

Appendix 3 – Sites currently sprayed within River and Drainage Schemes

The following table lists rating district/scheme areas where agrichemicals have historically been used or are currently part of routine agrichemical spray programmes.

Scheme	Waterways	Areas targeted	Method	Agrichemical and additive used	Spray frequency	Drinking water protection zones?
North Canterbury						
Kaikōura Drainage Scheme	All drains that have weed growth to the extent that will impair flows	Drain banks for gorse, broom, black berry etc and emergent aquatic weeds	Hand gun or knapsack	Glyphosate and triclopyr	Annually	1. overlapping parts of Lukes Creek, M9 Drain around Postmans Road 2. overlapping parts of M5, M6, Middle Creek, Mill Creek, LB Lyell and L22
Kaikōura Rivers	Kowhai Lyell Creek Lukes Creek Floodgate Creek Harnetts Creek Waimangarara River	River banks and berm for old mans beard, gorse, broom etc Fairway for lupines, gorse, broom, willow, wattle	Handgun	Glyphosate and triclopyr	Annually for banks and berm Annually, different areas frequency for fairway on Kowai (two yearly cycles)	3. overlapping over parts of Kowhai River, Drain Y and Hill Drain See maps: Lukes Creek Mt Fyffe Road Golf Club
Conway	Conway River downstream of SH1 to mouth	Fairway for alders, wattle, willow, gorse, broom etc	Aerial and hand gun	Glyphosate and triclopyr	Every second year	Nil

Waiau Uwha	Mason river downstream of Inland Road to confluence Small segments of river at Rotherham, Waiau Town, Lower Flats, Spotswood	Berm – omb target			Fairway – annually	Drinking water protection zones over Waiau Uwha See maps: 1. Waiau Caithness Road 2. Waiau Lyndon Stream 3. Waiau township 4. Waiau Leamington Road 5. Waiau SH1
Hanmer	Upper Chatterton	River berms and fairway - Old mans beard, blackberry etc	Handgun	Glyphosate	Annually	Nil
Pahau	Pahau River from Top Pahau Ford Road to Hurunui confluence	Fairway and Berms - Willow, gorse, broom, old mans beard etc	Handgun	Glyphosate	Hasn't been done to date but may be required for future management, annually	Overlaps part of Pahau River for Culverden Supply See map: Pahau River
Hurunui	Hurunui River downstream of SH1 to mouth	Fairway – willow, gorse etc	Aerial	Glyphosate	Annually	Overlaps part of Hurunui for Hurunui Lower Rural Water Scheme See map: Hurunui River
Kowai Leithfield	Kowai North Branch	Spot locations fairway and berm –	Handgun	Glyphosate and additive	Annually	Overlaps part of North Branch and

	Kowai South Branch	willow, broom, old mans beard etc				main channel for Amberley and Amberley Beach Supply See maps: Kowai NB Kowai at River Road
Sefton Ashley	Saltwater Creek Bairds Creek Stoney Creek Fox's Creek Sefton Town	Small scale spot spraying banks for willow sprouts, gorse etc Bed of Sefton Town – rank grass	Handgun	Glyphosate and triclopyr	Annually	Nil – except saltwater creek see map: Waikuku Beach
Ashley Rakahuri	Ashley Rakahuri	River berm, stopbanks and tracks, fairway	Handgun	Glyphosate and triclopyr and additive	Annually	Three areas of overlap RM and RG Campbell Supply, WDC Rangiora town supply and Waikuku Beach supply See maps: Upstream Cones Road Downstream Cones Road Waikuku Beach
Waimakariri – Eyre - Cust	Waimakariri River downstream of gorge to mouth	River fairway, berms, tracks and stopbanks	Aerially for Waimakariri fairway and	Glyphosate, Triclopyr and additive	Annually for berms, stopbanks and tracks, as	Overlaps with Coopers Creek, Waimakariri River,

	Eyre River Coopers Creek Cust River Cam River Kaiapoi River Courtenay Stream		handgun for berms, tracks, stopbanks		required for targeted islands on the Waimakariri but typically annually.	Cam River and Kaiapoi River See maps: Coopers Creek WMK Bleak House WMK Doubledays Cam River Kaiapoi River
Scheme	Waterways	Areas targeted	Method	Agrichemical and additive used	Spray frequency	Drinking water protection zones?
Central Canterbury						
Little River/Wairewa	Okuti River Police Creek Okana River Hukahuka Turoa Takiritawai Stream	Stream banks following willow, wattle etc removal	Stump painting or knapsack	Glyphosate and Triclopyr	Annual spray programme, areas treated once or twice to kill cleared vegetation to prevent regrowth	Nil
Halswell Drainage Scheme	Halswell main stem Drains Halswell Canal	Drain or stream banks for willow sprouts, blackberry, gorse etc Only dry drains are sprayed therefore not all drains in network are sprayed	Knapsack or spray gun	Glyphosate and Triclopyr	Annual	Overlaps with part of McGills Drain (Prebbleton supply), Sharps Drain (Ladbrooks School Supply), Stackwoods Drain and Extension (Knocklyn Community supply), Halswell River (SDC Tai Tapu supply) and

						Whitelaws Drain (Rocklands Supply) See maps: McGills Sharps Stackwoods Halswell and Morgans Whitelaws
Selwyn River	Selwyn River downstream of Westernras Road to the lake	Fairways Stopbanks and berm	Spray gun (truck or bean sprayer)	Glyphosate and Triclopyr	Annual	Overlaps with part of lower Selwyn River at Upper and Lower Huts See maps: Upper Selwyn Huts Lower Selwyn Huts
Rakaia	Rakaia Double Hill Upper Rakaia – SH1 to Steeles Road Lower Rakaia – SH1 to mouth	Fairway spraying of targeted islands for willow, gorse, broom, lupine Berm spraying of tracks	Aerial and spray gun	Glyphosate and Triclopyr	Annual	Overlaps with part of the Rakaia in Barhill and at the huts See maps: Rakaia Barhill Rakaia River Huts
Ashburton	Bowyers Stream Taylors Stream Pudding Hill Stream Ashburton NB Ashburton SB	Fairway spraying, berm, track and stopbank spraying	Aerial or spray gun	Glyphosate and Triclopyr	Fairways as required depending on flooding, on average every year	Overlaps with Pudding Hill Stream (Methven Youth Lodge and Pudding Hill Lodge supply), Ash NB

	Ashburton MS				Berms, tracks and stopbanks annually	(Methven/Springfield supply), MS (Hakatere Huts supply) See maps: Pudding Hill Stream Ashburton NB Hakatere Huts
Ashburton small schemes	Dry Creek Chertsey Road Drain Buttericks Road Drain Staveley Stormwater Channel/Mill Creek	Banks for gorse, broom etc	Spray gun or knapsack	Glyphosate	As required, on average every 5 years	Nil
Hinds	Hinds North Branch Hinds South Branch Hinds MS	Fairway for gorse, broom, willows etc	Spray gun	Glyphosate and triclopyr	Annual (depending on flood events occurring)	Nil
Ashburton Hinds Drainage	Selected waterways are treated with spray, assessed on a year by year basis	Emergent macrophytes	UAV or spray gun	Glyphosate	Annual	One overlap with Dakers Drain (Longbeach School supply) See map: Dakers Drain

Scheme	Waterways	Areas targeted	Method	Agrichemical and additive used	Spray frequency	Drinking water protection zones?
South Canterbury						
Rangitata River	Rangitata River bottom of gorge to mouth	Fairways, berm and tracks	Aerial for fairway, spray gun for tracks	Glyphosate and Triclopyr	As required, targeted reaches will be treated on a cycle of 5 years for fairway Annually for berms	Nil
O-W-T	Orari River Waihi River Temuka River Taumatakahu Stream Ohapi Creek	Fairways, berms, tracks, stopbanks Taumatakahu Stream – submergent aquatic weed	Aerial for fairway, spray gun for tracks and stopbanks, stump painting for tree removal on Ohapi Creek	Glyphosate and Triclopyr Diquat on Taumatakahu	Ground based fairway spraying with hand guns done annually, with at least one stretch done aerially where ground access is too difficult due to weed growth Annually for berms, tracks and stopbanks Annually for Taumatakahu	Overlaps with Orari River, Station Stream, Dobbies Stream (Grumpys Retreat, TDC Geraldine, Orari and Temuka supplies) Overlaps with Waihi and Tributaries (TDC Geraldine Supply and Farmyard Holiday Park supply, Winchester School Supply and Waihi School Supply) See maps: Orari and Station Orari and Dobbies

						Orari Dobies and Waihi Trib Waihi and Tribs Geraldine Waihi Winchester
Clandeboyne Drains	Donehue, Clandeboyne Settlement, Canal + smaller drains if required	Emergent aquatic weeds	Hand gun	Glyphosate	Annually	Nil
Opihi Catchment	Opihi River Te Ngawai River North Opuha South Opuha Opuha MS	Fairways, berms, tracks and stopbanks	Aerial and handgun for fairway, hand gun for tracks, berms and stopbanks	Glyphosate and Triclopyr	As required, on average every 3 years for aerial fairway, ground based annually Annually for berms, tracks and stopbanks	Overlaps with South Opuha River (Allandale rural supply), Opihi (Fairlie Supply, Raincliff Camp, Downlands, Meadowlinks Supply, Pleasant Point Supply – includes overlap with Te Ngawai River, Arowhenua Supply) See maps: South Opuha Opihi Kimbell Opihi at Spur Road Opihi at Skinner Road

						Tengawai Pleasant Point Opihi US SH1
Seadown Drainage	Seadown Main drain Lateral drains	Banks, emergent aquatic weed	Spray gun	Glyphosate	Annually	Nil
Washdyke Creek	Washdyke Creek from u/s Washdyke Flat Road to mouth	Stopbanks	Spray gun	Glyphosate and triclopyr	Annually	Nil
Taitarakihi Stream	Taitarakihi Stream from Old North Road to railway	Banks, emergent aquatic weed	Spray gun	Glyphosate	As required, typically annually	Nil
Saltwater Creek	Saltwater Creek from Fairview Road to mouth	Stopbank	Spray gun	Glyphosate	Annually	Nil
Pareora	Pareora River from Evans Crossing Road to mouth	Stopbanks and tracks, fairway	Spray gun	Glyphosate and triclopyr	Annually	Overlaps with part of the Pareora at Fishing Huts and around SH1 See maps: Pareora River Fishing Huts Pareora SH1
Otaio	Otaio from foothills to mouth	Spot spraying tracks and fairways	Spray gun	Glyphosate and triclopyr	Annually	Overlap very top of Otaio (Otaio/Makikihi Rural) See map:

						Otaio
Waihao-Wainono	Hook River Hook Beach Drain Waihao River Lower Waimate Creek Sinclair's Creek Morven Drain	Banks, tracks, stopbanks, fairways	Spray gun	Glyphosate and triclopyr	As required, typically annually	Nil
Lower Waitaki	Waitaki from Kurow to Mouth				Annually a reach is treated, three reaches done on a three yearly cycle	
Upper Waitaki	Omarama Stream Pukaki River Twizel River Tekapo River Ohau River	Fairways Pukaki (targeted sections), Tekapo (targeted sections) and Ohau (whole reach) Stopbanks Twizel Omarama stump painting etc			Annually, excluding Omarama	