

WOODLANDS DAIRY

OUR SUSTAINABLE FUTURE

What is Sustainability to Woodlands Dairy?

We live in a time of unprecedented change and the impact of our decisions are felt instantly across the planet.

We need to balance our priorities and ambitions, whilst also seeking to make the world a better place.

Social and environmental issues are more important than ever.

“People planet and profit” are the internationally accepted pillars to measure sustainability against, which we embraced in moving the issues of sustainability from the fringes to the heart of our business.

What is Sustainability to Woodlands Dairy?

What drove Woodlands Dairy to engage in sustainability practices?

- Our realisation of the state of the environment and the decline of resources.
- Our sense of responsibility towards our environment and fellow beings.
- Our firm conviction to lessen our impact on the environment.
- Our commitment to allocate finances to enable us to bring about change, to lessen our impact on the environment.

- As Marco Lambertini said in his forward to “Living Plant Report 2018”.

“We can no longer ignore the warning signs, doing so would be to our own peril. What we need now is the will to act – and act quickly”

– Marco Lambertini – Director General WWF International

Woodlands Dairy Sustainability

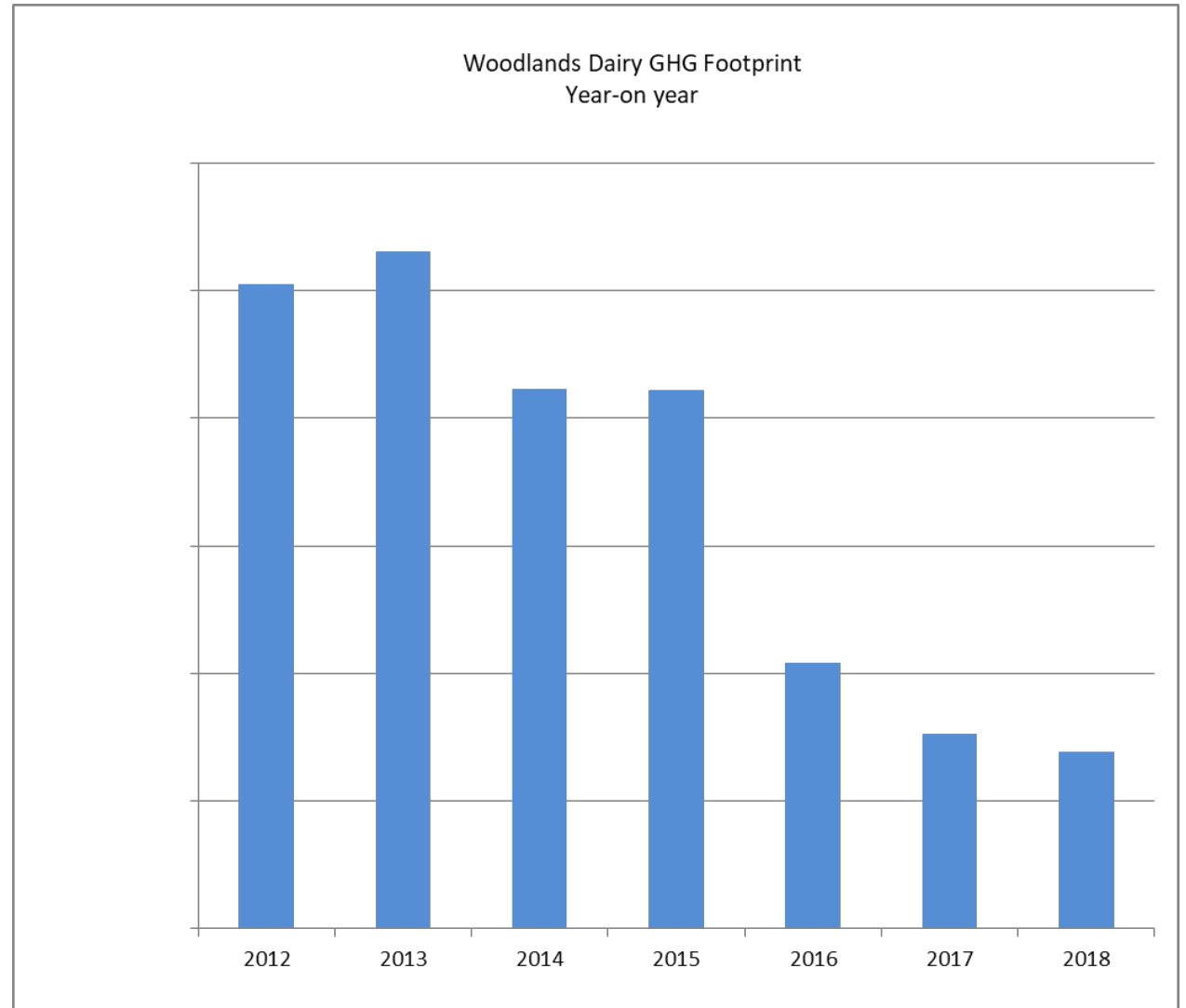
OUR SUSTAINABILITY TIMELINE: (GREATEST EVENTS / IMPACTS)

| 2012 | 2013 | 2015 | 2016 | 2017 | 2018 |
|--|--|--|---|---|--|
| <p>GHG Baseline</p> <p>Decision made by Executive to</p> <p>DRIVE SUSTAINABILITY</p> | <p>On-Farm Sustainability Initiative</p> <p>In Partnership with T&S</p> | <p>Implementing EnMS System</p> | <p>Biomass boiler implementation</p> | <p>Waste Water Recovery Plant commissioned</p> | <p>Continuous Energy Saving Initiatives</p> <ul style="list-style-type: none"> • Water • Electricity • Fuel |
| | | | | | |

Carbon Footprint 2012 - 2018

CARBON FOOTPRINT

A reduction of CO₂e emissions since 2012 of 72.7%



2013 On-Farm Sustainability Initiative

Woodlands dairy has initiated:

- **Woodlands dairy milk standard (WDMS):**
 - Measuring wellbeing of farm workers.
 - Measuring welfare of animals on the farms
 - Measuring compliance to legal, regulative and industry requirements.
- **Woodlands dairy sustainability project WDSP:**
 - Woodlands Dairy allocated the financial and human resources for the partnership with *Trace & Save*, who introduced the SWAN tool as a measuring system.

2015 – Implementation of EnMS System

An Energy Management System (EnMS) was implemented to manage and improve our efficiency on resource usage.

All our energy resources were identified and related to the “drivers” of these resources, to establish the opportunities of saving energy where possible. (Energy sources such as Electricity, Fuel (Diesel), Steam & Water)

Electricity efficiency improvement for first 5 months of 2019 - 10%

Fuel (Diesel) efficiency improvement for first 5 months of 2019 – 2%

2016 - Biomass Boiler

- Objective was to replace HFO and electricity with sawmill residue biomass, for generation of process steam.
- A sawmill located in close proximity of Woodlands Dairy, supplies the biomass for our boiler.
- Changing to biomass has reduced our electric-boiler consumption by 40%.
- Our HFO consumption has also been reduced by 83%

2016 - Biomass Boiler

Biomass Storage



2016 - Biomass Boiler

Biomass Boiler



2017 – Waste Water Recovery Plant

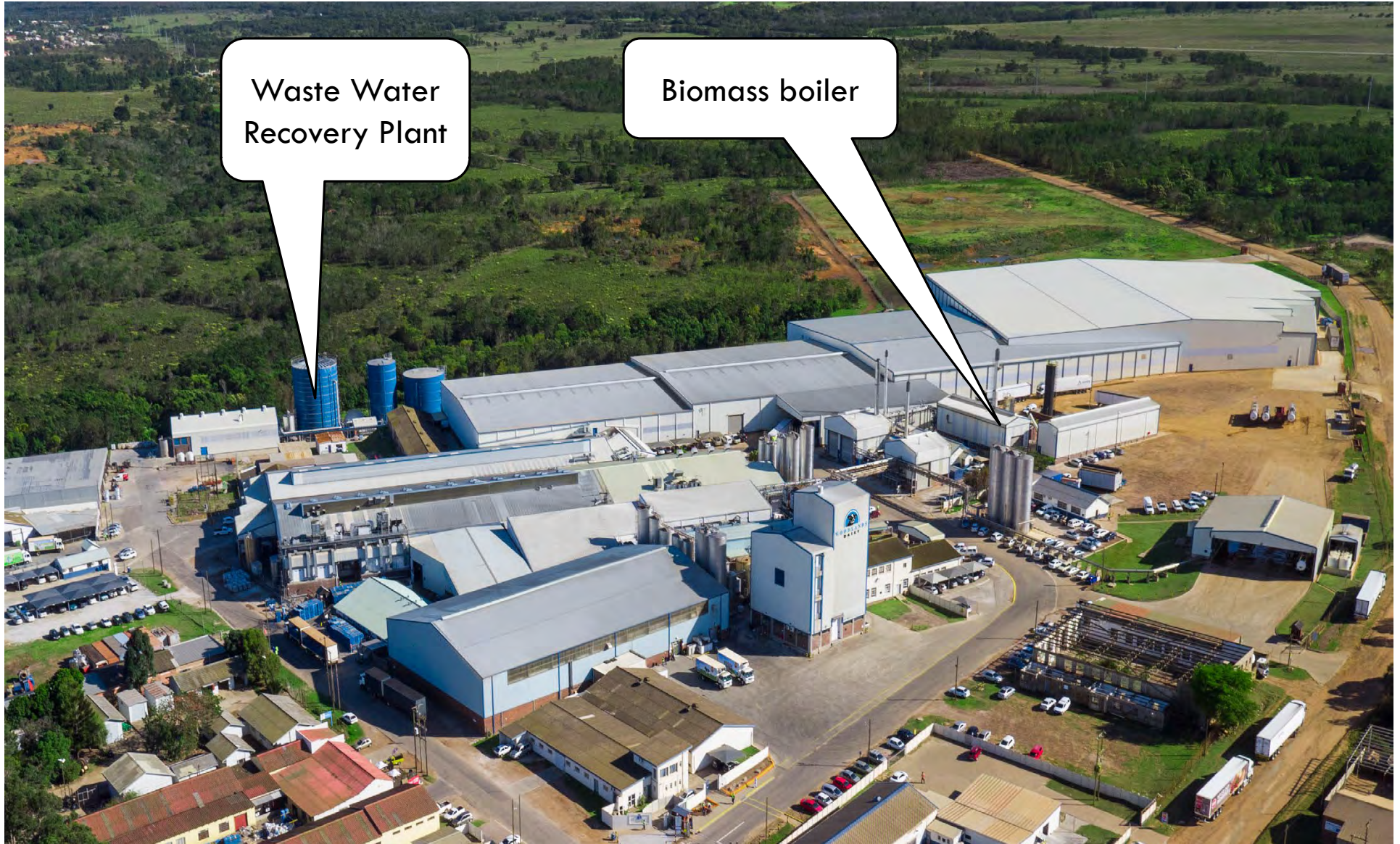
- Due to the under capacity of the municipal water treatment facility, for waster water generated by Woodlands Dairy, we implemented our own waste water treatment plant.
- Veolia installed the Resource Recovery Plant to treat our effluent stream, re-claiming the water and produce biogas (methane) as a by-product.
- Anaerobic Bio-Reactor is able to treat up to 2 million litres of effluent (excluding sewerage) per day.
- The Reverse Osmosis process purifies the water up to SANS standard for potable water.
- Up to 60% of water used in the factory is recycled.
- Methane gas from the bio-reactor is used to fire a boiler, which can produce up to 15% of the factory's steam requirements.

Water Consumption

Water Demand v Consumption:

Within the first year of operating our water demand from the Municipality reduced by 44% and our water consumption per litre of product reduced by 62.5%

2017 – Waste Water Recovery Plant



Waste Water
Recovery Plant

Biomass boiler

2017 – Waste Water Recovery Plant

**Anaerobic
Bio-Reactor**

(Breakdown &
Clearing)

**Reaction
tank**

(Standardise PH)

**Clean
water
storage**



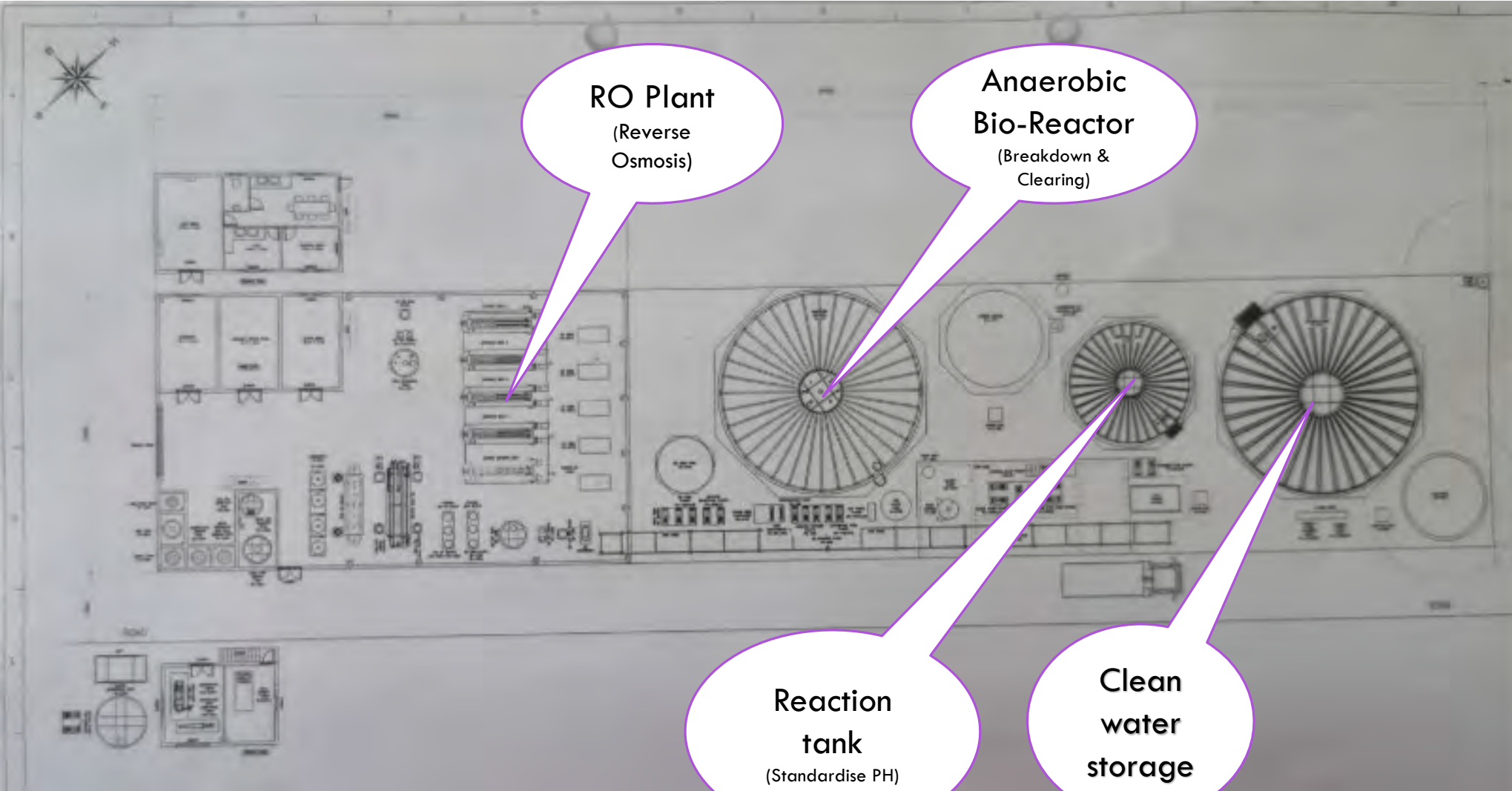
**Methane
boiler**

2017 – Waste Water Recovery Plant



RO Plant

2017 – Waste Water Recovery Plant



RO Plant
(Reverse
Osmosis)

Anaerobic
Bio-Reactor
(Breakdown &
Clearing)

Reaction
tank
(Standardise PH)

Clean
water
storage

WOODLANDS DAIRY

Our Sustainable Future

Working to minimise our impact on
the environment

FROM FARM → TO FACTORY → TO HOME!