

Vegetable Washwater Discharge Code of Practice

Permitted Activity Rules and Storage – Auckland

Sufficient storage is essential for successfully managing your washwater discharges.

Calculating the required storage needs to take into account the period when the soil cannot be irrigated, the discharge rates over this time, the soil type, and for uncovered storage ponds rainfall (rain falling directly on the pond increases the storage requirements).

DairyNZ has guidance on storage requirements, soil risk, and application systems. The storage calculations below were determined using their [Storage Calculator](#).

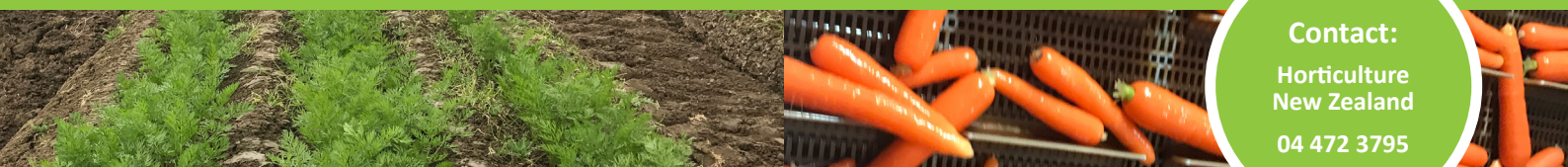
The tables below give the storage requirements for an operation processing 2,500 tonnes of root vegetables discharging an average of 20 m³/day (5,000 m³/year) into uncovered storage, and where the operation is irrigating onto high or low risk soils. These soil risk categories are described in the DairyNZ booklet [Pocket guide to determine soil risk](#). Most soils are classified as high risk (FDE category A, B, C), generally have one or more of the following characteristics: > 7 degrees, impeded drainage, low infiltration rate (<10mm/hr), mole or pipe drains, or coarse topsoil structure (> 80% of soil aggregates captured on a 10mm sieve). The FDE soil risk category can be found for many soils on Landcare Research's [S mapOnline](#).

High risk soil (FDE category A, B, C) – average discharge of 20m ³ /day when the soil is saturated (cannot irrigate)					
	Uncovered storage (includes direct rainfall)				
	Volume (m ³)	Length (m)	Width (m)	Depth (m)	Batter (slope)
Warkworth	1,040	30	16	4	1 : 1
Pukekohe	2,060	40	21	4	1 : 1

Low risk soil (FDE category D and E) – average discharge of 20 m ³ /day					
	Uncovered storage (includes direct rainfall)				
	Volume (m ³)	Length (m)	Width (m)	Depth (m)	Batter (slope)
Warkworth	160	13	10	3	1 : 1
Pukekohe	210	15	11	3	1 : 1

Council	Permitted ¹		Conditions
	Discharge to water	Discharge to land	
Auckland Council	✘	✔ < 20 m ³ /day	No runoff into surface water. The discharge must not contain contaminants other than sediment, and/or those contaminants generally found in agricultural soils and water.

1. Permitted subject to conditions.



Contact:
Horticulture
New Zealand
04 472 3795

Vegetable Washwater Discharge Code of Practice

Permitted Activity Rules and Storage – Southland

Sufficient storage is essential for successfully managing your washwater discharges.

Calculating the required storage needs to take into account the period when the soil cannot be irrigated, the discharge rates over this time, the soil type, and for uncovered storage ponds rainfall (rain falling directly on the pond increases the storage requirements).

DairyNZ has guidance on storage requirements, soil risk, and application systems. The storage calculations below were determined using their [Storage Calculator](#).

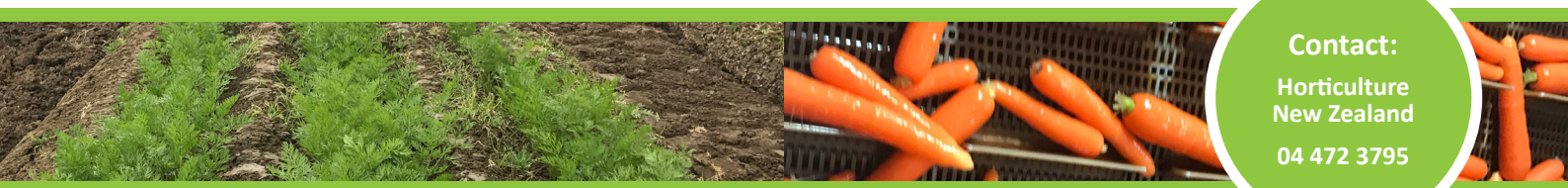
The tables below give the storage requirements for an operation processing 2,500 tonnes of root vegetables discharging an average of 20 m³/day (5,000 m³/year) into uncovered storage, and where the operation is irrigating onto high or low risk soils. These soil risk categories are described in the DairyNZ booklet [Pocket guide to determine soil risk](#). Most soils are classified as high risk, generally have one or more of the following characteristics: > 7 degrees, impeded drainage, low infiltration rate (<10mm/hr), mole or pipe drains, or coarse topsoil structure (> 80% of soil aggregates captured on a 10mm sieve). The FDE soil risk category can be found for many soils on Landcare Research's [S mapOnline](#).

High risk soil (FDE category A, B, C) – average discharge of 20m ³ /day when the soil is saturated (cannot irrigate)					
	Uncovered storage (includes direct rainfall)				
	Volume (m ³)	Length (m)	Width (m)	Depth (m)	Batter (slope)
Gore	1,990	38	20	4	1 : 1
Woodlands	1,920	40	19	4	1 : 1

Low risk soil (FDE category D and E) – average discharge of 20 m ³ /day					
	Uncovered storage (includes direct rainfall)				
	Volume (m ³)	Length (m)	Width (m)	Depth (m)	Batter (slope)
Gore	190	14	10	3	1 : 1
Woodlands	230	17	10	3	1 : 1

Council	Permitted ¹		Conditions
	Discharge to water	Discharge to land	
Southland Regional Council	✘	✔ < 20 m ³ /day	No overland flow, ponding, or application to saturated soils. No measurable concentrations of chemical additives and a range of separation distances.

1. Permitted subject to conditions.



Contact:
Horticulture
New Zealand
04 472 3795