investments in the water and sewerage sector will have to be examined.” The ball is now back in the government's court.

Meanwhile, taking WASCO off the bidding block is seen as negative by some. However, many also believe that the silver lining behind this dark cloud is the opportunity it provides for WASCO and the Government to **dot all the i's and cross all the t's** while re-examining options for partnership to secure the future of the island's lone water utility.

And it also gives WASCO managers more time to assimilate the various principles of Organizational Change Management undertaken through ten workshops facilitated and executed by the CBWMP last year in preparation for the company's privatization.



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CARIBBEAN BASIN WATER MANAGEMENT PROGRAMME INC.

## InThis Issue

- [President and Executive Director Attended Successful ABC Conference](#)
- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

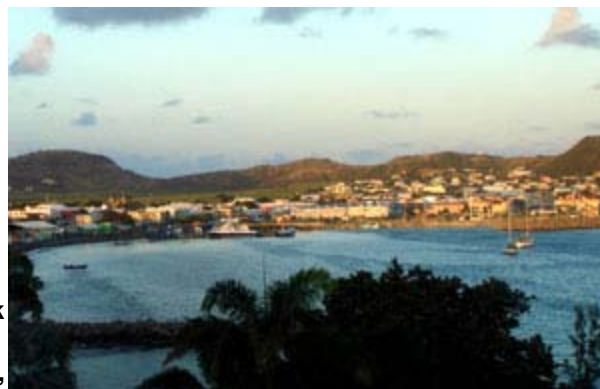
## Secretariat News

### 1. CBWMP & IP3 sponsor training for Water Utility Managers in St Kitts

The Caribbean Basin Water Management Programme Inc. (CBWMP Inc.), in collaboration with IP3 (The institute for Public-Private Partnerships) of the USA, earlier this year sponsored a training course on Water Utility Management in the Federation of Saint Kitts and Nevis.

The two-day course, which took place on St Kitts at the Ocean Terrace Inn on March 30 and 31, brought together Managers, Engineers, Financial Controllers and other personnel actively engaged in the management of water in the Member Utilities.

Participants were led in their deliberations by Robert Borgström, a senior regulatory and utility expert with over three decades of management and consulting experience with utilities, regulatory authorities and energy businesses.



The conference took place at the Ocean Terrace Inn against the tranquil background of pleasant, quiet scenery.



The CBWMP delegation included (left to right) Executive Director Victor Poyotte and Administrative Secretary Suzanne Joseph. At centre is the Facilitator of the conference, senior regulatory and utility expert Robert Borgstrom.

Among the main items discussed during the two-day event was *Managing Utilities in the New Competitive Environment*, with emphasis on matters such as: *Balancing the role of utility service delivery with cost recovery or profitability requirements; Strategies to corporatize utilities and improve operations in a commercial environment; Creating the management restructuring plan and achieving "buy-in" from stakeholders; Introducing management outsourcing techniques for*

*improved utility performance and Strategic Thinking and Building Strategic Alliances.*

Under the topic *Financial Engineering: Asset Management, Cost Recovery and Profitability*, the participants discussed: Conducting a full-cost financial



# CBWMP INC.

CARIBBEAN BASIN WATER MANAGEMENT PROGRAMME INC.

## InThis Issue

- [President and Executive Director Attended Successful ABC Conference](#)
- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

audit of direct, indirect, and hidden costs; Managing assets and inventory with improved capital budget planning; Preparing accurate and timely balance sheet, income, and cash flow statements, and Cost Recovery methods through improved billing and collections, rate setting and new connection fees.



Participants at the St. Kitts meeting indicated satisfaction with the proceedings.

Another topic covered was *Demand Management Strategies for the Water Sector*, with participants considering issues such as: Using demand management to promote conservation (and minimize resource use) and consumer behavior change; Developing a demand management study (data collection, Coordination, Analysis, and Reporting, etc); Creating and End-Use Analysis of customers of water and energy to better understand demand issues; Designing regulatory tools and economic incentives to reduce demand and increase conservation and Developing financial and management tools within the utility to reduce demand.

Yet another topic discussed in St. Kitts was *Operations Management: Benchmarking for Improving Indicators*, with participants weighing considerations about: Conducting a technical audit to correct system losses; Clarifying responsibilities for maintaining multi-jurisdictional networks and facilities; Utilizing re-rating strategies to plan for expansion and operate existing plants more efficiently; Analyzing options for predictive and preventive maintenance initiatives and Setting benchmarking goals on local, regional, and international levels

The instructor, Mr Borgström, indicated that he has, “since 1992, successfully led donor-funded, multi-disciplinary engagements in the developing and transitional economies, with the goals of implementing institutional reforms to create free markets for energy, creating the capacity for transparent regulatory oversight and developing commercial environments to attract sustainable private-sector investment.”

His areas of concentration include: regulatory framework development, commercialization and organizational restructuring of public services, utility management, designing tariff methodologies and regulatory rules and procedures, and commercialization of public services.

CBWMP Executive Director Victor Poyotte, who also attended, addressed and participated in the course, said the participants indicated satisfaction with the proceedings “and they pledged to put to use in their respective departments what they learned during the two day training session.”



# CBWMP INC.

CARIBBEAN BASIN WATER MANAGEMENT PROGRAMME INC.

## InThis Issue

- [President and Executive Director Attended Successful ABC Conference](#)
- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

Mr Poyotte said the course was undertaken “in keeping with the CBWMP’s mandate to assist, whenever and wherever possible, in all such ventures aimed at constantly improving management of the region’s water utilities.”

## 2. CBWMP Secretariat Supports UNIDO Energy Efficiency Project

The Energy and Climate Change Branch of UNIDO recently asked the CBWMP Secretariat to help with the identification of a SIDS (Small Island Developing State) to perform an “energy performance and needs and capacity assessment” and the Secretariat identified Dominica’s DOWASCO.

According to the UNIDO official, the water utilities of the typical partner island state should: Display relatively low level of energy efficiency; Display relatively high level of energy consumption, also considering the geographical configuration of the territory; Undergo a restructuring process in the next two years, both at the organizational and the infrastructural level; Have identified energy as a priority area of intervention for costs reduction; Are available and capable of invest and/or co-finance renovation or upgrading processes and Display clear margins to improve the personnel’s capacity to assess energy performance and perform a proper energy management practices.

UNIDO assigned a consultant, Steve Bolles, to travel to Dominica on a four-day visit to collect the data and information required for making the necessary calculations and performing the assessment. He also delivered a capacity-building training course focused on pump-systems optimization, to set a first basis for future activities involving other CBWMP member utilities.

The overall aim of this phase of the project was to assist the DOWASCO improve its system energy efficiency through training, pump optimization software tools and evaluation and testing of pump systems to identify potential savings opportunities.

## 3. CBWMP and GTZ collaborate on Renewable Energy projects

The CBWMP Secretariat is assisting Projekt-Consult, the company implementing an energy project on behalf of GTZ, the German agency contributing to the Caribbean Renewable Energy Development Programme (CREDP).

Thomas Hentschel of Projekt-Consult is compiling information about the structure of the water supply sector in St. Lucia, St. Vincent, Dominica and Grenada to compile an inventory of the water utilities in these countries that should include, if possible, information such as: ownership of the water utilities, legal form, supply area, number and structure of customers, basic information about the water sources, treatment and distribution system, information about existing sewage system and sewage treatment systems, latest annual reports, price of water, tariffs, consumer classes, etc., cost structure incl. energy costs if available and lost/profit or other data about economic situation of the utilities.

This inventory will be used to propose and possibly implement energy efficiency measures in the water sector.



# CBWMP INC.

CARIBBEAN BASIN WATER MANAGEMENT PROGRAMME INC.

## InThis Issue

- [President and Executive Director Attended Successful ABC Conference](#)
- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

The CBWMP Secretariat agreed to provide institutional support in getting these and other relevant data from the member utilities. To this end, the Secretariat arranged for Mr. Hentschel to visit the member utilities in St. Vincent and Grenada on Tuesday 17<sup>th</sup> March 2009 and Wednesday 18<sup>th</sup> March 2009.

#### 4. Model Health and Safety Manual under way

The CBWMP Secretariat has engaged the services of Lesmond Magloire, an Occupational Health & Safety Specialist attached to CEHI, to develop a Model Health & Safety Training Manual.

Mr. Magloire is expected to deliver training for tutors involved in the Operators/Analysts Certification Programme.

He is also expected to prepare a Health & Safety Study Guide for Operators and Analysts preparing for certification examinations.

#### 5. CBWMP Represented at ABC Annual Conference

For the last six years, CBWMP has been represented at the annual conferences of the Association of Boards of Certification (ABC). CBWMP President Bernard Etinoff and Executive Director Victor Poyotte attended 22nd Annual Conference of the Association which was held at the Embassy Suites Hotel, La Quinta, California, from 27-30th January 2009. [See appendix in original ED report] CBWMP's two made a presentation, received good feedbacks and since then have been getting support from ABC, etc...

#### 6. Utility Classification Programme to Commence Soon

The CBWMP Secretariat has planned to introduce a system of "Peer Inspection" during this financial year. The plan involves training a regional team of Utility Inspectors to conduct biennial inspections and to classify the operating system of member utilities.

As a first step, the Secretariat circulated information about the programme and requested each member utility to submit the names of two Engineers to serve as Peer Inspector and Alternate, respectively.

A list of Peer Inspectors was submitted, but four member utilities have not yet submitted any names. The Secretariat has made arrangements with the firm of Daniel & Daniel to conduct the orientation and training and to facilitate an evaluation meeting at the end of the first round of inspections.

Once the list of Inspectors has been completed the orientation and training, the Secretariat plans to draw up a schedule for the teams who will be assigned to conduct the inspection and classification of the operating system of member utilities.

The inspection teams are expected to report on their findings and assist the utilities in preparing and implementing Performance Improvement Plans.

#### 7. Alternative Certification Examination (ACE) to Commence in June



# CBWMP INC.

CARIBBEAN BASIN WATER MANAGEMENT PROGRAMME INC.

## InThis Issue

- [President and Executive Director Attended Successful ABC Conference](#)
- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

The CBWMP Secretariat plans to implement the Alternative Certification Examinations (ACE) in the category of "Water Distribution" in June 2009.

The examination will have three components.

The first will involve Recognition of prior learning and experience: This is a process of identifying and recognizing existing knowledge acquired through school, work, community activities, on-the-job training or other life experience.

The second component will involve Verbal Testing: This is a one-hour interview conducted by a three-person tribunal comprising one external examiner appointed by the Secretariat and two internal examiners nominated by the member utility.

The third component will be a Practical Examination, through which each candidate will be required to carry out a single routine Water Distribution Management operation to the satisfaction of the tribunal.

In preparation for the exams, the Secretariat has already engaged a Specialist to finalize the questionnaire to be used to compile the information required for the recognition of prior learning and experience of Operators and Analysts; Prepare a list of 100 questions to be used by the tribunal in the verbal testing component; and document a series of routine "Water Distribution Management Operations" that could be used by the tribunal for the practical examination component.

In January 2009, the Secretariat requested each member utility to submit completed Registration Forms on behalf of the Operators/Analysts recommended to sit the Alternative Certification Examinations. Each utility was also asked to submit the names and profiles of two Senior Officers to serve as Internal Examiners.

The deadline was 15th December 2009, but, to date, the Montserrat Utilities Limited is the only CBWMP affiliate to have submitted the completed Registration Forms and the names of Officers who will serve as Internal Examiners.

## 8. CBWMP and CERMES to Initiate Internship Programme

The CBWMP Secretariat has entered into a collaborative arrangement with the UWI Cave Hill Campus Centre for Resource Management and Environmental Studies (CERMES) to facilitate internships for students pursuing courses at the University and specializing in Water Resource Management.

Under the internship arrangement, students will be assigned to a water utility for a period of three months between 1st June and 31st August each year. The Secretariat will liaise closely with Dr. Adrian Cashman of CERMES to identify students who wish to be placed and circulate the information among member utilities.

Utilities desirous of utilizing the services of an intern for the period will be expected to draw up a three-month work programme. They are also expected to assist with making arrangements for reasonable accommodation and to pay a monthly stipend approved by the Executive Committee to the intern as subsistence.

The Secretariat recommends a stipend of US\$1,500 per month to cover meals and incidentals.



# CBWMP INC.

CARIBBEAN BASIN WATER MANAGEMENT PROGRAMME INC.

## InThis Issue

- [President and Executive Director Attended Successful ABC Conference](#)
- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

Rebecca Mersereau is the first student to have expressed interest in the programme. She is currently completing a Masters Degree in Natural Resource and Environmental Management at the UWI in Barbados. She specializes in Water Resource Management.

Rebecca is interested in conducting her research project in Dominica during the summer months and will be available from 4th June until 21st August 2009. She holds undergraduate degrees in Biology and Education and has a wide range of interests. She is particularly interested in aspects of watershed management and pollution mitigation, including erosion and water quality issues.

Rebecca says she enjoys working with the public -- particularly in rural settings -- and would also be interested in anthropological-centred projects such as livelihood analyses pertaining to water resources. She is also open to a wide range of project ideas.

## 9. CBWMP affiliates to benefit from Canada-Caribbean Disaster Risk Management Fund

In pursuit of assistance for disaster risk management, CBWMP Executive Director Victor Poyotte recently contacted Leslie John Walling, Consultant Coordinator of the Canada Caribbean Disaster Risk Management Fund (CCDRM).

The Fund is designed to support small-scale projects at the community level that identify and reduce disaster risk management and strengthen critical areas of preparedness and safety.

The first Request for Proposal (RFP) was opened from 15th November 2008 to 15th January 2009. The Secretariat received information that a second RFP was scheduled to be announced in March 2009.

This information was passed on to member utilities and those interested in submitting a project for funding were asked to commence preliminary work pending the formal announcement.

To facilitate the process, the Secretariat attached one copy each of the following documents received from the CCDRM: CCDRM Fund Profile; CCDRM Application Template; and CCDRM Project Evaluation Matrix and Guide for Project Submission.

To have a better chance of success with the project submissions, the office of the Consultant Coordinator indicated a willingness to assist utilities with the development of proposals.

## 10. CBWMP hosts Supervisory Management Course for NAWASA in Grenada

The CBWMP towards the end of March 2009 arranged an important Supervisory Management Course for staff of the National Water and Sewerage Authority (NAWASA) of Grenada.

Facilitated by Executive Director Victor Poyotte, the two-day course -- which was held on March 25 and 26 -- examined several topics aimed at enhancing the efficiency and capability of participants.



# CBWMP INC.

CARIBBEAN BASIN WATER MANAGEMENT PROGRAMME INC.

## InThis Issue

- [President and Executive Director Attended Successful ABC Conference](#)
- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

Among the issues addressed were: models and theories of supervision, as well as the transition from being a worker to becoming a supervisor. The course also looked at the relationship between supervisors and subordinates, as well as the delegation of principles and practices.

Participants were introduced to concepts of management that included work planning and scheduling, meeting management, finding and solving problems and effective decision making.

Among other topics discussed were: Human relations, conducting employee job orientation, performance appraisals, building effective teams, mastering core supervisory competences, industrial relations practices and report writing.



# CBWMP INC.

CARIBBEAN BASIN WATER MANAGEMENT PROGRAMME INC.

## InThis Issue

- [President and Executive Director Attended Successful ABC Conference](#)
- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

## News from Affiliates

---

### 1. \$24 Million Water Supply Project for St. Vincent's Windward Coast

*Vincentians are keeping their eyes on a \$24 million major water supply project that will improve the lives of thousands and end decades of living without full access to this vitally important natural resource.*

The Windward Water Supply Project, now under way, is being funded by French agency AFD (Agence Francaise de Development) and the multi-island state's Central Water and Sewerage Authority (CWSA).

**This major project is serving the Eastern Coastal areas from Colonarie in the north to Diamond Industrial Estate in the south and was designed to serve a population of around 22,700 in the two major areas involved.**

**But it didn't all just happen overnight.**

**According to historical records, a project to supply the entire East Coast of Saint Vincent with water was identified as far back as 1972 by Canadian investigators. That was when the mainland island's first Water Resources Study was done.**

**Work on this project has been continuing in stages over the years. In 2002, before it officially started, the Park Hill component was constructed. And even before then, in 2001, a portion of the transmission main was installed at Diamond to serve the new landfill.**

**Work on the main aspects of the project, however, began in mid-May of 2003 and are now completed.**

**But it was not an easy road.**

**The main challenges, say the project coordinators, were: sourcing suitable materials for the slow sand filters; the remoteness of the treatment plant site; the vast geographic size of the project; acquisition of suitable lands for some of the distribution storage and unavailability of construction materials from time to time, including both fine and coarse aggregates and cement shortages.**

**Historically, the entire St. Vincent Windward Coast was faced with a water supply problem with a severity that varied from village to village.**

**For example, there were some eight intakes feeding a network of five water supply systems in the project area, all of which were gravity-fed from small springs and streams. As a result, water quality was affected by an aggressive**



# CBWMP INC.

CARIBBEAN BASIN WATER MANAGEMENT PROGRAMME INC.

## InThis Issue

- [President and Executive Director Attended Successful ABC Conference](#)
- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

agricultural expansion. Indeed, farming took place all around the intakes in most cases, so agricultural run-off affected all systems.

Apart from the threat to the water quality, the systems were old and undersized and simply could not deliver sufficient water to meet the needs of an expanding population.

But all of that's now part of the past.

The project components included lots of infrastructural development. It saw construction of a main water intake on the southern tributary and an emergency small intake on the northern tributary of the Jennings River (at around 1,100 feet elevation in the Jennings Valley).

It also included construction of a 1.1-million-gallons-per-day capacity water treatment plant, consisting of a sedimentation tank, four slow sand filters and chlorination facilities.

In addition, the project saw construction of a 500,000-gallon treated-water storage reservoir in Jennings Valley and a gravity water transmission main from Jennings to Diamond Industrial Estate, a distance of 20 miles. A second gravity main was also constructed from Montreal to Central Windward area.

About 44 miles of smaller water distribution lines were also developed in the project area, as well as four reinforced concrete distribution storage tanks of 50,000 gallons capacity each at Park Hill, New Adelphi, Cedars and Argyle. Another tank, at 80,000 gallons capacity, was also constructed at Carapan.

The \$24 million capital cost of the project is considered high, but those involved indicate that the operational cost of the system will be quite low. They explain that the technology is rudimentary, employing plain sedimentation (with no chemical added), slow sand filters and gravity (with no pumps).

The treatment method, the experts also say, though simple, ensures high quality water.

There are two major water supply systems for the project: The Jennings Valley system will feed the lower parts of the project area and the Montreal system will feed the higher areas.

## 2. *New Septage Lagoon Project for St. Vincent*

*The Septage Lagoon project employs natural aeration in the process of treating human waste.*



# CBWMP INC.

CARIBBEAN BASIN WATER MANAGEMENT PROGRAMME INC.

## InThis Issue

- [President and Executive Director Attended Successful ABC Conference](#)
- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

The Central Water and Sewerage Authority (CASA) of Saint Vincent and the Grenadines is already seeing the benefits of and singing praises to a government-funded Septage Waste Treatment Facility now in operation near the mainland's Diamond Landfill Facility.

**This septage project aims to provide an environmentally safe method of treatment of human waste for this community by providing adequate storage space and a treatment system that depends mainly on natural elements.**

**But what, really, is septage?**

**Households in St. Vincent and the Grenadines depend on either pit latrines or septic tanks as holding systems for the disposal of sewerage waste generated by households. After a period of time, these holding systems become highly concentrated with organic matter called "septage".**



An engineer points to the Septage Lagoon in operation.

**Septic tanks and pit latrines become filled periodically, hence the need to empty them to create room for new inputs. Specialized vehicles with suctioning equipment and holding tanks are employed to remove the waste from the households.**

**It is estimated that St. Vincent and the Grenadines produces approximately 670,000 gallons of septage each year for disposal. However, currently, the service providers are depositing it at inappropriate places. Hence this project.**

**The Septage Waste Treatment Facility (or Septage Lagoon) is a series of four ponds that employs the processes of natural aeration and stabilization by gravity. Effluent flows into subsequent ponds over a sufficient time period to allow the breakdown of the septage to an environmentally acceptable standard. Following Chlorination the final effluent is released into the natural environment.**

The project started in June 2007 and was completed in December 2008. Septage waste haulers in St. Vincent can now transport their loads to this facility for proper disposal.

### 3. CaribDA joins CBWMP... Desalination on Region's Water Agenda

The Caribbean Basic Water Management Programme (CBWMP Inc) continues to broaden its tentacles, with the Caribbean Desalination Association (CaribDA) becoming one of the latest regional water-related entities to join its ranks.



# CBWMP INC.

CARIBBEAN BASIN WATER MANAGEMENT PROGRAMME INC.

## InThis Issue

- [President and Executive Director Attended Successful ABC Conference](#)
- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

Desalination is the process by which sea water is transformed to fresh water through evaporation and this is taking place in several Caribbean islands. In fact, this region was one of the first to host such technology, with desalination taking place commercially in the Caribbean as far back as 1928, when the process was first employed on the Dutch island of Curacao.

CaribDA is a non-profit organization and represents members from the Caribbean desalination and water re-use communities. But it also aims to include utilities, industries, universities, governments and individuals involved or interested in water supply improvement in the Caribbean.

The group aims to be the Caribbean platform for sharing of experiences, knowledge and resources on desalination and related technology and to promote its appropriate use. It also intends to examine ways and means of lowering water production costs, promoting supply chain management and collective buying, improving emergency management, achieving a high degree of standardization, implementing innovative alternative processes and procedures, applying SHEQ improvements and to also do bench marking.

Among the critical issues of concern to desalination plants in the Caribbean (and to CaribDA) are: water reef protection, shipping interests, legislation, risk management, operational skills and brine discharge points.

With water becoming such an increasingly important resource worldwide and desalination having the possibility to reduce the cost of water production in the Caribbean, the organizers of CaribDA felt it necessary to bring like-minded entities and individuals together. But CaribDA is not restricted to large Caribbean desalination users. It is also inviting and encouraging smaller users like hotels and resorts to join as well.

The association is seeking association with the International desalination Association (IDA) and hopes to connect regional efforts with those of the international community.

(More information on the association can be found at the association's website at: [www.caribda.com](http://www.caribda.com))



# CBWMP INC.

CARIBBEAN BASIN WATER MANAGEMENT PROGRAMME INC.

## InThis Issue

- [President and Executive Director Attended Successful ABC Conference](#)
- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

## Feature Article

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### Water Sector and St. Lucia's GDP – An upward trend

The contribution of the water sector to Saint Lucia's national GDP has, over the past six years, been a story of ups and downs, but with more ups than downs in recent years.

According to the latest statistics from the Government Statistical Department, the water sector contributed 4.33% of the GDP for 2008, up from 3.79% in 2007.

The department's statistics for the past six years indicate that in 2001 the water sector accounted for - 1.31% of the GDP, but the figure increased to 1.20% in 2004, only to slip back to 0.60% in 2005. The figure increased to 1.95% in 2006.

The statistics, release in April, show a steady growth in the water sector's contribution to Saint Lucia's GDP (by economic activity at factor cost) from less than one percentage point in 2005 to almost four and a half points in 2008.



# CBWMP INC.

CARIBBEAN BASIN WATER MANAGEMENT PROGRAMME INC.

## InThis Issue

- [President and Executive Director Attended Successful ABC Conference](#)
- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

## Feature Article

### *Bottled or Tap Water* **AT WHAT COST?**

**Water is life!** That's the mantra of those in the water business – both the business of managing water and the business of selling water. But this simple phrase can also mean different things to each set of managers of water -- depending on their interpretation of 'life'. Yet, indeed, water is life. We need it. We simply can't do without it. Water, therefore, is both a precious natural and national resource and a precious commodity, as had been proven over the years.

Time was when water was free – when clean rivers provided water for everything from washing to cooking and bathing; when standpipes were strategically located in every community -- and when there were no water bills.

Today, however, time was too when the tap was our main source of drinking water. Increasingly, bottled water is replacing tap water as the drinking water of choice.

Whether for health reasons associated with experience or influenced by the times, more people buy bottled water every day. The water market has grown by leaps and bounds as people get more health conscious. The choices of bottled water have also increased as a result of the increase in the number of new bottled water entities and brands emerging across the Caribbean.

Indeed, many Caribbean people buy water every day -- yet the same persons neglect to pay their monthly water bills. We pay cash for bottled water each day at work, yet we use the tap water at home on credit every day, all day long. But what most don't realize is that we pay more for bottled water than the water provided through our taps by water utilities across the region.

Yes indeed, bottled water costs more than tap water.

In Saint Lucia, WASCO provided water at a cost of EC \$8.14 for each 1,000 gallons in 2009. But in some stores in some parts of the Caribbean, depending on the brand, bottled water can fetch as high as EC \$8.14 per gallon and more – a thousand times more than pipe water. Yet, consumers buy and pay without batting an eyelid -- and not a drop of water from their eyes...





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CARIBBEAN BASIN WATER MANAGEMENT PROGRAMME INC.

## InThis Issue

- [President and Executive Director Attended Successful ABC Conference](#)
- [Saint Lucia Launches National Water Commission](#)
- [CBWMP co-hosts Caribbean Seminar as experts examine Climate, Water & Tourism](#)
- [Did You Know... Why Water? Why Tourism?](#)
- [CBWMP Prepares WASCO Managers for Organizational Change](#)
- [WASCO Privatization on hold – but there's a silver lining...](#)
- [Secretariat News](#)
- [News from Affiliates](#)
- [Water Sector & St. Lucia's GDP](#)
- [Bottled or Tap Water: At What price?](#)
- [Searching for water in outer space](#)

If old habits die hard, this is one that is guaranteed long life ahead -- that is, if the managers of our water resources and those in whose custody the resource lies do not engage in actions aimed at protecting consumers. This can be done by ensuring high standards and quality, while at the same time taking practical steps to enhance the public's appreciation of the value of protecting, preserving and utilizing our own water resources.

And, most importantly, Caribbean people -- from Barbados to Belize, Dominica to Dominican Republic, Guyana to Grenada -- must be taught that the water from our taps is not a free gift from God or from the local water company, but a product that has to be manufactured from a natural resource through processes that employs people, who have to be paid to operate machinery to send the water to your tap -- all of which costs lots of money; and which is why we get water bills.

If those of us who drink bottled water daily would dare do the arithmetic for the monthly cost and compare it with our monthly water bills, we should be easily challenged, not only to pay our water bills, but also to encourage those who don't to do so.

After all, water is life!

Isn't it?



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## Feature Article

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### Searching for water in outer space

While earthlings are expressing greater concerns about the availability and scarcity of the earth's water resources and reserves, the search for water has now been launched in outer space.

In early March 2009, European agencies reported launching a special satellite that will spend one year circumnavigating tens of thousands of planets, stars, and other galactic phenomena in search of signs of water.

Scientists have long held the view that the best way to determine whether other form of life exist on other planets is to search for signs of water.

No such sign has been found as yet, but the multi-million-dollar space research project continues as the astrologers and scientists combine their skills, experiences and data sharing to search for proof that we may have or have had living neighbours in space or that other planets are capable of supporting life.

Yet more proof that "Water Is Life."