

### 11.3 Appendix 3. Calculation of daily loads in discharge waters

#### Calculation of annual loads for discharge water quality

	TSS	TN	TP	
<b>Don River Catchment</b>				
Currently	680000	1082	237	T/km3
	0.68	0.001082	0.000237	T/ML
	680	1.082	0.237	kg/ML
	1061.5276	1.68907774	0.36997359	T/yr
Target 2011	455600	725	119	T/km3
	0.4556	0.000725	0.000119	T/ML
	455.6	0.725	0.119	kg/ML
	711.223492	1.13177575	0.18576733	T/yr
<b>Pac Reef area and runoff</b>				
Total Area of Development	769	Ha	(259 Ha production ponds)	
Rainfall runoff/yr	0.00156107	km3/yr		
Prawn farm discharge/yr	0.022638	km3/yr		
<b>Pac Reef Discharge Proposed License Mean Values</b>				
	TSS	TN	TP	
	20	1.5	0.15	mg/L or kg/ML
	20000	1500	150	T/km3
	483.9814	36.298605	3.6298605	T/yr
<b>Pac Reef Discharge objectives</b>				
	TSS	TN	TP	
	13.4	1.005	0.075	mg/L or kg/ML
	13400	1005	75	T/km3
	324.267538	24.32006535	1.81493025	T/yr

<b>Loads (T/yr)</b>	Total Suspended Solids	Total Nitrogen	Total Phosphorus
<b>Current</b>			
Total Don River Catchment (GBR Action Plan)	509,528	812	178
Rain nutrient from Proposed Pacific Reef Farm Area under GBRMPA objectives	1,062	1.69	0.37
EPA Policy on Prawn Farm Effluent	870	56.6	10.6
Proposed Discharge	484	36.3	3.6
Proportion of total catchment discharge loads	0.09%	4.47%	2.04%
Load kg/Ha/day	6.84	0.51	0.05
<b>Target 2015</b>			
Total Don River Catchment (2011 target)	341,384	544	89
Rain nutrient from Proposed Pacific Reef Farm Area under GBRMPA objectives	711	1.13	0.19
Proposed Discharge	324	24.3	1.8
Proportion of total discharge loads	0.09%	4.47%	2.04%
Load kg/Ha/day	4.59	0.34	0.026