



GRI 303:
**Water
consumption**

Protecting precious lifelines: Water purification at Oudegem

Case VPK Packaging Group, Belgium

Being located next to the river Dender, the paper mill at Oudegem was always able to rely on an abundant supply of fresh water. However, this supply met with high demand: As the Dender runs through a heavily industrialised area of Belgium with a lot of agglomerations in the vicinity, this has put a certain degree of stress on the river. Due to tremendous and continuous efforts of the local communities and industry, water quality has improved significantly over the past couple of years and aquatic life in the river has started to flourish again. To support this trend, VPK is now striving to recycle as much water as possible, and to purify water before discharging it in a completely safe quality.

But VPK is not stopping there. For some applications at Oudegem, water from underground or municipal sources was needed, offering a higher quality.

To avoid any negative impact on these two precious sources of water and to generate high-quality water for its plant, VPK decided to build a state-of-the-art water treatment system to purify water from the river.

This is done in a first phase by removing suspended solids from the water with the help of a coagulant in a flocculation tank. Afterwards, the water is purified using a sand filter, which reduces the suspended solids by up to 95%. The second phase consists of a pressure-driven ultrafiltration membrane which works as a very fine filter, blocking material as small as 0.1 µm in size. As a result, the water doesn't undergo chemical treatment and bacteria and viruses can also be removed.

The new water treatment system allows VPK to stop consuming groundwater

altogether and to reduce consumption of municipal water to a minimum. Furthermore, VPK contributes to the reduction of desiccation of the area, and water resources for flora and fauna are preserved in the best possible way.

Water treatment system Oudegem – benefits:

- Blocks extremely fine particles (0,1 µm in size)
- No chemical treatment
- Provides high-quality water – use of groundwater no longer required
- Consumption of municipal water reduced to a minimum
- System constitutes effective measure against lowering the water level in the area