

Table 1-
Phosphorus Modelling

<i>Level of Assessment</i>	<i>STAGE 2</i>	<i>STAGE 3a- Dilution at source area through surrounding clean zone</i>						
Analyte	Measured Concentration (µg/L)	Type of contamination	Location	Estimated catchment area of contamination (m ²)	Estimated catchment area of clean water (m ²)	Total catchment (m ²)	Percentage of Contaminated Catchment Infiltrating Total Catchment	Resultant simulated concentration as analyte enters Evaporites (µg/l)
phosphorus	1254	US95 of shallow soil leachate and groundwater	Sitewide	400000	0	400000	100.00%	1254

Level of Assessment	STAGE 3B- Dilution of contaminant concentration through St.Bees Sandstone Infiltration														
Analyte	Rainfall (m/day)	Infiltration into Source Zone and Clean Zone around Source (%)	Effective Rainfall (m/day)	Area of Source and Clean Zone Around Source (m ²)	Discharge Contribution from onsite source zone and dilution zone (m ³ /day)	Discharge Contribution from onsite source zone and dilution zone (l/day)	Flux from Source Zone and dilution zone passing offsite (µg/day)	Rainfall (m/day)	Infiltration into St.Bees Sandstone (%)	Effective Rainfall (m/day)	Length of St.Bees Dilution Zone (m)	Width of St.Bees Dilution Zone (m)	Discharge Contribution from St.Bees Dilution Zone (l/day)	Dilution Factor	Concentration after Dilution of Clean St.Bees Water (µg/l)
phosphorus	0.0029	15%	0.0004	400000	175.89	175890	220654160	0.0029	7.5%	0.0002	300	800	52767	0.77	965

<i>Dilution as phosphorus enters sea, and subsequent dilution along the coastline</i>									
Dilutions based on Westlakes Report	Effluent Flow Rate (m ³ /hour)	Tidal State	Predicted Concentration entering the sea (µg/l)	Initial Dilution Factor (as water enters Sea)	Resultant Concentration at entry to Sea (µg/l)	Second Dilution Factor (as water dilutes towards compliance point 2.25km away)	Cumulative Dilution Factor (Dilution 1 x Dilution 2)	Resultant concentration at compliance point (µg/l)	Required Standard (µg/l)
Neap Tide	10	LW	965	10	96	55	550	1.75	6.2
	10	HW	965	118	8	30	3540	0.27	6.2
Spring Tide	10	LW	965	2.4	402	209	502	1.92	6.2
	10	HW	965	232	4	117	27144	0.04	6.2