

This template should be refined to be site specific for each functional design submitted to Melbourne Water as part of the Design Acceptance Process for Constructed Wetlands.

Address:

Melways Ref:

Project title & job description:

Developer:

Consultant:

Date:

MUSIC modelling rainfall station (include name and number):

MUSIC modelling time step:

Calculation Task					Results / Outcome	
1. Catchment Characteristics						
Subcatchment	AREA (ha)					Overall % imperviousness
	Residential	Commercial	Industrial	Other	Total	
A						
B						
C						
D						
2. Estimate design flow rates						
Time of concentration					_____	mins
Peak design flows						
<ul style="list-style-type: none"> Station used for IFD data 					_____	
Q3 month					_____	m ³ /s
<ul style="list-style-type: none"> If located within a floodplain 						
Q100 year					_____	m ³ /s

3. Wetland characteristics and performance

MUSIC results:				
Parameter	In	Out	Removed	% Reduction
Flow (ML/yr)				
Total Suspended Solids (kg/yr)				
Total Phosphorous (kg/yr)				
Total Nitrogen (kg/yr)				
Gross Pollutants (kg/yr)				

4. Sediment Pond

Volume of sediment pond at normal water level	_____	m ³
Normal water level (NWL)	_____	m AHD
Length to width ratio	_____	L:W
Extended detention depth (EDD)	_____	m
Maximum 100 yr ARI velocity through cross section at mid-point	_____	m/s
Cross section batter slope	_____	V:H
Sediment pond capture efficiency (of 125µm sediment)	_____	%
Sediment pond clean out frequency	_____	yrs
Discharge capacity of connection to macropyhte zone	_____	m ³ /s

5. Macrophyte zone

Area of macrophyte zone at normal water level	_____	m ²
Normal water level (NWL)	_____	m AHD
Average depth below normal water level	_____	m
Length to width ratio	_____	L:W
Extended detention depth (EDD)	_____	m
Cross sectional area between NWL and TED at the narrowest point	_____	m ²
Maximum 3 mth ARI velocity through narrowest cross section	_____	m/s
Percentage of macrophyte coverage to normal water level	_____	%

Plant zones	Area (m ²)	% Coverage
Edge planting		
Ephemeral		
Shallow marsh		
Deep marsh		
Submerged marsh		

6. Macrophyte zone outlet

Discharge capacity of outlet pipe	_____	m ³ /s
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7. High-flow bypass system

Pipe

Diameter of pipe

_____ mm

Channel

Longitudinal slope

_____ %

Base width

_____ M

Batter slope

_____ H:V

Weir length

_____ m

Weir crest level

_____ m