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## Secretariat Update

### WE ARE RETURNING!!!

**All roads lead to Trinidad and Tobago for our 2016 Conference & Exhibition. We are returning to where it all began. Come celebrate our "Silver Anniversary" (25 years) with us.**



## SAVE THE DATE: OCTOBER 2016

### YOUR CONTRIBUTIONS

Dear Members and Partners, CWWA welcomes your submissions to the Newsletter. Please send us any articles or newsworthy items at [cwwattsecretariat@gmail.com](mailto:cwwattsecretariat@gmail.com)

### CWWA ASSISTANCE FOR DOMINICA

We are pleased to report that based on our email blast to our members and partners, we had very prompt responses and good offers of support for DOWASCO. The Antigua Public Utilities sent in a team of pipe fitters and lab personnel coordinated by Ivan Rodrigues of the Water Department; the Belize Water Services provided a cash donation of US\$5000 organised by CEO Alvan Haynes; the Water and Sewerage Corporation (Bahamas) made a cash donation through former CWWA President, Cyprian Gibson. The CEO of the Water and Sewerage Authority (WASA) of Trinidad and Tobago, Mr. Gerard Yorke, sent in an assessment team coordinated by David Benny Head of Research and Development to determine what further support WASA could provide. One of CWWA partners, HD Supply Waterworks of Miami (see article pg.5) shipped much needed materials to DOWASCO.

In discussions with DOWASCO, the Operations Manager, Ms. Ivanira James identified that one of the lessons that has been learnt, was that after the initial emergency support that was needed to get the water supply back on track the expertise that is needed moves from the pipe fitters and plumbers to design engineers who could assist DOWASCO to re-design its system to be more resilient and better suited to the effects of climate events. It also recognized the need for laboratory expertise to monitor water quality as the system becomes functional and to avoid the outbreak of gastro-intestinal problems among the population.

DOWASCO has agreed that the water sector in the region needs to document lessons learnt from such events that are specific to the sector and to disseminate widely.



## Tropical Storm ERIKA – First-hand pictures

Based on a request for assistance from the Dominica Water and Sewerage Company Limited (*DOWASCO*) to the Water and Sewerage Authority of Trinidad and Tobago (**WASA**), David Benny, Head Research and Development and Daren Gaze, Head Water Planning travelled to Dominica over the period September 16<sup>th</sup> – 20<sup>th</sup>, 2015. An assessment report was prepared outlining further assistance that WASA could provide and this is under consideration by WASA. The pictures hereunder were taken by the WASA team.



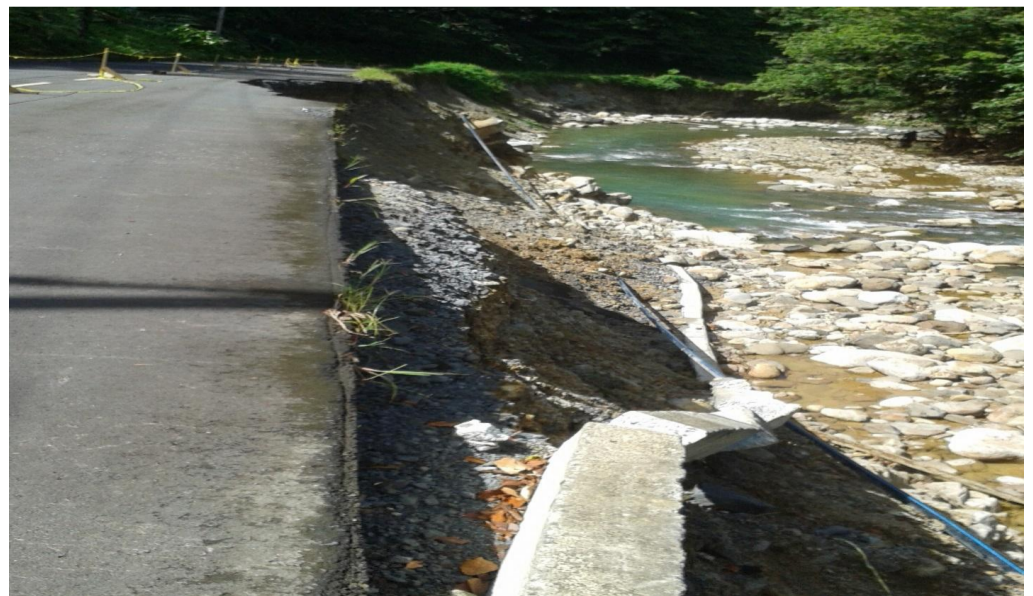
Sewer Collapse on the Roseau Collection system



Damage sustained by river in the Grandbay area



Broken pipeline at Pichelin



Roadway collapse at Springfield



## **CWWA participates in the Programme for Building Regional Climate Capacity in the Caribbean (BRCCC Programme)**



The American People through the United States Agency for International Development (USAID) are funding a programme to build regional capacity for adaptation to climate variability and change (BRCCC Programme) in the Eastern Caribbean, in partnership with the World Meteorological Organisation (WMO) and the Caribbean Institute for Meteorology and Hydrology (CIMH). The programme supports the establishment of a WMO designated Regional Climate Center (RCC) for the Caribbean, housed at CIMH.

It is well known by now that the impacts of climate variability and change pose a serious threat to the social and economic development of the Caribbean region. These impacts include damage and loss associated with changing weather and precipitation patterns, more frequent and intense storms, more frequent and intense flooding and drought; sea level rise that is accelerating coastal erosion and threatening infrastructure; saltwater intrusion to coastal aquifers that threatens freshwater supplies; and increased air and sea surface temperatures that influence hurricane severity. These impacts are projected to be exacerbated in the coming years, threatening infrastructure, energy production, economic activity, agricultural productivity, coastal ecosystems and reefs, fisheries, industrial production, urban and rural development, community livelihoods and well-being.

An important component of the BRCCC Programme (which runs until January 2017) is the establishment of early warning information systems across climate timescales (EWISACTs) for six key socio-economic sectors, often affected by major weather and climate events. These sectors are namely: Agriculture & Food Security, Disaster Risk Management, Energy, Health, Tourism and Water. These warning systems can improve the effectiveness and efficiency of sustainable planning, adaptation strategies and support regional growth that is resilient to climate risks. The process of development of these warning systems is being coordinated by the CIMH in collaboration with a team of regional sectoral partners, termed "the Consortium". The Consortium is conceived to be a key mechanism to champion the design, development and delivery of tailored climate products and services in priority climate-sensitive sectors in the Caribbean. The CWWA is one of six regional agencies on this Consortium of Regional Sectoral EWISACTs Partners, with responsibility for the water sector. The CWWA will work through its extensive membership especially the engagement of its National Sections and partner water utility companies to identify, design and disseminate information and related on climate and water as well as to provide relevant training.

The CIMH is an Institution of the Caribbean Community (CARICOM) and the technical Organ of the Caribbean Meteorological Organization (CMO). The mandate of the CIMH is to assist in improving and developing the Meteorological and Hydrological Services, as well as, providing the awareness of the benefits of Meteorology and Hydrology for the economic well-being of the CIMH member states. This is achieved through training, research, investigations, and the provision of related specialized services and advice.

*Dale Rankine*  
 Post Doctoral Researcher  
 Caribbean Institute for Meteorology and Hydrology (CIMH)



## Anaerobic Digester Pilot Project

### Clean water, agricultural fertilizer and renewable energy

The Head of Programme of the GIZ- funded Caribbean Aqua-Terrestrial Solutions Project (CATS) Dr. Horst Vogel has announced an intra-regional pilot project being implemented by the North-East Farmers' Organization (NEFO) in Grenada and staff from Saint Lucia's Ministry of Agriculture which has commenced in the New Hampshire area of Grenada. The project is about improving pig farming in the hinterland of the ['Molinière-Beauséjour Marine Protected Area'](#) (MPA) by introducing simple but effective biogas digesters.



*Inflatable plastic bag digester*



*Photos: Eva Näher (GIZ)*

*Pig sty and adjacent biogas digester shed*

Mr. Quint Odlum of the Engineering Department of the Ministry of Agriculture in Saint Lucia, supervised the installation of an initial two biogas digesters and trained the pig farmers and other NEFO farmers in the operation and maintenance of the digesters. Thaddeus Constantin of the Research Department of the Ministry of Agriculture in Saint Lucia, trained NEFO farmers in natural pest control and the production of natural fertilizers made from farm products. Both measures combined will help to reduce the drainage of nutrients and other chemicals into water that flows into the Molinière-Beauséjour MPA. The digestate produced is an ideal source of agricultural fertilizer, while the biogas produced is renewable energy. Of equal interest is a related approach of rustic sewage purification. Dr. Detlef Schwager from a related GIZ-Funded Project called 'AquaVerde' and based in Grenada has advised about the French 'Alistep' concept that uses filters planted with reeds. The concept requires no power supply and is ideal for rural communities. For further information please contact:

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**Head of Programme (PGL), Caribbean Aqua-Terrestrial Solutions (CATS)**



## CWWA PARTNER'S CORNER

### Traeger Brothers Support CWWA

Traeger Brothers recently provided much needed support to the CWWA Secretariat in the form of a donation of a state-of-the-art laptop computer and a cellular phone. In handing over the items to President Jason Johnson, Scott Holtzman, Director of Traeger's Technology division stated his delight in having the opportunity to help the CWWA maintain its technological edge, which in turn will help all of its members through increased efficiency and connectivity.

Traeger Brothers, known for their complete line of water distribution products, competitive pricing and quality service, now has a multi-million dollar technology division. A former partner to Cable and Wireless's Caribbean Operations, Traeger's Telecom Division once led the company in total sales. The application of relevant technology continues to enhance the performance of not only everyday appliances but also its industrial products. Traeger representatives noted the case of water meters in Antigua, St. Maarten, and Aruba where it was necessary to insure a clear radio frequency prior to selecting the correct meter for that application.



Scott Holtzman, Director of Traeger's Technology division offered its expertise to the CWWA community. Through its strategic partnerships with industry leading switching and management platform manufacturers, Traeger can offer engineering expertise to design and implement a communications network for wireless, voice and data that can further increase efficiency and cost savings in the sector. The CWWA expressed its appreciation of the donation made by Traeger Brothers.

### HD Supply Waterworks Assists in Dominica's Tropical Storm Relief Efforts

In response to the CWWA call to its members for help in the relief effort, HD Supply Waterworks, North America's leading distributor of water, sewer, stormwater, fusible piping and fire protection infrastructure products, responded by donating items valued at \$15,000 to help with repair of the island's waterworks infrastructure. Lynn Roncska, the district manager responsible for HD Supply Waterworks' International Branch in West Palm Beach, Florida, immediately responded by organizing a donation for the Dominica Water and Sewerage Authority (DOWASCO).

CWWA's Executive Director Patricia Aquino helped to coordinate the logistics of getting it to DOWASCO. Materials were shipped and delivered at no charge by the Kestrel Group, from HD Supply Waterworks' International Branch. The shipment arrived on September 23 2015. The donation included a variety of clamps, couplings and valves. These items cover the range of what may be most urgently needed, such as repair clamps installed to stop leaks in broken pipelines serving residential and industrial areas, according to Davis Wolf, HD Supply Waterworks' Senior Manager of International Business Development.

The items donated, Davis said, meet the materials standard and specification within Dominica, which is the British Standard. HD Supply Waterworks inventories a wide variety of products meeting both the AWWA and British Standard at its international branch. "The size ranges of the materials shipped make them particularly well-suited for repairs taking place within the residential and small business community on the island," Wolf said.

Helping with such a relief effort is part of the HD Supply Waterworks mission to make the environment and the communities it serves better places to live and work, even more so when disaster assistance is directly needed, according to HD Supply Waterworks President Steve LeClair. "When a natural disaster like this happens to a community, we see it as our responsibility to step up and help the affected area as much as we can," LeClair said.



## Water Quality Monitoring at Belize Water Services

September 2015

In August 2015, at the 24<sup>th</sup> Annual Caribbean Water and Wastewater Association Conference, Belize Water Services Ltd. (BWS) participated in the ***Caribbean Water Utility Action Plan to Protect Water Sources and Build Resiliency in the Face of Climate Change and Other Threats*** session. Following up from that session, BWS has decided to increase its focus on the protection of surface water sources, which is its primary source for water supply. Belize has over thirty watersheds with water being sourced from 3 rivers to produce potable drinking water for about 65% of the customer base. In recent times, due to population increase, climate change, and increased activities in farming, agriculture, aquaculture and tourism, BWS has increased its monitoring of such water sources to ensure that we are able to effectively treat water and identify any contaminants to these sources.



Team Inspecting Surface Water Intake at the Belize River



Chemist/Microbiologist Gayle Ross describes best practices at the lab at the Placencia site.

In order to ensure our mission of delivering high quality and cost-effective services in an environmentally responsible manner, BWS has embarked on establishing a Water Quality Monitoring Program (WQMP) for surface water. This had commenced earlier with the assistance of our WOP partner, Contra Costa Water District; this twinning, which commenced in 2011, completed a second phase in March 2015. The purpose of the WQMP is to improve our laboratory capabilities, including establishing the necessary policies and procedures, particularly in effectively testing for contamination and heavy metals. This program will assist in building awareness and provide analytical data for all our stakeholders, providing information of basin and river activities that are affecting the quality of water and, subsequently, enforcing the necessary national policies to mitigate the effects of agriculture, development and climate change as it relates to water. One of the first steps is to develop a testing results database to collect and analyse surface water. We aim to have this established and to have all stakeholders engaged in this program by the end of 2015. █



## SECTOR NEWS

### **BARBADOS WATER AUTHORITY - REDUCES WATER SUPPLY**

**September 17 2015** - Over the last couple of months, the Barbados Water Authority has been experiencing problems providing a continuous supply of water to several communities on the island. Areas that have been impacted for long durations are generally those in the parishes of St John, St Joseph, St Andrew and St Thomas that depend on the Golden Ridge and Castle Grant Reservoirs and the Spring System on the east coast.

These systems get their water from the stream-water wells located at Applewaites, St. Thomas, Sweetvale 1 and 2, and Bowmanston, St. John and the two springs at Newcastle and Codrington College, St. John. Other areas include Rock Hall, St Andrew which is served by Rock Hall Reservoir, St. Andrew and Warleigh Reservoir, St. Peter.

Investigations by the Authority have revealed that these problems have been aggravated by three (3) major factors:

1. There has been a noted reduction in production from the wells feeding Golden Ridge and Castle Grant reservoirs due to falling water tables which has been evidenced by pumping air.
  - a. a 30 % reduction at Bowmanston;
  - b. a 50 % reduction at Sweetvale 1; and
  - c. a 50 % reduction at Sweetvale 2.

This has resulted in total loss in production from these three sources amounting to one (1) million gallons per day (MGD) from a normal production figure of two and half million gallons per day (2.5) MGD.

2. There has been more frequent disruptions in supply due to an increase in the number of burst mains per day. The number of burst mains experienced has increased from an average of 3 per day to about 6 per day over the last three years. This makes it very difficult to maintain a continuous supply.

3. Increased irrigation water demands from the public water supply network due to drought conditions experienced. This is evidenced by the increased number of kitchen gardens as people try to produce their own food to offset the high cost of living resulting from the economic conditions.

To read more visit: <http://barbadoswaterauthority.com/?p=3163>

### **WATER AND SEWERAGE (BRITISH VIRGIN ISLANDS)**

**September 30, 2015** – VALLEY, Virgin Gorda, Virgin Islands – Over the past few days residents of Virgin Gorda have been flooding social media with complaints and concerns about the quality of water they have been receiving through their taps and have been calling on the relevant authorities to step in and have it addressed in short order. The problem, based on the complaints that have reached this news site's attention, has been affecting most residents in the Handsome Bay area of Virgin Gorda. 'Disgusting'. Complaining about the stench and foul taste of the tap water, some residents posted their disgust and discomfort on social media. "Mine has been like that for the past few days...its disgusting...I hope I don't get some type of skin disease and itch....I not even putting it in my mouth to brush my teeth...sighhh..."

"It's those nasty smelling things in the sea water..... Remember that's that same water that they recycle and distribute. When I wash my clothes I realise that scent is on it too. Just like seaweed. Crazy." "Omg that's no good this is serious they need to look into it before it gets worst. Did anybody make a complain about it?"

Representative for the Ninth District Dr. The Honourable Hubert O'Neal who said he too was in receipt of complaints and while he had launched an investigation and responded to the concerns raised via his Facebook page, he further assured residents that the situation is being rectified.



To read more visit:

<http://www.virginislandsnews.com/en/news/vg-residents-complain-of-seaweed-stench-taste-in-tap-water>