

Drainage Classes of Horizons Soils

Categorisation of soil risk associated with overland flow contaminant loss: Manawatu-Wanganui region

Table 1: Soil and landscape risk framework

Category	A	B	C	D	E
Drainage Class	1	2	3	4	5
Description	Very poorly drained	Poorly drained	Imperfectly drained	Moderately well drained	Well drained

High Risk	Low Risk
<p>Impeded drainage or low infiltration rate</p> <p><i>Impeded drainage class 1 – Loess terrace soils</i></p> <p>Bideford loam</p> <p>Crofton silt loam</p> <p>Halcombe silt loam</p> <p>Kokotau silt loam</p> <p>Mangatepopo loamy sand</p> <p>Mangatepopo sand</p> <p>Marton black silt loam</p> <p>Marton loam</p> <p>Marton silt loam</p> <p>Milson silt loam</p> <p>Ngaroma sandy loam</p> <p>Ohakea loam</p> <p>Ohakea silt loam</p> <p>Piropiro loamy sand</p>	<p>Drainage classes 4 & 5</p> <p>Category D & E soils: Well drained</p> <p>Aratora silt loam</p> <p>Aria loam</p> <p>Aria silt loam</p> <p>Ashhurst silt loam</p> <p>Atiamuri sand</p> <p>Atua silt loam</p> <p>Awahou loamy sand</p> <p>Takapau silt loam/sandy loam</p> <p>Awahou sandy loam</p> <p>Awahou-Foxton Association</p> <p>Benneydale sand</p> <p>Dannevirke silt loam</p> <p>Egmont black loam</p> <p>Egmont black silt loam</p>

Pokaka sandy silt loam	Egmont brown loam
Pouwhakaura silt loam	Esk sand
Raurimu sandy loam	Foxton black sand
Raumati silt loam	Foxton-Himatangi association
Renata mottled silt loam	Foxton-Omanuka association
Shannon silt loam	Hangatahua sandy loam
Tapuwae	Heretaunga silt loam
Taurewa	Himatangi sand
Tokomaru fine sandy loam	Himatangi-Foxton association
Tokomaru silt loam	Kaama sand
Wanstead clay loam	Kai-iwi silt loam
Wairua clay	Kakatahi loam
	Karapoti black sandy loam
<i>Impeded drainage class 2 –Poorly drained alluvial soils</i>	Karapoti black silt loam
Carnarvon black loamy sand	Karapoti brown sandy loam
Carnarvon black loamy sand	Takapau heavy silt loam
Carnarvon black sandy loam	Table Flat silt loam
Carnarvon black sandy loam	Karapoti loamy sand
Carnarvon brown loamy sand	Karapoti sandy loam
Carnarvon brown sandy loam	Kawhatau silt loam
Carnarvon brown-Foxton association	Kiwitea loam
Carnarvon loamy sand	Kiwitea silt loam
Carnarvon-Foxton association	Kokau sandy loam
Hokio Sand	Smedley sandy loam
Hokio strongly mottled sand	Kokomiko sandy loam
Hokio weakly mottled sand	Kopua sandy loam
Hokio-Waitarere association	Kopua silt loam
Kai-Iwi mottled silt loam	Koputaroa sand
Kaikorangi silt loam	Levin silt loam
Kairanga fine sandy loam	Makerua loamy peat
Kairanga heavy silt loam	Rotoaira loam

Kairanga loam	Makerua peaty loam
Kairanga peaty silt loam	Makerua peaty silt loam
Kairanga silt loam	Manawatu fine sandy loam
Kairanga silt loam and clay loam	Manawatu mottled fine sandy loam
Kairanga silt loam on sand	Manawatu mottled silt loam
Kiwitea mottled silt loam	Manawatu sandy loam
Meeanee-Farndon complex	Manawatu silt loam
Matamau silt loam	Manunui sandy loam
Omanuka complex	Mapara sandy loam
Omanuka loamy peat	Maraeroa loamy sand
Omanuka peat	Rangitikei mottled sandy loam
Omanuka peaty loam	Taringamotu loamy sand
Omanuka peaty sandy loam	Matiere sandy loam
Omanuka peaty silt loam	Maxwell sandy loam
Opiki complex	Meeanee-Farndon complex
Opiki peaty silt loam	Moawhango loam
Opiki silt loam	Moawhango sandy loam
Parewanui fine sandy loam	Moerangi sandy loam
Parewanui heavy silt loam	Mosston sand
Parewanui sandy loam	Motuiti sand
Parewanui silt loam	Murimotu peaty loam
Pongakawa peaty loam	New Plymouth brown loam
Pukepuke black sand	Rangitikei sandy loam
Pukepuke black sand	Ngauruhoe sand
Pukepuke-Foxton association complex	Ngauruhoe sand
Pukepuke-Omanuka association complex	Renata silt loam
Rahotu loam	Ohakune silt loam
Raumati silt loam	Ohinemoa sand
Rongotea peaty loam Lp	Ohinemoa sand
Te Arakura fine sandy loam	Otamatea sand
Te Arakura heavy silt loam	Owhango loamy sand

Te Arakura sandy loam	Parakino sandy loam
Te Arakura shallow silt loam	Patea black sand
Te Arakura silt loam	Tarata sandy loam
Utawai sandy loam	Patea sand
Utawai strongly mottled silt loam	Taruarau sandy loam
Westmere mottled silt loam	Piopiotea peaty sandy loam
Drainage class 3	Pungapunga sandy loam
Category C soils: Imperfectly drained	Putiki fine sandy loam
Ashcott sandy loam hill	Ramiha mottled silt loam
Atua silt loam hill	Ramiha silt loam
Dannevirke silt loam rolling	Rangipo sand
Egmont brown loam hill	Rangipo sandy loam
Halcombe fine sandy loam hill	Rangitikei fine sandy loam
Halcombe fine sandy loam rolling	Rangitikei fine sandy loam shallow
Halcombe silt loam hill	Rangitikei loamy sand
Halcombe silt loam hill	Taumarunui sandy loam
Hiwi silt loam hill	Taumarunui sandy silt
Huntermville silt loam hill	Taupo light sandy loam
Kaikoura silt loam hill	Te Horo silt loam
Kakahi sandy loam hill	Te Wharau sandy loam
Kiwitea fine sandy loam rolling	Tihoi loamy sand
Kiwitea loam hill	Tinui silt loam/sandy loam
Kiwitea silt loam hill	Tokorangi fine sandy loam
Kiwitea silt loam rolling	Turangi sandy loam
Kohuratahi clay loam hill	Utawai silt loam
Kohuratahi silt loam hill	Waimarino loamy sand
Konini silt loam hill	Waimarino sand
Korokoro silt loam hill	Waimarino silt loam
Kourarau silt loam hill	Waimiha sandy loam
	Waione loamy sand
	Waiouru loamy sand

Kumeroa fine sandy loam hill	Waipunga
Kumeroa sandy loam hill	Waitarere sand
Maharahara sandy loam hill	Waitohu silt loam
Makiekie sandy loam	Westmere silt loam
Makotuku fine sandy loam	Wilder silt loam
Makotuku sandy loam hill	
Mangatea clay loam hill	Drainage class 5
Mangatea silt loam hill	Category E soils: well drained
Mangatepopo sand hill	
Mangatepopo sandy loam hill	Ashhurst silt loam shallow
Mangaweka silt loam hill	Ashhurst silt loam stony
Mapiu bouldery silt loam hill	Ashhurst stony sandy loam
Mapiu silt loam hill	Karapoti brown sandy loam gravelly
Marokopa clay loam hill	Kawhatau stony sandy loam
Matamau silt loam hill	Kawhatau stony silt loam
Matiere sandy loam hill	Kohinui stony loam
Maungapakeha silt loam hill	Kopua stony loam
Milson silt loam rolling	Kopua stony loam
Moawhango loam hill	Kopua stony silt loam
Moawhango sandy loam hill	Manawatu fine sandy loam stony
New Plymouth brown loam hill	Ohakune bouldery silt loam
New Plymouth brown loam hill soils	Rangitikei loamy sand on gravels.
Ngaio hill	Takapau stony loam
Ngamatea sandy loam hill	Takapau stony silt loam
Ngaroma sandy loam hill	Tukituki sand & stony gravel
Ngaumu fine sandy loam hill	Tukituki stony loam
Ohakune silt loam hill	
Ohutu silt loam hill	
Ongarue sandy loam hill	
Ongawhao sandy loam	
Oniao silt loam hill	

Oroua sandy loam hill	
Owhakura clay loam hill	
Pakarae sandy loam hill	
Parakino sandy loam hill	
Patea sand hill	
Piropiro loamy sand hill	
Pokaka loamy sand hill	
Pongaroa clay loam hill	
Purimu silt loam hill	
Ramiha silt loam hill	
Raukawa silt loam	
Raumai sandy loam hill	
Rawea sandy loam hill	
Renata silt loam hill	
Shannon silt loam rolling	
Tangitu sandy loam hill	
Taruarau sandy loam hill	
Taurewa loamy sand hill	
Te Pari hill	
Tihia loamy sand hill	
Tihoi loamy sand hill	
Tinui silt loam/sandy loam hill	
Titapu sandy loam hill	
Tokomaru silt loam hill	
Tuapaka fine sandy loam hill	
Umutoi silt loam hill	
Waihuka sandy loam hill	
Waimarama sandy loam hill	
Waimarino hill	
Waimarino loamy sand hill	
Waimarino loamy sand hill	

Wainui heavy silt loam hill

Waiouru loamy sand hill

Waitataura silt loam hill

Wanstead clay loam hill

Westmere fine sandy loam hill

Westmere silt loam hill

Whangai silt loam hill

Whetakura sandy loam hill

Whetakura silt loam hill

Wilford silt loam hill