

MUSIC-*link* Report

Project Details		Company Details	
<b>Project:</b>	44-50 Tench Ave Jamisontown - Original Model	<b>Company:</b>	Michael Bou Rada Consulting Engineers
<b>Report Export Date:</b>	5/12/2019	<b>Contact:</b>	Michael Bou Rada
<b>Catchment Name:</b>	13651 - 44-50 Tench Ave Jamisontown (Preliminary Design) - Original Model	<b>Address:</b>	PO Box 8288, Blacktown NSW, 2148
<b>Catchment Area:</b>	0.579ha	<b>Phone:</b>	0459117674
<b>Impervious Area*:</b>	117.8%	<b>Email:</b>	michael@mbrconsulting.com.au
<b>Rainfall Station:</b>	67113 PENRITH		
<b>Modelling Time-step:</b>	6 Minutes		
<b>Modelling Period:</b>	1/01/1999 - 31/12/2008 11:54:00 PM		
<b>Mean Annual Rainfall:</b>	691mm		
<b>Evapotranspiration:</b>	1158mm		
<b>MUSIC Version:</b>	6.3.0		
<b>MUSIC-link data Version:</b>	6.32		
<b>Study Area:</b>	Penrith		
<b>Scenario:</b>	Penrith Development		

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

Treatment Train Effectiveness		Treatment Nodes		Source Nodes	
Node: Receiving Node	Reduction	Node Type	Number	Node Type	Number
<b>Flow</b>	21.1%	Sedimentation Basin Node	1	Urban Source Node	3
<b>TSS</b>	92.8%	Swale Node	1		
<b>TP</b>	79.9%	Rain Water Tank Node	1		
<b>TN</b>	58.6%	GPT Node	1		
<b>GP</b>	100%	Generic Node	1		

**Comments**

- We have assumed 0.4kL/m<sup>2</sup> annually for irrigation.
- GPT reflects Ocean Protect's OceanGuard and has the correct values.
- The 'SF Chamber' detention node (sedimentation basin) has been modified to represent a tank to hold volume for use with the Ocean Protect 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.
- The 'Generic Node' represents Ocean Protect's Stormfilter Cartridge and has the correct values.

**Passing Parameters**

Node Type	Node Name	Parameter	Min	Max	Actual
GPT	1 x OceanGuard 200	Hi-flow bypass rate (cum/sec)	None	99	0.02
Receiving	Receiving Node	% Load Reduction	None	None	21.1
Receiving	Receiving Node	GP % Load Reduction	90	None	100
Receiving	Receiving Node	TN % Load Reduction	45	None	58.6
Receiving	Receiving Node	TP % Load Reduction	60	None	79.9
Receiving	Receiving Node	TSS % Load Reduction	85	None	92.8
Sedimentation	SF Chamber	High Flow Bypass Out (ML/yr)	None	None	0
Urban	Ground - 4026m <sup>2</sup> (59% Perv.)	Area Impervious (ha)	None	None	0.165
Urban	Ground - 4026m <sup>2</sup> (59% Perv.)	Area Pervious (ha)	None	None	0.23777
Urban	Ground - 4026m <sup>2</sup> (59% Perv.)	Total Area (ha)	None	None	0.403
Urban	Road - 257m <sup>2</sup> (100% Imp.)	Area Impervious (ha)	None	None	0.026
Urban	Road - 257m <sup>2</sup> (100% Imp.)	Area Pervious (ha)	None	None	0
Urban	Road - 257m <sup>2</sup> (100% Imp.)	Total Area (ha)	None	None	0.026
Urban	Roof - 1505m <sup>2</sup> (100% Imp.)	Area Impervious (ha)	None	None	0.15
Urban	Roof - 1505m <sup>2</sup> (100% Imp.)	Area Pervious (ha)	None	None	0
Urban	Roof - 1505m <sup>2</sup> (100% Imp.)	Total Area (ha)	None	None	0.15

Only certain parameters are reported when they pass validation

**Failing Parameters**

Node Type	Node Name	Parameter	Min	Max	Actual
Rain	Rainwater Tank - 41.35kL	% Reuse Demand Met	80	None	50.42
Sedimentation	SF Chamber	Notional Detention Time (hrs)	8	12	0.112
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
Swale	Swale	Bed slope	0.01	0.05	0.005

Only certain parameters are reported when they pass validation

NOTE: A successful self-validation check of your model does not constitute an approved model by Penrith City Council  
MUSIC-*link* now in MUSIC by eWater – leading software for modelling stormwater solutions