

**Minutes of a Meeting of the Environmental Authority
Held on Wednesday, 7 May 2025
At the Department of Environment and Natural Resources, Botanical Gardens, Paget
and Remotely using Teams Teleconference**

PRESENT: Ms. Davida Morris, Chair (remote access for part of meeting)
Mr. Eugene Saunders, Deputy Chair
Ms. Debby Correia, Member
Mr. James Morrison, Member
Dr. Tom Sleeter, Member
Mr. Jonathan Starling, Member

ADVISORS: Dr. Geoff Smith, Director, DENR
Ms. Patricia Hollis, Environmental Officer, DENR
Dr. Shaun Lavis, Hydrogeologist, DENR
Mr. Armell Thomas, Acting Chief EHO (remote access)
Ms. Crystal Baxter, Environmental Health Officer
Mr. Tarik Christopher, Acting Chief Engineer, Public Works (remote access)

ABSENT: Mr. Andrew Barnes, Member
Mr. Paul McDonald, Senior Planning Officer, Dept. of Planning

BELCO Representatives: Mr. Mark Pacheco, Director of Operational Support Services
Ms. Kascia DaSilva, OHSE Manager
Ms. Hannah Lampit, Environmental Technician
Mr. Matt Thompson, Project Manager on behalf of BELCO

1. Confirmation of Minutes

Minutes of the meeting No. 403 held on 15 April 2025 were approved and signed by the Deputy Chair.

2. MATTERS ARISING

2.1 BELCO Complaints

The Authority **TOOK NOTE:**

that there were of 3 validated complaints of soot over 2 days on 22nd and 29th March, and zero odour complaints during March.

2.2 Tynes Bay Waste Facility March Update

The Authority **TOOK NOTE:**

for the period 25th Feb to 25 March 2025:

- Total tonnes less metal across the weighbridge: 4067.79, of that 41.43 tonnes of cooking oil.
- Stream 1 available for 31 days and ran for 31 days (100% of the month).
- Stream 2 was available for 3 days and ran for 2 days or 66.7 % of the month. It was offline for planned maintenance.
- T2 Turbine available 17 days and was offline from 1st to 14th March due to maintenance and rebuild.
- Total electricity produced 1st to end of month: 1005 MWh
- Ash processing plant produced: 101 loads of ash cement; 0 ash blocks; and 0 loads unconsolidated ash

The Authority **AGREED:**

that this data was not required to be presented on a monthly basis going forward.

3 BELCO's Presentation on the Environmental Remedial Obligation (ERO) Project.

The BELCO representatives gave a brief history of the Old Power Station (OPS) site including the LNAPL (light non-aqueous phase liquid) extraction between 2001 and 2020 when about 340,000 litres of oil was extracted from the ground, leaving about 34,000 litres of recoverable product in the ground. In 2020- 2023, the OPS was demolished, eliminated the active contributing source. In January 2024, the Remedial Action Plan was presented to the Authority, and the Supplemental Remedial Investigation began.

The 2024 Site Remedial Investigation objectives were to:

- Delineate and confirm the limits of the LNAPL plume
- Assess hydrogeological conditions
- Evaluate potential remediation options

The Methodology to achieve these objectives was to:

- Undertake a topographic survey of the site and an evaluation of existing monitoring wells
- Install data loggers to determine ground flow direction/s
- Collect soil and ground water samples and assess for evidence of contamination
- Dig test pits to define the limit of the LNAPL plume and identify hot spots of oil for extraction
- Removal of LNAPL product

The **hydrogeological investigation** showed:

- a) Groundwater flow regime is radial closer to the OPS foundations, with a velocity ranging between 53 m to 121 m per year, and the ground water flow varies, but the general direction is towards the Pembroke Canal.
- b) Freshwater/Saltwater interface near the Canal to be between 1.5 and 3.5 m
- c) There is some tidal effect near the Canal, but heavy precipitation is more likely to change the dynamics of LNAPL migration.

The **ground water and soil** results showed:

- a) Samples from the plume perimeter fully met RBCA Tier 1 Guidelines with the exception of one C11-C22 Aromatic Hydrocarbon exceedance at MW35.
- b) Arsenic exceeded Tier 1 guidance at 3 locations.

Test Pit Soil Sample Analysis indicated that C11-C22 Aromatic Hydrocarbons exceeded RBCA Tier 1 RBSL Soil to Ground Water Guidelines at all sampling locations, but remained below Commercial/Industrial maximum Tier 1 RBSL concentrations.

LNAPL Plume Boundaries and Source Zones

From Test Pit data, it was determined that there are barriers to LNAPL migration:

- a soil/silt layer to the north of the OPS
- an anthropic underground infrastructure at the intersection of Cemetery Lane and the Canal
- the Canal acts as a hydraulic barrier

however, a gravel horizon along the Canal which may permit the migration of LNAPL after heavy rainfall events.

LNAPL Recovery

In 2024, 580 litres of LNAPL were recovered from two recovery wells and 3 monitoring wells. One well (RW 80) yielded 516 litres over 4 days.

Q2 2025 Work Plan

- Efforts using drones will continue to validate piezometric maps
- data loggers will be installed to continue ground water flow investigations
- transmissivity tests in select wells will be conducted to calculate LNAPL recovery rates
- locations will be selected for Canal seepage tests

Q3/Q4 2025 Work Plan

- rubble will be removed from OPS site, site below rubble pile will be investigated
- Locations for installation of continuous recovery systems will be evaluated
- Perimeter ground water quality will be further analysed
- Hydrogeological model for on-side monitoring natural attenuation protocol will be built.

Future Secondary Remediation Operations, including funnel and gate system for LNAPL migration control, if required, will be considered if needed to control impact on the Pembroke Canal.

The BELCO representatives were thanked for their presentation.

4 Applications for Construction Permits and Operating Licences (New)

4.1 844, OL-1298 Ornamental Concrete Products, 8 Ducks Puddle, Hamilton Parish

The Authority **APPROVED**:

the application for a construction permit and operating licence for a concrete batch plant, subject to standard conditions, and providing no objections are received during the advertised period. It was noted that the company used to operate out of Vesey Street, Devonshire, and has been bought out by Ornamental Concrete Products.

5 Applications for Construction Permits and Operating Licences (Reissues)

5.1 The Authority **APPROVED**:

the applications for reissue of operating licences listed on the two-page printout, subject to standard conditions, with the exception of OL-801, BHB WWTP which was deferred pending submission of their annual report. Those approved include OL-1183 BLDC waste water treatment plant and OL-1173 Solace Aquamation Bermuda alkaline hydrolysis of animals plant.

6 Applications for Import Permit

6.1 Import Permit 203 Karibuni Ltd.

Ms. Debby Corriea recused herself during consideration of this matter.

The Authority **TOOK NOTE** of the import of:

250 cylinders each with 11.3 kgs of refrigerant R410A

240 cylinders each with 11.3 kgs of refrigerant R507A

100 cylinders each with 13.6 kg of refrigerant R134A

50 cylinders each with 9.5 kg of refrigerant R454B

100 cylinders each with 9.5 kg of refrigerant R32, subject to standard conditions.

7 Applications for Water Rights (New)

7.1 The Authority again **DEFERRED**:

WR 5830 Meyer Properties Ltd commercial water right for supply to boat power washer at 19 Wellington Slip Road, St. Georges, pending a site visit by the Government Hydrogeologist to assess current power washing practices and environmental stewardship.

7.2 The Authority **APPROVED**:

WR 5851 Paul Smith & Vernon Trott one domestic water right for household supply at 3A Church Dale, Smiths, subject to standard conditions.

8 Applications for Water Rights (Reissues)

8.1 The Authority **APPROVED**:

the reissuance of Water Rights on the six-page printout, subject to standard conditions, with the exception of eight indicated as withdrawn.

9. Amendment of a Water Rights

9.1 The Authority **APPROVED**:

the application submitted by RWTP Management Ltd. 66 Tucker's Point Drive, Hamilton Parish, for the amendment of WR 4244 to include for the disposal of 26,600 gallons/year of pool backwash water, subject to standard conditions and with the inclusion of activated carbon filters after the backwash filters. This is to ensure removal of chlorine residual before discharge.

10. Date of the Next Meeting

The next meeting was scheduled for 12 noon, Tuesday 20 May 2025 in the DENR Boardroom, Botanical Gardens, Paget



CHAIRMAN

20 MAY 2025

DATE

