PENRITH CITY COUNCIL

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MUSIC-*link* Report

Project Details		Company Details	
Project:	88 Reid St, Werrington	**Company:**	N.F.BILLYARD PTY LTD
Report Export Date:	2/03/2016	**Contact:**	Noel Billyard
Catchment Name:	06962 - 88 Reid St Werrington	**Address:**	11 York St, Oatlands, NSW 2117
Catchment Area:	0.222ha	**Phone:**	02 9630 2122
Impervious Area*:	66.6666666666667%	**Email:**	noel@nfbillyard.com
Rainfall Station:	67113 PENRITH		
Modelling Time-step:	6 Minutes		
Modelling Period:	1/01/1999 - 31/12/2008 11:54:00 PM		
Mean Annual Rainfall:	691mm		
Evapotranspiration:	1158mm		
MUSIC Version:	6.1.0		
MUSIC-link data Version:	6.0		
Study Area:	Penrith		
Scenario:	Penrith Development		

* takes into account area from all source nodes that link to the chosen reporting node, excluding Import Data Nodes

Treatment Train Effectiveness

Node: Receiving Node	Reduction
Flow	17.8%
TSS	86.7%
TP	69.7%
TN	52.8%
GP	100%

Treatment Nodes

Node Type	Number
Sedimentation Basin Node	1
Rain Water Tank Node	1
Generic Node	1
GPT Node	1

Source Nodes

Node Type	Number
Urban Source Node	3

Comments

- Roof node base flow values are as per the MUSIC modelling guidelines which indicate base flow has no effect for impervious areas and therefore no value is needed.

- GPT reflects Stormwater360's EnviroPod and has the correct values

- The 'SF Chamber' detention node has been modified to represent a tank to hold volume for use with the Stormwater360 filter. k values has been set to 1 to prevent the tank from "treating" the flow as it would within a grassed above ground OSD

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Passing Parameters

Node Type	Node Name	Parameter	Min	Max	Actual
GPT	EnviroPod 200	Hi-flow bypass rate (cum/sec)	None	99	0.02
Receiving	Receiving Node	% Load Reduction	None	None	17.8
Receiving	Receiving Node	GP % Load Reduction	90	None	100
Receiving	Receiving Node	TN % Load Reduction	45	None	52.8
Receiving	Receiving Node	TP % Load Reduction	60	None	69.7
Receiving	Receiving Node	TSS % Load Reduction	85	None	86.7
Urban	Ground - 741.96m² (50% Imp.)	Area Impervious (ha)	None	None	0
Urban	Ground - 741.96m² (50% Imp.)	Area Pervious (ha)	None	None	0.074
Urban	Ground - 741.96m² (50% Imp.)	Total Area (ha)	None	None	0.074
Urban	Road - 394.58m² (100% Imp.)	Area Impervious (ha)	None	None	0.039
Urban	Road - 394.58m² (100% Imp.)	Area Pervious (ha)	None	None	0
Urban	Road - 394.58m² (100% Imp.)	Total Area (ha)	None	None	0.039
Urban	Roof - 1_095.46m² (100% Imp.)	Area Impervious (ha)	None	None	0.109
Urban	Roof - 1_095.46m² (100% Imp.)	Area Pervious (ha)	None	None	0
Urban	Roof - 1_095.46m² (100% Imp.)	Total Area (ha)	None	None	0.109

Only certain parameters are reported when they pass validation

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Failing Parameters

Node Type	Node Name	Parameter	Min	Max	Actual
GPT	EnviroPod 200	TN % Load Reduction	0	0	20.9998
GPT	EnviroPod 200	TP % Load Reduction	0	0	29.9998
GPT	EnviroPod 200	TSS % Load Reduction	0	0	81.8861
Sedimentation	SF Chamber	Notional Detention Time (hrs)	8	12	0.333
Sedimentation	SF Chamber	Total Nitrogen - k (m/yr)	500	500	1
Sedimentation	SF Chamber	Total Phosphorus - k (m/yr)	6000	6000	1
Sedimentation	SF Chamber	Total Suspended Solids - k (m/yr)	8000	8000	1
Urban	Roof - 1_095.46m² (100% Imp.)	Baseflow Total Nitrogen Mean (log mg/L)	0.11	0.11	0
Urban	Roof - 1_095.46m² (100% Imp.)	Baseflow Total Nitrogen Standard Deviation (log mg/L)	0.12	0.12	0
Urban	Roof - 1_095.46m² (100% Imp.)	Baseflow Total Phosphorus Mean (log mg/L)	-0.85	-0.85	0
Urban	Roof - 1_095.46m² (100% Imp.)	Baseflow Total Phosphorus Standard Deviation (log mg/L)	0.19	0.19	0
Urban	Roof - 1_095.46m² (100% Imp.)	Baseflow Total Suspended Solids Mean (log mg/L)	1.2	1.2	0
Urban	Roof - 1_095.46m² (100% Imp.)	Baseflow Total Suspended Solids Standard Deviation (log mg/L)	0.17	0.17	0

Only certain parameters are reported when they pass validation