

**West Pubnico Sewer Committee
Red Cap Restaurant, Middle West Pubnico
9:00 a.m., July 16, 2009
Minutes**

Present: Calvin d'Entremont, Chairperson
Aldric d'Entremont, Councillor
Kathy Bourque, Councillor
Delmar d'Entremont
Gus d'Eon
Gordon Amiro
Brian Surette
Lindsay d'Entremont
Harold d'Entremont
Maurice d'Eon
Floyd d'Entremont
Mike Topley, Horner ADI
Alain Muise, CAO
Lorelei Doucette, Acting Director

Also Present: Gordon Amiro, Wastewater Operator & Brian Surette of Amiro and Surette Trucking and Excavating Ltd.

Regrets: Bruce Hubbard

The meeting was called to order by Chairman Calvin d'Entremont at 9:20 a.m.

ACCEPTANCE OF AGENDA

It was moved by Lindsay d'Entremont, seconded by Gus d'Eon to accept the agenda with as presented.

Motion Carried

MINUTES OF PAST MEETING

It was moved by Maurice d'Eon, seconded by Harold d'Entremont to accept the minutes of May 5, 2009 with the correction that Lindsay d'Entremont was present.

Motion Carried

West Pubnico Sewer Upgrade Phase 1 Update

Amiro and Surette substantially completed the work within the original contract as of May 20, 2009 and minor deficiencies have been complete. Pump Station 11 requires new internal pipes and was not included in the original contract, so a change order was approved for this work and it should be complete according to Gordon Amiro by July 24,

2009. Nova Scotia Power is still required to perform final inspection and commissioning of the new Electrical Control Panels for the Pump Stations that received new panels (PS's 1, 2, 3, 4, 6, 7, 8, 9, & 10). Piping upgrade work inside pump stations have been completed on pump stations 2, 5, 7, 9, & 10; the bar screen was installed at the treatment plant.

Presentation by Mike Topley, Horner ADI
Sewage Treatment Plant Upgrade Re-fit Project (Building Canada Fund Approved Project)

Mike Topley began the presentation by giving a brief overview of changes in provincial and federal sewerage regulations and spoke of the different types of treatments available. Mr. Topley also discussed sludge handling, safety and operation issues, and capacity for growth. He suggested the new plant should have a capacity of 200,000 gal per day (pg 6 of the report) to allow growth (extensions) in the community. In 2008, according the flow meter readings the average flow for the year was around 150,000 gal per day.

The report Mr. Topley presents to the committee is entitled "***Report on the Sewage Treatment Plant Re-Fit Project for the Community of West Pubnico, NS July 2009***". The report is an update to a 1997 report but includes new technologies that did not exist at the time of the 1997 report which should be considered before deciding how to proceed with modernizing the West Pubnico STP.

Sequence Batch Reactor (SBR)

The sequence batch reactor (SBR) treatment process has been proven in the last 10 years and appropriate for a system of this size. There are many systems in Nova Scotia (Colchester has one with a population of 35,000 people; also Belliveau's Cove has one that totally encloses the tanks because it is in a park setting. The building was more costly but because it's in a park setting it was necessary.)

This would involve converting the first lagoon (existing) into an equalizing tank, and installation of 2 sequence batch reactors (concrete tanks) where the sewage is treated. The liquid drains from the top of the tanks and is treated by chlorine or Ultraviolet lights before it is discharged, while the sludge settles at the bottom of the tank and is pumped into a third tank (thickening tank) to about 2 percent. This 2 percent sludge (sloppy consistency) can be trucked away by a commercial sewerage hauler or can be mechanically dewatered to a product that is between 12% to 18% solid and could be hauled off site for such uses as landfill cover (pending environment approval), or to a compost facility equipped to handle this material.

Membrane Bioreactor (MBR)

Wastewater enters the aeration basin, aerated and biologically treated to produce mixed liquid suspended solids. To separate the liquid from the solids in the mix, the liquid passes through a perforated membrane using a pump, the solids continue to accumulate in the basin and are removed on a regular basis. The first lagoon would be kept as an equalization tank and the liquid would be treated by chlorine or ultraviolet lights. This system is approximately 3 to 4 hundred thousand more than the SBR system.

Sludge Management

Sludge management will be required (in any treatment). There are a couple options to deal with sludge. Mike explained that sludge doesn't smell as long as it is aerated, (in motion).

Option 1

The 2 percent solid sludge created in the third tank can be hauled away. This would need to be done approximately every two weeks by a commercial septic hauler such as Robicheau's Pumping or Quikfall service. It should be noted however, regulations are changing for commercial septic haulers with regards to the handling and storage of waste. Nova Scotia Environment are becoming more stringent regulating such and carrying out inspections on commercial operations to ensure proper environmental treatment of sludge. If Argyle relies on commercial haulers, in time, their costs will go up due to strict regulations.

Option 2

Mechanically dewater the 2 percent sludge to a sludge solid enough to be handled with a shovel and have it hauled away by large truck. This process involves dewatering the sludge enough (12% to 18% solid) that it can be hauled away with truck. It can then be trucked away to a site such as an old landfill (providing environment approves) or to an approved compost facility capable of processing the waste (Colchester County provides their dewatered sludge to a private company that produces a product from the compost). This will require a container placed on site for a half a day to collect the dewatered sludge, from there a truck can then it haul away. Sludge removal is required approximately very two weeks.

Councillor Kathy Bourque, and members Gus d'Eon and Delmar d'Entremont excuse themselves as they have other commitments.

Mike Topley believes that the SBR is most suitable for the West Pubnico Sewer Treatment re-fit for the following reasons:

- Smaller footprint,
- Robustness,
- Better effluent quality, treatment capabilities, as it is able to handle peak flows more efficiently than other options.

It is the recommendation of the West Pubnico Sewer Committee that Council approve the Sequence Batch Reactor (SBR) system for the West Pubnico Sewer Treatment Plant and to include mechanical dewatering of the sludge.

Motion Carried

Steering Committee for Phase 2

A steering committee is required for the project.

Moved by Floyd d'Entremont and seconded by Aldric d'Entremont that the following committee members represent the steering committee for Phase 2 of the West Pubnico Sewer Treatment Plant: Calvin d'Entremont, Chairperson, Lindsay d'Entremont, Harold d'Entremont, Warden, Aldric d'Entremont, and Maurice d'Eon.

Motion Carried

It was agreed that a field trip would be beneficial to the committee to view a Sequence Batch Reactor sewer system; this will be arranged in part by the Public Works department before the end of the summer.

The meeting adjourned at 10:40 a.m. by Chairperson, Calvin d'Entremont.

Lorelei Doucette, Recorder

Approved: _____

DATE

CHIEF ADMINISTRATIVE OFFICER

CHAIRMAN