

# Ashes to Brick



**WISP worked with Apollo Brick and Pallet Cycle to help divert 55 tonnes of charred wood and ash from going to landfill in a once-off exchange**

## The Organisations

### Apollo Brick and Pallet Cycle

Apollo Brick, a brick manufacturing company, manufactures approximately 200 million bricks per annum using the traditional process of mining, clay beneficiation, extrusion, open air drying and clamp burning.

Pallet Cycle, a company that previously made wooden pallets from virgin material, have transitioned to manufacturing quality recycled pallets using selected second-hand timber. Pallet Cycle has been working with WISP since the commencement of the programme after WISP had identified the business opportunity for the recycling of disused pallets from other companies.

## The Challenge

An accidental fire over one of the holidays burnt down Pallet Cycle's storage facility reducing half the stored pallets into ash and leaving the rest partially burnt into charred wood. The fire rendered the burnt pallets unusable, there was no chance to salvage/recover any of the pallets. Pallet Cycle now needed to dispose of the burnt wood and approached WISP to find out if there were alternative disposal routes besides landfilling. There was just over 54 tonnes of material that needed to be disposed.

## The Solution

Contrary to some perceptions that may exist, the clay brick industry is one of the most progressive sectors in the Western Cape. The industry has a forward thinking leadership that wants to be at the forefront of innovation. In their efforts to develop higher quality and more affordable bricks that are also more sustainable, the companies have demonstrated a willingness over the years to try and test various materials either as substitute raw materials/fuels or as additional material

to enhance the aesthetics and quality of their products. Experience and observation has shown that the clay brick industry can be a sink for a lot of inorganic materials as they can be blended into the raw mix to produce bricks with varying properties.

WISP approached Apollo Brick with the proposal to take the burnt material from Pallet Cycle. After inspecting the quality and doing a cost benefit analysis, Apollo decided they could use the material. Apollo Brick used reverse logistics to transport the material back to their facility. The ash was incorporated into the bricks as traditionally done in the industry and the partially burnt wood was used as fuel in the Kiln because of the energy content.

## The Benefits

### Economic Benefits



- An annual saving of R24 750 by Pallet Cycle being able to avoid transport and disposal costs.
- Apollo Brick can continue to make quality environmentally friendly bricks at low cost thanks to cheaper fuel and additional feed material obtained at less than cost price.

### Environmental Benefits



- A total of 55 tonnes of waste diverted from landfill.
- A total saving of 16 tonnes of fossil greenhouse gases (CO<sub>2</sub>e).
- The recycling and reuse of burnt wood means a reduction in the use of virgin materials.



# WISP

Western Cape Industrial Symbiosis Programme

Delivered by GreenCape

## Connecting Industry Creating Opportunity

### About WISP

The Western Cape Industrial Symbiosis Programme (WISP) develops mutually profitable links between companies from all industrial sectors, so that under-utilised resources such as energy and water, and/or materials from one company can be recovered, reprocessed and re-used by others.

#### Driven by Business

The programme uses actual business opportunities as the mechanism for encouraging resource efficiency. Its holistic approach sees it actively dealing with ALL resources including water, energy, materials, logistics, assets and expertise. The programme is based on the highly successful national programme in the UK (NISP), which demonstrated that industrial symbiosis has the potential to significantly reduce industrial and commercial waste and comprehensively lessen the adverse environmental impacts of business.

#### Free Membership

WISP is a free facilitation service funded by the City of Cape Town and delivered by the sector development agency GreenCape. WISP enables synergies to happen by filling the gaps that its members, especially SMEs, could experience due to the lack of time or dedicated expertise needed to identify and implement resource, waste and energy efficient practices. The diversity of the industries in which WISP operates, and the variety and size of its business members, means that WISP has the potential to generate significant economic, environmental and social benefits from the synergies and projects that it brings about.

#### Partnership with Purpose

WISP works hand in hand with leading trade associations, manufacturers and other organisations to add real value to business. We are working in collaboration with the City of Cape Town, International Synergies and the National Cleaner Production Centre (NCPC) and the Western Cape Government.

#### Contact us to become a member and get involved!

[wisp@green-cape.co.za](mailto:wisp@green-cape.co.za)  
[www.greencape.co.za/wisp](http://www.greencape.co.za/wisp)



WISP is delivered by

## GreenCape

GreenCape was established to promote the development of the green economy in the the Western Cape Province. We assist viable green businesses and potential investors in the green economy to remove barriers to their establishment and growth. Our aim is to help unlock the investment and employment

potential of green business, technologies and manufacturing and put the province on course to become the green economy hub for Sub-Saharan Africa. This work, in turn, contributes to improving the resource efficiency, carbon intensity and resilience of the regional economy.

WISP is funded by:



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