From: John [mailto:shewanj@bluemaxx.com.au]
Sent: Monday, 12 September 2011 1:02 am
To: Craig Flemming
Cc: gbrown@ipstarmail.com.au; jdrayton@harboursat.com.au; jlecky@ozemail.com.au; ktimpson.muswellbrook@ljh.com.au; mrothe@tpg.com.au; peter_kennedy6@bigpond.com; rayclaude@westnet.com.au; rtickle@bigpond.net.au; scotty&kazz@hunterlink.net.au; Tracey May; Martin Rush

Subject: RE: Environment Committee 15 September Agenda

Hello Craig, EC Members,

I would like to add the following Agenda or General Business Item for the Environment Committee Meeting:

Waste Stream Management – From Liability to Income Producing Asset

This item relates initially to the Offensive Odour Emissions from the Sewerage & Waste Water Treatment Plant that will likely be exacerbated by upcoming continuous hot weather, technology and capacity constraints.

In considering the matter it has come to light that modern technologies in use in Canada, France, Germany and Switzerland are capable of not only turning this traditional liability into a profit centre but in doing so wholly eliminate the STP problem, substantially reduce putrescible commercial and domestic waste to landfill and present a cleaner recyclable waste stream.

Inputs > as below

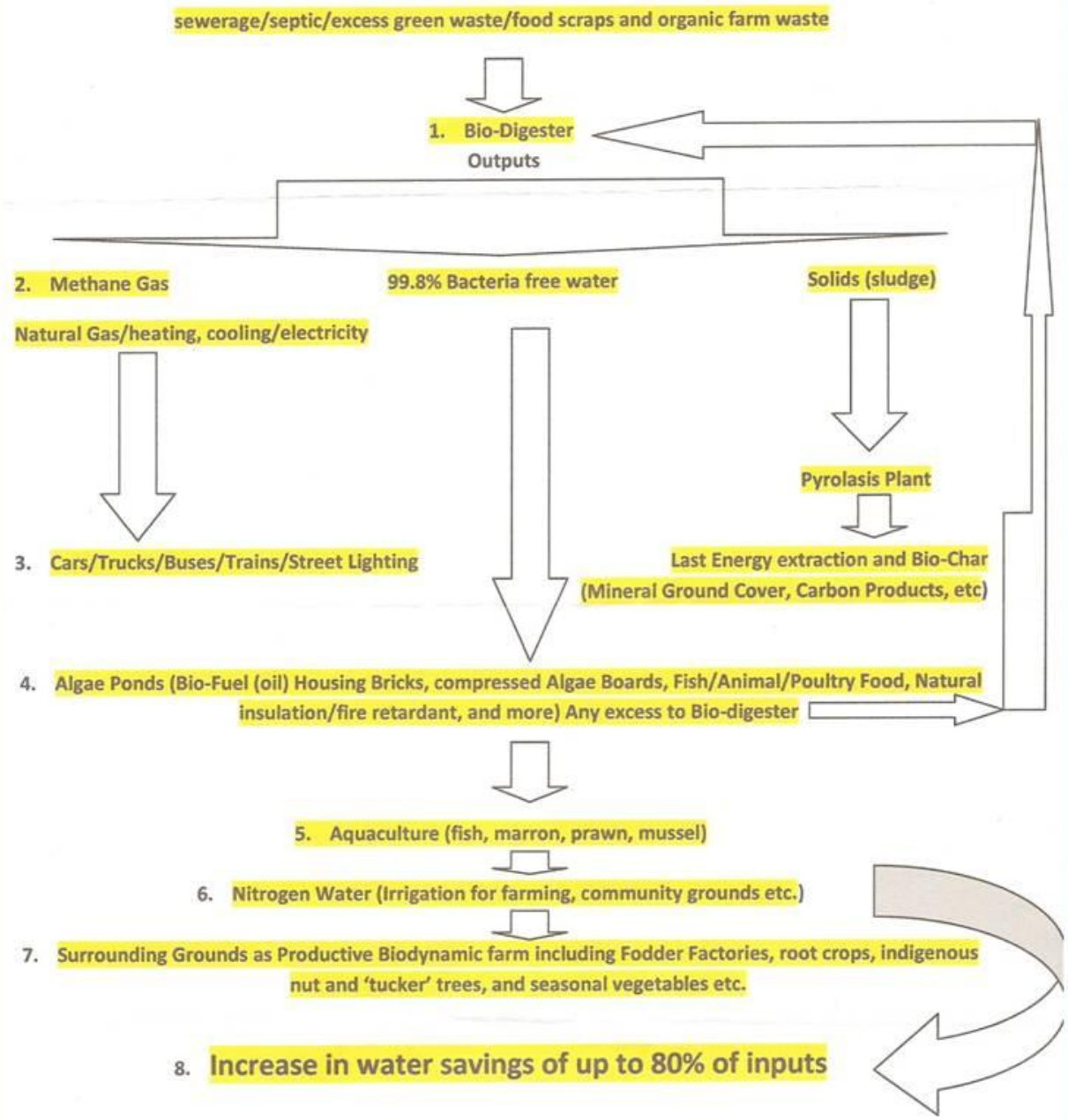
Outputs > BioGas, BioDiesel, 99.8% bacteria free grey water, BioChar

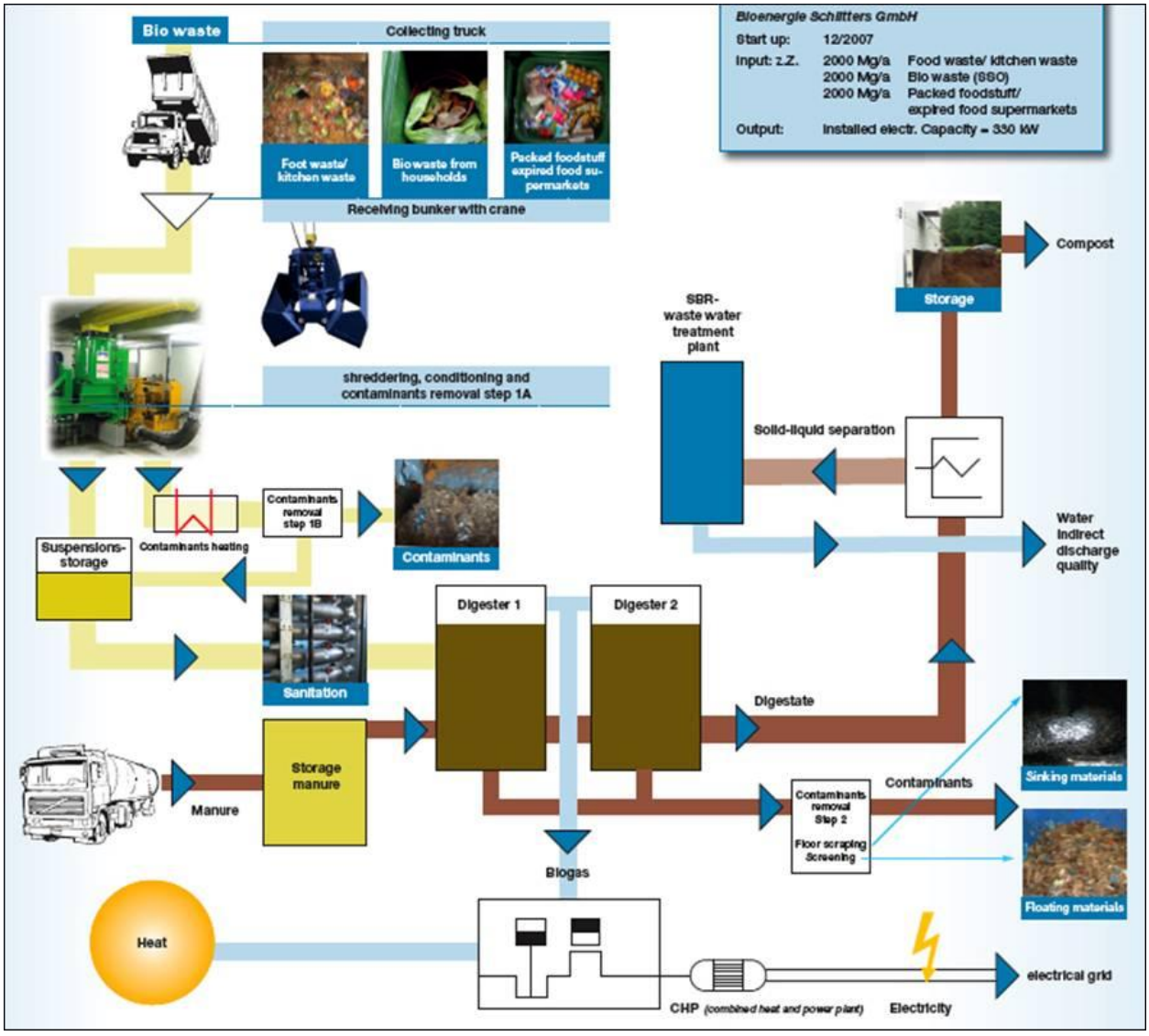
Landfill > reduced from 100% to virtually nothing

Turning Sewerage Treatment from Cost Centre to PROFIT CENTRE

Sewerage Treatment/Bio-Digester/Energy/Aqua-culture/Agriculture/Perma-culture/Biodynamic Farm

Basic PROCESS FLOW





Funding Sources: Cwlth Carbon Tax, State Green Initiatives on Landfill & EcoGeneration, Sale of Carbon Credits, Disposal fees, Cost offsets Life of Landfill Space, waste collection efficiencies,

Income Generation: BioProduct sales, Electricity Grid Feed-In, Water reuse

Video of the process in a commercial European Council use: http://www.yieldenergy.com/?page_id=84

What is Biogas and what are its benefits?

Biogas from Anaerobic Digestion is approximately 55% Methane, therefore little if any upgrading is required for use in a gas generator.

When comparing the amount of CO2 released in the generation of 1 MW of power, a biogas plant will emit an estimated 4.3 million fewer kilograms than a conventional, fossil fuel generator.

Biogas can be upgraded and sold as vehicle fuel. With no particle emissions, very low NOx emission and virtually no carbon dioxide emissions, Biogas can be viewed as the perfect fuel.

Why Anaerobic Digestion (AD)?

We have chosen AD technology because it is the simplest, most effective and flexible technology for handling diverse organic waste streams. Under anaerobic conditions, anaerobic digestion utilizes naturally occurring bacteria to break down organic waste into methane and an odour & pathogen free, nutrient rich soil additive for agricultural or municipal use.

What kind of waste can be used?

Our anaerobic digester systems can utilize any organic waste stream regardless of contamination. Some sources of these waste streams include:

Urban Source Separated Organics
Contaminated Commercial Organics
Manure & Off-Farm Organics
Manure & Agricultural Organics
Waste water sludge

How is Yield's AD system different from the others?

Yield's AD system can handle a much more diverse organic waste stream due to its proprietary pre-processing and in-tank decontamination system. This allows AD plant operators to accept a wider variety of organic waste streams that might be contaminated with plastic, glass, bone & metal.

Yield's AD system is also the most energy efficient. A fully operating Yield system complete with pre-processing and in-tank decontamination will consume less than 15% of the energy it will generate as a result of the biogas production.

The process and costing/revenue projection can be presented for Council & the EC by Mr John C Thomson, Former President & CEO, Yield Energy, Toronto, Canada who is experienced in the installation of hundreds of tailored systems to communities in North America, Canada and Europe.

John is today a resident of Australia and lives at Broke NSW. Further development (1st flow chart) and application of this technology to communities of the size range of Denman, Merriwa, Sandy Hollow Muswellbrook & Singleton has been undertaken by an Australian Water Expert who may also be available to present to MSC & the EC.

I think the EC and Councils (including UH Shire, Singleton, MSC, Cessnock & Midwestern) could find such technology suitable for the replacement of ageing/overloaded sewerage treatment plants and diminishing landfill life and I recommend that Council request Mr Thomson brief Councillors, Staff and the EC on the technology which also presents a solution to pollution of the Hunter River water from the Lumeah (Bengalla Mine) and Koolbury Flat Dairies adjacent to town and the River and who currently spread their excess of liquidized manure onto river flats polluting both the soils and groundwaters as well as producing foul atmospheric odours.

Prior Business Card for John C Thomson
John can be contacted at:
John C Thomson
Equadin Industries
mobile: +61 (0)428 439 586

I foreshadow a motion to the effect that:

The Environment Committee Recommend To Council that Mr John C Thomson be invited to address an Extraordinary Meeting of Council and Relevant Staff jointly with an Extraordinary Meeting of the Environment Committee on the Economics, Technical Suitability and Environmentally Advantageous Outcomes available from Utilization of this style of Waste Management Technology in the Muswellbrook Town & Environs / Denman Town & Environs Circumstances.

Regards.

John Shewan
Community Representative
MSC Environment Committee