

Consultants Plant Installation Self Audit Checklist

THIS CHECKLIST MUST BE USED TO GUIDE THE WETLAND PLANTING CONSULTANT THROUGH THE CRITERIA REQUIRED TO MEET MELBOURNE WATERS WETLAND PLANT SUPPLY INSTALLATION REQUIREMENTS AS OUTLINED IN THE AQUATIC, EPHEMERAL AND TERRESTRIAL PLANT INSTALLATION STANDARDS AND THE WETLAND DESIGN MANUAL (PART A2). **THIS FORM MUST BE SUBMITTED TO MELBOURNE WATERS MAJOR WORKS SURVEILLANCE OFFICER PRIOR TO PLANT ESTABLISHMENT BEING ISSUED BY MELBOURNE WATER.**

The following symbol * in the tables below indicates a mandatory or non-negotiable condition.

Plant supply formats

Condition		Met		If No, provide justification
		Yes	No	
Correct format plants (90cm ³ hiko cell, 200cm ³ tube, 550cm ³ container) have been supplied for the correct planting zones as per appendix A.	*			
Minimum height (mm) requirements specified in the Aquatic, Ephemeral & Terrestrial Plant supply audit form have been met	*			
Quality of stock supplied is appropriate as per the Aquatic, Ephemeral & Terrestrial Plant supply audit form requirements	*			
Species substitutions have been accepted by Melbourne Water	*			
Quantity of plants supplied is to order or as per the delivery docket	*			

Site conditions

Condition		Met		If No, provide justification
		Yes	No	
Wetland bathymetry and as constructed drawings (including ephemeral and terrestrial batters) have been assessed and accepted to meet design. Tolerance of 50mm allowed	*			
Wetland hydraulic structures and free draining outfall are in place (enabling design hydrology to be achieved).	*			
Contractor understands the hydraulic controls and has the ability to manipulate water levels in the wetland?	*			
Normal Water Level (NWL) is achieved meaning no benches are exposed	*			

Pre-planting Site Preparation

Condition	*	Met		If No, provide justification
		Yes	No	
Sufficient pre-planting preparation time has been allowed for prior to install	*			

Weed control prior to planting

Condition	*	Met		If No, provide justification
		Yes	No	
Good quality site preparation is present (weeds controlled, topsoil acceptable, jute mat & mulch installed prior to plant installation etc)	*			
There is no evidence of past weed infestations and potential weed seed bank	*			
A weed control program has been developed for the post planting maintenance period	*			

Soil preparation

Condition	*	Met		If No, provide justification
		Yes	No	
The Melbourne Water specification for soils and landscaping of constructed assets has been adopted (topsoil spec). Topsoil sign off from the site superintendent has been provided ensuring it meets Melbourne Waters Topsoil specification.	*			
The prepared area has been sprayed for weeds prior to any imported or site won topsoil being placed	*			
The sub base preparation for the ephemeral and terrestrial zones have been ripped to a depth of not less than 100mm; Ripped to a minimum of 200mm spacing's in a 'cross hatched' fashion (preference is for vibrating type cultivation tines to be used)	*			
Moisture content of the sub base is conducive to the sub base shattering rather than being moulded by the ripping action	*			
Topsoil within the ephemeral and terrestrial zones were placed in 100mm layers followed by ripping to incorporate this layer through the sub-base interface	*			
Ripping was done so as to mix the interface to a 100mm depth	*			
Once the 200mm topsoil depth is reached the surface was lightly compacted and left in a friable tilth	*			
Topsoil was spread in a 200mm thick layer across the entire aquatic, ephemeral and terrestrial zones.	*			

Climatic Conditions and soil moisture levels

Condition	*	Met		If No, provide justification
		Yes	No	
Plants were installed at the most appropriate time based on the annual soil moisture conditions and seasonal factors of their region/location or a risk mitigation strategy is in place if contractors want to install plants in the higher risk months shown in appendix b.	*			

Plant Selection

Condition	*	Met		If No, provide justification
		Yes	No	
Delivery dockets have been supplied and substitutions accepted.	*			
Delivery dockets include the required information as per appendix C.	*			
Species meet the Constructed Wetland Manual specification or approved substitutions	*			
Nursery and plant supply audits have been undertaken.	*			

Plant Appearance - Foliage

Condition	*	Met		If No, provide justification
		Yes	No	
Plant foliage is healthy	*			
Plant foliage is firm-textured	*			
Plant foliage is insect free	*			
Plant foliage is free of fungal or physical damage	*			
Plants have been properly hardened off prior to delivery	*			

Aquatics & Semi Aquatics (ephemeral planting)

Condition	*	Met		If No, provide justification
		Yes	No	
No wild harvested material is present?	*			
Plant units are clearly quantified to ordered specifications and traceable to delivery dockets	*			
The plants aren't senescing? (some dead foliage can be apparent and is acceptable)	*			
Plants are not excessively vigorous with soft weeping foliage due to over fertilisation	*			
550cc plants have >50% surface cover with plant stems and evidence of growth from rhizomes.	*			
Plant heights meet requirements of Appendix A	*			

Vegetation & Landscape

Condition		Met		If No, provide justification
		Yes	No	
The ephemeral batters are planted at an average density of 6 plants per sqm with individual plants grown in individual pots or tray cells that are a minimum of 90 cm ³ in volume (V93 hiko cell equivalent), however 200cm ³ (forestry tubes) are preferred.	*			
Shallow and Deep Marsh areas are planted with 2 X 550cm ³ pots per sqm	*			
Submerged Marsh zones are planted with 1 X 550cm ³ pit per sqm	*			
80% of the plants used in the aquatic, ephemeral and terrestrial zones are in accordance with the species and densities shown in Table 1 of the wetland manual (appendix d)	*			
No mulch to be placed below Q100 or frequently inundated areas.	*			
Jute mat has been installed in planted areas above NWL for wetlands and installed to the manufacturer's specifications, including fasteners.	*			

Plant Quality

Condition		Met		If No, provide justification
		Yes	No	
Plant material supplied complies with Melbourne Water's aquatic, ephemeral and terrestrial plant supply and installation standards.	*			

Plant care and transport

Condition		Met		If No, provide justification
		Yes	No	
Plants were protected and appropriately covered on their way to a site	*			
Contractor has dedicated space on site to hold and maintain plants prior to planting. Protection from desiccation and grazing is provided.	*			

Disease Free

Condition		Met		If No, provide justification
		Yes	No	
Stock is free of substantial insect and fungal infection	*			
No Myrtle Rust is present	*			

Media quality and weed competition

Condition		Met		If No, provide justification
		Yes	No	
Excessive (i.e. > 25% per unit) lichen, liverworts, or mosses is not present	*			
Plant material with nursery weeds is not evident	*			

Plant installation

Condition		Met		If No, provide justification
		Yes	No	
Wetland planting zones are clearly marked for the planting staff.	*			
Prior to planting, all plants were well watered so that the root ball is entirely moistened	*			
Plant holes are a quarter to a third deeper than the plants root ball or container.	*			
Plants have been placed neatly against the back and side of the hole. Complete contact with soil is essential. Large gaps between the potting medium and the soil have been avoided.	*			
Plants are firmly bedded into the top soil.	*			
Root ball is covered with >10mm of topsoil.	*			
All ephemeral & terrestrial plants were watered at planting with a minimum of 2 litre of water immediately after plant installation and prior to the instalment of weed mat and guards.	*			
Planting format and density assessment undertaken and complies with design	*			

Bird netting

Condition		Met		If No, provide justification
		Yes	No	
Plants susceptible to bird grazing are protected with netting	*			
Bird netting is secured to remain tight. Maintenance plan is in place.	*			

Hygiene Protocols

Condition		Met		If No, provide justification
		Yes	No	
Site hygiene protocols have been documented and implemented	*			

Post-planting

Condition		Met		If No, provide justification
		Yes	No	
Post planting weed control program is documented and activated	*			
Weed control post planting has occurred	*			

Guard removal occurred when the plant reached 2x height of guard	*			
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Landscape consultant/contractor selection, plant supply, installation & maintenance

Condition		Met		If No, provide justification
		Yes	No	
The landscape contractor awarded the wetland project is the contractor undertaking the plant installation (no sub-contracting)	*			
The landscape contractor awarded the wetland project is the contractor maintaining the planting once installed. (no sub-contracting)	*			
Planting contractor and consultant has audited the quality of stock delivered to site prior to the installation occurring accepting and/or rejecting any unacceptable stock that doesn't meet the requirements of the wetland manual and appendix A.	*			

I declare and acknowledge that I have submitted the above checklist in its entirety in accordance with the aquatic, ephemeral and terrestrial plant installation standard and the Wetland Design Manual (Part A2). I further acknowledge that if the above information is incomplete or inaccurate it will be returned and will not be considered lodged with Melbourne Water. Plants establishment cannot be issued by Melbourne Water until the above requirements are met in full.

Signature:

Date:

Print name:

Position: