

## Memo 002 – MGS MUSIC model

### 1.1 MUSIC model inputs

This memo details the input parameters and results from the MUSIC model prepared by TTW to support the Sustainability Management Plan for the proposed Project Bayview development at Mentone Grammar School, Mentone.

To inform the effectiveness of the proposed stormwater treatment measures and to demonstrate compliance to the Best Practice Environmental Management Guidelines (BPEMG), a MUSIC model has been developed in accordance with Section 6 of the City of Kingston ‘Civil Design Requirements for Developers – Part A: Integrated Stormwater Management’ dated May 2016. Refer to Table 1 below describing the input parameters.

*Table 1 – MUSIC model input parameters*

Parameter	Input used in model
MUSIC model software	Version 6.3.0
Model type	Stormwater treatment
Rainfall reference station	Melbourne City (MAR 650-750mm)
Timestep	6 minute

Design assumptions used in the development of the model include:

- 20kL irrigation tank with 2kL/day daily reuse demand

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### 1.2 MUSIC model results

Refer to attached MUSIC model output detailing catchment areas and proposed stormwater treatment measures used in the model. Table 2 below provides a summary of the MUSIC model results.

*Table 2 – MUSIC model output summary*

Parameter	Sources	Residual Load	% Reduction	BPEMG Target % Reduction
Total Suspended Solids (kg/yr)	716	138	80.6	80
Total Phosphorus (kg/yr)	1.49	0.614	58.9	45
Total Nitrogen (kg/yr)	11.1	5.96	46.1	45
Gross Pollutants (kg/yr)	151	0	100	70

Yours faithfully,  
**TAYLOR THOMSON WHITTING (VIC) PTY LTD**  
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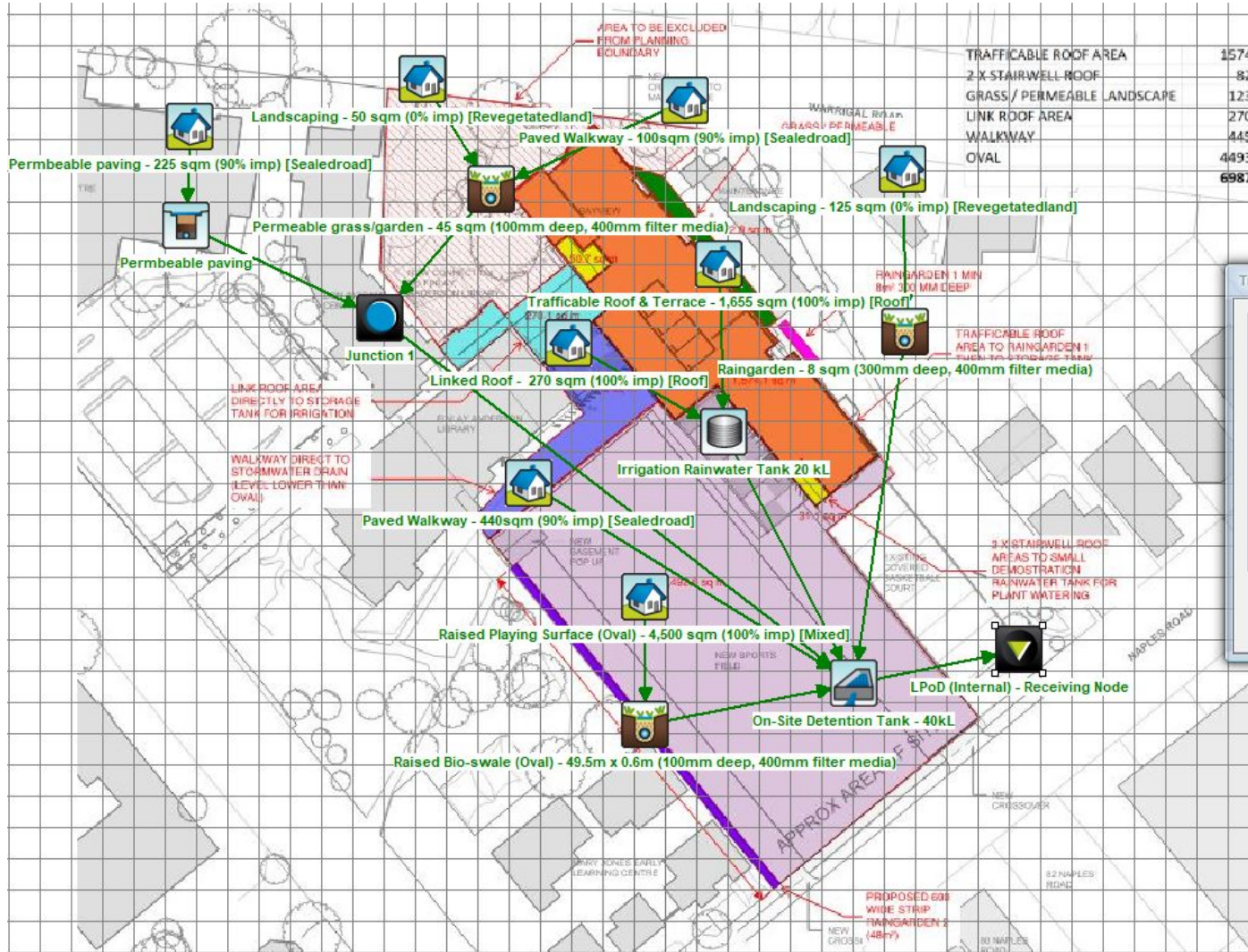


**Richard PENWELL**  
Senior Civil Engineer

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Treatment Train Effectiveness - LPOD (Internal) - Receiving Node

	Sources	Residual Load	% Reduction
<b>Flow (ML/yr)</b>	4.17	3.53	15.3
<b>Total Suspended Solids (kg/yr)</b>	716	138	80.6
<b>Total Phosphorus (kg/yr)</b>	1.49	0.614	58.9
<b>Total Nitrogen (kg/yr)</b>	11.1	5.96	46.1
<b>Gross Pollutants (kg/yr)</b>	151	0	100

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