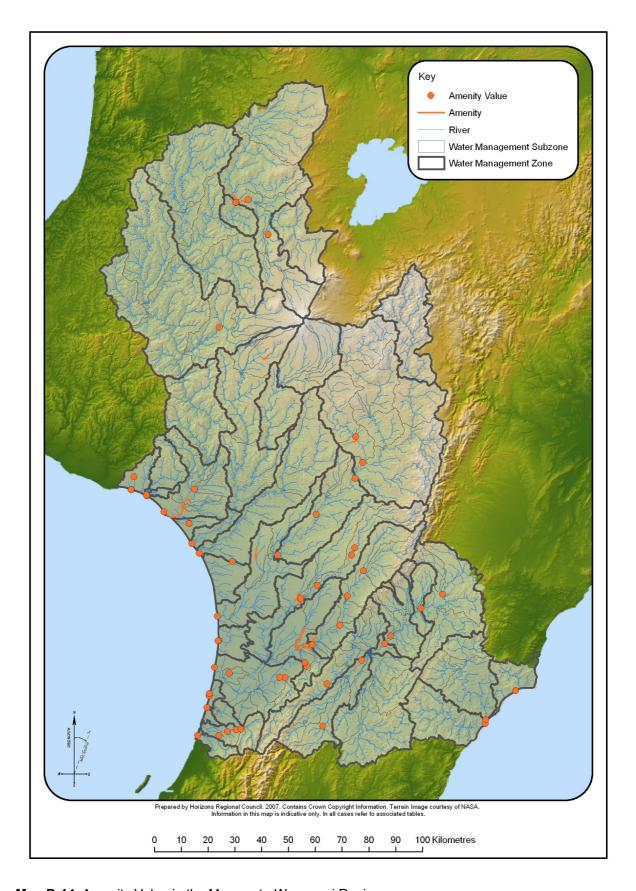
Table D.7: Native Fish Spawning Value in the Manawatu-Wanganui Region

Management Zone	Sub-zone	River/Stream Name	Reference
Coastal Manawatu	Coastal Manawatu	Manawatu River	From the river mouth to a point 100 metres upstream of the CMA boundary located at the seaward edge of Foxton Loop at approx NZMS 260 S24:010-765
Manawatu		Whitebait Creek	From confluence with the Manawatu River from approx NZMS 260 S24:982-791 to Source
Coastal Rangitikei	Tidal Rangitikei	Rangitikei River	From the river mouth to a point 100 metres upstream of the CMA boundary located at the seaward edge of the boat ramp on the true left bank of the river located at approx NZMS 260 S24:009-000
	Lower Whanganui	Mateongaonga Stream	From confluence with Whanganui River at approx NZMS 260 R22:873-434 to Kaimatira Road at approx R22:889-422
	Coastal Whanganui	Whanganui River	From the river mouth to a point approx 100 metres upstream of the CMA boundary located at the seaward edge of the Cobham Street Bridge at approx NZMS 260 R22:848-381
Lower Whanganui		Stream opposite Corliss Island	From confluence with Whanganui River at approx NZMS 260 R22:836-374 to State Highway 3 at approx R22:862-370
		Omapu Stream	From the stream mouth to a point 1km upstream at approx NZMS 260 R22: 750-441
	Matarawa	Matarawa Stream	From confluence with Whanganui River at approx NZMS 260 R22:858-398 to Ikitara Street at approx R22:869-409
Coastal Whangaehu	Coastal Whangaehu	Whangaehu River	From the river mouth to approx NZMS 260 S22:915-300
Turakina	Lower Turakina	Turakina River	From the river mouth to a point located at the continuation of the fence line at approx NZMS 260 S23:918-246
		Ohau River	From the river mouth to a point 5km upstream at NZMS 260 S25:948-579
Ohau	Lower Ohau Lake	Lake Waitaha Drain	From the confluence with the Ohau River at approx NZMS 260 S25:946-580 to the Lake Waitaha Outlet at approx S25:954-605
Akitio	Lower Akitio	Akitio River	From the river mouth to a point 100 metres upstream of the CMA boundary located at the seaward edge of the bridge that crosses the river at NZMS 260 U25:996-619
		Whakawaihine Stream	From the confluence with the Akitio River at approx NZMS 260U25:985-657 to a point approx two kilometres upstream at approx U25:989-670
Northern Coastal	Northern Coastal	Okehu Stream	From the stream mouth to intersection with SH3 at approx NZMS 260 R22:717-510

Kai–lwi	Kai–Iwi	Kai-lwi Stream	From the stream mouth to 100 metres upstream of the CMA boundary located at the seaward edge of the bridge that crosses the stream at NZMS 260 R22:721-452
Mowhanau	Mowhanau	Mowhanau Stream	From the stream mouth to Rapanui Road at approx NZMS 260 R22: 731-452
Kaitoke Lakes	Kaitoke Lakes	Kaitoke Stream	From the stream mouth to Kaitoke Lake at NZMS 260: R22:869-358
Southern	Southern Vhanganui Lakes Whanganui Lakes	Koitiata Stream	From the stream mouth to a point 5km upstream at approx NZMS 260 S23:987-191
Whanganui		Waimahora Stream	From the stream mouth to intersection with Santoft Rd at NZMS 260 S23:001-154
		Raumai Range Stream	From the stream mouth to source
Northern Manawatu	Northern Manawatu	Kaikokopu Stream	From the stream mouth to Lake Kaikokopu at NZMS 260 S24:019-899
Lakes	lakes	4 Mile Creek	From the stream mouth to Lake Pukepuke at NZMS 260 S24:024-937
Lake Papiatonga	Lake Papiatonga	Waiwiri Stream	No location defined, assume from stream mouth to a point 500m upstream at NZMS 260 S25:939-618
Lake Horowhenua	Hokio	Hokio Stream	From the stream mouth to 100 metres upstream of the CMA boundary located at the seaward edge of the bridge that crosses the stream at NZMS 260 S25:950-659



## **Recreational and Cultural Values**



Map D:14 Amenity Value in the Manawatu-Wanganui Region



Table D.8: Amenity Value in the Manawatu-Wanganui Region

Management Zone	Sub zone	Site	Description
Upper Manawatu	Upper Manawatu	Manawatu River at Maunga Road	At approx NZMS 260 U23:830-079
oppor mananata		Manawatu River at Weber Road	At approx NZMS 260 U23:749-026
Hopelands-	Hopelands-Tiraumea	Manawatu River at Kumeroa (Little Road)	At approx NZMS 260 T24:636-923
Tiraumea	Tiopolarido Tiradinica	Manawatu River at Hopelands Domain (River Road)	At approx NZMS 260 T24:613-895
	Lower Mangatainoka	Mangatainoka River	From approx NZMS 260 T24:503-806 to approx T24:500-802
Mangatainoka	Lower Mangatamora	Mangatainoka River at SH2 Reserve	At approx NZMS 260 T24:528-832
	Makakahi	Makakahi River at Bridge Street Eketahuna	At approx NZMS 260 T25:383-588
Upper Gorge	Upper Mangahao	Mangahao River at Marima Domain	At approx NZMS 260 T24:398-745
	Middle Manawatu	Manawatu River at Ashhurst Domain	At approx NZMS 260 T24:445-964
		Manawatu at Albert Street	At approx NZMS 260 T24:342-891
Middle Manawatu	Middle Pohangina	Pohangina River at Totara Reserve	At approx NZMS 260 T23:533-168
	•	Pohangina River at Raumai Reserve	At approx NZMS 260 T23:474-072
Middle and Lower Manawatu	Middle and Lower Manawatu	Manawatu River	From approx NZMS 260 S24:291-872 to approx T24:353-919
	T :	T: " O	From approx NZMS 260 T24:316-882 to
	Turitea	Tiritea Stream	approx NZMS 260 T24:334-869
		Kahuterawa Stream at Reserve	At approx NZMS 260 T24:322-810
Lower Manawatu	Kahuterawa	Kahuterawa Stream at Camp Kilsby	At approx NZMS 260 T24:316-824
	Lower Mangaone	Mangaone Stream	From approx NZMS 260 S24:286-877 to approx T24:313-954
		Oroua River at Londons Ford	At approx NZMS 260 T23:502-254
	Upper Oroua	Oroua River at Bartletts Ford	At approx NZMS 260 T23:490-226
		Oroua River at Almadale	At approx NZMS 260 T23:362-113
		Oroua River at Timona Park	At approx NZMS 260 S23:299-064
	Middle Oroua		From approx NZMS 260 S24:293-043 to
Oroua	Middle Oloda	Oroua River	confluence with the Kiwitea Stream at approx NZMS 260 T23:308-066
	Kiwitea	Kiwitea Stream	From confluence with the Oroua River at approx NZMS 260 T23:308-066 to approx NZMS 260 T23:311-075
	Makino	Makino Stream	From approx NZMS 260 S23:276-053 to the intersection with Roots Street at approx NZMS 260 S23:289-082
	Coastal Manawatu	Foxton Beach	At approx NZMS 260 S24:978-806
	Lower Tokomaru	Tokomaru River at Horseshoe Bend	At approx NZMS 260 S24:241-768
Coastal Manawatu	Lower Tokomaru	Tokomaru River Bank Reserve (SH57)	At approx NZMS 260 S24:222-770
	Foxton Loop	Foxton Loop Reserve	From approx NZMS 260 S24:031-783 to approx NZMS 260 S24:027-796
		Foxton Loop Reserve	At approx NZMS 260 S24:033-785
Middle Rangitikei	Pukeokahu – Mangaweka	Rangitikei River upstream Hautapu Confluence (Toe Toe Rd)	At approx NZMS 260 T22:531-573
	Upper and Lower	Hautapu River	From the confluence with the Otaihape



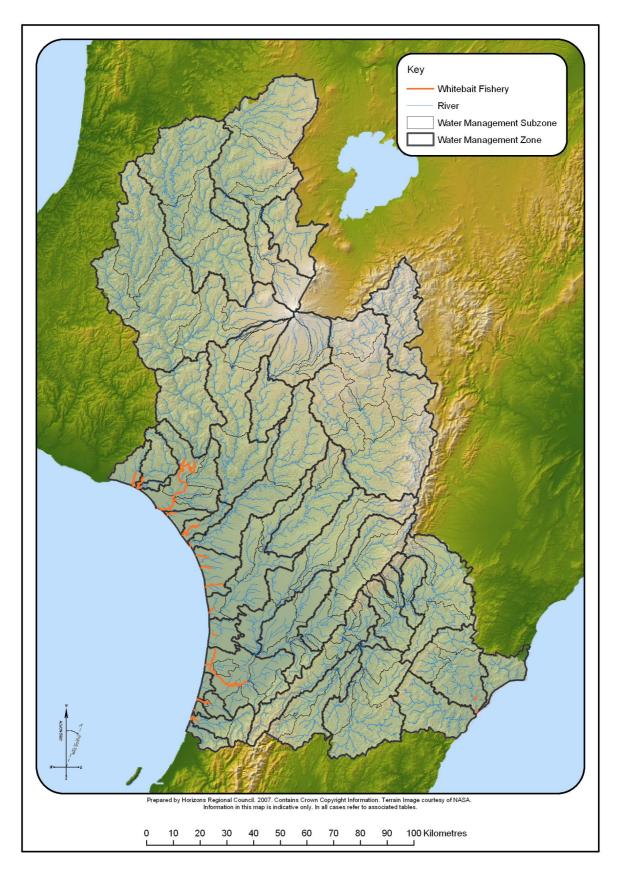
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Hautapu  Hautapu River at Papakai Parik/Spooner's Hill  Lower Hautapu  Lower Hautapu  Coaihape Stream  At approx NZMS 260 T21:507-656 to approx 1721:502-671  At approx NZMS 260 T21:507-656 to approx 1721:502-670  From confluence with the Hautapu River at approx NZMS 260 T21:507-656 to approx 1721:492-652  Rangitikei River at Mangaweka At approx NZMS 260 T22:503-613  Rangitikei River at Mangaweka At approx NZMS 260 T22:503-613  Rangitikei Holben Reserve At approx NZMS 260 T22:503-8379  Rangitikei Stream At approx NZMS 260 T22:503-8379  At approx NZMS 260 S23:213-226  Rangitikei Holben Reserve At approx NZMS 260 S23:213-226  Rangitikei Holben Reserve At approx NZMS 260 S23:313-209  to approx S23:133-259  to approx S23:133-259  to approx S23:133-259  to approx NZMS 260 S18:057-545  Prom Confluence with the Ongarue  Whanganui River at Manunui  At approx NZMS 260 S18:057-545  From Confluence with the Ongarue  Whanganui River at Owhango  Ongarue River at various  swimming holes at Taingamotu  Ongarue River at various  swimming holes at Taingamotu  Congarue River at various  swimming holes at Taingamotu  At approx NZMS 260 S18:057-546  Pipiriki  Lower Manganui  Lower Whanganui  Lower Whanganui  Lower Manganui  Coastal Whanganui  At approx NZMS 260 S2:902-473  Whanganui River at Mosquito  Point  Lower Whanganui  Lower House Autapope Mangawer From Confluence with the Whanganui  River at approx NZMS 260 S2:902-473  At approx NZMS 260 S2:902-675  Ohau River at Kimberley Reserve  Ohau River at Kimberley Reserve  At approx NZMS 260 S2:5025-9574  O	Management Zone	Sub zone	Site	Description
Lower Hautapu   Hautapu River at Papakai   Park/Spooner's Hill	20110	Hautapu		
Description				''
Lower Rangitikei   Lower Rangitikei   Rangitikei River at Vinegar Hill Rangitikei at Makino Rd/Rue Rue Rd   At approx NZMS 260 S23:213-226   Rangitikei   Tutaenui   Tutaenui Stream   At approx NZMS 260 S24:989-997   From approx NZMS 260 S24:989-997   From approx NZMS 260 S23:313-292   Tutaenui River at Manunui   At approx NZMS 260 S23:3133-292   Whanganui River at Manunui   At approx NZMS 260 S18:104-556   Whanganui River at Cherry Grove   At approx NZMS 260 S18:104-556   Whanganui River at Cherry Grove   At approx NZMS 260 S18:1057-545   From Confluence with the Ongarue River at Various Swimming holes at Taringamotu   At approx NZMS 260 S18:057-546   At approx NZMS 260 S29:096-079   At approx NZMS 260 S29:096-079   At approx NZMS 260 S29:096-079   At approx NZMS 260 S29:092-473   At approx NZMS 260 S29:092-502-502-502-502-502-502-502-502-502-50		Lower Hautapu	Otaihape Stream	at approx NZMS 260 T21:507-656 to
Coastal Rangitikei				• • • • • • • • • • • • • • • • • • • •
Coastal Rangitikei	Lower Rangitikei	Lower Rangitikei		At approx NZMS 260 T22:358-379
Coastal Rangitikei  Tutaenui  Tutaenui Stream  Whanganui River at Manunui  At approx NZMS 260 S23:133-209 to approx S23:133-209 to approx S23:133-256  Whanganui River at Manunui  At approx NZMS 260 S18:104-556  At approx NZMS 260 S18:04-545  From Confluence with the Ongarue River at Various swimming holes at Taringamotu  Lower Ongarue  Lower Whanganui o te Ao River at Ruatiti  Ao  Whanganui River at Mosquito Point  Lower Adaganui  Coastal Whanganui  Coastal Whanganui  Matarawa  Matarawa  Matarawa  Matarawa  Lower Whanganui  Coastal Whanganui  Coastal Whanganui  Coastal Whanganui  Coastal Whanganui  Coastal Whanganui  Lower Whanganui  Lower Whanganui  Coastal Whanganui  Coastal Whanganui  Coastal Whanganui  Coastal Whanganui  Lower Whanganui  Coastal Whanganui  At approx NZMS 260 S22:902-473  From River Mouth to approx NZMS 260 R22:888-343  At approx NZMS 260 R22:788-388  From Confluence with the Whanganui River at approx NZMS 260 R22:883-434  From Confluence with the Whanganui River at approx NZMS 260 R22:883-391  From Confluence with the Whanganui River at approx NZMS 260 R23:893-269  Whangaehu  Lower Turakina  Lower Turakina  Lower Turakina  Lower Turakina  Lower Ohau  Lower Ohau  Lower Akitio  Akitio River  Akatio River  At approx NZMS 260 S25:956-6577  Ohau River at Kirkcaldies Bridge Reserve Ohau River at Kirkcaldies Bridge Akapprox NZMS 260 S25:956-6577  Ohau River at Harikawau Reserve At approx NZMS 260 S25:956-6577  Akapprox NZMS 260 U25:991-611		_	Rd	
Tutaenul Iutaenul Stream to approx S23:133-252  Whanganui River at Manunui At approx NZMS 260 S18:04-556 Whanganui River at Cherry Grove  Cherry Grove  Lower Whakapapa  Lower Ongarue  Lower Manganui o te Ao River at Ruatiti Lower Manganui  Lower Whanganui  Lower Whanganui  Lower Manganui  Coastal Whanganui  Matarawa  Matarawa Stream  Matarawa Stream  Matarawa Stream  Mangawhero River  Whangaehu  Lower Turakina  Lower Turakina  Lower Ohau  Lower Ohau  Lower Ohau  Lower Ohau  Lower Ohau  Lower Akitio  Akitio River  Akitio River  Akitio River  Akitio River  Akapprox NZMS 230 S23:133-252  At approx NZMS 260 S18:057-545  At approx NZMS 260 S23:135-256  At approx NZMS 260 S25:992-679  At approx NZMS 260 S25:992-553  At approx NZMS 260 S25:992-556  At approx NZMS 260 S25:994-553	Coastal	Tidal Rangitikei	Holben Reserve	
Cherry Grove  Cherry at Cherry at Cohango  At approx NZMS 260 S18:100-554  At approx NZMS 260 S18:100-554  At approx NZMS 260 S18:057-546  At approx NZMS 260 S28:092-156-963 to approx S20:178-976  Chau River at Gladstone Reserve  Chau River at Gladstone Reserve  Chau Cherry Grove  Chau Cherry Grove  Cherry Gr		Tutaenui		to approx S23:133-252
Cherry Grove  Cherry Grove  Cherry Grove  Cherry Grove  Lower Whakapapa  Lower Whakapapa  Cherry Grove  Lower Ongarue  Congarue River at various swimming holes at Taringamotu  Congarue River  Congarue River at various swimming holes at Taringamotu  Congarue River  Congarue River  Congarue River at various swimming holes at Taringamotu  Congarue River  Congarue River at Ruatiti  At approx NZMS 260 S18:057-546  S18:055-544 to approx NZMS 260 S20:096-079  At approx NZMS 260 S22:902-473  Congarue River at Ruatiti  At approx NZMS 260 S22:902-473  From Confluence with the Whangaelu  River at approx NZMS 260 R22:788-388  From Confluence with the Whangaelu  River at approx NZMS 260 R22:788-388  From Confluence with the Whangaelu  River at approx NZMS 260 R22:788-388  From Confluence with the Whangaelu  River at approx NZMS 260 R22:788-388  From Confluence with the Whangaelu  River at approx NZMS 260 R22:788-388  From Confluence with the Whangaelu  River at approx NZMS 260 R22:788-388  From Confluence with the Whangaelu  River at approx NZMS 260 R22:788-388  From Confluence with the Whangaelu  River at approx NZMS 260 R22:788-388  From Confluence with the Whangaelu  River at approx NZMS 260 R22:788-388  From Confluence with the Whangaelu  River at approx			Ţ.	• •
Cherry Grove		01	Whanganui River at Cherry Grove	
Lower Ongarue		Cnerry Grove	Whanganui River	River at approx NZMS 260
Lower Ongarue  Lower Manganui o te Ao River at Ruatiti  Lower Whanganui  Coastal Whanganui  Coastal Whangaehu  Coastal Whangaeh	Cherry Grove	Lower Whakapapa		At approx NZMS 260 S19:178-426
Lower Manganui o te Ao River at Ruatiti River at approx NZMS 260 S20:996-079  Lower Whanganui Dewr Whanganui River at Mosquito Point At approx NZMS 260 S20:996-079  Lower Whanganui Coastal Whanganui River At approx NZMS 260 S20:996-079  Whanganui River At Approx NZMS 260 S20:996-079  Lower Whanganui Coastal Whanganui River At Approx NZMS 260 S20:902-473  Coastal Whanganui Castlecliff Beach At approx NZMS 260 R22:788-388  Lower Whanganui Matarawa Stream From Confluence with the Whanganui River at approx NZMS 260 R22:788-388  Lower Whangaehu Upper Mangawhero Mangawhero River Abitio At approx NZMS 260 S20:156-963 to approx S20:178-976  Coastal Whangaehu Coastal Whangaehu Whangaehu Beach At approx NZMS 260 R23:893-269  Lower Turakina Lower Turakina Turakina Beach — Koitiata At approx NZMS 260 S23:921-234  Ohau River at Kirnberley Reserve At approx NZMS 260 S25:075-577  Ohau River at Gladstone Reserve At approx NZMS 260 S25:076-577  Ohau River at Parikawau Reserve At approx NZMS 260 S25:076-577  Ohau River at Parikawau Reserve At approx NZMS 260 V24:103-719  Akitio Lower Akitio Akitio River At At approx NZMS 260 U25:991-611				At approx NZMS 260 S18:057-546
Pipiriki Lower Manganui o te Ao River at Ruatiti At approx NZMS 260 S20:996-079  Lower Whanganui Dear at Mosquito Point At approx NZMS 260 S20:996-079  Lower Whanganui Coastal Whanganui Castlecliff Beach At approx NZMS 260 R22:788-388  Lower Whanganui Matarawa Stream From Confluence with the Whanganui River at At approx NZMS 260 R22:788-388  Lower Whangaehu Upper Mangawhero Mangawhero River From Approx NZMS 260 R22:872-408  Lower Whangaehu Coastal Whangaehu Whangaehu Beach At approx NZMS 260 R23:893-269  Lower Turakina Lower Turakina Turakina Beach — Koitiata At approx NZMS 260 S23:921-234  Ohau River at Kirkcaldies Bridge Reserve Ohau River at Gladstone Reserve At approx NZMS 260 S25:075-577  Ohau River at Gladstone Reserve At approx NZMS 260 S25:075-577  Ohau River at Barikawau Reserve At approx NZMS 260 S25:994-553  East Coast East Coast Herbertville Beach At approx NZMS 260 U25:991-611  Akitio Lower Akitio Activities Akitio River At approx NZMS 260 U25:991-611		Lower Ongarue	swimming holes at Taringamotu	
Pipiriki Lower Manganui o te Ao River at Ruatiti At approx NZMS 260 S20:996-079  Lower Whanganui Demandanui River at Mosquito Point At approx NZMS 260 S22:902-473  Lower Whanganui River at Mosquito Point At approx NZMS 260 S22:902-473  Lower and Coastal Whanganui River Reserve Ohau River at approx NZMS 260 S22:902-473  Trom River Mouth to approx NZMS 260 S22:888-434  At approx NZMS 260 R22:888-434  From Confluence with the Whanganui River at approx NZMS 260 R22:872-408  From approx NZMS 260 S20:156-963 to approx S20:178-976  Coastal Whangaehu Coastal Whangaehu Beach At approx NZMS 260 R23:893-269  Lower Turakina Lower Turakina Turakina Beach – Koitiata At approx NZMS 260 S23:921-234  Ohau River at Kirkcaldies Bridge Reserve Ohau River at Kirkcaldies Bridge Reserve Ohau River at Gladstone Reserve At approx NZMS 260 S25:076-577  Ohau River at Parikawau Reserve At approx NZMS 260 S25:994-553  East Coast East Coast Herbertville Beach At approx NZMS 260 V24:103-719  Akitio Lower Akitio Ackitio River At At approx NZMS 260 U25:991-611			On some Diver	
Lower Manganui o te Ao River at Ruatiti			Ongarue River	
Lower Whanganui		Lower Manganui o te		' '
Lower Whanganui  Lower Whanganui  Lower Whanganui  Coastal Whanganui  Matarawa  Matarawa  Matarawa Stream  Coastal Whangaehu  Lower Whangaehu  Coastal Whangaehu  Coastal Whangaehu  Lower Turakina  Chau  Lower Ohau  Lower Ohau  Lower Atitio	Pipiriki	_	Manganui o te Ao River at Ruatiti	At approx NZMS 260 S20:996-079
Coastal Whanganui   Whanganui   Castlecliff Beach   At approx NZMS 260 R22:788-388		Lower Whanganui		At approx NZMS 260 S22:902-473
Matarawa Matarawa Stream From Confluence with the Whanganui River at approx NZMS 260 R22:857-397 to approx R22:872-408  Lower Whangaehu Coastal Whangaehu Coastal Whangaehu Lower Turakina Unger Turakina Turakina Beach — Koitiata At approx NZMS 260 R23:893-269  Chau River at Kimberley Reserve At approx NZMS 260 S25:059-574  Ohau River at Kirkcaldies Bridge Reserve Ohau River at Gladstone Reserve At approx NZMS 260 S25:076-577  Ohau River at Parikawau Reserve At approx NZMS 260 S25:994-553  East Coast East Coast Herbertville Beach At approx NZMS 260 U25:991-611  Akitio Lower Akitio	Lower	Whanganui	Whanganui River	
Matarawa Matarawa Stream River at approx NZMS 260 R22:857-397 to approx R22:872-408  Lower Whangaehu Coastal Whangaehu Lower Turakina Coastal Whangaehu Lower Turakina Cohau Lower Ohau Lower Ohau Lower Ohau Lower Ohau Lower Akitio Akitio Akitio River at approx NZMS 260 S20:156-963 to approx S20:178-976  Mangawhero River From approx NZMS 260 S20:156-963 to approx S20:178-976  Akitio Reserve At approx NZMS 260 R23:893-269  At approx NZMS 260 R23:893-269  At approx NZMS 260 S23:921-234  At approx NZMS 260 S25:059-574  Ohau River at Kirkcaldies Bridge Reserve Ohau River at Gladstone Reserve At approx NZMS 260 S25:076-577  Ohau River at Parikawau Reserve At approx NZMS 260 S25:094-553  Akitio River At approx NZMS 260 V24:103-719  Akitio River Akitio River Akitio River Akitio River At approx NZMS 260 U25:991-611	Whanganui	Coastal Whanganui	Castlecliff Beach	
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Ohau River at Kimberley Reserve At approx NZMS 260 S25:059-574  Ohau River at Kirkcaldies Bridge Reserve Ohau River at Gladstone Reserve At approx NZMS 260 S25:027-567  Ohau River at Gladstone Reserve At approx NZMS 260 S25:076-577  Ohau River at Parikawau Reserve At approx NZMS 260 S25:994-553  East Coast Herbertville Beach At approx NZMS 260 V24:103-719  Akitio Akitio River At approx NZMS 260 U25:991-611		Coastal Whangaehu	Whangaehu Beach	At approx NZMS 260 R23:893-269
Ohau     Lower Ohau     Ohau River at Kirkcaldies Bridge Reserve     At approx NZMS 260 S25:027-567       Ohau River at Gladstone Reserve     At approx NZMS 260 S25:076-577       Ohau River at Parikawau Reserve     At approx NZMS 260 S25:994-553       East Coast     Herbertville Beach     At approx NZMS 260 V24:103-719       Akitio     Akitio River     At approx NZMS 260 U25:991-611	Lower Turakina	Lower Turakina		' '
Ohau         Lower Ohau         Reserve         At approx NZMS 260 S25:027-567           Ohau River at Gladstone Reserve         At approx NZMS 260 S25:076-577           Ohau River at Parikawau Reserve         At approx NZMS 260 S25:994-553           East Coast         Herbertville Beach         At approx NZMS 260 V24:103-719           Akitio         Akitio River         At approx NZMS 260 U25:991-611				At approx NZMS 260 S25:059-574
Ohau River at Parikawau Reserve At approx NZMS 260 S25:994-553  East Coast Herbertville Beach At approx NZMS 260 V24:103-719  Akitio Akitio River At approx NZMS 260 U25:991-611	Ohau	Lower Ohau	Reserve	
East Coast       East Coast       Herbertville Beach       At approx NZMS 260 V24:103-719         Akitio       Akitio River       At approx NZMS 260 U25:991-611				
Akitio Akitio River Akitio At approx NZMS 260 U25:991-611				• • • • • • • • • • • • • • • • • • • •
AKITIO I LOWER AKITIO	East Coast	East Coast		• • • • • • • • • • • • • • • • • • • •
	Akitio	Lower Akitio		• • • • • • • • • • • • • • • • • • • •
Ototoka Stream at William Birch At approx NZMS 260 B22:676-519			Ototoka Stream at William Birch	' '
Northern Coastal	Northern Coastal	Northern Coastal		
Ototoka Beach At approx NZMS 260 R22:667-471				· ·
Kaj lwi Stream At approx NZMS 260 P22:723.451	Kai hui	Koj huj		
Kai lwi         Kai lwi         Kai lwi Beach         At approx NZMS 260 R22:725-448	rai iwi	r\ai iwi	Kai lwi Beach	
MowhanauMowhanau StreamAt approx NZMS 260 R22:726-448	Mowhanau	Mowhanau	Mowhanau Stream	At approx NZMS 260 R22:726-448



Management Zone	Sub zone	Site	Description
Kaitoke Lakes	Kaitoke Lakes	Lake Wiritoa	At approx NZMS 260 R22:882-344
NailUNE Lakes	Nailoke Lakes	South Beach	At approx NZMS 260 R22:882-344
Southern Wanganui Lakes	Southern Wanganui Lakes	Lake Dudding	At approx NZMS 260 S23:045-203
Northern Manawatu Lakes	Northern Manawatu	Kaikokupu Stream at Himatangi Beach	At approx NZMS 260 S24:993-905
	Lakes	Himatangi Beach	At approx NZMS 260 S24:991-905
		Waitarere Beach	At approx NZMS 260 S24:958-701
Waitarere	Waitarere	Wairarawa Stream at Waitarere Beach	At approx NZMS 260 S24:959-709
Waikawa	Waikawa	Waikawa Stream @ Hank Edwards Reserve	At approx NZMS 260 S25:915-553
Lake Horowhenua	Hokio	Hokio Stream @ Hokio Beach	At approx NZMS 260 S25:949-657





Map D:15 Native Fishery Value in the Manawatu-Wanganui Region

Table D.9: Native Fishery Value Location in the Manawatu-Wanganui Region

Management Zone	Sub-zone	River/Stream Name	Reference
		Manawatu River	From the river mouth to the Foxton Shannon Road bridge at approx NZMS 260 S24:133-727
Coastal Manawatu	Coastal Manawatu	Holben Parade Creek	From the confluence with the Manawatu River at approx NZMS 260 S24:981-789 to the intersection with Seabury Avenue at approx S24:986-800
		Whitebait Creek	From the confluence with the Manawatu River at approx 982-791 to source
Coastal Rangitikei	Tidal Rangitikei	Rangitikei River	From the river mouth to a point 100 metres upstream of the CMA boundary located at the seaward edge of the boat ramp on the true left bank of the river located at approx NZMS 260 S24:009-000
	Lower Whanganui	Kauarapaoa Stream	From the confluence with the Whanganui River at approx NZMS 260 R22:886-537 to the intersection with McNab's Access Road at approx S22:900-559
	Lower vvnanganui	Mateongaonga Stream	From the confluence with the Whanganui River at approx NZMS 260 R22:876-434 to the intersection with Riverbank Road at approx R22:877-433
Lower	Lower/Coastal Whanganui	Whanganui River	From the river mouth to Parikino at approx NZMS 260 S22:936-551
Whanganui	Coastal Whanganui	Stream opposite Corliss Island	From the confluence with the Whanganui River at approx NZMS 260 R22:835-374 to the intersection with Wikitoria Road at approx R22:849-371
		Omapu Stream	From the stream mouth to a point 1km upstream at NZMS 260 R22: 750-441
	Matarawa	Matarawa Stream	From the confluence with theWhanganui River at approx NZMS 260 R22:858-398 to the intersection with Ikitara Road at approx R22:869-409
Coastal Whangaehu	Coastal Whangaehu	Whangaehu River	From the river mouth to the SH3bridge at approx NZMS 260 S22:950-310
Turakina	Lower Turakina	Turakina River	From the river mouth to a point 100 metres upstream of the CMA boundary located at the continuation of the fence line at approx NZMS 260 S23:918-246
		Ohau River	From the river mouth to a point 5km upstream at approx NZMS 260 948-579
Ohau	Lower Ohau	Lake Waitaha Drain	From the confluence with the Ohau River at approx NZMS 260 S25:946-580 to the Lake Waitaha Outlet at approx S25:954-605
Akitio	Lower Akitio	Akitio River	From the river mouth to 100 metres upstream of the CMA boundary located at the seaward edge of the bridge that crosses the river at approx NZMS 260 U25:996-619
7.1110	Lower Akitio	Whakawahine Stream	From the confluence with the Akitio River at approx NZMS 260 U25:985-657 to a point approx two kilometres upstream at approx U25:989-670

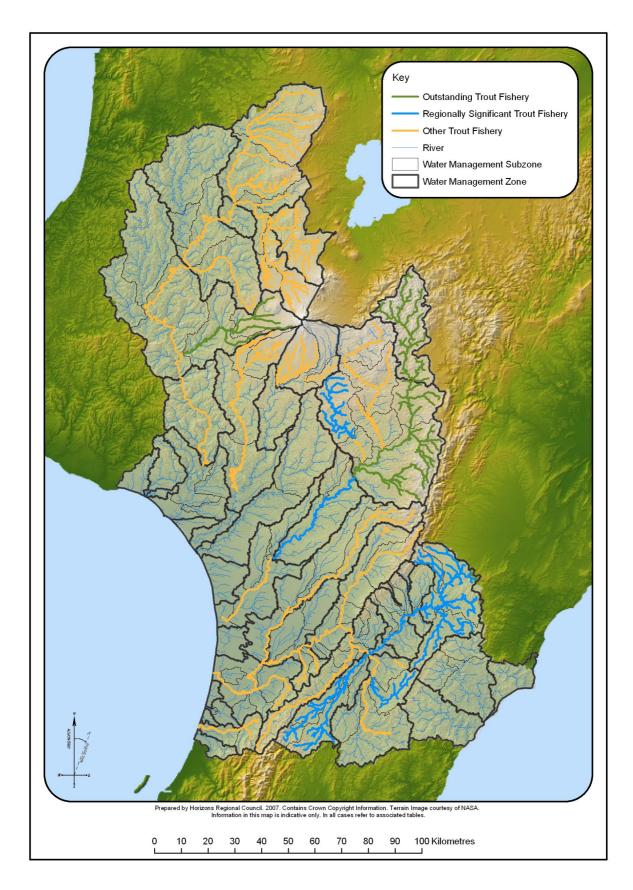
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Management Zone	Sub-zone	River/Stream Name	Reference
Northern Coastal	Northern Coastal	Okehu Stream	From the stream mouth to intersection with SH3 at approx NZMS 260 R22:717-510
Kai–lwi	Kai–Iwi	Kai-lwi Stream	From the stream mouth to the intersection with SH3 at approx NZMS 260 R22:749-492
Mowhanau	Mowhanau	Mowhanau Stream	From the stream mouth to a point 1km upstream at approx NZMS 260 R22:736-452
Kaitoke Lakes	Kaitoke Lakes	Kaitoke Stream	From the Stream mouth to Kaitoke Lake at approx NZMS 260: R22:869-358
	Southern Whanganui Lakes	Koitiata Stream	From the stream mouth to a point 5km upstream at approx NZMS 260 S23:987-191
Southern Whanganui Lakes		Waimahora Stream	From the stream mouth to intersection with Santoft Rd at approx NZMS 260 S23:001-154
		Raumai Range Stream	From the stream mouth at approx NZMS 260:S23:979-081 to Source
Northern Manawatu	Northern Manawatu	Kaikokopu Stream	From the stream mouth to Lake Kaikokopu at NZMS 260 S24:019-899
Lakes	l akec		From the stream mouth to a point 100m upstream at NZMS 260 S24:024-937
Lake Papiatonga	Lake Papiatonga	Waiwiri Stream	No location defined, assume from the stream mouth to a point 500m upstream at NZMS 260 S25:939-618
Lake Horowhenua	Hokio	Hokio Stream	From the stream mouth to Lake Horowhenua





Proposed One Plan

Map D:16 Trout Fishery Value in the Manawatu-Wanganui Region



Table D.10: Trout Fishery Value in the Manawatu-Wanganui Region

Management Zone	Sub-zone	River/Stream Name	Classification	Reference
Upper Manawatu, Weber Rd – Tamaki, Tamaki – Hopelands and Hopelands to Tiraumea	Upper Manawatu, Mangatewainui and Mangatoro, Weber Rd – Tamaki , Tamaki – Hopelands and Hopelands – Tiraumea	Manawatu River	Regionally Significant	From the confluence with the Tiraumea River at approx NZMS 260 T24:553- 871 to source including all tributaries from the Weber Road Recorder at approx U23:747-027 to Source
	Upper and Lower Tiraumea	Tiraumea River	Other Trout Fishery	From the confluence with the Manawatu River at approx NZMS 260 T24:553- 871 to source
Tiraumea	Lower Tiraumea	Makairo Stream	Other Trout Fishery	From approx NZMS 260 T24:653-834 to Source
	Makuri	Makuri River and Tributaries	Regionally Significant	From the confluence with the Tiraumea River at approx NZMS 260 T24:568- 771 to Source
Mangatainoka	Upper, Middle and Lower Mangatainoka and Makakahi	Mangatainoka River and Tributaries Excluding the Mangaramarama Creek and Tributaries	Regionally Significant	From the confluence with the Tiraumea River at approx NZMS 260 T24:556- 854 to Source
Upper Gorge	Upper Gorge	Manawatu River	Other Trout Fishery	From approx NZMS 260 T24:495-938 to the confluence with the Tiraumea River at approx T24:553-871
opper dorge	Upper and Lower Mangahao	Mangahao River	Other Trout Fishery	From the confluence with the Manawatu River at approx NZMS 260 T24:496-892 to Source
	Middle Manawatu	Manawatu River	Other Trout Fishery	From approx NZMS 260 T24:332-890 to approx T24:495-938
Middle Manawatu	Upper, Middle and Lower Pohangina	Pohangina River	Other Trout Fishery	From the confluence with the Manawatu River at approx NZMS 260 T24:449- 966 to Source
	Middle Pohangina	Makiekie (Coal) Creek	Other Trout Fishery	From the confluence with the Pohangina River at approx NZMS 260 T23:528-166 to source
	Lower Manawatu	Manawatu River	Other Trout Fishery	From approx NZMS 260 T24:332-890 to Oroua Confluence at approx S24:164-825
Lower Manawatu	Turitea	Turitea Stream	Other Trout Fishery	From approx 800m Downstream of the Old West Road Bridge at approx NZMS 260 T24:331-875 to approx T24:365-790
	Kahuterawa	Kahuterawa stream	Other Trout Fishery	From the confluence with the Manawatu River at approx NZMS 260 S24:293- 871 to Source
Oroua	Upper, Middle and Lower Oroua	Oroua River	Other Trout Fishery	From the confluence with the Manawatu River at approx NZMS 260 S24:164-826 to approx U22:729-400



Management Zone	Sub-zone	River/Stream Name	Classification	Reference
	Upper Oroua	Mangiora Stream	Other Trout Fishery	From the confluence with the Oroua River at approx NZMS 260 T22:577-379 to Source
	Makino	Makino Stream	Other Trout Fishery	From the confluence with the Oroua River at approx NZMS 260 S23:243-005 to approx S23:260-037
Coastal Manawatu	Coastal Manawatu	Manawatu River	Other Trout Fishery	From 100 metres upstream of the CMA Boundary located at the seaward edge of Foxton Loop at approx NZMS 260 S24:010-767 to the confluence with the Oroua River at approx S24:164-825
	Upper and Lower Tokomaru	Tokomaru River	Other Trout Fishery	From the confluence with the Manawatu River at approx NZMS 260 S24:132- 727 to source
Upper Rangitikei	Upper Rangitikei	Rangitikei River and Tributaries	Outstanding	From the Makahikatoa Stream Confluence at approx NZMS 260 U21:725-887 to Source
Middle Rangitikei		Rangitikei River	Outstanding	From approx NZMS 260 U21:713-707 to the confluence with the Makahikatoa Stream at approx U21:725-887
		Porotaiana Stream	Outstanding	From the confluence with the Rangitikei River at approx NZMS 260 U21:714- 878 to Source
		Mangaururoa Stream	Outstanding	From the confluence with the Rangitikei River at approx NZMS 260 U21:710- 852 to Source
		Whangaipotiki Stream	Outstanding	From the confluence with the Rangitikei River at approx NZMS 260 U21:700- 819 to Source
	Middle Rangitikei	Mangaohane Stream	Outstanding	From the confluence with the Rangitikei River at approx NZMS 260 U21:707- 818 to Source
		Makomiko East Stream	Outstanding	From the confluence with the Rangitikei River at approx NZMS 260 U21:709- 792 to Source
		Tamatipama Stream	Outstanding	From the confluence with the Makomiko East Stream at approx NZMS 260 U21:681-802 to Source
		Waiakaha Stream	Outstanding	From the confluence with the Rangitikei River at approx NZMS 260 U21:707- 785 to Source
		Pokopoko Stream	Outstanding	From the confluence with the Rangitikei River at approx NZMS 260 U21:722- 758 to Source
	Pukeokahu - Mangaweka	Rangitikei River	Outstanding	From approx NZMS 260 the confluence with the Mangawharariki River approx NZMS 260 T22:504-519 to approx U21:713-707
		Whakaurekou River and Tributaries	Outstanding	From the confluence with the Rangitikei River at approx NZMS 260 U21:712- 690 to Source



Management Zone	Sub-zone	River/Stream Name	Classification	Reference
		Kawhatau River and Tributaries	Outstanding	From Confluence with the Rangitikei River at approx T22:504-551 to Source
	Upper, Middle and Lower Moawhango	Moawhango River	Other Trout Fishery	From the confluence with the Rangitikei River at approx NZMS 260 T21:609- 623 to source
	Middle Moawhango	Aorangi Stream	Other Trout Fishery	From the confluence with the Moawhango River at approx NZMS 260 T21:595-858 to source
	Lower Moawhango	Tikirere Stream	Other Trout Fishery	From the confluence with the Moawhango River at approx T21:559-741 to Source
	Upper Hautapu	Hautapu River and Tributaries	Regionally Significant	From the confluence with the Oraukura Stream at approx NZMS 260 T21:509- 670 to Source
	Lower Hautapu	Hautapu River	Other Trout Fishery	From the confluence with the Rangitikei River at approx NZMS 260 T22:528- 573 to the Oraukura Stream Confluence at approx T22:509-670
Lower Rangitikei	Lower Rangitikei	Rangitikei River	Regionally Significant	From NZMS 260 S23:200-221 494 to the confluence with the Mangawharariki River at approx T22:504-519t
Coastal Rangitikei	Coastal/Tidal Rangitikei	Rangitikei River	Other Trout Fishery	From 100 metres upstream of the CMA Boundary located at the seaward edge of the boat ramp at approx NZMS 260 S24:009-000
Upper Whanganui	Upper Whanganui	Whanganui River	Other Trout Fishery	From the confluence with the Ongarue River at approx NZMS 260 S18:054- 544 to the to Source
		Otamangakau Dam	Other Trout Fishery	From the confluence with the Whanganui River at approx NZMS 260 T19:367-409 to T19:375-414
		Otamangakau Canal	Other Trout Fishery	From the confluence with the Whanganui River at NZMS 260 T19:367-409 to Source
		Okupata Stream	Other Trout Fishery	From the confluence with the Whanganui River at approx NZMS 260 S19:289-406 to Source
		Mangatepopo Stream	Other Trout Fishery	From the confluence with the Okupata Stream at approx NZMS 260 S19:287- 397 to Source
		Waione Stream	Other Trout Fishery	From the confluence with the Whanganui River at approx NZMS 260 S19:276-427 to Source
		Waipari Stream	Other Trout Fishery	From the confluence with the Whanganui River at approx NZMS 260 S19:269-455 to Source
		Waione Stream	Other Trout Fishery	From the confluence with the Waipari Stream at approx NZMS 260 S18:282- 516 to Source



Management Zone	Sub-zone	River/Stream Name	Classification	Reference
		Waipungapunga Stream	Other Trout Fishery	From the confluence with the Waipari Stream at approx NZMS 260 S19:287- 490 to Source
		Waionenui Stream	Other Trout Fishery	From the confluence with the Waipari Stream at approx NZMS 260 S19:288- 475 to Source
		Waione Stream	Other Trout Fishery	From the confluence with the Waipari Stream at approx NZMS 260 S19:282- 464 to Source
		Mako Stream	Other Trout Fishery	From the confluence with the Whanganui RIver at approx NZMS 260 S19:231-455 to Source
		Taringapupu Stream	Other Trout Fishery	From the confluence with the Whanganui RIver at approx NZMS 260 S19:205-477 to Source
		Herungaweka Stream	Other Trout Fishery	From the confluence with the Taringapupu Stream at approx NZMS 260 S18:229-511 to Source
		Paewaru Stream	Other Trout Fishery	From the confluence with the Taringapupu Stream at approx NZMS 260 S19:216-488 to Source
		Papanui Stream	Other Trout Fishery	From the confluence with the Whanganui River at approx NZMS 260 S19:192-485 to Source
Cherry Grove	Cherry Grove	Kakahi Stream	Other Trout Fisher	From the confluence with the Whanganui River at approx NZMS 260 S19:151-497 to source
	Upper Whakapapa	Whakapapa River	Other Trout Fishery	From approx NMZS 260 S19:226-295 to the confluence with the Whakapapiti and Whakapapanui Streams at approx NZMS 260 S19:243-268
		Whakapapiti Stream	Other trout Fishery	From the confluence with the Whakapapa River at approx NZMS 260 S19:243-268 to Source
		Whakapapnui Stream	Other Trout Fishery	From the confluence with the Whakapapa River at approx NZMS 260 S19:243-268 to Source
		Makahikatoa Stream	Other Trout Fishery	From the confluence with the Whakapapnui Stream at approx NZMS 260 S19:273-244 to Source
		Taranaki Stream	Other Trout Fishery	From the confluence with the Makahikatoa Stream at approx NZMS 260 S19:296-235 to Source
		Pukeonaki Stream	Other Trout Fishery	From the confluence with the Whakapapnui Stream at approx NZMS 260 S19:269-255 to Source
		Tawahi Stream	Other Trout Fishery	From the confluence with the Whakapapaiti Stream at approx NZMS 260 S19:242-265 to approx S19:242-256



Management Zone	Sub-zone	River/Stream Name	Classification	Reference
		Papamanuka Stream	Other Trout Fishery	From the confluence with the Whakapapa Stream at NZMS 260 S19:234-288 to NZMS 260 S19:277- 281
		Whakapapa River	Other Trout Fishery	From the confluence with the Whanganui River at approx NZMS 260 S19:188-495 to approx NZMS 260 S19:226-295
	Lower Whakapapa	Unnamed Tributary of the Whakapapa River	Other Trout Fishery	From the confluence with the Whakapapa River at approx NZMS 260 S19:174-416 to Source
		Otamawairua Stream	Other Trout Fishery	From the confluence with the Whakapapa River at approx NZMS 260 S19:193-324 to Source
	Piopiotea Stream	Piopiotea Stream and Tributaries	Other Trout Fishery	From the confluence with the Whakapapa River at approx NZMS 260 S19:174-356 to Source
	Pungapunga	Pungapunga River	Other Trout Fishery	From approx NZMS 260 S18:124-544 to approx S18:266-577
	Upper and Lower Ongarue	Ongarue River	Other Trout Fishery	From the confluence with the Whanganui River at approx NZMS 260 S18:055-544 to Source
		Waimiha Stream	Other Trout Fishery	From the confluence with the Ongarue River approx NZMS 260 S17:132- 862 to Source
	Upper Ongarue	Okauaka Stream	Other Trout Fishery	From the confluence with the Ongarue River at approx NZMS 260 S17:188- 864 to Source
		Matramataha River	Other Trout Fishery	From the confluence with the Ongarue River at approx NZMS 260 S17:116- 806 to Source
	Lower Ongarue	Mangakahu Stream	Other Trout Fishery	From the confluence with the Ongarue River at approx NZMS 260 S18:087- 736 to Source
	Lower original	Taringamotu River and Tributaries	Other Trout Fishery	From the confluence with the Ongarue River at approx NZMS 260 S18:046- 582 to Source
Middle Whanganui	Retaruke	Retaruke River	Other Trout Fishery	From the confluence with the Whanganui River at approx NZMS 260 R19:889-309 to Source
Pipiriki	Upper Manganui o te Ao	Manganui o Te Ao River	Outstanding Trout Fishery	From the confluence with the Hoihenga Stream at approx NZMS 260 S20:046- 078 to Source
		Mangaturuturu River	Outstanding Trout Fishery	From the confluence with the Manganui o Te Ao River at approx NZMS 260 S20:056-067 to Source
		Makatoe River	Outstanding Trout Fishery	From the confluence with the Manganui o Te Ao River at approx NZMS 260 S20"128-119 to Source



Management Zone	Sub-zone	River/Stream Name	Classification	Reference
		Waimarino Stream	Outstanding Trout Fishery	From the confluence with the Manganui o Te Ao River at approx NZMS 260 S20"128-119 to Source
	Lower Manganui o t	Manganui o te Ao River	Outstanding Trout Fishery	From the confluence with the Whanganui River at approx NZMS 260 R20:860-979 to the Hoihenga Stream Confluence at approx S20:056-067
	C AO	Orautoha Stream	Outstanding Trout Fishery	From the confluence with the Manganui o te Ao River at approx NZMS 260 S20:026-067 to Source
Pipiriki and Paetawa	Pipiriki and Paetawa	Whanganui River	Other Trout Fishery	From approx NZMS 260 S22:937-563 to confluence with the Retaruke at approx R19:889-309
Upper	Waitangi	Waitangi Stream	Other Trout Fishery	From the confluence with the Whangaehu River at approx NZMS 260 T21:315-888 to Source
Whangaehu	Tokiahuru	Tokiahuru Stream and Tributaries	Other Trout Fishery	From the confluence with the Whangaehu River at approx NZMS 260 S21:218-865 to Source
	Upper Mangawhero	Mangawhero River Including the Taonui Stream and all tributaries upstream of the Taonui Stream	Other Trout Fishery	From the confluence with the Makotuku River at approx NZMS 260 S20:079- 902
Lower Whangaehu	Upper and Lower Makotuku	Makotuku River and Tributaraies	Other Trout Fishery	From the confluence with the Mangawhero River at approx NZMS 260 S20:079-902
	Lower Mangawhero and Lower Whangaehu	Mangawhero River	Other Trout Fishery	From the confluence with the Whangaehu River at approx NZMS 260 S22:065-470 to confluence with the Makotuku River at approx NZMS 260 S20:079-902
Ohau	Upper and Lower Ohau	Ohau River	Other Trout Fishery	From mouth to Source including the Makahika Stream and Tributaries and an unnamed Tributary at approx NZMS 260 S25:974-585

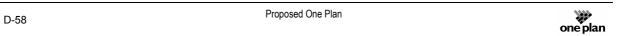




Map D:17 Trout Spawning Value in the Manawatu-Wanganui Region

Table D.11: Trout Spawning Value in the Manawatu-Wanganui Region

Management Zone	Sub-zone	River/Stream Name	Reference
		Manawatu River	From the confluence with the Kahututaeatua Stream at approx NZMS 260 U23:891-194 to source
		Mangarangiora Stream and Tributaries	From the confluence with the Manawatu River at approx NZMS 260 U23:879-145 to source
	Upper Manawatu	Mahurauiti Stream	From the confluence with the Manawatu River at approx NZMS 260 U23:853-235 to the confluence with the Mahurunui Stream (Stoney Creek) at approx U23:850-244
Upper Manawatu		Mangapuaka Stream and Tributaries	From the Confluence with the Manawatu River at approx NZMS 260 U23:841-044 to Source
	Mangatewainui	Mangatewainui River and Tributaries	From the confluence with the Manawatu River at approx NZMS 260 U23:829-085
	Mangatoro	Mangatoro River	From the confluence with the Manawatu River at approx NZMS 260 U23:807-026 to the confluence with the Mangamarie Stream at approx U24:838-991
		Mangatoro River and Tributaries	From the confluence with the Mangamarie Stream at approx NZMS 260 U24:838-991 to Source
	Mangatera	Mangatera Stream	From Confluence with the Manawatu River at approx NZMS 260 U23:736-025 to approx U23:756-079
Weber – Tamaki		Mangatera Stream and Tributaries	From approx NZMS 260 U23:756-079 to source
		Tapuata Stream	From the confluence with the Mangatera Stream at approx NZMS 260 U23:738-044 to approx U23:732-052
Upper Tamaki	Upper Tamaki	Tamaki River and Tributaries	From approx NZMS 260 U23:706-100 to source.
	Tamaki – Hopelands	Otawaho Stream and Tributaries	From the confluence with the Manawatu River at approx NZMS 260 T24:651-935 to source
	таптакі – пореіапоs	Totara Stream and Tributaries	From the confluence with the Manawatu River at approx NZMS 260 T24:647-929 to source
Tamaki –	Lower Tamaki	Tamaki River	From the confluence with the Manawatu river at approx U23:708-002 NZMS 260 to approx U23:706-100
Hopelands	Lower Kumeti	Kumeti Stream	From the confluence with the Manawatu River at approx NZMS 260 T23:697-005 to approx T23:681-041
	Oruakeretaki	Oruakeretaki Stream	From the confluence with the Manawatu River at approx NZMS 260 T24:690-999 to the confluence with the Mangapukakakahu Stream at approx T23:628-058
	Raparapawai	Raparapawai Stream	From the confluence with the Manawatu River at approx NZMS 260 T24:641-931 to source
Tiraumea	Makuri	Makuri River at Tributaries	From the confluence with the Tiraumea River at approx NZMS 260 T24:568-771 to source



Management Zone	Sub-zone	River/Stream Name	Reference
	Upper Mangatainoka	Makotukutuku Stream	From the confluence with the Mangatainoka River at approx NZMS 260 S25:279-576 to source
	Middle / Lower Mangatainoka	Mangatainoka River	From approx NZMS 260 T24:558-857 to the confluence with the Mangaroa Stream at approx T25:324-627
		Mangaraupiu Stream	From the confluence with the Mangatainoka River at approx NZMS 260 T25:366-655 to approx T25:322-665
Mangatainoka	Middle Mangatainoka	Unnamed Tributary of the Mangatainoka River and Tributaries	From the confluence with the Mangatainoka River at approx NZMS 260 T25:369-654 to source
		Hukanui Stream	From the confluence with the Mangatainoka River at approx NZMS 260 T25:396-680 to approx T25:341-676
		Mangamarie Stream	From the confluence with the Mangatainoka River at approx NZMS 260 T24:451-762 to approx T24:433-742
	Makakahi	Makakahi River	From the confluence with the Mangatainoka River at approx NZMS 260 T24:475-775 to source
	iviananarii	Bruce Stream	From the confluence with the Makakahi River at approx NZMS 260 T25:346-524 to source
Upper Gorge	Mangapapa	Mangapapa Stream	From the confluence with the Mangaatua Stream at approx NZMS 260 T24:514-922 to approx T24:527-931
		Unnamed Tributary	From the confluence with the Mangahao River at approx NZMS 260 T24:348-700 to source
		Unnamed Tributary	From the confluence with the Mangahao River at approx NZMS 260 T24:364-704 to source
	Upper Mangahao	Orangane Stream	From the confluence with the Mangahao River at approx NZMS 260 T24:377-716
		Matarua Creek	From the confluence with the Mangahao River at approx NZMS 260 T24:445-788 to source
		Unnamed Tributary	From the confluence with the Matarua Creek at approx NZMS 260 T24:422-793 to source
	Lower Mangahao	Makaretu Creek	From the confluence with the Mangahao River at approx NZMS 260 T24:484-844 to Source
	Upper Pohangina	Pohangina River	From confluence with the Whangapuna Stream at approx NZMS 260 T23:605-240 to approx T23:647-236
		Konewa Stream and Tributaries	From the confluence with the Pohangina River at approx NZMS 260 T23:575-203 to source
		Makewekaweka Stream and Tributaries	From the confluence with the Pohangina River at approx NZMS 260 T23:568-199 to source
		Te Ekaou Stream	From the confluence with the Pohangina River at approx NZMS 260 T23:562-180 to approx T23:594-150



Management Zone	Sub-zone	River/Stream Name	Reference
		Porewa Stream	From the confluence with the Pohangina River at approx NZMS 260 T23:549-163 to approx T23:579-147
		Opawe Stream	From the confluence with the Poharngina River at approx NZMS 260 T23:544-161 approx T23:556-144
		Makiekie (Coal) Creek and Tributaries	From the confluence with the Pohangina River at approx NZMS 260 T23:528-165 to source
		Ohinetapu Stream and Tributaries	From the confluence with the Pohangina River at approx NZMS 260 T23:517-131 to Source
	Middle Pohangina	Maranganui Strream	From the confluence with the Pohangina River at approx NZMS 260 T23:492-112 to approx T23:504-107
		Te Awaoteatua Stream	From the confluence with the Pohangina River at approx NZMS 260 T23:480-090 to approx T23:499-077
		Makohine Stream	From the confluence with the Pohangina River at approx NZMS 260 T23:469-058 to source
Lower	Turitea	Tiritea Stream	From the confluence with the Manawatu River at approx NZMS 260 T24:302-879 to approx T24:357-827
Manawatu	Kahuterawa	Kahuterawa Stream	From the confluence with the Manawatu River at approx NZMS 260 S24:293-870 to approx T24:317-796
	Upper Oroua	Oroua River	From the confluence with the Tunupo Creek at approx NZMS 260 T22:699-356 to approx U22:715-378
		Tunupo Creek	From the confluence with the Oroua River at approx NZMS 260 T22:699-356 to source
		Mangiora Stream	From the confluence with the Oroua River at approx NZMS 260 T22:577-378 to the confluence with Scandlyn creek at approx T22:621-384
Oroua		Mangapikopiko Stream	From the confluence with the Oroua River at approx NZMS 260 T22:515-307 to source
	Kiwitea	Kiwitea Stream	From the confluence with the Oroua River at approx NZMS 260 T23:308-066 to approx T23:363-215
			From approx NZMS 260 S23:294-088 to approx T23:307-
	Makino	Makino Stream	From approx NZMS 260 S23:279-058 to approx S23:286- 069
			From confluence with the Oroua River at approx NZMS 260 S23:243-005 to approx S23:259-037
Coastal Manawatu	Upper and Lower Tokomaru	Tokomaru River and Tributaries	From the confluence with the Linton Drain at approx NZMS 260 S24:196-774 to source
Upper Rangitikei	Upper Rangitikei	Ecology Stream	From the confluence with the Rangitikei River at approx NZMS 260 T20:691-176 to source
		Otamatenui Stream	From the confluence with the Rangitikei River at approx NZMS 260 T20:672-107 to source



Management Zone	Sub-zone	River/Stream Name	Reference
		Makomiko Stream	From the confluence with the Otamatenui Stream at approx NZMS 260 T20:650-120 to source
		Mangamarie River	From the confluence with the Rangitikei River at approx NZMS 260 T20:691-090 to source
		Waingakia Stream	From the confluence with the Rangitikei River and approx NZMS 260 U20:715-053 to source
		Otutua Stream	From the confluence with the Rangitikei River at approx NZMS 260 U20:716-014 to source
		Otarere Stream and Tributaries	From the confluence with the Okorotehehe Stream at approx NZMS 260 T20:684-988 to source
		Mangamarahia Stream	From the confluence with the Rangitikei River at approx NZMS 260 U21:723-889 to approx U20:756-954
		Makahikatoa Stream including all Tributaries	From the confluence with the Rangitikei River at approx NZMS 260 U21:725-887 to source
Middle/Upper Rangitikei	Middle/Upper Rangitikei	Rangitikei River	From the confluence with the Pokopoko Stream at approx NZMS 260 U24:721-758 to source
	Middle Rangitikei	Mangaohane Stream	From the confluence with the Rangitikei River at approx NZMS 260 707-818 to source
	Pukeokahu – Mangaweka	Whakaurekou River	From the confluence with the Rangitikei River at approx NZMS 260 U21:712-690 to the Confluence with the Mangatera river and Maropea River at approx NZMS 260 U21:749-655
		Mangatera River and Maropea River and Tributaries	From the confluence with the Whakaurekou River at approx NZMS 260 U21:749-655 to source
		Kawhatau River	From the confluence with the Rangitikei River at approx NZMS 260 T22:504-551 to source
Middle		Porangakai River	From the Confluence with the Mangakukeke Stream at approx NZMS 260 T22:635-507 to source
Rangitikei		Mangakukeke Stream	From the confluence with the Kawhatau River at approx NZMS 260 T22:634-508 to approx T22:677-486
	Upper Moawhango	Moawhango River and Tributaries	From Approx NZMS 260 T20:468-948 to source
	Middle Moawhango	Moawhango River	From the confluence with the Tikirere Stream at approx NZMS 260 T21:559-741 to approx T20:468-948
	Upper Hautapu	Waiouru Stream and Tributaries	From the confluence with the Hautapu River at approx NZMS 260 T21:410-838 to source
		Irirangi	From the confluence with the Hautapu River at approx NZMS 260 T21:407-810 to source
	Upper and Lower Hautapu	Hautapu River	From the confluence with the Otaihape Stream at approx NZMS 260 T21:506-656 to source



Management Zone	Sub-zone	River/Stream Name	Reference
Lower	Lower Rangitikei	Mangamako Stream	From Confluence with the Rangitikei River at NZMS 260 T22:389-415 to Source
Rangitikei	Makohine	Makohine Stream	From Confluence with the Rangitikei River at NZMS 260 T22:390-440 to Source
Coastal Rangitikei	Porewa	Porewa Stream	From the confluence with the Rangtikei River at approx NZMS 260 S23:191-215 to source
Upper	Upper Whanganui	Whanganui River	From the confluence with the Whakapapa River at approx NZMS 260 S19:188-495 to approx T19:358-411
Whanganui	oppor Wilangalia	Mangatepopo Stream	From the confluence with the Whanganui River at approx NZMS 260 S19:289-405 to approx T19:308-360
Cherry Grove	Cherry Grove	Whanganui River	From the confluence with the Pungapunga River at approx NZMS 260 S18:124-544 to the confluence with the Whakapapa River at approx S 260 S19:188-495
	Upper and Lower Whakapapa	Whakapapa River	From the confluence with the Whanganui River at approx NZMS 260 S19:188-495 to the confluence with the Whakapapanui Stream and the Whakapapaiti Stream at approx NZMS 260 S19:243-268
	Upper Whakapapa	Whakapapanui Stream	From the confluence with the Whakapapa River and the Whakapapaiti Stream at approx NZMS 260 S19:243-268 to source
		Whakapapaiti Stream	From the confluence with the Whakapapa River and the Whakapapanui Stream at approx NZMS 260 S19:243-268 to Source
		MahikatoaStream	From the confluence with the Whapapanui Stream at approx NZMS 260 S19:273-245to confluence with Taranaki Stream approx NZMS 260 S19:295-236
		Taranaki Stream	From the confluence with the Mahikatoa Stream at approx NZMS 260 S19:295-236 to source
		Pukeonaki Stream	From the confluence with the Whapapanui Stream at approx NZMS 260 S19:269-255 to source
		Papamanuka Stream	From the confluence with the Whakapapa River at approx NZMS 260 S19:233-288 to approx S19:258-283
	Lower Whakapapa	Otamawairua Stream	From the confluence with the Whakapapa River at approx NZMS 260 S19:195-324 to source
	Piopiotea	Piopiotea Stream	From the confluence with the Whakapapa River at approx NZMS 260 S19:174-356 to source
		Makaretu Stream	From the confluence with the Piopiotea Stream at approx NZMS 260 S19:172-284 to source
		Pukerimu Stream	From the confluence with the Piopiotea Stream at approx NZMS 260 S19:168-285 to source
		Tepure Stream	From the confluence with the Piopiotea Stream at approx NZMS 260 S19:159-327 to approx S19:198-270



Management Zone	Sub-zone	River/Stream Name	Reference
		Unnamed Tributary of the Tepure Stream	From the confluence with the Tepure Stream at approx NZMS 260 S19:181-299 to source
		Pungapunga River	From the confluence with the Whanganui River at approx NZMS 260 S18:124-544 to source
		Waituhi Stream	From the confluence with the Pungapunga River at approx NZMS 260 S18:278-592 to approx T18:301-587
	Pungapunga	Pungapunga River Tributary	From the confluence with the Pungapunga River at approx NZMS 260 S18:261-580 to source
		Hauwai Stream	From the confluence with the Pungapunga River at approx NZMS 260 S18:239-573 to source
		Whangapuoto Stream	From the confluence with the Pungapunga River at approx NZMS 260 S18:165-542 to source
		Unnamed Tributary of the Ongarue River	From the confluence with the Ongarue River at approx NZMS 260 S17:286-880 to source
		Okauaka Stream	From the confluence with the Ongarue River at approx NZMS 260 S17:187-865 to source
	Upper Ongarue	Kahoho Stream	From the confluence with the Waimiha Stream at approx NZMS 260 T17:310-965 to source
		Waimiha Stream	From the confluence with the Ongarue River at approx NZMS 260 S17:132-862 to source
		Matramataha River	From the confluence with the Ongarue River at approx NZMS 260 S17:116-806 to Source
		Unnamed Tributary of the Matramataha River	From the confluence with the Matramataha River at approx NZMS 260 S18:273-793 to source
		Piropiro Stream	From the confluence with the Matramataha River at approx NZMS 260 S17:251-804 to source
		Te Rerengaohoro Stream	From the confluence with the Matramataha River at approx NZMS 260 S18:238-807 to approx S18:239-802
		Waione Stream	From the confluence with the Ongarue River at approx NZMS 260 S18:118-799 to source
		Mangatukutuku Stream	From the confluence with the Waione Stream at approx NZMS 260 S18:127-796 to source
		Waikoura Stream	From the confluence with the Mangatukutuku Stream at approx NZMS 260 S18:174-761 to source
	Upper and Lower Ongarue	Ongarue River	From the confluence with the Mangakahu Stream at approx NZMS 260 S18:087-736 to source
	Lower Ongarue	Mangakahu Stream	From the confluence with the Ongarue River at approx NZMS 260 S18:087-736 to source

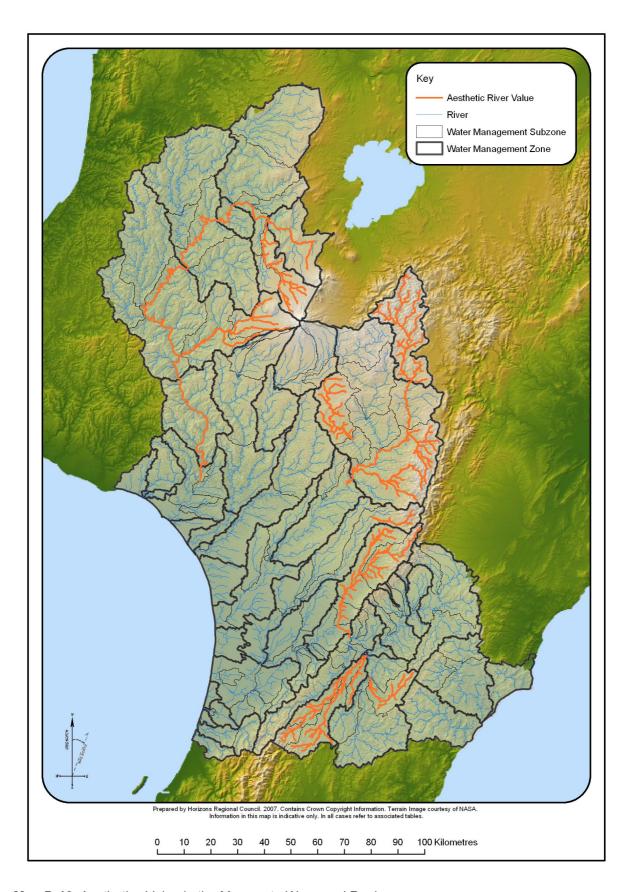


Management Zone	Sub-zone	River/Stream Name	Reference
		Otataka Stream	From the confluence with the Mangakahu Stream at approx NZMS 260 S18:182-701 to source
		Unnamed Tributary	From the confluence with the Mangakahu Stream at approx NZMS 260 S18143:729 to source
		Kakimotu Stream	From the confluence with the Mangakahu Stream at approx NZMS 260 S18:140-729 to source
		Uepango Stream	From the confluence with the Ongarue River at approx NZMS 260 S18:053-683 to source
		Taringamotu River	From the confluence with the Ongarue River at approx NZMS 260 S18:047-582 to source
		Unnamed Tributary of the Taringamotu River	From the confluence with the Taringamotu River at approx NZMS 260 S18:243-631 to source
		Unnamed Tributary of the Taringamotu River	From the confluence with the Taringamotu River at approx NZMS 260 S18:229-618 to source
		Tutaeti Stream	From the confluence with the Taringamotu River at approx NZMS 260 S18:205-598 to source
		Maraetohu Stream	From the confluence with the Taringamotu River at approx NZMS 260 S18:190-593
		Unnamed Tributary of the Taringamotu River	From the confluence with the Taringamotu River at approx NZMS 260 S18:154-611 to source
		Wharariki Stream	From the confluence with the Taringamotu River at approx NZMS 260 S18:143-613 to source
		Upokomatu Stream	From the confluence with the Taringamotu River at approx NZMS 260 S18:110-626 to source
		Te Tomo Stream	From the confluence of the Upokomatu Stream at approx NZMS 260 S18:157-664 to source
		Piawa Stream	From the confluence of the Upokomatu Stream at approx NZMS 260 S18:115-635 to source
		Ngakonui Stream	From the confluence with the Taringamotu River at approx NZMS 260 S18:101-622
Middle Whanganui	Retaruke	Retaruke River	From the confluence with the Kaitieke Stream at approx NZMS 260 S19:041-326 to source
	Upper/Lower Manganui O Te Ao	Manganui O Te Ao River	From the confluence with the Whanganui River at approx NZMS 260 R20:860-979 to source
Pipiriki	Upper Manganui O Te Ao	Makatote River	From the confluence with the Manganui O Te Ao River at approx NZMS 260 S20:128-119 to S20:201-129
	Lower Manganui O Te Ao	Otautoha Stream	From the confluence with the Manganui O Te Ao River at approx NZMS 260 S20:026-067 to approx S20:156-063



Management Zone	Sub-zone	River/Stream Name	Reference
	Waitangi	Waitangi Stream and Tributaries	From the confluence with the Whangaehu River at approx NZMS 260 T21:315-888 to source
Upper		Omarae Stream	From confluence with the Waitaiki Stream at approx NZMS 260 S20:265-921 to source
Whangaehu	Tokiahuru	Waitaiki Stream	From confluence with the Tokiahuru Stream at approx NZMS 260 S21:235-880 to approx S20:273-929
		Tokiahuru Stream	From the confluence with the Whangaehu River at approx NZMS 260 S21:218-865 to approx T20:334-956
	Upper and Lower Makotuku	Makotuku River and Tributaries	From the confluence with the Mangawhero River at approx NZMS 260 S20:079-902 to source
	Upper Mangawhero	Mangawhero River	From the confluence with the Makotuku River at approx NZMS 260 S20:079-902 to source
Lower Whangaehu		Mangateitei Stream	From the confluence with the Mangawhero River at approx NZMS 260 S20:158-961 to source
		Taonui Stream	From the confluence with the Mangawhero River at approx NZMS 260 S20:121-956 to approx S20:159-020
		Makaranui Stream	From the confluence with the Mangawhero River at approx NZMS 260 S20:116-953 to approx S20:165-932
	Upper Ohau	Makahika Stream and Tributaries	From the confluence with the Ohau River at approx NZMS 260 S25:090-585 to source
Ohau River		Makaretu Stream and Tributaries	From the confluence with the Ohau River at approx NZMS 260 S25:083-579 to source
	Lower Ohau	Makorokio Stream and Tributaries	From the confluence with Ohau River at approx NZMS 260 S25:018-563 to source





Map D:18 Aesthetics Value in the Manawatu-Wanganui Region



Table D.12: Aesthetics Value in the Manawatu-Wanganui Region

Management Zone	Sub zone	River/Stream Name	Description	Characteristics/Values
Tiraumea	Makuri	Makuri River and Tributaries	From the confluence with the Tiraumea River at approx NZMS 260 T24:569-771 to source	Recreational values, visual and scenic characteristics - particularly its deeply entrenched gorge downstream of Makuri township and the adjacent Scenic Reserve. Ecological significance – particularly as a fisheries and wildlife habitats and Recognised protection – Local Water Conservation Notice
Mangatainoka	Upper, Middle and Lower Mangatainoka, Makakahi and Mangaramarama	Mangatainoka River and Tributaries	From the confluence with the Tiraumea River at approx NZMS 260 T24:558-856 to source	Recreational values – particularly as an important trout fishery, and Recognised protection – Local Water Conservation Notice
Upper Gorge, Middle Manawatu	Upper Gorge and Middle Manawatu	Manawatu River	From the confluence with the Pohangina River at approx NZMS 260 T24:449-966 to the Ballance bridge at approx T24:494-926	Visual and scenic characteristics Geological feature – provided by being the only river in New Zealand to drain both east and west of the main divide.
Middle Manawatu	Upper, Middle and Lower Pohangina	Pohangina River and Tributaries	From the confluence with the Manawatu River at approx NZMS 260 T24:449-966 to source	Visual and scenic characteristics - particularly the river and valley landscape.
Oroua	Upper Oroua River	Oroua River and Tributaries	From the confluence with the Mangaoira Stream at approx NZMS 260 T22:577-379 to source	Visual and scenic characteristics - particularly its riparian margins, Recreational values
Upper Rangitikei	Upper Rangitikei	Rangitikei River and Tributaries	From the confluence with the Makahikatoa Stream at approx NZMS 260 U24:725-888 to source	Recreational values, Ecological significance – Wildlife habitat and fisheries, Visual and scenic
	Pukeokahu - Mangaweka	Whakaurekou River and Tributaries Kawhatau River	From the confluence with the Rangitikei River at approx NZMS 260 U21:712-691 to source  From the confluence with the	characteristics particularly its gorges, terrace formations and high bluffs and Recognised protection – National Water Conservation
Middle		and Tributaries	Rangitikei River at approx NZMS 260 T22:504-551 to source	(Rangitikei River) Order 1993.
Rangitikei	Upper Hautapu	Hautapu River and Tributaries	From the confluence with the Oraukura Stream at approx NZMS 260 T21:510-670 to source	Recreational value - particularly as a brown trout fishery, Visual and scenic characteristics particularly the deeply entrenched river and steep gorge and; Recognise protection – Local Water Conservation Notice
Middle and Lower	Middle Rangitikei,	Rangitikei River	From the Mangarere Bridge at approx NZMS 260	Recreational values, Ecological significance –

Management Zone	Sub zone	River/Stream Name	Description	Characteristics/Values
Rangitikei	Pukeokahu – Mangaweka and Lower Rangitikei		T22:483-496 to the confluence with the Makahikatoa Stream at approx U24:725-888	Wildlife habitat and fisheries, Visual and scenic characteristics particularly its gorges, terrace formations and high bluffs and Recognised protection – National Water Conservation (Rangitikei River) Order 1993.
Upper Whanganui, Cherry Grove, Te Maire, Middle Whanganui, Pipiriki, Paetawa and Lower Whanganui	Upper Whanganui, Cherry Grove, Te Maire, Middle Whanganui, Pipiriki, Paetawa and Lower Whanganui	Whanganui River	The Whanganui River and catchment upstream of Aramoana at approx NZMS 260 S22:933-510 to source	Visual and scenic characteristics particularly the gorge landscapes and papa rock formations.
Cherry Grove	Upper and Lower Whakapapa Catchment	Whakapapa River and Tributaries	From confluence with the Whanganui River at approx NZMS 260 S19:189-496 to source.	Visual and scenic characteristics and Recreational Values and Ecological significance – particularly in providing a habitat for blue duck
		Makatote River	From the confluence with the Manganui o te Ao River at approx NZMS 260 S20:128-120 to source From the confluence with the	Visual and scenic
	Upper Manganui o te Ao	Waimarino Stream	Makatote River at approx NZMS 260 S20:129-120 to source	characteristics – particularly its river gorges and riparian margins; and outstanding wild
Pipiriki		Mangaturuturu River	From the confluence with the Manganui o te Ao River at approx NZMS 260 S20:057-067 to source	and scenic characteristics Ecological significance – providing a habitat for the blue duck; and wildlife and
	Lower Manganui o te Ao	Orautoha Stream	From the confluence with the Manganui o te Ao River at approx NZMS 260 S20:026-067 to source	fisheries Recognised protection National Water Conservation Order
	Upper and Lower Manganui o te Ao	Manganui o Te Ao River	From the confluence with the Whanganui River at approx NZMS 260 R20:861-979 to source	



## **Water Use Values**



Map D:19 Location of Existing Surface Water Takes for Water Supply and Upstream Water bodies in the Manawatu-Wanganui Region



**Table D.13:** Location of Existing Surface Water Takes for Water Supply in the Manawatu – Wanganui Region

Management Zone	Sub zone	River	Description
Upper Manawatu	Upper Manawatu	Manawatu River	Including all tributaries upstream of a point at approx NZMS 260 U23:821-240
Weber-Tamaki	Weber-Tamaki	Manawatu River	Including all tributaries upstream of a point at approx NZMS 260 U23:726-013
Upper Tamaki	Upper Tamaki	Tamaki River	Including all tributaries upstream of a point at approx NZMS 260 U23:709-114
Tiraumea	Upper Tiraumea	Hirinakitu Stream	Including all tributaries upstream of a point at approx NZMS 260 T25:577-627
	Middle Mangatainoka	Mangatainoka River	Including all tributaries upstream of a point at approx NZMS 260 T24:441-746
	Lower Mangatainoka	Mangatainoka River	Including all tributaries upstream of a point at approx NZMS 260 T24:504-808
Mangatainoka			Including all tributaries upstream of a point at approx NZMS 260 T25:318-520
Mangatamoka	Makakahi	Makakahi River	Including all tributaries upstream of a point at approx NZMS 260 T25:317-554
	Makakahi		Including all tributaries upstream of a point at approx NZMS 260 T25:384-572
		Bruce Stream	Including all tributaries upstream of a point at approx NZMS 260 T25:328-504
Upper Gorge	Mangapapa	Mangapapa Stream	Including all tributaries upstream of a point at approx NZMS 260 T24:543-986
	Middle Manawatu	Manawatu River	Including all tributaries upstream of a point at approx NZMS 260 T24:394-937
Middle Manawatu	Middle Pohangina	Pohangina River	Including all tributaries upstream of a point at approx NZMS 260 T23:507-063
	Lower Pohangina	Pohangina River	Including all tributaries upstream of a point at approx NZMS 260 T23:455-042
Lower Manawatu	Turitea	Turitea Stream	Including all tributaries upstream of a point at approx NZMS 260 T24:314-875
Lower manawata	Tantoa	runoa otroam	Including all tributaries upstream of a point at approx NZMS 260 T25:368-827
			Including all tributaries upstream of a point at approx NZMS 260 T23:502-254
Oroua	Upper Oroua	Oroua River	Including all tributaries upstream of a point at approx NZMS 260 T23:422-156
Oroua			Including all tributaries upstream of a point at approx NZMS 260 T23:364-113
	Kiwitea	Kiwitea Stream	Including all tributaries upstream of a point at approx NZMS 260 T23:369-239
Coastal Manawatu	Coastal Manawatu	Manawatu River	Including all tributaries upstream of a point at approx NZMS 260 S24:134-726
	Lower Tokomaru	Tokomaru Divor	Including all tributaries upstream of a point at approx NZMS 260 S24:242-767
	Lowel Tokomatu	Tokomaru River	Including all tributaries upstream of a point at approx NZMS 260 S24:138-726

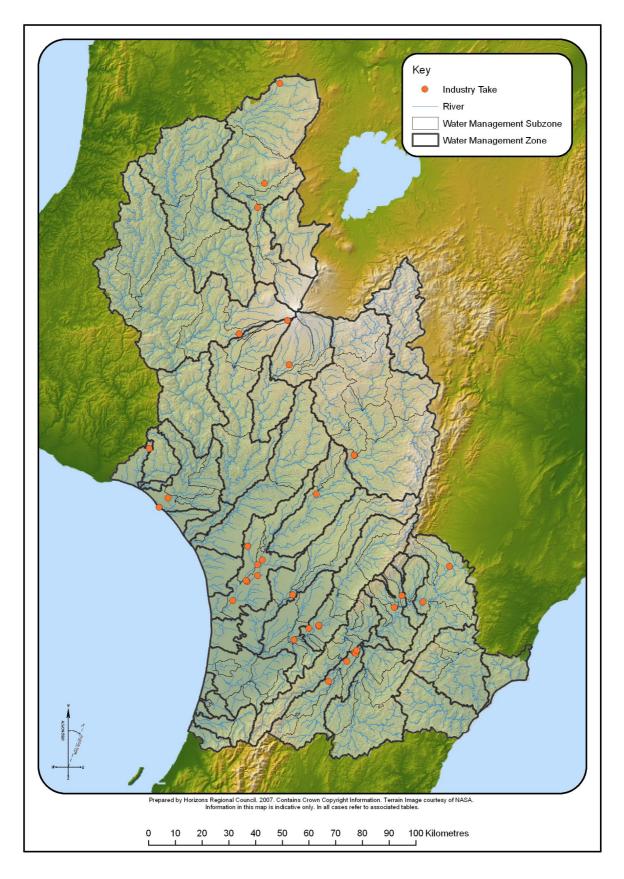


Management Zone	Sub zone	River	Description		
	Mangaore	Mangaore Stream	Including all tributaries upstream of a point at approx NZMS 260 S25:170-665		
Middle Rangitikei	Pukeokahu - Mangaweka	Makino Stream	Including all tributaries upstream of a point at approx NZMS 260 U22:707-589		
	Upper Hautapu	Hautapu River	Including all tributaries upstream of a point at approx NZMS 260 T21:407-811		
			Including all tributaries upstream of a point at approx NZMS 260 T21:420-738		
		Waiouru Stream	Including all tributaries upstream of a point at approx NZMS 260 T21:435-896		
	Lower Hautapu	Reporoa Stream	Including all tributaries upstream of a point at approx NZMS 260 T21:509-655		
	Lower Rangitikei	Rangitikei River	Including all tributaries upstream of a point at approx NZMS 260 T22:504-512		
			Including all tributaries upstream of a point at approx NZMS 260 T22:332-324		
Lower Rangitikei			Including all tributaries upstream of a point at approx NZMS 260 T22:360-372		
			Including all tributaries upstream of a point at approx NZMS 260 T22:301-330		
			Including all tributaries upstream of a point at approx NZMS 260 S22:272-299		
	Coastal Rangitikei	Rangitikei River	Including all tributaries upstream of a point at approx NZMS 260 S23:198-221		
			Including all tributaries upstream of a point at approx NZMS 260 S23:154-118		
			Including all tributaries upstream of a point at approx NZMS 260 S23:145-115		
Coastal Rangitikei			Including all tributaries upstream of a point at approx NZMS 260 S23:132-105		
			Including all tributaries upstream of a point at approx NZMS 260 S23:125-099		
	Tidal Rangitikei	Flockhouse Drain No 1	Including all tributaries upstream of a point at approx NZMS 260 S23:045-019		
	Tutaenui	Tutaenui Stream	Including all tributaries upstream of a point at approx NZMS 260 S22:144-137		
Upper	Upper Whanganui	Te Whaiau Stream	Including all tributaries upstream of a point at approx NZMS 260 T19:357-369		
Whanganui		Mangatepopo Stream	Including all tributaries upstream of a point at approx NZMS 260 T19:313-361		
Cherry Grove	Cherry Grove	Whanganui River	Including all tributaries upstream of a point at approx NZMS 260 S18:130-504		
			Including all tributaries upstream of a point at approx NZMS 260 S18:102-556		
	Upper Whakapapa	Makahikatoa Stream	Including all tributaries upstream of a point at approx NZMS 260 T20:316-138		
			Including all tributaries upstream of a point at approx NZMS 260 T20:300-177		
		Waipuna Stream	Including all tributaries upstream of a point at approx NZMS 260 S20:299-162		
		Mangahuia Stream	Including all tributaries upstream of a point at approx NZMS 260 S19:236-205		
	Lower Whakapapa	Whakapapa River	Including all tributaries upstream of a point at approx NZMS 260 S19:190-402		



Management Zone	Sub zone	River	Description	
	Piopioptea	Piopioptea Stream	Including all tributaries upstream of a point at approx NZMS 260 S19:178-283	
Middle Whanganui	Upper Ohura	Mangaparare Stream	Including all tributaries upstream of a point at approx NZMS 260 R18:817-602	
Upper Whangaehu	Waitangi	Waitangi Stream	Including all tributaries upstream of a point at approx NZMS 260 T20:397-914	
Lower	Upper Makotuku	Makotuku River	Including all tributaries upstream of a point at approx NZMS 260 S20:103-012	
Whangaehu	Upper Mangawhero	Mangawhero River	Including all tributaries upstream of a point at approx NZMS 260 S20:198-999	
Ohau	Upper Ohau	Ohau River	Including all tributaries upstream of a point at approx NZMS 260 S25:077-580	
	Lower Ohau	Ohau River	Including all tributaries upstream of a point at approx NZMS 260 S25:064-577	
			Including all tributaries upstream of a point at approx NZMS 260 S25:066-578	
Akitio	Waihi	Waihi Stream	Including all tributaries upstream of a point at approx NZMS 260 U24:746-771	
			Including all tributaries upstream of a point at approx NZMS 260 U24:743-768	
		Waipuehu Stream	Including all tributaries upstream of a point at approx NZMS 260 U24:766-804	
Kai lwi	Kai Iwi	Karamu Stream	Including all tributaries upstream of a point at approx NZMS 260 R22:781-543	
Kaitoke Lakes	Kaitoke Lakes	Lake Kaitoke	Including all tributaries upstream of a point at approx NZMS 260 R22:897-361	
Waikawa	Waikawa	Waikawa Stream	Including all tributaries upstream of a point at approx NZMS 260 S25:009-506	
			Including all tributaries upstream of a point at approx NZMS 260 S25:997-514	
			Including all tributaries upstream of a point at approx NZMS 260 S25:998-531	





Map D:20 Location of Existing Surface Water Takes for Industry in the Manawatu-Wanganui Region

Table D.14: Location of Existing Surface Water Takes for Industry in the Manawatu-Wanganui Region

Management Zone	Sub zone	River	Description
Upper Manawatu	Upper Manawatu	Mangarangiora Stream	At approx NZMS 260 U24:885-158
		Manawatu River	At approx NZMS 260 U23:785-023
Tamaki-	Tamaki-Hopelands	Manawatu River	At approx NZMS 260 T23:678-003
Hopelands	Lower Tamaki	Tamaki River	At approx NZMS 260 U23:707-047
<b>Mangatainoka</b>	Middle Mangatainoka	Artificial Lake on Tutaekara Road	At approx NZMS 260 T24:433-726
	Lower Mangatainoka	Mangatainoka River	At approx NZMS 260 T24:533-831
Mangatamoka			At approx NZMS 260 T24:529-833
			At approx NZMS 260 T24:500-801
			At approx NZMS 260 T24:537-842
	Middle Manawatu	Manawatu River	At approx NZMS 260 T24:395-936
Middle Manawatu			At approx NZMS 260 T24:395-932
			At approx NZMS 260 T24:359-924
Lower Manawatu	Lower Manawatu	Manawatu River	At approx NZMS 260 T24:302-881
Oroua	Middle Oroua	Oroua River	At approx NZMS 260 S23:298-049
Middle Rangitikei	Pukeokahu - Mangaweka	Rangitikei River	At approx NZMS 260 T22:529-572
	Ů		At approx NZMS 260 T22:528-573
Lower Rangitikei	Lower Rangitikei	Rangitikei River	At approx NZMS 260 T22:386-427
	Coastal Rangitikei	Rangitikei River	At approx NZMS 260 S23:184-182
			At approx NZMS 260 S23:166-164
Coastal			At approx NZMS 260 S23:167-123
Rangitikei			At approx NZMS 260 S23:127-102
			At approx NZMS 260 S23:124-105
			At approx NZMS 260 S23:073-028
	Tutaenui	Tutaenui Stream	At approx NZMS 260 S23:129-233
Cherry Grove	Cherry Grove	Whanganui River Waimiha Stream	At approx NZMS 260 S18:167-502
	Upper Ongarue Lower Ongarue	Taringamotu River	At approx t NZMS 260 S17:250-968 At approx NZMS 260 S18:193-592
	Lower Manganui O Te	•	· ·
Pipiriki	Ao Ao	Hoihenga Stream	At approx NZMS 260 S20:097-029
Lower	Coastal Whanganui	Whanganui River	At approx NZMS 260 R22:831-413
Whanganui			At approx NZMS 260 R22:798-378
Upper Whangaehu	Tokiahuru	Tokiahuru Stream	At approx NZMS 260 S20:284-913
Lower Whangaehu	Upper Mangawhero	Mangawhero River	At approx NZMS 260 S20:279-079
Northern Coastal	orthern Coastal Northern Coastal Okehu Stream		At approx NZMS 260 R22:761-598

Proposed One Plan



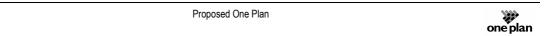


**Map D:21** Location of Existing Surface Water Takes for Agricultural Use in the Manawatu-Wanganui Region

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**Table D.15:** Location of Existing Surface Water Takes for Agricultural Use in the Manawatu-Wanganui Region

Management Zone	Sub zone	River	Number of Consents	Description
Upper Manawatu		Manawatu River	1	At approx NZMS 260 U23:821-240
	Upper Manawatu		1	At approx NZMS 260 U23:873-220
		Makotuku Stream	1	At approx NZMS 260 U23:870-145
	Mangatewainui	Mangatewainui Stream	1	At approx NZMS 260 U23:819-102
Manawatu			1	At approx NZMS 260 U24:826-979
	Mangatoro	Mangatoro Stream	1	At approx NZMS 260 U24:831-985
			1	At approx NZMS 260 U24:838-997
Weber-Tamaki	Weber-Tamaki	Manawatu River	1	At approx NZMS 260 U23:726-020
	Mangatera	Whakaruatapu Stream	1	At approx NZMS 260 U23:762-086
Upper Kumeti	Upper Kumeti	Kumeti Stream	1	At approx NZMS 260 T23:669-048
			1	At approx NZMS 260 T24:646-928
		Manawatu River	1	At approx NZMS 260 T24:662-941
	Tamaki-Hopelands		1	At approx NZMS 260 T24:691-999
	таптакі-поретапоз		1	At approx NZMS 260 T24:682-956
			1	At approx NZMS 260 T24:623-912
			1	At approx NZMS 260 T24:623-9142
	Lower Tamaki	Tamaki River	1	At approx NZMS 260 U23:708-019
	Lower ramaki	Tamaki Kivei	1	At approx NZMS 260 U23:710-036
Tamaki-	Lower Kumeti	Otamarahu Stream	1	At approx NZMS 260 U23:704-007
Hopelands	Lower Rumen	Kumeti Stream	1	At approx NZMS 260 T23:656-067
		Oruakeretaki Stream	1	At approx NZMS 260 T23:656-028
	Oruakeretaki	Oluakeretaki Stream	1	At approx NZMS 260 T23:645-027
	Oruakeretaki	Mangapuka Kakahu Stream	1	At approx NZMS 260 T23:659-031
		Mangapuka Kakanu Siream	1	At approx NZMS 260 T23:654-036
			1	At approx NZMS 260 T24:656-979
	Raparapawai	Raparapawai	1	At approx NZMS 260 T24:653-983
	Naparapawar		1	At approx NZMS 260 T24:664-964
			1	At approx NZMS 260 T24:664-956
Hopelands-	Hopelands-Tiraumea	Manawatu River	1	At approx NZMS 260 T24:613-891
Tiraumea			1	At approx NZMS 260 T24:571-863
	Upper Tiraumea	Tiraumea River	1	At approx NZMS 260 T24:541-731
		Black Creek	1	At approx NZMS 260 T25:569-618
Tiraumea	Lower Tiraumea		1	At approx NZMS 260 T24:566-848
Tiraumea		Tiraumea River	1	At approx NZMS 260 T24:587-835
			2	At approx NZMS 260 T24:553-859
	Mangaone River	Black Creek	1	At approx NZMS 260 T25:472-638
	Middle Mangatainoka	Mangatainoka River	1	At approx NZMS 260 T25:362-645
	Middle Mangalamoka	iviangatamoka Kivei	1	At approx NZMS 260 T25:363-642
Mangatainoka		Mangatainoka River	1	At approx NZMS 260 T24:548-855
Mangalamoka	Lower Mangatainoka	Avery Bood Street	1	At approx NZMS 260 T24:485-796
	-	Avery Road Stream	1	At approx NZMS 260 T24:490-808
	Mangaramarama	Mangaramarama Creek	1	At approx NZMS 260 T24:545-832
	Upper Gorge	Manawatu River	1	At approx NZMS 260 T24:532-872
			1	At approx NZMS 260 T24:517-882
Upper Gorge			1	At approx NZMS 260 T24:520-876
			1	At approx NZMS 260 T24:527-869
	Lower Mangahao	Mangahao River	1	At approx NZMS 260 T24:488-870
Middle			1	At approx NZMS 260 T24:379-925
Manawatu	Middle Manawatu	Manawatu River	1	At approx NZMS 260 T24:439-957
			1	At approx NZMS 260 T24:345-916
	Middle Pohangina	Pohangina River	1	At approx NZMS 260 T23:465-050
		•		



Management Zone	Sub zone	River	Number of Consents	Description
_			1	At approx NZMS 260 T23:501-115
			1	At approx NZMS 260 T23:475-077
			1	At approx NZMS 260 T23:463-054
	Lower Pohangina	Pohangina River	1	At approx NZMS 260 T24:455-989
			1	At approx NZMS 260 T23:459-014
	Laura Manarratu	Manager Diver	1	At approx NZMS 260 S24:202-830
	Lower Manawatu	Manawatu River	1	At approx NZMS 260 S24:170-823
Lower	I/ab.starassa	Kahuterawa Stream	1	At approx NZMS 260 T24:311-831
Manawatu	Kahuterawa	Kara Creek	1	At approx NZMS 260 T24:306-844
	Lower Mangaone Stream	Mangaone Stream	1	At approx NZMS 260 S24:283-878
			1	At approx NZMS 260 T23:347-092
			1	At approx NZMS 260 T23:343-075
	Unner Oroug	Oraya Diyar	1	At approx NZMS 260 T23:341-077
	Upper Oroua	Oroua River	1	At approx NZMS 260 T23:366-114
			1	At approx NZMS 260 T23:348-089
0			1	At approx NZMS 260 T23:328-072
Oroua	Lower Oroua	Oroua River	1	At approx NZMS 260 S24:185-938
	Kiwitea	Kiwitea Stream	1	At approx NZMS 260 T22:522-406
			1	At approx NZMS 260 S23:254-055
		Mangaone West Stream	1	At approx NZMS 260 S23:228-111
	Makino	M 11 01	1	At approx NZMS 260 S23:243-006
		Makino Stream	1	At approx NZMS 260 S23:254-023
			1	At approx NZMS 260 S24:129-785
	Coastal Manawatu	Manawatu River	1	At approx NZMS 260 S24:132-741
Coastal			1	At approx NZMS 260 S24:115-717
Manawatu			1	At approx NZMS 260 S24:033-735
manawata	Lower Tokomaru	Tokomaru River	2	At approx NZMS 260 S24:143-729
	Mangaore	Mangaore Stream	1	At approx NZMS 260 S25:165-691
	Koputaroa	Koputaroa Stream	1	At approx NZMS 260 S25:070-630
Middle	Pukeokahu -	i i	1	At approx NZMS 260 T22:631-496
Rangitikei	Mangaweka	Kawhatau River	1	At approx NZMS 260 T22:635-492
	Ů		1	At approx NZMS 260 S23:265-294
			1	At approx NZMS 260 S23:235-273
			1	At approx NZMS 260 S23:221-236
			1	At approx NZMS 260 S23:212-227
Lower	Lower Rangitikei	Rangitikei River	1	At approx NZMS 260 S23:224-255
Rangitikei		l tangamen are	1	At approx NZMS 260 T22:310-303
			1	At approx NZMS 260 S23:212-227
			1	At approx NZMS 260 T22:353-361
			1	At approx NZMS 260 S23:252-285
Coastal	Coastal Rangitikei	Rangitikei River	1 1	At approx NZMS 260 S23:289-089
Rangitikei	Coastal Nangilikei	Rangilikei Rivei	1	At approx NZMS 260 S23:076-071
Kangilikei			1	At approx NZMS 260 S23145-105
	1		1	At approx NZMS 260 S23:167-122
	1			At approx NZMS 260 S23:163-138
	1		1	At approx NZMS 260 S24-040-995
			1	At approx NZMS 260 S23:168-149
	1		1	At approx NZMS 260 S23:088-083
	1		1	At approx NZMS 260 S23:082-053
	1		1	At approx NZMS 260 S23:176-155
			1	At approx NZMS 260 S23:158-122
			1	At approx NZMS 260 S23:075-055



Management Zone	Sub zone	River	Number of Consents	Description
			1	At approx NZMS 260 S23:076-053
			1	At approx NZMS 260 S23:073-056
			1	At approx NZMS 260 S23:171-142
			1	At approx NZMS 260 S23:111-103
			1	At approx NZMS 260 S24:042-998
			1	At approx NZMS 260 S23:150-115
			1	At approx NZMS 260 S23:187-209
			1	At approx NZMS 260 S23:184-185
			1	At approx NZMS 260 S23:060-032
	Tidal Rangitikei	Rangitikei River	1	At approx NZMS 260 S24:015-995
	Tutaenui	Tutaenui Stream	1	At approx NZMS 260 S23:112-282
Cherry Grove	Cherry Grove	Whanganui River	1	At approx NZMS 260 S18:074-551
y	,	Whanganui River	1	At approx NZMS 260 R22:898-436
Lower	Lawar W/bananani	Waireka Stream	1	At approx NZMS 260 R22:897-459
Whanganui	Lower Whanganui	Mateongaonga Stream	1	At approx NZMS 260 R22:883-429
	•	Mangamoku Stream	1	At approx NZMS 260 S22:914-429
		Meitanni Otrono	1	At approx NZMS 260 T21:317-887
	Waitangi	Waitangi Stream	1	At approx NZMS 260 T21:337-893
		Makiokio Stream	1	At approx NZMS 260 T21:395-898
			1	At approx NZMS 260 S21:245-890
Upper			1	At approx NZMS 260 S21:258-890
Whangaehu		Tokiahuru Stream	1	At approx NZMS 260 S21:261-891
	Tokiahuru	Tokianuru Stream	1	At approx NZMS 260 S21:264-894
			1	At approx NZMS 260 S21:263-894
			1	At approx NZMS 260 S21:218-866
		Waitaki Stream	1	At approx NZMS 260 S20:252-906
Middle Whangaehu	Middle Whangaehu	Rangiwahia Stream	1	At approx NZMS 260 S21:211-836
	Lower Whangaehu	Mangawhero River	1	At approx NZMS 260 S22:057-497
	•	Little Makara Stream	1	At approx NZMS 260 S20:091-014
	Lower Makotuku	Makara Stream	1	At approx NZMS 260 S20:118-027
			1	At approx NZMS 260 S20:107-957
		Managurhara Divor	1	At approx NZMS 260 S20:158-951
		Mangawhero River	1	At approx NZMS 260 S20:167-966
			1	At approx NZMS 260 S20:173-962
Lower	•	Hapuawhenua Stream	1	At approx NZMS 260 S20:125-956
Whangaehu	Upper Mangawhero	Taonui Stream	1	At approx NZMS 260 S20:122-967
	Opper Mangawhero		1	At approx NZMS 260 S20:178-953
		Mangaeteitei Stream	1	At approx NZMS 260 S20:187-952
			1	At approx NZMS 260 S20:186-952
		Makaranui Stream	1	At approx NZMS 260 S20:151-952
			1	At approx NZMS 260 S20:143-945
		Colins Creek	1	At approx NZMS 260 S20:229-984
Coastal Whangaehu	Coastal Whangaehu	Whangaehu River	1	At approx NZMS 260 S22:009-347
Ohau	Lower Ohau	Ohau River	1	At approx NZMS 260 S25:014-572
Ullau	Lowel Ollau	Oliau Rivel	1	At approx NZMS 260 S25:937-581
			1	At approx NZMS 260 U24:940-712
Akitio	Lower Akitio	Akitio River	1	At approx NZMS 260 U24:964-707
			1	At approx NZMS 260 U24:947-714
Kai lwi	Kai Iwi	Katikara Stream	1	At approx NZMS 260 R22:825-488
Mowhanau	Mowhanau	Omapu Stream	1	At approx NZMS 260 R22:803-459
Lake Papaitonga	Lake Papaitonga	Lake Papaiatonga	1	At approx NZMS 260 S25:938-617



Management Zone	Sub zone	River	Number of Consents	Description
		Waikawa Stream	1	At approx NZMS 260 S25:938-521
Waikawa	Waikawa	Manukau Stream	1	At approx NZMS 260 S25:968-517
		Manukau Stream	1	At approx NZMS 260 S25:967-511



# Water Quality Standards for stream and rivers in Water Management Sub-zones

Table D.16: The Water quality standards defined in Table 2 shall be read as follows (The numerical values in are indicated by [...])

Colun	nn	Standard spelt out
Header	Sub- header	
рH	Range	The pH of the water shall be within the range [] to []
F	Δ	The pH of the water shall not be changed by more than []
Temp	<	The temperature of the water shall not exceed [] degrees Celsius.
(°C)	Δ	The temperature of the water shall not be changed by more than []degrees Celsius.
DO (%SAT)	<	The concentration of dissolved oxygen shall exceed [] % of saturation
BOD <sub>5</sub> (g/m <sup>3</sup> )	<	The five-days biological oxygen demand shall not exceed [] grams per cubic metre.
POM (g/m <sup>3</sup> )	<	The concentration of particulate organic matter shall not exceed [] grams per cubic metre.
Periphyton	Chla (mg/m²)	The algal biomass on the stream or river bed shall not exceed [] milligrams of chlorophyll a per square metre.
	% cover	The maximum cover of visible stream or river bed by periphyton (as filamentous algae more than 2 centimetres long) shall not exceed []%
DRP (mg/m³)	<	The annual average concentration of dissolved reactive phosphorus when the river flow is at or below three times the median flow shall not exceed [] milligrams per cubic meter, unless natural levels already exceed this standard.
SIN (mg/m³)	<	The annual average concentration of soluble inorganic nitrogen when the river flow is at or below three times the median flow shall not exceed [] milligrams per cubic meter.
QMCI		The quantitative macroinvertebrate index shall exceed [], unless natural physical conditions are beyond the scope of application of the QMCI.
Ammonia (mg/m³)	<	The concentration of ammonia nitrogen shall not exceed [] milligrams per cubic meter.
Toxicants	<	For toxicants not otherwise defined in these standards, the concentration of toxicants in the water shall not exceed the trigger values defined in the 2000 ANZECC guidelines Table 3.4.1 with the level of protection of [] % of species.
	< ½ m	The turbidity of the water when the river flow is at or below half median flow shall not exceed [] Nephlometric Turbidity Units (NTU)
Turbidity	<m< td=""><td>The turbidity of the water when the river flow is at or below median flow shall not exceed [] Nephlometric Turbidity Units (NTU)</td></m<>	The turbidity of the water when the river flow is at or below median flow shall not exceed [] Nephlometric Turbidity Units (NTU)
(NTU)	<3 x m	The turbidity of the water when the river flow is at or below three times median flow shall not exceed [] Nephlometric Turbidity Units (NTU)
()	Δ	The turbidity of the water shall not be changed by more than [] %. This standard shall apply only when physical conditions existing at the site prevent adequate water clarity (back Disc) measurement.
Clarity (m)	Δ	The clarity of the water measured as being the horizontal sighting range of a 200 mm black disc shall not be changed by more than [] %

Note: Soluble Inorganic Nitrogen (SIN) concentration is measured of the sum of nitrate nitrogen, nitrite nitrogen and ammonia nitrogen



**Table D.17:** Water quality standards for rivers and streams in each Water Management Sub-zone (Note: refer to and for water quality standards applying to rivers and streams flowing into natural lakes)

Management Zone	Sub zone	рН		Ter (°0	np C)	DO (%SAT)	BOD <sub>5</sub> (g/m <sup>3</sup> )	POM (g/m³)	Periph	yton	DRP (mg/m³)	SIN (mg/m³)	QMCI	Ammonia (mg/m³)	Tox.	Т	urbidity	(NTU)		Clarity (m)
Management Zone	Sub zone	Range	Δ	<	Δ	>	<	<	Chla (mg/m²)	% cover	<	<	QIVICI	<	TOX.	<1/2 m	< m	< 3 xm	Δ	Δ
	Upper Manawatu (Mana_1a)	7 to 8.5	0.5	19	3	80	1	2.5	120	30	10	167	6	400	99	1		15	20	20
Upper Manawatu (Mana_1)	Mangatewainui (Mana_1b)	7 to 8.5	0.5	19	3	80	1	2.5	120	30	10	167	6	400	99	1		15	20	20
	Mangatoro (Mana_1c)	7 to 8.5	0.5	19	3	80	1	2.5	120	30	10	110	6	400	99	1		20	20	20
Weber-Tamaki	Weber-Tamaki (Mana_2a)	7 to 8.5	0.5	19	2	80	1	2.5	120	30	10	444	6	400	99	1		15	20	20
(Mana_2)	Mangatera (Mana_2b)	7 to 8.5	0.5	22	3	70	2	5	120	30	10	444	5	400	99			15	30	30
Upper Tamaki (Mana_3)	Upper Tamaki	7 to 8.2	0.5	19	2	80	1	2.5	50	30	6	70	6	320	99			5	20	20
Upper Kumeti (Mana_4)	Upper Kumeti	7 to 8.2	0.5	19	2	80	1	2.5	50	30	6	70	6	320	99			5	20	20
	Tamaki-Hopelands (Mana_5a)	7 to 8.5	0.5	19	3	80	1	2.5	120	30	10	444	6	400	99	1		15	20	20
	Lower Tamaki (Mana_5b)	7 to 8.5	0.5	22	3	70	2	5	120	30	10	444	5	400	99			15	30	30
Tamaki-Hopelands (Mana_5)	Lower Kumeti (Mana_5c)	7 to 8.5	0.5	22	3	70	2	5	120	30	10	444	5	400	99			15	30	30
	Oruakeretaki (Mana_5d)	7 to 8.5	0.5	22	3	70	2	5	120	30	10	444	5	400	99			15	30	30
	Raparapawai (Mana_5e)	7 to 8.5	0.5	22	3	70	2	5	120	30	10	444	5	400	99			15	30	30
Hopelands- Tiraumea (Mana_6)	Hopelands-Tiraumea	7 to 8.5	0.5	19	3	80	1	2.5	120	30	10	444	6	400	99	1		15	20	20
Tiraumea (Mana_7)	Upper Tiraumea (Mana_7a)	7 to 8.5	0.5	23	3	70	2	5	120	30	10	444	5	400	95	2.5	20		30	30
	Lower Tiraumea (Mana_7b)	7 to 8.5	0.5	23	3	70	2	5	120	30	10	444	5	400	95	2.5	20		30	30



		pН		Tei (°	mp C)	DO (%SAT)	BOD <sub>5</sub> (g/m <sup>3</sup> )	POM (g/m³)	Periph	yton	DRP (mg/m³)	SIN (mg/m³)		Ammonia (mg/m³)		T	urbidity	(NTU)		Clarity (m)
Management Zone	Sub zone	Range	Δ	<	Δ	>	(g/ /	<	Chla (mg/m²)	% cover	(g/ /	<	QMCI	<	Tox.	<1/2 m	< m	< 3 xm	Δ	Δ
	Mangaone River (Mana_7c)	7 to 8.5	0.5	23	3	70	2	5	200	30	10	444	5	400	95		20		30	30
	Makuri (Mana_7d)	7 to 8.5	0.5	19	2	80	1	2.5	120	30	10	110	6	400	99	1		15	20	20
	Upper Mangatainoka (Mana_8a)	7 to 8.2	0.5	19	2	80	1	2.5	50	30	6	70	6	320	99	1		5	20	20
	Middle Mangatainoka (Mana_8b)	7 to 8.5	0.5	19	3	80	1	2.5	120	30	10	444	6	400	99	1		15	20	20
Mangatainoka (Mana_8)	Lower Mangatainoka (Mana_8c)	7 to 8.5	0.5	19	3	80	1	2.5	120	30	10	444	6	400	99	1		15	20	20
	Makakahi (Mana_8d)	7 to 8.5	0.5	19	3	80	1	2.5	120	30	10	444	6	400	99	1		15	20	20
	Mangaramarama (Mana_8e)	7 to 8.5	0.5	22	3	70	2	5	200	30	10	444	5	400	95		20		30	30
	Upper Gorge (Mana_9a)	7 to 8.5	0.5	22	3	70	2	5	120	30	10	444	5	400	95	2.5		15	30	30
	Mangapapa (Mana_9b)	7 to 8.5	0.5	22	3	70	2	5	120	30	10	444	5	400	95			15	30	30
Upper Gorge (Mana_9)	Mangaatua (Mana_9c)	7 to 8.5	0.5	22	3	70	2	5	120	30	10	444	5	400	95			15	30	30
	Upper Mangahao (Mana_9d)	7 to 8.2	0.5	19	2	80	1	2.5	50	30	6	167	6	320	99	2.5		5	20	20
	Lower Mangahao (Mana_9e)	7 to 8.5	0.5	22	3	70	2	5	120	30	10	444	5	400	95	2.5		15	30	30
	Middle Manawatu (Mana_10a)	7 to 8.5	0.5	22	3	70	2	5	120	30	10	444	5	400	95	2.5		15	30	30
	Upper Pohangina (Mana_10b)	7 to 8.2	0.5	19	2	80	1	2.5	50	30	6	70	6	320	99	2.5		5	20	20
Middle Manawatu (Mana_10)	Middle Pohangina (Mana_10c)	7 to 8.5	0.5	22	3	70	2	5	120	30	10	110	5	400	95	2.5		15	30	30
	Lower Pohangina (Mana_10d)	7 to 8.5	0.5	22	3	70	2	5	120	30	10	110	5	400	95	2.5		15	30	30
	Aokautere (Mana_10e)	7 to 8.5	0.5	22	3	70	2	5	120	30	10	110	5	400	95			15	30	30
Lower Manawatu (Mana_11)	Lower Manawatu (Mana_11a)	7 to 8.5	0.5	22	3	70	2	5	120	30	10	444	5	400	95	2.5		15	30	30
	Turitea (Mana_11b)	7 to 8.2	0.5	19	2	80	1	2.5	50	30	6	70	6	320	99	2.5		5	20	20



Management 7ana	Cub zone	рН		Ter (°0	np C)	DO (%SAT)	BOD <sub>5</sub> (g/m <sup>3</sup> )	POM (g/m³)	Periph	yton	DRP (mg/m³)	SIN (mg/m³)	QMCI	Ammonia (mg/m³)	Tox.	T	urbidity	(NTU)		Clarity (m)
Management Zone	Sub zone	Range	Δ	<	Δ	>	<	<	Chla (mg/m²)	% cover	<	<	QIVICI	<	IOX.	<1/2 m	< m	< 3 xm	Δ	Δ
	Kahuterawa (Mana_11c)	7 to 8.2	0.5	19	2	80	1	2.5	50	30	6	70	6	320	99	2.5		5	20	20
	Upper Mangaone Stream (Mana_11d)	7 to 8.5	0.5	24	3	60	2	5	200	30	10	444	5	400	95			15	30	30
	Lower Mangaone Stream (Mana_11e)	7 to 8.5	0.5	24	3	60	2	5	200	30	10	444	5	400	95			15	30	30
	Main Drain (Mana_11f)	7 to 8.5	0.5	24	3	60	2	5	200	30	15	444	5	400	95			15	30	30
	Upper Oroua (Mana_12a)	7 to 8.5	0.5	22	3	70	2	5	120	30	10	167	5	400	95	2.5		15	30	30
	Middle Oroua (Mana_12b)	7 to 8.5	0.5	22	3	70	2	5	120	30	10	444	5	400	95	2.5		15	30	30
Oroua (Mana_12)	Lower Oroua (Mana_12c)	7 to 8.5	0.5	24	3	70	2	5	200	30	15	444	5	400	95	2.5		15	30	30
, – ,	Kiwitea (Mana_12d)	7 to 8.5	0.5	22	3	70	2	5	120	30	10	167	5	400	95			15	30	30
	Makino (Mana_12e)	7 to 8.5	0.5	24	3	70	2	5	120	30	15	444	5	400	95	2.5		15	30	30
	Coastal Manawatu (Mana_13a)	7 to 8.5	0.5	24	3	70	2	5	200	30	15	444	5	400	95	2.5		15	30	30
	Upper Tokomaru (Mana_13b)	7 to 8.2	0.5	19	2	80	1	2.5	50	30	6	70	6	320	99	2.5		5	20	20
Coastal Manawatu	Lower Tokomaru (Mana_13c)	7 to 8.5	0.5	24	3	70	2	5	120	30	10	444	5	400	95	2.5		15	30	30
(Mana_13)	Mangaore (Mana 13d)	7 to 8.5	0.5	22	3	70	2	5	120	30	10	165	5	400	95			15	30	30
	Koputaroa (Mana_13e)	7 to 8.5	0.5	24	3	60	2	5	200	30	15	444	5	400	95			15	30	30
	Foxton Loop (Mana_13f)	7 to 8.5	0.5	24	3	60	2	5	200	30	15	444	5	400	95			15	30	30
Upper Rangitikei (Rang_1)	Upper Rangitikei	7 to 8.2	0.5	19	2	80	1	2.5	50	30	6	70	6	320	99	0.6		3.5	20	20
Middle Rangitikei (Rang_2)	Middle Rangitikei (Rang_2a)	7 to 8.2	0.5	19	2	80	1	2.5	50	30	6	70	6	320	99	0.6		3.5	20	20



M	Outron	pН		Ter (°0		DO (%SAT)	BOD <sub>5</sub> (g/m <sup>3</sup> )	POM (g/m³)	Periph	yton	DRP (mg/m³)	SIN (mg/m³)	QMCI	Ammonia (mg/m³)	Torr	T	urbidity	(NTU)		Clarity (m)
Management Zone	Sub zone	Range	Δ	<	Δ	>	<	<	Chla (mg/m²)	% cover	<	<	QMCI	<	Tox.	<1/2 m	< m	< 3 xm	Δ	Δ
	Pukeokahu – Mangaweka (Rang_2b)	7 to 8.5	0.5	19	3	80	1	2.5	120	30	10	110	6	320	99	0.6		3.5	20	20
	Upper Moawhango (Rang_2c)	7 to 8.2	0.5	19	2	80	1	2.5	50	30	6	70	6	320	99	2.5		5	20	20
	Middle Moawhango (Rang_2d)	7 to 8.5	0.5	19	2	80	1	5	120	30	10	110	5	400	95	2.5		15	30	30
	Lower Moawhango (Rang_2e)	7 to 8.5	0.5	22	3	70	2	5	120	30	10	110	5	400	95	2.5	20		30	30
	Upper Hautapu (Rang_2f)	7 to 8.5	0.5	19	2	80	1	2.5	120	30	10	110	6	400	99	1		15	20	20
	Lower Hautapu (Rang_2g	7 to 8.5	0.5	22	3	70	2	5	120	30	10	110	5	400	95	2.5	20		30	30
Lower Rangitikei	Lower Rangitikei (Rang_3a)	7 to 8.5	0.5	19	3	80	1	2.5	120	30	10	110	6	400	99	1		15	20	20
(Rang_3)	Makohine (Rang_3b)	7 to 8.5	0.5	22	3	70	2	5	200	30	10	110	5	400	95		20		30	30
	Coastal Rangitikei (Rang_4a)	7 to 8.5	0.5	22	3	70	2	5	120	30	10	110	5	400	95	2.5		15	30	30
Coastal Rangitikei	Tidal Rangitikei (Rang_4b)	7 to 8.5	0.5	24	3	70	2	5	200	30	15	167	5	400	95	2.5		15	30	30
(Rang_4)	Porewa (Rang_4c)	7 to 8.5	0.5	22	3	70	2	5	200	30	10	110	5	400	95		20		30	30
	Tutaenui (Rang 4d)	7 to 8.5	0.5	24	3	60	2	5	200	30	10	110	5	400	95			15	30	30
Upper Whanganui (Whai_1)	Upper Whanganui	7 to 8.2	0.5	19	2	80	1	2.5	50	30	6	70	6	320	99	2.5		5	20	20
Cherry Grove (Whai_2)	Cherry Grove (Whai_2a)	7 to 8.5	0.5	19	2	80	1	5	120	30	10	110	5	400	95	2.5		15	30	30
	Upper Whakapapa (Whai_2b)	7 to 8.2	0.5	19	2	80	1	2.5	50	30	6	70	6	320	99	2.5		5	20	20
	Lower Whakapapa (Whai_2c)	7 to 8.2	0.5	19	2	80	1	2.5	50	30	6	70	6	320	99	2.5		5	20	20
	Piopiotea (Whai_2d)	7 to 8.2	0.5	19	2	80	1	2.5	50	30	6	70	6	320	99	2.5		5	20	20
	Pungapunga (Whai_2e)	7 to 8.5	0.5	19	2	80	1	5	120	30	10	110	5	400	95	2.5		15	30	30



		рН		Tei (°	mp C)	DO (%SAT)	BOD <sub>5</sub> (g/m <sup>3</sup> )	POM (g/m³)	Periph	yton	DRP (mg/m³)	SIN (mg/m³)		Ammonia (mg/m³)		Т	urbidity	(NTU)		Clarity (m)
Management Zone	Sub zone	Range	Δ	<		>	(g/··· /	(g/ /	Chla (mg/m²)	% cover	<	<	QMCI	<	Tox.	<1/2 m	< m	< 3 xm	Δ	Δ
	Upper Ongarue (Whai_2f)	7 to 8.2	0.5	19	2	80	1	2.5	50	30	6	70	6	320	99	2.5		5	20	20
	Lower Ongarue (Whai_2g)	7 to 8.5	0.5	19	2	80	1	5	120	30	10	110	5	400	95	2.5		15	30	30
Te Maire (Whai_3)	Te Maire	7 to 8.5	0.5	19	2	80	1	5	120	30	10	110	5	400	95	2.5		15	30	30
	Middle Whanganui (Whai_4a)	7 to 8.5	0.5	19	2	80	1	5	120	30	10	110	5	400	95	2.5		15	30	30
Middle Whanganui	Upper Ohura (Whai_4b)	7 to 8.5	0.5	22	3	70	2	5	200	30	15	167	5	400	95		20		30	30
(Whai_4)	Lower Ohura (Whai_4c)	7 to 8.5	0.5	22	3	70	2	5	200	30	15	167	5	400	95		20		30	30
	Retaruke (Whai_4d)	7 to 8.5	0.5	19	2	80	1	5	120	30	10	110	5	400	95	2.5		15	30	30
	Pipiriki (Whai_5a)	7 to 8.5	0.5	22	3	70	2	5	120	30	10	110	5	400	95	2.5	20		30	30
	Tangarakau (Whai_5b)	7 to 8.5	0.5	22	3	70	2	5	200	30	15	167	5	400	95		20		30	30
Pipiriki	Whangamomona (Whai_5c)	7 to 8.5	0.5	22	3	70	2	5	200	30	15	167	5	400	95		20		30	30
(Whai_5)	Upper Manganui o te Ao (Whai_5d)	7 to 8.2	0.5	19	2	80	1	2.5	50	30	6	70	6	320	99	0.6		3.5	20	20
	Lower Manganui o te Ao (Whai_5e)	7 to 8.5	0.5	19	2	80	1	2.5	120	30	10	110	6	320	99	0.6		3.5	20	20
Paetawa (Whai_6)	Paetawa	7 to 8.5	0.5	22	3	70	2	5	120	30	10	110	5	400	95	2.5	20		30	30
	Lower Whanganui (Whai_7a)	7 to 8.5	0.5	22	3	70	2	5	200	30	15	167	5	400	95		20		30	30
Lower Whanganui	Coastal Whanganui (Whai_7b)	7 to 8.5	0.5	24	3	60	2	5	200	30	15	167	5	400	95		20		30	30
(Whai_7)	Upokongaro (Whai_7c)	7 to 8.5	0.5	22	3	70	2	5	200	30	15	167	5	400	95		20		30	30
	Matarawa (Whai_7d)	7 to 8.5	0.5	22	3	70	2	5	200	30	15	167	5	400	95		20		30	30
Upper Whangaehu (Whau_1)	Upper Whangaehu (Whau_1a)	7 to 8.2 <sup>(a)</sup>	0.5	19	2	80	1	2.5	50	30	6	70	6	320	99			5 <sup>(a)</sup>	20	20



Management Zana	Sub zone	рН		Ter (°0		DO (%SAT)	BOD <sub>5</sub> (g/m <sup>3</sup> )	POM (g/m³)	Periph	yton	DRP (mg/m³)	SIN (mg/m³)	QMCI	Ammonia (mg/m³)	Tox.	Т	urbidity	(NTU)		Clarity (m)
Management Zone	Sub zone	Range	Δ	<	Δ	>	<	<	Chla (mg/m²)	% cover	<	<	QIVICI	<	IOX.	<1/2 m	< m	< 3 xm	Δ	Δ
	Waitangi (Whau_1b)	7 to 8.5	0.5	19	2	80	1	5	120	30	10	110	5	400	95	2.5		15	30	30
	Tokiahuru (Whau_1c)	7 to 8.2	0.5	19	2	80	1	2.5	50	30	6	70	6	320	99	2.5		5	20	20
Middle Whangaehu (Whau_2)	Middle Whangaehu	7 to 8.5 <sup>(a)</sup>	0.5	22	3	70	2	5	200	30	15	167	5	400	95		20 <sup>(a)</sup>		30	30
	Lower Whangaehu (Whau_3a)	7 to 8.5 <sup>(a)</sup>	0.5	22	3	70	2	5	200	30	15	167	5	400	95		20 <sup>(a)</sup>		30	30
	Upper Makotuku (Whau_3b)	7 to 8.2	0.5	19	2	80	1	2.5	50	30	6	70	6	320	99	2.5		5	20	20
Lower Whangaehu (Whau_3)	Lower Makotuku (Whau_3c)	7 to 8.2	0.5	19	2	80	1	2.5	50	30	6	70	6	320	99	2.5		5	20	20
	Upper Mangawhero (Whau_3d)	7 to 8.2	0.5	19	2	80	1	2.5	50	30	6	70	6	320	99	2.5		5	20	20
	Lower Mangawhero (Whau_3e)	7 to 8.5	0.5	22	3	70	2	5	120	30	10	110	5	400	95	2.5	20		30	30
Coastal Whangaehu (Whau_4)	Coastal Whangaehu	7 to 8.5 <sup>(a)</sup>	0.5	22	3	70	2	5	200	30	15	167	5	400	95		20 <sup>(a)</sup>		30	30
	Upper Turakina (Tura_1a)	7 to 8.5	0.5	22	3	70	2	5	200	30	15	167	5	400	95		20		30	30
Turakina (Tura_1)	Lower Turakina (Tura_1b)	7 to 8.5	0.5	22	3	70	2	5	200	30	15	167	5	400	95		20		30	30
	Ratana (Tura_1c)	7 to 8.5	0.5	24	3	60	2	5	200	30	15	167	5	400	95			15	30	30
Ohau	Upper Ohau (Ohau_1a)	7 to 8.2	0.5	19	2	80	1	2.5	50	30	6	70	6	320	99	2.5		5	20	20
(Ohau_1)	Lower Ohau (Ohau_ba)	7 to 8.5	0.5	22	3	70	2	5	120	30	10	110	5	400	95	2.5		15	30	30
Owahanga (Owha_1)	Owahanga	7 to 8.5	0.5	22	3	70	2	5	200	30	15	167	5	400	95		20		30	30
East Coast (East_1)	East Coast	7 to 8.5	0.5	22	3	70	2	5	200	30	15	167	5	400	95		20		30	30
	Upper Akitio (Akit_1a)	7 to 8.5	0.5	22	3	70	2	5	200	30	15	167	5	400	95		20		30	30
Akitio (Akit_1)	Lower Akitio (Akit_1b)	7 to 8.5	0.5	22	3	70	2	5	200	30	15	167	5	400	95		20		30	30
	Waihi (Akit_1c)	7 to 8.5	0.5	22	3	70	2	5	200	30	15	167	5	400	95		20		30	30



Management Zone	Sub zone	рН		Ter (°0		DO (%SAT)	BOD <sub>5</sub> (g/m <sup>3</sup> )	POM (g/m³)	Periph	yton	DRP (mg/m³)	SIN (mg/m³)	QMCI	Ammonia (mg/m³)	Tox.	Т	urbidity	(NTU)		Clarity (m)
Management Zone	Sub Zone	Range	Δ	<	Δ	>	<	<	Chla (mg/m²)	% cover	<	<	QIVICI	<	TUX.	<1/2 m	< m	< 3 xm	Δ	Δ
Northern Coastal (West_1)	Northern Coastal	7 to 8.5	0.5	24	3	60	2	5	200	30	15	167	5	400	95			15	30	30
Kai lwi (West_2)	Kai lwi	7 to 8.5	0.5	22	3	70	2	5	200	30	15	167	5	400	95		20		30	30
Mowhanau (West_3)	Mowhanau	7 to 8.5	0.5	24	3	60	2	5	200	30	15	167	5	400	95			15	30	30
Kaitoke Lakes (West_4)	Kaitoke Lakes	7 to 8.5	0.5	24	3	60	2	5	200	30	15	167	5	400	95			15	30	30
Southern Wanganui Lakes (West 5)	Southern Wanganui Lakes	7 to 8.5	0.5	24	3	60	2	5	200	30	15	167	5	400	95			15	30	30
Northern Manawatu Lakes (West_6)	Northern Manawatu Lakes	7 to 8.5	0.5	24	3	60	2	5	200	30	15	167	5	400	95			15	30	30
Waitarere (West_7)	Waitarere	7 to 8.5	0.5	24	3	60	2	5	200	30	15	167	5	400	95			15	30	30
Lake Papaitonga (West_8)	Lake Papaitonga	7 to 8.5	0.5	24	3	60	2	5	200	30	15	167	5	400	95			15	30	30
Waikawa (West_9)	Waikawa	7 to 8.5	0.5	22	3	70	2	5	120	30	10	167	5	400	95			15	30	30
Lake Horowhenua	Lake Horowhenua (Hoki_1a)	7 to 8.5	0.5	24	3	60	2	5	200	30	15	167	5	400	95			15	30	30
(Hoki_1)	Hokio (Hoki_1b)	7 to 8.5	0.5	24	3	60	2	5	200	30	15	167	5	400	95			15	30	30



## **Additional Water quality standards**

#### Additional standards applying to all natural stream and river waters:

- 1. The concentration of *Escherichia coli* when the river or stream flow is at or below median flow shall not exceed 260 per 100 millilitres. This standard applies during the period 1<sup>st</sup> November to 30<sup>th</sup> April inclusive, and
- 2. The concentration of *Escherichia coli* when the river or stream flow is at or below three times median flow shall not exceed 550 per 100 millilitres. This standard applies year round.
- 3. The concentration of toxins due to cyanobacteria (blue-green algae) shall not exceed 20 milligrams per cubic metre. This standard applies year round.

### Water quality standards for natural lakes and lake catchments

This part defines:

- water management subzones where water quality standards for lakes and lake catchments are defined (Table D.18); and
- water quality standard for natural lake waters, and
- water quality standard for streams and rivers that flow into lakes (Table D.19 and Table D.20)

The following zones contain natural lakes:

Table D.18: Water Management Sub-zones where lake water and lake catchment water quality standards apply

West_1	Tura_1c	Mana_13a
Whai_7b	West_5	Hoki_1a
West_4	West_6	West_8
Whau_4	West_7	

Lowland lakes water quality standards. These standards apply year round to waters of all natural lakes within the water management subzones defined in Table D18.

- 1. The pH of the water shall be within the range 7 to 8.5 and shall not be changed by more than 0.5 pH;
- 2. The temperature of the water shall not be changed by more than 1°C;
- 3. The Dissolved Oxygen concentration shall not be less than 80% in the surface waters (defined as less than 2 metres deep);
- 4. The five-days Biological oxygen demand shall not exceed 1 g/m<sup>3</sup>
- 5. The annual average algal biomass shall not exceed 5 mg Chlorophyll a/m³ and no sample shall exceed 15 mg Chlorophyll a/m³;
- 6. The annual average total phosphorus concentration shall not exceed 20 mg/m<sup>3</sup>;
- 7. The annual average total nitrogen concentration shall not exceed 337 mg/m<sup>3</sup>;
- 8. The concentration of ammoniacal Nitrogen shall not exceed 337 mg/m<sup>3</sup>;



- 9. For toxicants not otherwise defined in these standards, the concentration of toxicants in the water shall not exceed the trigger values defined in the 2000 ANZECC guidelines Table 3.4.1 with the level of protection of 95 % of species;
- 10. The clarity of the water measured as Secchi depth shall not be less than 2.8m and shall not be changed by more than 20%;
- 11. The turbidity shall not be changed by more than 20%. This standard shall apply only when physical conditions existing at the site prevent adequate water clarity (Secchi Disc) measurement.
- 12. The concentration of Escherichia coli shall not exceed 260 per 100 millilitres. This standard applies during the period 1<sup>st</sup> November to 30<sup>th</sup> April inclusive, and
- 13. The concentration of Escherichia coli shall not exceed 550 per 100 millilitres. This standard applies during the period 1<sup>st</sup> May to 31<sup>th</sup> October inclusive year round.
- 4. The concentration of toxins due to cyanobacteria (blue-green algae) shall not exceed 20 milligrams per cubic metre. This standard applies year round



**Table D.19:** The water quality standards defined in Table D.20 shall be read as follows (the numerical values in Table D.20 are indicated by [...])

Column		Standard spelt out
header	sub-	
	header	
рН	Range	The pH of the water shall be within the range [] to []
<b>P</b>	Δ	The pH of the water shall not be changed by more than
Temp	<	The temperature of the water shall not exceed [] degrees Celsius.
(°C)	Δ	The temperature of the water shall not be changed by more than [] degrees Celsius.
DO (%SAT)	<	The concentration of dissolved oxygen shall exceed [] % of saturation
BOD <sub>5</sub> (g/m <sup>3</sup> )	<	The five-days biological oxygen demand shall not exceed [] grams per cubic metre.
POM (g/m <sup>3</sup> )	<	The concentration of particulate organic matter shall not exceed [] grams per cubic metre.
Periphyton	Chla (mg/m²)	The algal biomass on the stream or river bed shall not exceed [] milligrams of chlorophyll a per square metre.
	% cover	The maximum cover of visible stream or river bed by periphyton (as filamentous algae more than 2 centimetres long) shall not exceed []% between 1st November to 30th April inclusive.
TP (mg/m <sup>3</sup> )	<	The mean monthly concentration of total phosphorus shall not exceed [] milligrams per cubic meter, unless natural levels already exceed this standard.
TN (mg/m <sup>3</sup> )	<	The mean monthly concentration of total nitrogen shall not exceed [] milligrams per cubic meter.
Ammonia (mg/m³)	<	The concentration of ammonia nitrogen reactive phosphorus shall not exceed [] milligrams per cubic meter.
Toxicants	<	For toxicants not otherwise defined in these standards, the concentration of toxicants in the water shall not exceed the trigger values defined in the 2000 ANZECC guidelines Table 3.4.1 with the level of protection of [] % of species.
Turbidity (NTU)	< ½ m	The turbidity of the water when the river flow is at or below half median flow shall not exceed [] Nephlometric Turbidity Units (NTU)
	<m< td=""><td>The turbidity of the water when the river flow is at or below median flow shall not exceed []Nephlometric Turbidity Units (NTU)</td></m<>	The turbidity of the water when the river flow is at or below median flow shall not exceed []Nephlometric Turbidity Units (NTU)
	<3 x m	The turbidity of the water when the river flow is at or below three times median flow shall not exceed []Nephlometric Turbidity Units (NTU)
	Δ	The turbidity of the water shall not be changed by more than [] %
Clarity (m)	Δ	The clarity of the water measured as being the horizontal sighting range of a 200 mm black disc shall not be changed by more than [] %

#### Notes:

- a. The pH change standard applies only within the bounds of the pH range standard
- b. The temperature change standard applies only within the bounds of the temperature standard.
- c. Soluble inorganic Nitrogen (SIN) concentration is measured of the sum of nitrate nitrogen, nitrite nitrogen and ammonia nitrogen



Table D.20: The following water quality standards apply to streams and rivers in natural lakes catchments (ie., flowing directly or indirectly into a natural lake)

Managament Zana	Management	рН		Temp (°C)		DO (%SAT)	BOD₅ (g/m³)	POM (g/m³)	Periphyton		TP (mg/m³)	TN (mg/m³)	Ammonia (mg/m³)	Toxicants	Turbidity (NTU)				Clarity (m)
Management Zone	Sub-zone	Range	Δ	<	Δ	>	<	<	Chla (mg/m²)	% cover	<	<	<	Toxicants	<1/2 m	< m	< 3 xm	Δ	Δ
Coastal Manawatu Mana_13	Coastal Manawatu Mana_13a	7 to 8.5	0.5	24	3	70	2	5	200	30	20	337	337	95	2.5		15	30	30
Lower Whanganui Whai_7	Coastal Whanganui Whai_7b	7 to 8.5	0.5	24	3	60	2	5	200	30	20	337	337	95		20		30	30
Coastal Whangaehu Whau_4	ehu Coastal Whangaehu Whau_4		0.5	22	3	70	2	5	200	30	20	337	337	95		20		30	30
Turakina Tura_1	Ratana Tura_1c	7 to 8.5	0.5	24	3	60	2	5	200	30	20	337	337	95			15	30	30
Northern Coastal West_1	Northern Coastal West_1	7 to 8.5	0.5	24	3	60	2	5	200	30	20	337	337	95			15	30	30
Kaitoke Lakes West_4	Kaitoke Lakes West_4	7 to 8.5	0.5	24	3	60	2	5	200	30	20	337	337	95			15	30	30
Southern Wanganui Lakes West_5	Southern Wanganui Lakes West_5	7 to 8.5	0.5	24	3	60	2	5	200	30	20	337	337	95			15	30	30
Northern Manawatu Lakes West_6	Northern Manawatu Lakes West_6	7 to 8.5	0.5	24	3	60	2	5	200	30	20	337	337	95			15	30	30
Waitarere West_7	Waitarere West_7	7 to 8.5	0.5	24	3	60	2	5	200	30	20	337	337	95			15	30	30
Lake Papaitonga West_8	Lake Papaitonga West_8	7 to 8.5	0.5	24	3	60	2	5	200	30	20	337	337	95			15	30	30
Lake Horowhenua Hoki_1	Lake Horowhenua Hoki_1a	7 to 8.5	0.5	24	3	60	2	5	200	30	20	337	337	95			15	30	30

Note these water management subzones also contain streams and river that do not flow into a natural lake. For these waters, standards in Table D.17 apply



Additional water quality standards applying to the streams and rivers classified as Trout Spawning. The following standards apply to all streams where the TS (Trout Spawning) value is identified, from 1<sup>st</sup> May to 30 September inclusive.

- 1. The temperature of the water shall not be changed by more than 2°C, and
- 2. The temperature of the water shall not exceed 11°C, and
- 3. The dissolved oxygen concentration shall not be less than 80% saturation, and
- 4. There shall be no measurable increase in sediment or particulate organic matter deposited on the bed of the river or stream, and
- 5. The concentration of toxicants in the water shall not exceed the trigger values defined in the 2000 ANZECC guidelines Table 3.4.1 with the level of protection of 99 % of species.

Water quality standards for the marine coastal waters. The following standards apply year round to the waters within the coastal Marine area.

- 1. The pH of the water shall be within the range 8 to 8.3 and shall not be changed by more than 0.1 pH;
- 2. The temperature of the water shall not be changed by more than 1°C;
- 3. The Dissolved Oxygen concentration shall not be less than 90 % in the surface waters defined as less than 2 metres deep;
- 4. The average annual algal biomass shall not exceed 1 mg Chlorophyll a/m<sup>3</sup>;
- 5. The average annual total phosphorus concentration shall not exceed 10 mg/m<sup>3</sup>;
- 6. The average annual total nitrogen concentration shall not exceed 60 mg/m<sup>3</sup>;
- 7. The concentration of ammonia nitrogen shall not exceed 60 mg/m<sup>3</sup>;
- 8. For toxicants not otherwise defined in these standards, the concentration of toxicants in the water shall not exceed the trigger values defined in the 2000 ANZECC guidelines Table 3.4.1 with the level of protection of 99 % of species;
- 9. The clarity of the water measured as Secchi depth shall not be changed by more than 20%;
- 10. The turbidity shall not be changed by more than 20%. This standard shall apply only when physical conditions existing at the site prevent adequate water clarity (Secchi Disc) measurement.
- 11. The concentration of *Enterococci* shall not exceed 140 per 100 millilitres. This standard applies during the period 1<sup>st</sup> November to 30<sup>th</sup> April inclusive, and
- 12. The concentration of *Enterococci* shall not exceed 280 per 100 millilitres. This standard applies during the period 1<sup>st</sup> May to 31<sup>th</sup> October inclusive.
- 13. The median concentration of faecal coliforms shall not exceed 14 per 100 millilitres and the 90<sup>th</sup> percentile shall not exceed 43 per 100 millilitres. This standard applies year round.
- 14. The concentration of toxins due to cyanobacteria (blue-green algae) shall not exceed 20 milligrams per cubic metre. This standard applies year round.

