**EP006 Permit Variation Summary**

The intention of this application to vary our current permit to:

* Increase our daily effluent discharge volume from 150 cubic metres to 480 cubic metres.
* Amend the details of the facilities effluent treatment system to reflect the new treatment plant installed and commissioned in 2018.

Over the last year there has been a significant change in the nature of the business with regards to our commercial customers demands.

Whilst there has been no significant increase in the volume of milk being brought into the business and no significant increase in incoming water consumption, the customer demand for milk concentrate rather than traditional skimmed has dramatical increased. This has resulted in the business need to run the reverse osmosis (RO) plant at an increased frequency.

In summary, for the business to remain viable, we have had to adapt to this change in customer demand.

Whenever the RO plant is used it takes 100 cubic metres of skimmed milk and turns this into 20 cubic metres of concentrated skim for the customer and 80 cubic metres of permeate water that requires treatment and disposal. On occasion, there may be the need to carry out up to 2 RO batches in a 24-hour period, resulting in up to 160 cubic metres of permeate on top of standard creamery effluent. It is this volume of water that is increasing the effluent volumes.

To support this proposal, we are in advanced discussions with companies to supply an additional 150 cubic metre holding tank to help with volume balancing and a 20 cubic metre per hour Dissolved Air Flotation system to replace the current 8m3/hour system currently in place.

This unit will release the current bottleneck within the existing plant and ensure that compliance with the current discharge parameter in our permit can be achieved with the increase volumetric throughput.