



## **Ministerial Statement**

by

**Lt. Col. the Hon. David A. Burch, OBE (Mil), ED, JP, MP**

**Minister of Public Works**

**Water and Wastewater Master Plan Implementation**

**July 24<sup>th</sup>, 2020**

**Mr. Speaker**, outlined in the government's platform of 2017 were a number of commitments made that were designed to enhance the lives of our citizens. Specific to the Ministry of Public Works, the government committed to reviewing the current system for handling Water and Wastewater – and to work with the private sector to facilitate systems that would properly treat sewage waste across the island which also includes the two Municipalities. To that end, I wish to provide an update on the status of the Water and Waste Water Master Plan Implementation.

**Mr. Speaker**, the Cabinet authorized the establishment of a Working Steering Committee under the responsibility of the Ministry of Public Works with the objective of implementing the recommendations of the strategy for sustainable water and wastewater servicing for the St. George Water and Wastewater Master Plan. The Cabinet further authorized the expansion of the St. George Water and Wastewater Master Plan, to include the installation of an Infrastructure Corridor and the vetting of a Waste and Water Recovery Utility, which would incorporate the Tynes Bay Waste-to-Energy facility as a source of green energy.

**Mr. Speaker**, the Working Steering Committee, in collaboration with Bermuda Land Development Company ["the BLDC"] initiated a project that would provide potable water, sanitary sewer and reclaimed water infrastructure to the areas of Southside, the Islands of St. David's and St. Georges which includes the new St. Regis Hotel. It is envisioned that this project will serve as the template for an island wide water and wastewater master plan - with the above being Phase I.

**Mr. Speaker**, Phase I has a very aggressive timeline with requirements for all works, including the potable water, sanitary sewer and reclaimed water connections, to be undertaken at the St. Regis Hotel site by December 31, 2020. To assist in delivering on the project requirements the BLDC has retained Milhouse Engineering & Construction of Chicago to provide Program Management and some Engineering services.

The BLDC has also retained Onsite Engineering of Bermuda to provide engineering support services. Milhouse began providing services on the project in mid-February of this year and has developed an overall Phase I project execution plan that has established seven separate work packages based on geographic area and specialty scope of work.

**Mr. Speaker**, the establishment of the seven separate work packages also facilitates concurrent design of each of the work packages, and after tendering award, concurrent construction of each of the work packages. For the construction phase, it is anticipated that four to seven local contractors will be performing works

simultaneously. The logic incorporated into the overall Phase I Master Schedule is driven by the requirement for final connection of potable water, sanitary sewer and reclaimed water for commissioning at the St. Regis Hotel by December 31, 2020.

**Mr. Speaker**, one of the critical components of the project is the fusion welding of the high-density polyethylene, or HDPE piping that is required to connect piping segments and fittings. The project specifications will require that this fusion welding be performed by contractor employees that have been trained and or certified in fusion welding.

In an effort to address this need the program management team is working on a plan to train and vet local persons in fusion welding who could then participate in the works. The scheme also plans to bring a training firm to the island as soon as possible to provide manufacturer training and certification to Bermudians.

**Mr. Speaker**, oversight of construction works will also be a critical component of Quality Assurance/Quality Control (QA-QC) of the program. Milhouse Engineering recommends the engagement of a specialized Site Supervisor (more than likely from overseas) who will lead a team of field inspectors to oversee the works in the field by ensuring these works are being performed in accordance to the plan and specifications. The field inspectors will be Bermudians.

**Mr. Speaker**, multiple stakeholder coordination meetings have already occurred with the Departments of Planning, Environment and Natural Resources, Public Lands and Buildings and Works and Engineering. During these meetings the seven work packages were presented in turn the Departments provided valuable input and guidance on the process and submittal for securing the necessary approvals, permits and agreements. Communication and coordination with these stakeholders is ongoing.

**Mr. Speaker**, there have also been stakeholder meetings with the Corporation of St. Georges, St. Georges Club Management and Hotel Co. (St. Regis Hotel Developer). One of the most critical phases of the project will be the tender and negotiation and tender award phase. As previously mentioned, the project execution plan includes a plan for construction to be performed concurrently on seven separate work packages. The tendering and negotiation and tendering award on all seven of the work packages is planned to occur in mid-August 2020.

The seven separate tender packages are as follows:

**Tender Package # 1 - Piping Infrastructure – to Stokes Point Water Crossing**

**Tender Package # 2 - Piping Infrastructure and lift station – 2A Stokes Point to Echo Lane; 2B Echo Lane to Tiger Bay Lift Station; 2C Rose Hill to St. Regis & Market Square; 2D Tiger Bay Intersection to St. Regis; 2E St. Regis Hotel Property; 2F St. George's Lift Station Upgrades**

**Tender Package # 3 - Storm Water – Sanitary Sewer Separation- Southside Area: 3A East; 3B Central; 3C (Gravity) West**

**Tender Package # 4 - Southside Wastewater Treatment Facility Plant Upgrades**

**Tender Package # 5 - Potable Water Reservoir Transfer Network: 5A East; 5B West; Potable & Reclaimed Water Reservoir Transfer Network Pumps & Controls**

This package will involve the interconnection of six existing potable water reservoirs across the Southside property. Existing pumping stations will be utilized where appropriate. New pumping stations will be designed and constructed where necessary. These pumping stations will provide distribution to the local customer zone as well as allow water to be transferred back into the network to fill other reservoirs.

### **Tender Package # 6 - Reclaimed water Force Main to Reservoir # 6**

This package includes the tie-in of the treated WWTP effluent (reclaimed water) with the non-potable (flushing) systems in the Town of St. George's. This will involve converting Reservoir 6 from potable water to effluent.

### **Tender Package # 7 - Telemetry**

The Telemetry project will include stand-alone primary flow, level and pressure sensing instruments as well as interfaces to lift and pump station programmable logic controllers all communicating by way of fiber or wireless data transmission to a host system.

### **Contingency Plan – St. Regis Hotel Wastewater Treatment**

One of the primary goals of the Phase I program is to provide potable water, sanitary sewer and effluent water to the St. Regis Hotel by December 31, 2020. The risks in delivering these products by the required date were evaluated and it was determined that potential delays with the installation of the piping could have an adverse impact on the sanitary sewer force main connection to the St. Regis Hotel. To address this risk contingency plans have been and continue to be further developed to ensure that wastewater disposal capabilities are in place and fully functional at the St. Regis Hotel by December 31, 2020.

**Mr. Speaker**, the project budget amount for these 7 packages is \$5M. A financial feasibility report for Phase I has been completed and delivered to BLDC and is being used to raise capital for the construction phase of the project. Both local and international financing entities are being considered.

**Mr. Speaker**, there are also legislative amendments required to establish BLDC with the protections typically afforded a utility as well as the ring-fencing of operations associated with this project until such time as a Utility is created and operations transferred to aforementioned utility. In addition to the aforementioned Phase I work, Phases II and III of the overall island wide project are also in progress.

**Mr. Speaker**, the Tynes Bay Waste-to-Energy Facility and the Corporation of Hamilton form an intricate part of the overall plan. It is envisioned that the Tynes Bay site would incorporate a new sewage treatment plant that would receive the sewage waste from the Corporation of Hamilton and the Corporation of St. Georges, both of which are currently pumping sewage waste into our pristine marine environment; a practice that must stop in Bermuda as a first world nation. Not only that, but as an island that depends on rain water for the majority of its fresh water supply and as we enter a new era of global warming, we should change our perception of sewage from that of a waste product, to rather a renewable resource that should be recovered but that we are now simply throwing away.

**Mr. Speaker**, to that end the new sewage treatment plant would process sewage into non-potable water that can be used for irrigation, flushing or any other non-

potable use that will offset the use of more expensive fresh water today. Furthermore, it is envisioned that this new sewage plant will be powered by the existing Tynes Bay Waste-to-Energy facility, which would in turn utilize the resulting sludge from the sewage treatment plant as a fuel source. Power from Tynes Bay, would then be used to produce increased amounts of potable water via the already existing Sea Water Reverse Osmosis plant and non-potable water from the sewage plant, which would then in turn be sold as revenue streams for the new utility.

**Mr. Speaker**, in essence, the Tynes Bay facility would cease to be simply a waste to energy plant and become a fully integrated Waste and Water Recovery Utility that would produce fresh water from the garbage and sewage. It is our hope that such a novel concept would not only be beneficial to the revitalization and longevity of island's waste and water infrastructure, but would be attractive to outside investors looking for green and blue initiatives that protect the environment while producing a positive return for their investors. In this regard, we are soon to be awarding contracts for feasibility studies to proof test the business viability of the concept as well as determine the regulatory framework required, so that potential investors, even local and private ones, can visualize the future potential of the initiative and capitalize on what is hoped to be a long term growth potential entity that will serve Bermuda sustainably into the future.

We recognise that this is a huge undertaking that will take several years to complete but we believe that it sets us on a path of environmentally addressing waste water needs and provides both municipalities the opportunity to address once and for all the better alternative to dealing with their sewage waste than dumping it into the ocean. We have all agreed to work collaboratively together to bring this to fruition.

Of course, **Mr. Speaker**, what is most important at this stage is to create new employment and generate economic activity in the country to help our economy recover.

Against that backdrop **Mr. Speaker**, I will commit to keeping this Honourable House and the people of Bermuda informed as we progress through the various phases.

Thank you **Mr. Speaker**