

Addendum to Written Evidence from the RePhoKUs Project

Catchment P SFA (updated)

This Addendum provides new updated data on the phosphorus Substance Flow Analysis (SFA) conducted in the Wye catchment as part of the RePhoKUs project. The poultry population data used in the initial catchment P SFA was based largely on the 2016 Defra census, however it was widely acknowledged that the poultry industry in the Wye catchment has seen a large expansion over the last few years. Estimates from local NGO’s suggested a current population of ~20 million bird places based on planning applications which would be a significant increase on the Defra 2016 numbers of ~10 million. Recent conversations between RePhoKUs and the businesses that represent the largest proportion of the broiler and layer industry within the Wye catchment confirm from their own estimates that this new population figure for poultry is more accurate.

Using the new data, an updated SFA for the Wye catchment (Figure 1) now shows that livestock feed inputs have increased to ~5000 tonnes P, manure P has increased to ~6100 tonnes P and that poultry are now the dominant livestock sector driving P flows in the catchment: e.g. the percentage contribution of livestock type to the manure loading in the catchment is now estimated at: cattle (27%), poultry (42%), sheep (28%), pigs (1%), other (1%). The annual P surplus accumulating in agricultural soils has increased to ca. 3000 tonnes which is equivalent to a rate of 17 kg P/ha/yr. Bringing the catchment into a net-zero P balance will require significant change in P use practice roughly equivalent to not applying any P fertiliser, 80% of the poultry manure, and 50% of cattle manure.

