

Explanatory Note**Constructed Wetland, Sefter Farm****Planning Application Ref. P/76/16/PL Condition 11**

The original concept was to use solely Reed Beds. As design feasibility had advanced Upon it became obvious that this would not provide a robust solution for filtration of the process water.

In seeking a better long-term solution it is now proposed to use Bio bubble who have constructed many process water treatment plants for the public utility companies.

This Bio bubble water treatment plant still uses reeds within the design but these are supported by mechanical forced air equipment, with a closed loop system, which is considered to be an appropriate balance between Barfoot's long term commitment to sustainable water management and the site context. The proposals also include significant landscaping.

The Constructed wetland comprises a series of open tanks for aeration of process water from the development. This then discharges to the polishing reedbed before final screening and returning to the main site for use as irrigation water on the farm or within the process building. The process maximises the re-use of "grey water" thereby reducing load on the existing drainage network infrastructure.

The design of the site layout takes account of existing topography and has been carefully developed to minimise any visual impact, particularly from the local public right of way footpath. The ground area local to the open top water tanks will be reduced to a reasonably level site at approximately the existing farm track level. The perimeter will be locally sloped back to existing ground levels and additional earth bunding to constructed from excavated material will provide further screening into the site from the public right of way. The perimeter and new bund will then be planted with native trees and shrubs to further reduce visual impact. The tanks will be finished to a colour to blend into the background.