

FILTERRA[®]

PLANT GUIDE



Stormwater Biofiltration
System

Background

Filtterra® Biofiltration involves the filtration of stormwater through living material, capturing and biologically degrading pollutants in stormwater runoff. The plants in this manual have been suggested due to their hardiness and ability to tolerate a wide range of moisture and light conditions. The engineered media used in Filtterra® has elevated permeability rates, and as such, plant species used in the system need to be tolerant of free-draining soils and occasional dry periods. In addition to this they must be able to cope with high levels of water run-off during storm events.

Native plants are adapted to the harsh, unpredictable New Zealand climate, and are a great choice to better withstand the demands of stormwater management. Not only do they look great, native plants play an important role in creating visual connections with the surrounding natural landscape. The following plants recommended for use with Filtterra® are all native or endemic to New Zealand. Local planting guides across New Zealand have been considered in this decision-making process.

All recommended plants have been tested for growth in Filtterra® engineered media in-house at Stormwater360 under different conditions, proving their resilience. To minimise risk on the plants health we recommend planting in either spring or autumn, planting in December to February is discouraged. Stormwater360 will provide the first two maintenances, included with purchase, at six months and a year post-commissioning, to ensure the plants health is established over the course of their critical first year of life.

Though aesthetics are important, the first function of Filtterra® is stormwater treatment, ease of maintenance is also essential, as such close consideration is needed when undertaking plant selection and quantities. Please refer to page 5 & 6 for Stormwater360's recommended plant spread, which provides an optimised spread for each model. No fertilizer and only approved mulches should be used with the Filtterra system.

This is our standard plant guide, an extended version is available, however plants outside of this standard guide are subject to availability, planting seasons, cost, and location.

Stormwater360 can provide plant recommendations suitable for your site and location.



Trees:

Metrosideros Excelsa 'Maori Princess'

Iconic pohutukawa varieties, with a compact upright crown and conical habit. Tends to have a clear trunk and neat growth. Striking crimson-red flower. Dark green leathery foliage, hairy grey undersides. Frost tender when young, prefers full sun. Low maintenance, great for street trees.

Medium growing, evergreen, wind tolerant, frost tender (young), coastal tolerant, attracts wildlife



Sophora Microphylla – Kowhai

A large native tree that has a tangled juvenile stage which can take up to 10 years to flower. The Kowhai is the national flower of New Zealand that flowers from September to November. Found in the South Island growing in open forests and riverbanks.

Slow growing, grows wide, frost hardy, tolerates wind, bright yellow flowers, attracts birds



Leptospermum Scoparium – Manuka

A tree native to New Zealand and Australia. Grows well in nutrient deficient soils and is particularly common in the drier east coasts of New Zealand.

Fast growing, evergreen, hardy, can handle light frosts, small leaves



Plants:

***Astelia Banksii* – Wharawhara**

A coastal evergreen plant endemic to New Zealand which is found in the northern half of the North Island, growing on cliffs and lowland forest. Tolerates dry, windy, and shady conditions. It forms a clump with drooping narrow silver leaves.

Slow growing, flowering, tolerates shade, frost tender, tolerates wind, evergreen



***Carex Virgata* – Pukio**

Hardy, tolerates very dry to very wet conditions, full sun to shade, and wind. Great in areas where conditions can vary periodically from wet-dry. Vigorous, clumping habit, forms a fine-leaved tussock of bright green sharp-edged foliage. Insignificant flowers in spring-summer.

Fast growing, hardy, frost hardy, sharp foliage



Libertia Grandiflora

Endemic to the North Island. Hardy. Can tolerate dry, shady, and light conditions. Produces white iris-like flowers in spring and decorative golden seed pods through to winter.

Medium growing, white flowers in spring when mature, frost tender



Phormium Green Dwarf – Emerald Gem

A small native New Zealand flax with lime green leaves that grows in coastal area. Can tolerate windy, dry, and frost conditions. Yellow flowers appear in spring.

Fast growing, coastal, frost hardy



A Bioscape (custom large Filterra) planted with *Carex Virgata*.

Plant Distribution

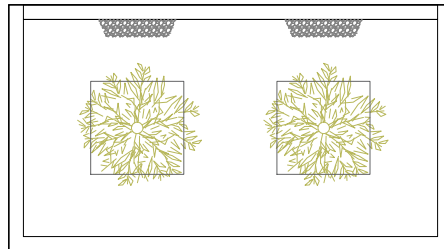
Closed-Top or Open-Top Tree Only Option	
Filterra Model	Tree Quantity
FT1212	1
FT1218	1
FT1812	1
FT1224	1
FT2412	1
FT1818	1
FT1824	1
FT2418	1
FT1236	2
FT3612	2
FT1830	1
FT3018	1
FT1836	2
FT3618	2
FT4021	2
FT2140	2

Open-Top Plant Only Option	
Filterra Model	Plant Quantity
FT1212	2
FT1218	2
FT1812	2
FT1224	4
FT2412	4
FT1818	4
FT1824	4
FT2418	4
FT1236	4
FT3612	4
FT1830	6
FT3018	6
FT1836	6
FT3618	6
FT4021	8
FT2140	8

Open-Top Tree & Plant Option		
Filterra Model	Tree Quantity	Plant Quantity
FT1212	N/A	N/A
FT1218	N/A	N/A
FT1812	N/A	N/A
FT1224	N/A	N/A
FT2412	N/A	N/A
FT1818	N/A	N/A
FT1824	1	2
FT2418	1	2
FT1236	1	2
FT3612	1	2
FT1830	1	4
FT3018	1	4
FT1836	1	4
FT3618	1	4
FT4021	1	6
FT2140	1	6

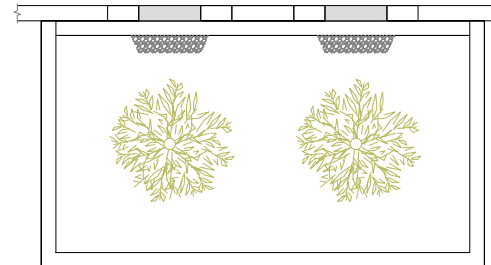
Examples

Closed-Top

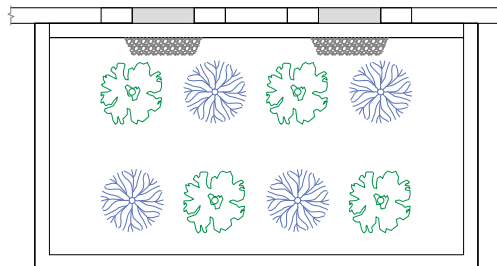


FT4021

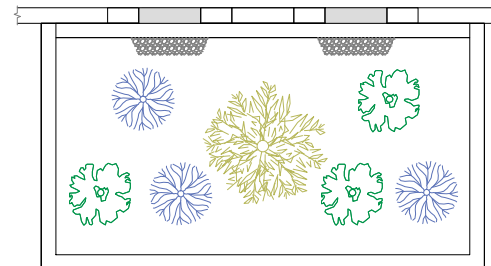
Open-Top Trees Only



Open-Top Plants Only

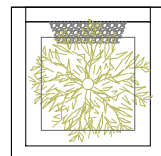


Open-Top Tree & Plants

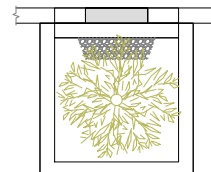


FT1212

Closed-Top



Open-Top Tree Only



Open-Top Plants Only

