

appendix 28

freshwater

AP28.1 NCC aggregate extraction sites for the purpose of maintaining flood capacity

River	Location	Activity
Maitai River	Concrete ford by golf club (access to golf course, between car park and course) for a distance 20m upstream and 20m downstream of ford	Up to 300m ³ after each high flood event. Note: excavation is below river level and required excavator in river bed.
	Almond Tree flats ford for a distance of 75m above and 50m below the ford.	Up to 800m ³ after each high flood event. Note: a) 100m ³ of extracted aggregate redeposited on downstream side of ford each year. b) excavation is below river level and requires excavator in river bed.
	Black Hole for a distance of 100m downstream.	Up to 600m ³ after each high flood event. Note: excavation is at river level and requires excavator in river bed.
Brook Stream	By OK Corral for a distance of 50m upstream	Up to 500m ³ after each high flood event. Note: excavation is to river level and requires excavator and trucks in river bed.
	Behind reserve at 26 Brook St for a distance of 50m also a grit chamber at end of concrete channel.	Up to 500m ³ after each high flood event. Note: excavation is below river level and requires excavator and trucks in river bed
	Manuka Street ford for a distance of 20m above ford and 50m below the ford.	Up to 100m ³ after each high flood event. Note: excavation is below river level and requires excavator in river bed, downstream only
	Downstream of Nile St culvert there is a grit chamber plus a distance of 20m downstream	Up to 600m ³ after each high flood event. Note: excavation is below river level and requires excavator and trucks in river bed

River	Location	Activity
	At Brook Street / Maitai river confluence for a distance of 100m upstream of Dommet St bridge	Up to 500m ³ after each high flood event. Note: excavation is at river level and requires excavator in river bed
Wakapuaka River	Maori Pa Road bridge For a distance of 60m above bridge	As per Resource Consent 985158 and associated Environment Court ruling, up to 600m ³ after each high flood event. Note: excavation is below river level and requires excavator in river bed.
Poorman Stream	Open channel Up to 75m upstream of SH6 culvert and 20m downstream of SH6.	Up to 500m ³ after each high flood event. Note excavation is to river level and requires excavator in river bed.
Orphanage Creek	Detention pond above Main Rd Stoke culvert and for a distance of 100m above pond.	Up to 800m ³ every 2 years. Note: excavation is below river level and requires excavator in river bed.
Jenkins Stream	Two grit traps. (1) by SH6 at end of concrete culvert and (2) below the bridge over SH6	Catch pit structures, up to 400m ³ after each high flood event. Note: excavation is below river level and requires excavator in river bed.
	Upstream of Annesbrook Drive for a distance of 100m	Up to 200m ³ after each high flood event. Note: excavation is to river level.
Arapiki Stream	In ditch upstream of SH6 culvert for a distance of 50m	Up to 60m ³ after each high flood event. Note: excavation is to river level
All intake structures	Council stormwater reticulation system intake structures	Volumes and situations vary as required.

AP28.2 Flow regime for specific rivers

River	Reason for minimum flow	Minimum flow basis	Trigger flow basis	Allocation limit
Whangamoia River and tributaries Measured at: Upper reaches (Hippolite site): 027: 4966-0091 Lower reaches (Kokoroa): 027: 554-085	Very good water quality with high ecological values. Management objective: ecological values	Mean annual low flow	Mean annual low flow	10% of 1 in 5 year (7 day) mean low flow
Wakapuaka River - headwaters above Teal Confluence	Relatively good water quality. Some abstraction occurring with potential for future abstraction. Management objectives: - ecological values - downstream water supply	Mean annual low flow	Mean annual low flow	10% of 1 in 5 year (7 day) mean low flow
Wakapuaka River - main stem Measured at: Upper reaches (Hira): 027:431991 Lower reaches (Maori Pa Road): 027: 4539-0202	Relatively good water quality. Some abstraction occurring with potential for future abstraction. Management objectives: - enhancement (for ecological, public access and recreation values) - abstraction for irrigation	1 in 5 year (7 day) mean low flow	Mean annual low flow	20% of 1 in 5 year (7 day) mean low flow
Teal Measured at: Upper reaches (road end): 027: 435960 Lower reaches (Teal Lud intake): 027: 433971	Relatively high abstraction rates with potential for future abstraction. Good water quality with high ecological values. Management objectives: - ecological values - abstraction	1 in 5 year (7 day) mean low flow	Mean annual low flow	33% of 1 in 5 year (7 day) mean low flow
Lud Measured at: Upper reaches (Murdochs): 027: 420951 Lower reaches (Omahanui): 027: 4315-9869	Some existing abstraction with potential for future abstraction. Management objectives: - enhancement (for ecological and recreation values) - abstraction for irrigation	1 in 5 year (7 day) mean low flow	Mean annual low flow	33% of 1 in 5 year (7 day) mean low flow

River	Reason for minimum flow	Minimum flow basis	Trigger flow basis	Allocation limit
<p>Todds</p> <p>Measured at: Upper reaches: 027:386980 Lower reaches (SH6): 027:3780-9928</p>	<p>High level of existing abstraction and limited capacity for future abstraction.</p> <p>Management objectives:</p> <ul style="list-style-type: none"> - flood control - riparian enhancement (through ecologically sensitive channel works, fencing upstream in the side valleys of Little Todds and the Biggsburn Way area) - rationalisation of the abstraction permits 	<p>1 in 5 year (7 day) mean low flow</p>	<p>Mean annual low flow</p>	<p>33% of 1 in 5 year (7 day) mean low flow</p>
<p>Maitai - main stem</p> <p>Measured at: Upper reaches (Forks): 027: 407907 Lower reaches (Riverside): 027:3441-9264</p>	<p>Important freshwater resource which provides for a wide range of competing uses and values including ecological values, Tangata Whenua values, recreational values and domestic water supply for Nelson City.</p> <p>Management objectives:</p> <ul style="list-style-type: none"> - public water supply - enhancement (for ecological values) - recreational use 	<p>Upper reaches (Forks) minimum flow: From 1 November to 30 April (summer): 175 litres per second From 1 May to 31 October (winter):</p> <p>i) when the South Branch instantaneous flow exceeds 140 litres per second, the minimum instantaneous flow at the Forks shall be 300 litres per second, and</p> <p>ii) when the South Branch instantaneous flow is less than or equal to 140 litres per second, the minimum flow at the Forks shall be 225 litres per second. This minimum flow shall remain effective until the south branch mean daily flow exceeds 140 litres per second and the water level in the Maitai reservoir exceeds the level shown in figure 1 of the resource consent (RM025151), and</p> <p>iii) when the South Branch instantaneous flow is less than or equal to 130 litres per second, the minimum instantaneous flow at the forks shall be 190 litres per second.</p> <p>Minimum flow (lower reaches): 10% of mean annual low flow as measured at Riverside.</p> <p>Trigger flow There is no trigger flow for the Maitai.</p> <p>Allocation limit: No additional water permits will be approved to take water from the Maitai River.</p>		

River	Reason for minimum flow	Minimum flow basis	Trigger flow basis	Allocation limit
Hillwood - upper catchment Measured at: Unique Creek: 027: 409987	Some abstraction with potential for future abstraction. Management objectives: - water supply (domestic and irrigation for horticulture) - ecological values - enhancement of mid-stretch (of upper catchment) through revegetation	1 in 5 year (7 day) mean low flow	Mean annual low flow	33% of 1 in 5 year (7 day) mean low flow
Hillwood - lower catchment Measured at: Water supply intake: 027: 409987	Some abstraction with potential for future abstraction. Management objectives: - flood control - riparian enhancement - potential ecological values (with change in land use and wetland enhancement) - potential for irrigation if change in land use from dairy to cropping	1 in 5 year (7 day) mean low flow	Mean annual low flow	33% of 1 in 5 year (7 day) mean low flow
Poormans Valley Stream Measured at: Upper reaches (Barnicoat): 027: 3202-8644 Lower reaches (Seaview Road): N27:2940-8887	Some abstraction with potential for future abstraction. Relatively good water quality and in-stream values. Management objectives: - irrigation - ecological values, including threatened native fish species (giant kokopu) - recreational and amenity values - stock drinking water	For all of the stream above Seaview Road: Mean annual low flow Stream below Seaview Road: 1 in 5 year (7 day) mean low flow	Mean annual low flow	Upper reaches (Barnicoat): 10% of 1 in 5 year (7 day) mean low flow Lower reaches (Seaview Road): 33% of 1 in 5 year (7 day) mean low flow

River	Reason for minimum flow	Minimum flow basis	Trigger flow basis	Allocation limit
Saxton Creek Measured at: N27:273862	Some abstraction with potential for future abstraction. Management objectives: - irrigation - future amenity/recreation value - enhancement of ecological values(new freezing works, change of land use from horticulture to extension of Saxton Field)	1 in 5 year (7 day) mean low flow	Mean annual low flow	33% of 1 in 5 year (7 day) mean low flow
Oldham Creek Measured at: Upper reaches: 027: 372960 Lower reaches (Corder): 027: 3668-9668	Some abstraction with potential for future abstraction. Management objectives: - flood control - domestic water supply - amenity values - enhancement of ecological values	1 in 5 year (7 day) mean low flow	Mean annual low flow	33% of 1 in 5 year (7 day) mean low flow
Roding - main stem Measured at: Opposite caretakers house: 027: 318833	Important freshwater resource which provides for a wide range of competing uses and values including ecological values, Tangata Whenua values, recreational values and domestic water supply for Nelson City. Management objectives: - public water supply - enhancement (for ecological, amenity and recreation values)	Minimum flow: From 1 October 2001: 51 litres per second From 1 July 2008: 100 litres per second Trigger flow: There is no trigger flow for the Roding. Allocation limit: No additional water permits will be approved to take water from the Roding River.		
Default for unspecified rivers		Allocation limit: 10% of 1 in 5 year (7 day) mean low flow.		

In all cases, an advisory flow level will be set at 10% above the trigger flow to give ample warning to abstractors of upcoming restrictions.

AP28.3 Water allocation rules

AP28.3.i Water allocation - general rules

a) Water intake structures

The water intake structures of water takes in the Rural Zone shall be designed and constructed in a way that prevents fish entering the structures. Methods to achieve this include:

- i. a maximum water velocity into the structure that is no greater than 0.5l/s, and
- ii. screening the intake with mesh spacing that is no larger than 1.5mm in one dimension, and
- iii. locating the intake screen at least 0.5m into the water column.

b) Water meters

Water meters shall be installed and maintained on the outlet of the pump for all consented water abstractions in any zone.

Explanation:

All water takes which require resource consent will be metered. Water metering provides the only feasible and practical method of monitoring total abstraction from rivers. Without metering there is no practical way Council can accurately monitor abstraction from rivers and groundwater, or know how much water remains in the river or aquifer for either in-stream uses or for other abstraction. Metering may also provide useful information on hydraulic linkages between rivers, aquifers, wetlands and springs during droughts and high rainfall events.

c) Monitoring fee

A monitoring fee, as established through the annual fees and charges process managed by the Planning & Consents Division, shall be paid to the Council by all water permit holders for the purposes of monitoring water flows, levels and abstractions.

AP28.3.ii Basis and methods for water rationing

Water abstraction during periods of low flow will be restricted using the following criteria:

- a) all water takes must cease where any trigger flows in Appendix 28.2 are reached and where:
 - i) the take is not for domestic, stock water, or fire fighting purposes, and
 - ii) a water conservation plan has not been approved by the Council, and
- b) all water takes must cease, except for fire fighting purposes, when the minimum flow is reached, and
- c) water shortage directions will be issued as a last resort.

Rationing for all take, use, or abstraction of water which is not a permitted activity will be implemented on a catchment by catchment basis, as follows:

Flow	Basis for rationing/requirement	Methods of monitoring/advising affected parties	Methods of rationing
Trigger flow and above	No rationing	Website	N/a
Between minimum flow and trigger flow	<p>a) For permit holders with a Water Conservation Plan approved by the Council: surplus flow above the minimum flow, apportioned amongst users based on a % equal to the % of cumulative permitted allocation. e.g. if an abstractor holds 25% of the cumulatively allocated water, they may abstract 25% of the available flow above the minimum flow OR as set out in the Water Conservation Plan.</p> <p>b) For permit holders without an approved Water Conservation plan abstraction must cease.</p> <p>c) For domestic water abstractions, no watering of lawns or amenity plantings.</p>	<ul style="list-style-type: none"> - Notice in paper - Website 	<ul style="list-style-type: none"> - Flow restricters on pump outlets - Pumping roster - Water meter monitoring - Water user groups - Water shortage directions
Minimum flow and below	All takes other than for fire fighting purposes and stock drinking water must cease.	<ul style="list-style-type: none"> - Phone calls to affected persons - Website 	<ul style="list-style-type: none"> -Water shortage directions - Abstraction ceases
No minimum flow specified	% of residual flow being abstracted.		<ul style="list-style-type: none"> - Consent conditions - Flow restricters on pump outlets - Pumping roster - Water meter monitoring - Water user groups - Water shortage directions

AP28.3.iii Expiry and duration of water permits

a) In most cases, new water permits granted after 9 October 2004, and existing water permits without expiry dates, will expire as follows:

Catchment	Permit Expiry	Permit Duration
Whangamoia	30 June 2013	10 yrs
Wakapuaka	30 June 2013	10 yrs
Glenduan and Atawhai from Gentle Annie to Atawhai Drive	30 June 2014	10 yrs
Maitai	30 June 2017	20 yrs
Stoke Fan and York Stream	30 June 2014	10 yrs
Roding River	30 June 2017	20 yrs
Groundwater	30 June 2013	10 yrs

Exceptions to this rule will occur where a shorter term is necessary to monitor effects, or where a longer term is considered by the Council to be justified. The following assessment criteria will apply: efficiency of water use, use of good industry practice by the applicant, and the level of investment associated with the use of water.

b) Permits granted within 2 years of an expiry date shall expire on the second common expiry date after the permit is granted (e.g. where the expiry dates are 2010 and 2020, and an application is granted in 2009, the expiry date will be 2020), and the conditions of these existing consents will be reviewed to bring them into line with new consents issued in the same catchment.

Explanation:

A longer permit duration has been set for the Maitai and Roding catchments. This reflects the importance of the water permit for urban water supply, the extensive infrastructure involved, and the need for a greater level of certainty when planning for provision of a water supply for the City.

AP28.4 Classification of Nelson water bodies

River	Reach	Riparian margin management values (from Appendix 6)	Associated land uses and values	Water quality classification (2007)*	Priority for improvement
Roding River	City boundary to Conservation Zone boundary	Conservation Access	<ul style="list-style-type: none"> urban water supply native fisheries swimming amenity and recreation values iwi values 	B	Third
Saxton Creek	all	Conservation (aquatic habitat priority 3) Access Hazard mitigation	<ul style="list-style-type: none"> water storage dam (private) irrigation stock water stormwater drainage sensitivity of Waimea Inlet receiving environment 	E	Second
Orphanage Creek	Coast to Main Road Stoke	Hazard mitigation Access	<ul style="list-style-type: none"> future industrial use in the lower catchment (Nayland South) stormwater drainage lwi values native fisheries high value for amenity and recreation (Saxton Field and nearby residential area) sensitivity of Waimea Inlet receiving environment 	D	Second
	Saxton Road to Suffolk Road	Access Conservation Hazard mitigation			
	Suffolk Road to headwaters	Hazard mitigation Access			
Orchard Creek	Coast to Nayland Road	Access Hazard mitigation	<ul style="list-style-type: none"> stormwater drainage lwi values sensitivity of Waimea Inlet receiving environment high amenity and recreation values in residential area 	E	First
	Nayland Road to headwaters	Hazard mitigation Flood capacity			
Poorman Valley Stream	Seaview Road to Christian Academy	Access Conservation Hazard mitigation	<ul style="list-style-type: none"> Residential Zone stormwater drainage lwi values native fisheries high amenity and recreation values sensitivity of Waimea Inlet receiving environment 	E	First

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River	Reach	Riparian margin management values (from Appendix 6)	Associated land uses and values	Water quality classification (2007)*	Priority for improvement
	Christian Academy to Marsden Valley Reserve	Access Conservation Hazard mitigation	<ul style="list-style-type: none"> • rural/ unmodified • stormwater drainage • fords and structures • native fisheries - koura, eels, banded kokopu • domestic abstractions • watercress • trout fisheries • lwi values • amenity and recreation values • sensitivity of Waimea Inlet receiving environment 	C	Second (Maintain C quality or upgrade to B where practicable)
	Marsden Valley reserve to road head	Access			
Arapiki Stream	Jenkins Creek confluence to Quarantine Road second crossing	Conservation Hazard mitigation	lower reaches - industrial areas <ul style="list-style-type: none"> • stormwater drainage • native fisheries • amenity and recreation values • sensitivity of Waimea Inlet receiving environment 	E	First
	Quarantine Road to Ridgeway	Hazard mitigation			

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River	Reach	Riparian margin management values (from Appendix 6)	Associated land uses and values	Water quality classification (2007)*	Priority for improvement
Jenkins Creek	Confluence with Poorman Valley Stream to Quarantine Road	Access Conservation Hazard mitigation	lower reaches - industrial areas <ul style="list-style-type: none"> stormwater drainage native fisheries amenity and recreation values 	D	Second
	Quarantine Road to Annesbrook Drive	Conservation Access			
	Annesbrook Drive to Gracefield Street	Access Hazard mitigation	upper reaches - rural/unmodified <ul style="list-style-type: none"> stormwater drainage fords and structures native fisheries domestic abstractions amenity and recreation values 	D	
	Gracefield Street to Beatson Road	Hazard mitigation			
	Beatson Road to Newman Drive	Hazard mitigation			
	Newman Drive to Enner Glynn Road head (grid 027 323885)	Access Conservation Hazard mitigation			
York Stream	St Vincent Street/Totara Street corner to Waimea Road	Hazard mitigation	<ul style="list-style-type: none"> intractable upper catchment issues: quarry and two landfills (one private, one public) mid reaches - residential/commercial areas lower reaches - industrial (but these are culverted) <ul style="list-style-type: none"> stormwater drainage native fisheries 	D	Second
	York Dam to headwaters	Hazard mitigation			

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River	Reach	Riparian margin management values (from Appendix 6)	Associated land uses and values	Water quality classification (2007)*	Priority for improvement
Brook Stream	Maitai confluence to 328 Brook Street		Lower (measured at Manuka St ford) <ul style="list-style-type: none"> • stormwater drainage • recreation and aesthetics • lwi values • native fisheries 	D	First
			Mid (measured at Blick Tce) <ul style="list-style-type: none"> • swimming • stock water • trout spawning • limited trout fishing • watercress gathering • native fishery • stormwater discharges • lwi values • high recreation and amenity values 	C	
	328 Brook St to above Brook Motor Camp	Hazard mitigation Conservation Access	<ul style="list-style-type: none"> • native fishery • old reservoir • lwi values • high recreation and amenity values 	A	Second Maintain

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River	Reach	Riparian margin management values (from Appendix 6)	Associated land uses and values	Water quality classification (2007)*	Priority for improvement
Maitai River	The Haven to Jickells Bridge	Conservation Access Hazard mitigation	Lower (Riverside to seaward boundary) <ul style="list-style-type: none"> stormwater drainage swimming (health issue) trout, whitebait and eel fishing dog swimming kayaking whitebait spawning lwi values high amenity and recreational value walkway 	D	First
			Mid (from Riverside to Almond Tree Ford) <ul style="list-style-type: none"> stormwater drainage swimming (health issue) dog-swimming trout and eel fishing lwi values native fisheries high amenity and recreational value walkway 	C	First
	Jickells Bridge to Conservation Zone boundary	Conservation Access Hazard mitigation	Mid-Upper (from Almond Tree ford to Motor camp) <ul style="list-style-type: none"> swimming trout and eel fishing dog-swimming native fisheries trout fisheries walkway lwi values 	C	Third Maintain Upgrade to B where practicable

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River	Reach	Riparian margin management values (from Appendix 6)	Associated land uses and values	Water quality classification (2007)*	Priority for improvement	
Maitai River	Sharlands Creek/Maitai confluence to headwaters	Conservation Access Hazard mitigation	Upper (from Maitai camp and upstream - South branch) <ul style="list-style-type: none"> • native fisheries • urban water supply • trout and eel fishery • trout spawning • lwi values 	A (South Branch only)	Preserve	
	Groom Creek/Maitai confluence to Tantragee Saddle	Access Conservation		B (other reaches)		
Groom Creek			<ul style="list-style-type: none"> • native fisheries • lwi values • affects Maitai River quality for swimming (health issue) 	B	Second	
Sharlands Creek			<ul style="list-style-type: none"> • trout spawning and rearing • native fisheries • lwi values 	C	First Upgrade to B where practicable	
Oldham Creek	Corder Pond to Hodgson Place east boundary	Hazard mitigation Conservation	Lower <ul style="list-style-type: none"> • amenity and recreation value • lwi values • native fisheries • discharges into Nelson Haven (sensitive environment) 	D	Second	
	Strathaven Place branch from Naumai Street through Strathaven Place (both branches)	Hazard mitigation Conservation		Upper <ul style="list-style-type: none"> • amenity and recreation value • lwi values • native fisheries • discharges into Nelson Haven (sensitive environment) 		D
	Werneth Place to forest remnant (grid 027 375965)	Access				

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River	Reach	Riparian margin management values (from Appendix 6)	Associated land uses and values	Water quality classification (2007)*	Priority for improvement
Todds Valley Stream	Lower and Central Reaches	Hazard mitigation access conservation	Lower <ul style="list-style-type: none"> irrigation abstraction reservoir storage stock water channel upgrade and major in-stream works planned native fisheries lwi values discharge into Wakapuaka wetland (sensitive receiving environment) 	D	First
	Upper reaches	Hazard mitigation Conservation	Upper <ul style="list-style-type: none"> irrigation abstraction reservoir storage stock water channel upgrade and major in-stream works planned native fisheries lwi values 	C	Second
Hillwood Valley Stream			<ul style="list-style-type: none"> stock water native fisheries lwi values discharge into Wakapuaka wetland (sensitive receiving environment) 	D	Second
Waihi Creek			Lower reaches (north from Cable Bay walkway entrance) <ul style="list-style-type: none"> significant native fisheries domestic and stock abstraction lwi values 	D	Second

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River	Reach	Riparian margin management values (from Appendix 6)	Associated land uses and values	Water quality classification (2007)*	Priority for improvement
Wakapuaka River	Delaware Inlet to Hira township	Conservation Access Hazard mitigation	<ul style="list-style-type: none"> domestic supply stock water fishing - trout and whitebait (fisheries and spawning) native fisheries swimming irrigation gravel extraction (Maori Pa Road) Iwi values - particularly Delaware Inlet high amenity and recreation value 	C	Second
	Hira township to Ross Road turnoff	Conservation Access	<ul style="list-style-type: none"> domestic abstraction swimming trout spawning and rearing native fisheries Iwi values 	A	Second Maintain
	Ross Road turnoff to last Whangamoā layby	Conservation Access	<ul style="list-style-type: none"> domestic abstraction swimming trout spawning and rearing native fisheries Iwi values 	A	Third Maintain
Teal River	SH6 to Small Holdings Area boundary	Hazard mitigation Access Conservation	Lower <ul style="list-style-type: none"> domestic abstraction swimming (health issue) trout spawning and rearing native fisheries Iwi values 	C	Second
			Upper <ul style="list-style-type: none"> domestic abstraction swimming trout spawning and rearing native fisheries 	B	Third Maintain

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River	Reach	Riparian margin management values (from Appendix 6)	Associated land uses and values	Water quality classification (2007)*	Priority for improvement
Lud River	SH6 to Small Holdings Area boundary	Conservation Access Hazard mitigation	Lower <ul style="list-style-type: none"> domestic abstraction swimming trout spawning and rearing native fisheries lwi values 	C	First
			Upper <ul style="list-style-type: none"> domestic abstraction swimming trout spawning and rearing native fisheries lwi values 	C	First
Pitcher's Stream			<ul style="list-style-type: none"> native fishery lwi values 	A	Third Maintain
Whangamoia River	Whangamoia Main Stem inlet to Graham Stream confluence	Conservation Access	Lower <ul style="list-style-type: none"> native fisheries trout fishing drinking water vehicles crossings lwi values sensitive coastal receiving environment 	A	Third Maintain
			Mid <ul style="list-style-type: none"> native fisheries trout fishing drinking water vehicle crossings lwi values 	C	Third Upgrade to Class B where practicable
	Whangamoia Main Stem above Graham Stream		Upper <ul style="list-style-type: none"> native fisheries trout spawning drinking water vehicle crossings lwi values 	A	Third Maintain

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River	Reach	Riparian margin management values (from Appendix 6)	Associated land uses and values	Water quality classification (2007)*	Priority for improvement
Graham Stream	-	-	<ul style="list-style-type: none"> • native fisheries (unknown values) • trout spawning and fishing • drinking water • vehicle crossings • lwi values • sensitive coastal receiving environment 	A	Third Maintain
Collins River	-	-	<ul style="list-style-type: none"> • native fisheries • trout spawning and fishing • lwi values 	B	Third Maintain
Dencker Creek			<ul style="list-style-type: none"> • native fisheries • drinking water • vehicle crossings • lwi values 	A	Third Maintain

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AP28.5 Water quality standards - freshwater

Class A Excellent (high conservation / ecological value)	
General Characteristic	Water quality of this class markedly and uniformly exceeds the requirement for all or substantially all uses
Characteristic uses	Characteristic uses include but are not limited to the following: Spiritual and cultural Water supply (untreated domestic, industrial, irrigation, livestock). Human consumption of aquatic biota. Aquaculture Aquatic ecosystem (including migration) Wildlife habitat Recreation and Aesthetics (primary and secondary contact recreation, visual use, fishing, boating, aesthetic enjoyment)
Water Quality Criteria	
Waterborne Disease Risk	Faecal coliforms: at least 98% of samples contain no faecal coliforms or E. coli in 100ml. Viruses: no enteric viruses are detectable in 100l of sample. Protozoa (pathogenic e.g. Giardia and Cryptosporidium): not detectable in 100l of sample. Helminths (pathogenic): not detectable in 100l of sample
Toxic Algae	No toxic algae detectable in 100l of sample.
Dissolved Oxygen	Rivers and streams: median or mean dissolved oxygen measured under low flow conditions in daytime is within the range of 99 - 103% saturation. Lakes and reservoirs: dissolved oxygen is in the range of 90-110% saturation.
Turbidity	Turbidity (mean or median) in rivers and streams does not exceed 1.0 NTU.
Clarity	Clarity (median) - Rivers and streams (black disc) is not less than 6.0m. Lakes and reservoirs (secchi disc) is not less than 7m.
Colour	Colour - hue does not change by more than 5 points on the Munsell scale.
Temperature	Temperature in rivers and streams does not exceed a daily mean of 18°C or a daily maximum of 20°C due to human activities.
pH	pH is within the range of 7.2 and 9.0.
Periphyton (rivers and streams)	Maximum cover of diatoms and cyanobacteria: more than 0.3cm thick in gravel/cobble bed streams does not exceed 60% and filamentous algae more than 2cm long does not exceed 30% unless there have been no significant freshes (> 6x baseflow) for a period longer than 50 days.
Nutrients	Phosphorus and nitrogen. Rivers and streams: mean monthly concentrations of soluble inorganic phosphorus (SIP) and soluble inorganic nitrogen (SIN) measured under low flow conditions are less than 5 and 80ug/l respectively. Lakes and reservoirs: mean monthly concentrations of total phosphorus (TP) and total nitrogen (TN) are less than 5 and 80ug/l respectively.
Toxicants	Toxic, radioactive or deleterious material concentrations are below those which have the potential either singularly or cumulatively to adversely affect characteristic water uses, cause acute or chronic conditions to the most sensitive biota dependent upon these waters and bed sediments, or adversely affect public health, as determined by the 99% level of protection for toxicants in water (AP28.6.i in Appendix 28) and the ISQG-Low Trigger Value for toxicants in sediments (AP28.6.ii in Appendix 28.6)
Objectionable material	Waters are free from: floating debris, oil, grease and other objectionable material, excluding those of natural origin.
Aesthetic	Aesthetic values are not impaired by the presence of materials or their effects, excluding those of natural origin, which offend the senses of sight, smell, taste or touch.

Macroinvertebrates (rivers and streams)	Species richness of the predominant invertebrate assemblages in gravel/cobble bed rivers and streams, as measured by the macroinvertebrate community index (MCI), are not less than 120, and/or the semi-quantitative MCI (SQMCI) is not less than 6.00.
Aquatic habitat	Aquatic habitat, including riparian habitat, is not impaired by the activities of humans, either directly or indirectly.
Class B Very Good	
General Characteristic	Water quality of this class markedly and uniformly exceeds the requirement for all or substantially all uses
Characteristic uses	Characteristic uses include but are not limited to the following: Spiritual and cultural Water supply (treated domestic, industrial, irrigation, livestock). Human consumption of aquatic biota. Aquaculture Aquatic ecosystem (including migration) Wildlife habitat Recreation and Aesthetics (primary and secondary contact recreation, visual use, fishing, boating, aesthetic enjoyment)
Water Quality Criteria	
Waterborne Pathogens	E.coli.: running median (estimated monthly) of E.coli. is less than 126/100ml. Single sample is not more than 410 E. coli per 100ml. Faecal coliforms:(estimated monthly) no greater than 20% of samples will exceed 400/100ml. Median value does not exceed 100 FC/100ml
Toxic algae	No criteria.
Dissolved oxygen	Rivers and streams: median or mean dissolved oxygen measured under low flow conditions in daytime is within the range of 98 - 105% saturation. Lakes and reservoirs: dissolved oxygen is in the range of 90-110% saturation.
Turbidity	Turbidity (mean or median) in rivers and streams does not exceed 2.0 NTU
Clarity	Clarity (median) in rivers and streams (black disc) shall not be less than 4m. In lakes and reservoirs (secchi disc) clarity shall not be less than 5m.
Colour	Colour: hue does not change by more than 5 points on the Munsell scale.
Temperature	Temperature in rivers and streams: does not exceed a daily mean of 20 degrees C or a daily maximum of 24 degrees C due to human activities.
pH	pH is within the range of 7.2 and 9.0.
Periphyton (rivers and streams)	Maximum cover of diatoms and cyanobacteria: more than 0.3cm thick in gravel/cobble bed streams does not exceed 60%, and for filamentous algae more than 2cm long, cover does not exceed 30% unless there have been no significant freshes (more than 6x baseflow) for a period longer than 30 days.
Nutrients	Phosphorus and nitrogen. Rivers and streams: mean monthly concentrations of soluble inorganic phosphorus (SIP) and soluble inorganic nitrogen (SIN) measured under low flow conditions are less than 9 and 120ug/l respectively. Lakes and reservoirs: mean monthly concentrations of total phosphorus (TP) and total nitrogen (TN) are less than 9.0 and 160ug/l respectively.
Toxicants	Toxicants - toxic, radioactive or deleterious material concentrations shall be below those which have the potential either singularly or cumulatively to adversely affect characteristic water uses, cause acute or chronic conditions to the most sensitive biota dependent upon these waters and bed sediments, or adversely affect public health, as determined by the 95% level of protection for toxicants in water (AP28.6.i in Appendix 28) and the ISQG-Low Trigger Value for toxicants in sediments (AP28.6.ii in Appendix 28).
Objectionable material	Waters are free from: floating debris, oil, grease and other objectionable material, excluding those of natural origin.
Aesthetic	Aesthetic values are not impaired by the presence of materials or their effects, excluding those of natural origin, which offend the senses of sight, smell, taste or touch.
Macroinvertebrates (rivers and streams)	Species richness of the predominant invertebrate assemblages in gravel/cobble bed rivers and streams, as measured by the macroinvertebrate community index (MCI), are not less than 100, and/or the semi-quantitative MCI (SQMCI) is not less than 5.00.

Aquatic habitat	Aquatic habitat, including riparian habitat, is not impaired by human activities, either directly or indirectly.
Class C Moderate	
General Characteristic	Water quality of this class markedly and uniformly exceeds the requirement for most uses
Characteristic uses	Characteristic uses include but are not limited to the following: Water supply (industrial). Human consumption of aquatic biota. Aquaculture Aquatic ecosystem (including migration) Wildlife habitat Recreation and Aesthetics (secondary contact recreation, visual use, fishing, boating, aesthetic enjoyment)
Water Quality Criteria	
Waterborne Pathogens	E.coli. running median (estimated monthly): less than 500/100ml. Faecal coliforms (estimated monthly): no greater than 20% of samples exceed 400/100ml.
Toxic algae	No criteria.
Dissolved oxygen	Rivers and streams: minimum dissolved oxygen measured under low flow conditions over 24 consecutive hours is not less than 90% saturation. Lakes and reservoirs: dissolved oxygen is in the range of 90-110% saturation..
Turbidity	Turbidity (mean or median) in rivers and streams does not exceed 3.0 NTU.
Clarity	Clarity - Natural visual clarity not reduced by more than 33%. Or Clarity (median) - rivers and streams (black disc) shall not be less than 2.5m. Lakes and reservoirs (secchi disc) shall not be less than 4m.
Colour	Colour - hue is not changed by more than 10 points on the Munsell scale.
Temperature	Temperature in rivers and streams, does not exceed a daily mean of 22°C or a daily maximum of 27°C due to human activities.
pH	pH is within the range of 6.5 and 8.5.
Periphyton (rivers and streams)	Maximum cover of diatoms and cyanobacteria: more than 0.3cm thick in gravel/cobble bed streams does not exceed 60% cover and filamentous algae more 2cm long does not exceed 30% cover unless there have been no significant freshes (more than 6x baseflow) for a period longer than 20 days.
Nutrients	Phosphorus and nitrogen. Rivers and streams: mean monthly concentrations of soluble inorganic phosphorus (SIP) and soluble inorganic nitrogen (SIN) measured under low flow conditions are less than 26 and 295ug/l respectively. Lakes and reservoirs: mean monthly concentrations of total phosphorus (TP) and total nitrogen (TN) are less than 20 and 250ug/l respectively.
Toxicants	Toxicants - toxic, radioactive or deleterious material concentrations are below those which have the potential either singularly or cumulatively to adversely affect characteristic water uses, cause acute or chronic conditions to the most sensitive biota dependent upon these waters and bed sediments, or adversely affect public health, as determined by the 95% level of protection for toxicants in water (AP28.6.i in Appendix 28) and the ISQG-Low Trigger Value for toxicants in sediments (AP28.6.ii in Appendix 28).
Objectionable material	Waters are free from: floating debris, oil, grease and other objectionable material, excluding those of natural origin.
Aesthetic	Aesthetic values are not reduced by dissolved, suspended, floating, or submerged matter not attributed to natural causes, so as to affect water use or taint the flesh of edible species.
Macroinvertebrates (rivers and streams)	Species richness of the predominant invertebrate assemblages in gravel/cobble bed rivers and streams, as measured by the macroinvertebrate community index (MCI), are not less than 80, and/or the semi-quantitative MCI (SQMCI) is not less than 4.00.
Aquatic habitat	No criteria.

Class D Degraded	
General Characteristic	Water quality of this class meets or exceeds the requirements of selected and essential uses.
Characteristic uses	Characteristic uses includes but are not limited to the following: Water supply (industrial). Human consumption of aquatic biota Aquaculture Aquatic ecosystem (including migration) Wildlife habitat Recreation and Aesthetics (secondary contact recreation, visual use, fishing, boating, aesthetic enjoyment) Commerce
Water Quality Criteria	
Waterborne Pathogens	No criteria
Toxic algae	No criteria.
Dissolved oxygen	Rivers and streams: minimum dissolved oxygen measured under low flow conditions over 24 consecutive hours is not less than 80% saturation. Lakes and reservoirs; no measurable decrease from natural conditions.
Turbidity	Turbidity (mean or median) in rivers and streams does not exceed 5.0 NTU.
Clarity	Clarity: natural visual clarity is not reduced by more than 33%. Alternatively, clarity (median) of rivers and streams (black disc) is not less than 0.6m. Lakes and reservoirs (secchi disc) is not less than 3m.
Colour	Colour: hue is not changed by more than 10 points on the Munsell scale.
Temperature	Temperature in rivers and streams does not exceed a daily mean of 25°C or a daily maximum of 30°C due to human activities.
pH	pH is within the range of 6.5 and 9.0.
Periphyton	No criteria.
Nutrients	Phosphorus and nitrogen. Rivers and streams; mean monthly concentrations of soluble inorganic phosphorus (SIP) and soluble inorganic nitrogen (SIN) measured under low flow conditions should be less than 30 and 350ug/l respectively. Lakes and reservoirs: mean monthly concentrations of total phosphorus (TP) and total nitrogen (TN) are less than 20 and 337ug/l respectively.
Toxicants	Toxicants - toxic, radioactive or deleterious material concentrations are below those which have the potential either singularly or cumulatively to adversely affect characteristic water uses, cause acute or chronic conditions to the most sensitive biota dependent upon these waters and bed sediments, or adversely affect public health, as determined by the 90% level of protection for toxicants in water (AP28.6.i in Appendix 28) and the ISQG-Low Trigger Value for toxicants in sediments (AP28.6.ii in Appendix 28).
Objectionable material	Not applicable.
Aesthetic	Aesthetic values are not interfered with by the presence of obnoxious wastes, slimes, aquatic growths, or materials which taint the flesh of edible species.
Macroinvertebrates (rivers and streams)	No criteria.
Aquatic habitat	No criteria.

Class E Very Degraded	
General Characteristic	Water quality of this class meets or exceeds the requirements of selected and essential uses.
Characteristic uses	Characteristic uses include but are not limited to the following: Treated water supply (industrial).
Water Quality Criteria	
Waterborne Pathogens	No criteria.
Toxic algae	No criteria.
Dissolved oxygen	No criteria.
Colour	No criteria.
Temperature	No criteria.
pH	No criteria.
Periphyton	No criteria.
Nutrients	No criteria.
Toxicants	No criteria.
Objectionable material	No criteria.
Aesthetic	No criteria.
Aquatic habitat	No criteria.

AP28.6 Surface water and sediment quality standards for toxicants - freshwater

AP28.6.i Surface Water Quality Criteria for Toxicants: Recommended trigger values for toxicants for different classes of water bodies (derived from ANZECC 2000). These are chronic or long term toxicity criteria (>4 days exposure) which are designed to be met at the edge of a mixing zone.

Chemical	Trigger values for surface freshwater (μgL^{-1})			
	Level of protection			
	Class A	Class B	Class C	Class D
METALS & METALLOIDS				
Aluminium pH >6.5	27	55	80	150
Arsenic (As III)	1	24	94 C	360 C
Arsenic (AsV)	0.8	13	42	140 C
Boron	90	370 C	680 C	1300 C
Cadmium H	0.06	0.2	0.4	0.8 C
Chromium (CrVI)	0.01	1.0 C	6.0 A	40 A
Copper H	1	1.4	1.8 C	2.5 C
Lead H	1	3.4	5.6	9.4 C
Manganese	1200	1900C	2500C	3600C
Mercury (inorganic) B	0.06	0.6	1.9 C	5.4 A
Nickel H	8	11	13	17 C
Selenium (Total) B	5	11	18	34
Silver	0.02	0.05	0.1	0.2 C
Zinc H	2.4	8.0 C	15 C	31 C
NON-METALLIC INORGANICS				
Ammonia D	320	900 C	1430 C	2300 A
Chlorine E	0.4	3	6.0 A	13 A
Cyanide F	4	7	11	18
Nitrate J	17	700	3400 C	17000 A
Hydrogen sulfide G	0.5	1	1.5	2.6
ORGANIC ALCOHOLS				
Ethanol	400	1400	2400 C	4000 C
CHLORINATED ALKANES				
Chloroethanes				
1,1,2-trichloroethane	5400	6500	7300	8400
Hexachloroethane B	290	360	420	500
ANILINES				
Aniline	8	250 A	1100 A	4800 A
2,4-dichloroaniline	0.6	7	20	60 C
3,4-dichloroaniline	1.3	3	6 C	13 C
AROMATIC HYDROCARBONS				
Benzene	600	950	1300	2000
o-xylene	200	350	470	640
p-xylene	140	200	250	340
Polycyclic Aromatic Hydrocarbons				
Naphthalene	2.5	16	37	85
Nitrobenzenes				
Nitrobenzene	230	550	820	1300
Nitrotoluenes				
2,4-dinitrotoluene	16	65 C	130 C	250 C
2,4,6-trinitrotoluene	100	140	160	210
Chlorobenzenes and Chloronaphthalenes				
1,2-dichlorobenzene	120	160	200	270
1,3-dichlorobenzene	60	260	350	520C

Chemical	Class A	Class B	Class C	Class C
1,4-dichlorobenzene	40	60	75	100
1,2,3-trichlorobenzene B	3	10	16	30 C
1,2,4-trichlorobenzene B	85	170C	220C	300C
Polychlorinated Biphenyls (PCBs) & Dioxins				
Aroclor 1242 B	0.3	0.6	1	1.7
Aroclor 1254 B	0.01	0.03	0.07	0.2
PHENOLS and XYLENOLS				
Phenol	85	320	600	1200 C
2-chlorophenol T	340 C	490 C	630 C	870 C
4-chlorophenol T	160	220	280 C	360 C
2,4-dichlorophenol T	120	160 C	200 C	270 C
2,4,6-trichlorophenol T,B	3	20	40	95
2,3,4,6- tetrachlorophenol T,B	10	20	25	30
Pentachlorophenol T,B	3.6	10	17	27 A
Nitrophenols				
2,4-dinitrophenol	13	45	80	140
PHTHALATES				
Dimethylphthalate	3000	3700	4300	5100
Diethylphthalate	900	1000	1100	1300
Dibutylphthalate B	9.9	26	40.2	64.6
MISCELLANEOUS INDUSTRIAL CHEMICALS				
Poly(acrylonitrile-co-butadiene-costyrene)	200	530	800 C	1200 C
ORGANOCHLORINE PESTICIDES				
Chlordane B	0.03	0.08	0.14	0.27 C
DDT B	0.006	0.01	0.02	0.04
Endosulfan B	0.03	0.2 A	0.6 A	1.8 A
Endrin B	0.01	0.02	0.04 C	0.06 A
Heptachlor B	0.01	0.09	0.25	0.7 A
Lindane	0.07	0.2	0.4	1.0 A
Toxaphene B	0.1	0.2	0.3	0.5
ORGANOPHOSPHORUS PESTICIDES				
Azinphos methyl	0.01	0.02	0.05	0.11 A
Chlorpyrifos B	0.00004	0.01	0.11 A	1.2 A
Diazinon	0.00003	0.01	0.2 A	2.0 A
Dimethoate	0.1	0.15	0.2	0.3
Fenitrothion	0.1	0.2	0.3	0.4
Malathion	0.002	0.05	0.2	1.1 A
Parathion	0.0007	0.004 C	0.01 C	0.04 A
CARBAMATE & OTHER PESTICIDES				
Carbofuran	0.06	1.2 A	4.0 A	15 A
Methomyl	0.5	3.5	9.5	23
PYRETHROIDS				
Esfenvalerate	ID	0.001*	ID	ID
HERBICIDES & FUNGICIDES				
Bypyridilium herbicides				
Diquat	0.01	1.4	10	80 A
Phenoxyacetic acid herbicides				
2,4-D	140	280	450	830
2,4,5-T	3	36	100	290 A
Thiocarbamate herbicides				
Molinate	0.1	3.4	14	57
Thiobencarb	1	2.8	4.6	8 C
Thiram	0.01	0.2	0.8 C	3.0 A
Triazine herbicides				
Atrazine	0.7	13	45 C	150 C
Simazine	0.2	3.2	11	35

Chemical	Class A	Class B	Class C	Class D
Urea herbicides				
Tebuthiuron	0.02	2.2	20	160 C
Miscellaneous herbicides				
Glyphosate	370	1200	2000	3600 A
Trifluralin B	2.6	4.4	6	9.0 A
GENERIC GROUPS OF CHEMICALS				
Surfactants				
Linear alkylbenzene sulfonates (LAS)	65	280	520 C	1000 C
Alcohol ethoxylated sulfate (AES)	340	650	850 C	1100 C
Alcohol ethoxylated surfactants (AE)	50	140	220	360 C

Notes: Refer to Table 3.4.1 in ANZECC (2000) and sections referred to below for guidance on application of these criteria.

* High reliability figure for esfenvalerate derived from mesocosm NOEC data (no alternative protection levels available).

A = Figure may not protect key test species from acute toxicity (and chronic) – check Section 8.3.7 for spread of data and its significance. ‘A’ indicates that trigger value > acute toxicity figure; note that trigger value should be <1/3 of acute figure (Section 8.3.4.4).

B = Chemicals for which possible bioaccumulation and secondary poisoning effects should be considered (see Sections 8.3.3.4 and 8.3.5.7).

C = Figure may not protect key test species from chronic toxicity (this refers to experimental chronic figures or geometric mean for species) – check Section 8.3.7 for spread of data and its significance. Where grey shading and ‘C’ coincide, refer to text in Section 8.3.7.

D = Ammonia as TOTAL ammonia as [NH₃-N] at pH 8. For changes in trigger value with pH refer to Section 8.3.7.2.

E = Chlorine as total chlorine, as [Cl]; see Section 8.3.7.2.

F = Cyanide as un-ionised HCN, measured as [CN]; see Section 8.3.7.2.

G = Sulfide as un-ionised H₂S, measured as [S]; see Section 8.3.7.2.

H = Chemicals for which algorithms have been provided in table 3.4.3 to account for the effects of hardness. The values have been calculated using a hardness of 30 mg/L CaCO₃. These should be adjusted to the site-specific hardness (see Section 3.4.3).

J = Figures protect against toxicity and do not relate to eutrophication issues. Refer to Section 3.3 if eutrophication is the issue of concern.

ID = Insufficient data to derive a reliable trigger value. Users advised to check if a low reliability value or an ECL is given in Section 8.3.7.

T = Tainting or flavour impairment of fish flesh may possibly occur at concentrations below the trigger value. See Sections 4.4.5.3/3 and 8.3.7.

AP28.6.ii

Sediment quality criteria^a (for all waterbody classes)

Contaminant	ISQG Low (Trigger value)	(ISQG-High)
METALS (mg/kg dry wt)		
Antimony	2	25
Cadmium	1.5	10
Chromium	80	370
Copper	65	270
Lead	50	220
Mercury	0.15	1
Nickel	21	52
Silver	1	3.7
Zinc	200	410
METALLOIDS (mg/kg dry wt)		
Arsenic	20	70
ORGANOMETALLICS		
Tributyltin (ug Sn/kg dry wt.)	5	70
ORGANICS (ug/kg dry wt)^b		
Acenaphthene	16	500
Acenaphthalene	44	640
Anthracene	85	1100
Fluorene	19	540
Naphthalene	160	2100
Phenanthrene	240	1500
Low Molecular Weight PAHs ^c	552	3160
Benzo(a)anthracene	261	1600
Benzo(a)pyrene	430	1600
Dibenzo(a,h)anthracene	63	260
Chrysene	384	2800
Fluoranthene	600	5100
Pyrene	665	2600
High Molecular Weight PAHs ^c	1700	9600
Total PAHs	4000	45000
Total DDT	1.6	46
p,p'-DDE	2.2	27
o,p'- + p,p'-DDD	2	20
Chlordane	0.5	6
Dieldrin	0.02	8
Endrin	0.02	8
Lindane	0.32	1
Total PCBs	23	-

a Primarily adapted from Long et al. (1995);

b Normalised to 1% organic carbon;

c Low molecular weight PAHs are the sum of concentrations of acenaphthene, acenaphthalene, anthracene, fluorene, 2-methylnaphthalene, naphthalene and phenanthrene; high molecular weight PAHs are the sum of concentrations of benzo(a)anthracene, benzo(a)pyrene, chrysene, dibenzo(a,h)anthracene, fluoranthene and pyrene.

AP28.7 Reasonable mixing zone

AP28.7.i The following apply for permitted, controlled and discretionary activities:

For all discharges excluding stormwater, in determining the size of the zone of reasonable mixing, the following conditions will apply:

a) the maximum size of the mixing zone, singularly or cumulatively in combination with other mixing zones, shall be the most restrictive combination of the following:

- the mixing zone does not extend in a downstream direction from the discharge point(s) for a distance greater than 100m plus the depth of water at the discharge point(s), or extend upstream for a distance of more than 30m, or
- the mixing zone does not utilise more than 25% of the flow, or
- the mixing zone does not occupy more than 25% of the width of the water body.

b) all known, available and reasonable methods of prevention, control and treatment have been applied, and

c) water quality standards as set out in Appendix 28.5 are not exceeded outside of the boundary of the proposed mixing zone as a result of the discharge, and

d) the size of a mixing zone and the concentrations of pollutants present are minimised, and

e) there is no lethal toxicity to biota exposed to the diluted effluent within the mixing zone for periods less than or equal to 1 hour (i.e. they are unlikely to die if moving through the mixing zone).

AP28.7.ii For all stormwater discharges to a watercourse, or sedimentation associated with bed disturbance, the point of reasonable mixing will be considered to be that point which is 30 times the receiving water channel's width at the point of discharge downstream of the discharge.

AP28.8 Obsolete structures - rules

AP28.8.i Removal of obsolete structures in the beds of rivers and lakes:

Rule

Obsolete structures must be removed unless:

- a) they are identified as having heritage or cultural values by a suitably qualified and experienced person approved by the Council, and
- b) retaining the structure meets the following criteria:
 - i. fish passage is not obstructed or is provided for, and
 - ii. gravel movement is not restricted, and
 - iii. flood capacity is not compromised, and
 - iv. there are no significant adverse effects on aquatic life.

Retention of obsolete instream structures that contravene the above conditions is non-complying.

Explanation

Obsolete structures are any structures which are not required for their original use, or which have not been used as intended for a continuous period of two years or more, and for which no future use is anticipated. Liability for removal of the structure lies with the last known person, agency, or entity with legal responsibility for the maintenance or upkeep of the structure.

The following district wide policies are relevant to this rule:

DO17.1.8 (obsolete structures in the beds of rivers and lakes)

DO17.2.1 (activities and structures in the beds of rivers and lakes which affect network utility operations)

The following rule is also relevant: FWr.7 (removal of obsolete structures in the beds of rivers and lakes).

AP28.9 Freshwater Rules for All Zones (except Coastal Marine Area)

Contents of freshwater rule table

Freshwater rules	
FWr.1	Disturbance of river and lake beds, and wetlands
FWr.2	Vehicle crossings in the beds of rivers and lakes, and wetlands
FWr.3	Planting in riverbeds and margins, and in wetlands
FWr.4	Maintenance, replacement, upgrade and removal of structures in the beds of rivers and lakes and their margins (excluding dams)
FWr.5	Bridges, culverts and fords
FWr.6	Instream dams
FWr.7	Removal of obsolete structures in the beds of rivers and lakes
FWr.8	Aggregate extraction in the beds of rivers and lakes
FWr.9	Deposition of material in the beds and banks of rivers and lakes, and in wetlands
FWr.10	Realignment and reclamation of beds of rivers and lakes, and wetlands
FWr.11	Activities on the surface of water bodies
FWr.12	Take, use, and diversion of surface water
FWr.13	Temporary diversion of surface water
FWr.14	Take, use, and diversion of groundwater
FWr.15	Take, use, or abstraction of water from ponds, reservoirs or dams
FWr.16	Transfer of water permits
FWr.17	Drilling of a bore or well
FWr.18	Investigative drill holes
FWr.19	Abandonment or decommissioning of a bore or well
FWr.20	Point source discharges to freshwater bodies (other than stormwater)
FWr.21	Discharges from the public sewerage system to freshwater bodies
FWr.22	Point source stormwater discharges to water
FWr.23	Discharge of agrichemicals in and near waterbodies
FWr.24	Fertiliser discharges to land where it may enter water
FWr.25	General discharges to land where it may enter water
FWr.26	Stock fences
FWr.27	Stock access and crossings
FWr.28	Discharges of stock effluent onto or into land
FWr.29	Establishment of, and discharges to, effluent disposal fields

freshwater rules

Item	Permitted	Controlled	Discretionary/Non-complying
<p>FWr.1 Disturbance of river and lake beds, and wetlands</p> <p>[note that this rule is a regional rule]</p>	<p>FWr.1.1</p> <p>a) The disturbance of beds associated with:</p> <ul style="list-style-type: none"> i) the removal of vegetation and flood debris which has been deposited into or on the bed, including trees, or ii) the removal of pest plants and litter <p>is permitted.</p> <p>b) The disturbance of the beds of rivers and lakes, and wetlands, for the purpose of:</p> <ul style="list-style-type: none"> - restoration or enhancement of natural in-stream or out-of-stream values, including fish passage, or - cleaning of discharge outlets and energy dissipaters, or - the use of vehicles in river beds (does not apply to vehicle crossings – see rule FWr.2) associated with lawfully established activities <p>is permitted if the following general conditions are met.</p> <p>General conditions</p> <ul style="list-style-type: none"> i) the activity: <ul style="list-style-type: none"> - shall not affect sediment levels or vegetation in all lower tidal reaches of waterbodies during the main spawning period of inanga (15 March to 31 May), and - shall not be carried out between 1 April and 15 August in all water bodies upstream of the tidal reach (which extends for a length 5 times the width of the river mouth) for the protection of koaro and kokopu species spawning habitat, unless ambient levels of sediment are returned within 48 hours of construction commencing within the waterbody, and - shall not be carried out during the trout spawning period (1 May to 30 September) in the Maitai, Brook, Whangamoia, Wakapuaka, Lud and Teal rivers and Poorman Stream, and ii) there shall be no storage, mixing or refuelling of fuel, oil, paints, agrichemicals or other similar substances within the bed or within 5m of the banks of any flowing river, or any wetland, and iii) any activity associated with bed disturbance shall not, after reasonable mixing, give rise to any of the following effects in the receiving waters: <ul style="list-style-type: none"> - the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials, or - any conspicuous change of colour or visual clarity, or - any emission of objectionable odour, or - any significant adverse effects on aquatic life, and iv) the use of vehicles and machinery in the wetted bed shall be avoided where possible, and v) fish passage shall be maintained, both during construction and afterwards, and vi) any riparian areas which are disturbed are rehabilitated to the same state or better than that which existed prior to the disturbance, except for the direct approaches to the crossing, and vii) the bed disturbance activity shall not impede legal right to foot access to and along the waterbody, where it exists, unless public notice has been given in accordance with a health and safety plan. 	<p>FWr.1.2</p> <p>1. The disturbance of the bed of a river for the purpose of maintaining:</p> <ul style="list-style-type: none"> a) peak flow capacity, or b) surrounding land stability, or c) public safety <p>is a controlled activity if:</p> <ul style="list-style-type: none"> i) the general conditions in Rule FWr.1.1 are met, and ii) any plantings are of native species or exotic species suitable to the conditions, and iii) any rocks used look similar to those naturally occurring in the area, and iv) the work is undertaken in such a way that habitats are maintained in the beds and margins of rivers and lakes. <p>2. Control is reserved over the following matters:</p> <ul style="list-style-type: none"> i) disturbance to riverbanks, and ii) the timing and duration of the activity, and iii) the method of undertaking the activity, and iv) the avoidance, remedying, or mitigation of adverse effects and any alternative options which would result in less adverse effects, and v) maintenance of existing structures including bridges within streams and roads adjacent to water bodies (margins). <p>The application need not be notified, the written approval of affected parties will not be necessary and notice of applications need not be served on any person.</p>	<p>FWr.1.3</p> <p>Discretionary</p> <p>Activities that are not specified as permitted or controlled (including pipes and cables for network utilities), or which contravene the conditions for permitted or controlled activities, are discretionary.</p> <p>Non-complying</p> <p>Activities that disturb the bed of any wetland, other than as provided for as a permitted activity, are non-complying.</p>

Assessment Criteria	Explanation
<p>FWr.1.4</p> <p>a) effects on existing natural character.</p> <p>b) degree to which natural character is retained or enhanced.</p> <p>c) the degree to which the activity affects the existing classification and values of the waterbody (refer to Appendix 28.4 and Appendix 6). Where insufficient information is available, and for unspecified rivers, an Assessment of Environmental Effects, containing sufficient information to allow an adequate evaluation of the effects of the activity will have to be supplied when an application is made for a discretionary activity.</p> <p>d) the potential to avoid, remedy or mitigate any effects through planting/landscaping.</p> <p>e) any cumulative effects.</p> <p>f) any effects of the activity on network utilities.</p> <p>g) in the case of wetlands, whether it is naturally occurring or artificially created. If it was artificially created, the purpose for which it was created (eg stormwater management or wastewater treatment).</p> <p>h) any taonga in the waterbody, as advised by Iwi.</p>	<p>FWr.1.5</p> <p>Activities and vehicles which disturb river and lake beds and wetlands have direct adverse effects on the area in which they are undertaken, which may be important invertebrate habitat or spawning grounds for native fish or trout. In addition, they can have adverse effects downstream, such as loss of water quality, sedimentation, and potential for contamination through oil and fuel spills. For these reasons, activities which disturb river and lake beds should be avoided, including driving vehicles along them.</p> <p>However there will be occasions when activities do need to occur within the bed, such as routine maintenance of structures, or where there are no alternative crossing places for vehicles. It is appropriate to make some allowance for these situations, subject to certain conditions being met to avoid and mitigate adverse effects.</p> <p>Note: Iwi, Department of Conservation, and Fish & Game Council have an interest in bed disturbance and consultation with these parties at an early stage of the consent process is good practice. However, this is at the discretion of the applicant and the Council because section 36A of the Resource Management Act clarifies that neither an applicant nor a consent authority has a duty to consult any person in respect of applications for resource consent.</p> <p>The following policies are relevant to this rule:</p> <p>DO17.1.1 (disturbance of river and lake beds, and wetlands)</p> <p>DO17.1.2 (protection of natural character)</p> <p>DO17.2.1 (activities and structures in the beds of rivers and lakes which affect network utility operations)</p> <p>Activities adjoining a Riparian Overlay are also regulated by the 'Riparian Overlay – activities on land identified with riparian values' rule in each zone.</p>

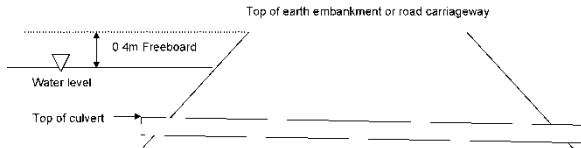
Item	Permitted	Controlled	Discretionary/Non-complying
<p>FWr.2</p> <p>Vehicle crossings in the beds of rivers and lakes, and wetlands [note that this rule is a regional rule]</p>	<p>FWr.2.1</p> <p>Direct vehicle access to a river bed for the purpose of crossing a river is permitted if</p> <p>a) the activity does not, after reasonable mixing (as defined in Ap28.7.ii), give rise to any of the following effects in the receiving waters:</p> <p>i) any conspicuous change of colour or visual clarity (more than 30%), measured above and below the crossing, or</p> <p>ii) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials, or</p> <p>iii) any significant adverse effects on aquatic life, and</p> <p>b) the activity does not result in a worse water quality classification than that listed in Appendix 28.4.</p>	<p>FWr.2.2</p> <p>not applicable</p>	<p>FWr.2.3</p> <p>a) Vehicles driving along the beds of rivers and lakes, and in wetlands, and</p> <p>b) all other vehicle crossings which do not comply with the permitted activity rule, are discretionary.</p> <p>The application may be considered without the need to:</p> <p>i) be notified, or</p> <p>ii) gain written approval of affected parties, but notice of applications may be served on any person.</p>
<p>FWr.3</p> <p>Planting in river beds and margins, and in wetlands [note that this rule is a regional rule]</p> <p>Advisory Note: Notwithstanding any other rules in this plan, all plantation forestry activities must comply with the National Environmental Standards for Plantation Forestry Regulations 2018.</p>	<p>FWr.3.1</p> <p>a) The planting or replacement of indigenous and exotic plants, (excluding pest plants), is permitted if:</p> <p>i) <i>Salix fragilis</i> (Crack Willow), <i>Salix cinera</i> (Grey Willow) and <i>Salix viminalis</i> (Osier willow) is not planted within 5m of a waterbody, and</p> <p>ii) there are no adverse effects on existing network utilities, and</p> <p>iii) no vegetation is established that is likely to give rise to debris entering the river or lake in a way that may result in:</p> <ul style="list-style-type: none"> - diversion or damming, or - bed or bank erosion, or - adverse effects on ecosystems that are more than minor. <p>b) The planting of suitable indigenous vegetation in wetlands, and the planting of exotic plants in constructed wetlands, is permitted.</p>	<p>FWr.3.2</p> <p>not applicable</p>	<p>FWr.3.3</p> <p>Discretionary activities</p> <p>a) The planting in, on or under the bed of any river or lake, and</p> <p>b) the planting of vegetation that contravenes the permitted activity standards and which is not specified as non-complying or prohibited, is discretionary.</p> <p>Non-complying activities</p> <p>The planting of exotic plants in natural wetlands is non-complying.</p> <p>Prohibited</p> <p>a) The planting of <i>Salix fragilis</i> (Crack Willow), <i>Salix cinera</i> (Grey Willow) and <i>Salix viminalis</i> (Osier Willow) within 5m of a waterbody, and</p> <p>b) the introduction or planting of any of the total control, progressive control, boundary control and regional surveillance pests identified in the operative Tasman-Nelson Regional Pest Management Strategy is prohibited.</p>

Assessment Criteria	Explanation
<p>FWr.2.4</p> <ul style="list-style-type: none"> a) frequency of crossings. b) number of vehicles. c) duration of the activity. d) timing of the activity. e) type of vehicle. f) location and layout of the crossing point. g) cumulative effects of the number of crossing points over a river. h) purpose for the crossing. i) the degree to which the activity affects the classification and values of the waterbody (see Appendix 28.4 and Appendix 6). Where insufficient information is available, and for unspecified rivers, a site assessment will have to be supplied when an application is made for a discretionary activity. 	<p>FWr.2.5</p> <p>Vehicles can have adverse effects on the area where the crossing occurs. Crossing can also have adverse effects downstream, such as loss of water quality, sedimentation, and potential for contamination through oil and fuel spills.</p> <p>Recreational driving along the length of river beds is not a permitted activity because of the impacts on invertebrate habitat and fish spawning grounds.</p> <p>The following policy is relevant to this rule: DO17.1.1 (disturbance of river and lake beds, and wetlands)</p>
<p>FWr.3.4</p> <p>For planting in margins</p> <ul style="list-style-type: none"> a) the degree to which the activity affects the classification and values of the waterbody (see Appendix 28.4 and Appendix 6). b) any effects of the activity on network utilities. <p>For planting in riverbeds/wetlands</p> <ul style="list-style-type: none"> a) whether it will provide spawning habitat. b) invasive properties of the plants. c) potential to interfere with flow capacity. d) in the case of wetlands, whether it is naturally occurring or artificially created. If it was artificially created, the purpose for which it was created (eg stormwater management or wastewater treatment). <p>Advisory Note: Notwithstanding any other rules in this plan, all plantation forestry activities must comply with the National Environmental Standards for Plantation Forestry Regulations 2018.</p>	<p>FWr.3.5</p> <p>Planting in riparian margins is to be encouraged because planted waterway margins protect water quality by: filtering surface run off, taking up nutrients (through plant roots), removing nitrogen (through bacteria in wet riparian soils), and preventing stock access when they are fenced.</p> <p>The shade created by plants is important for reducing water temperature and reducing the growth of nuisance plants in waterways. Plants also provide shelter, food and spawning areas. In most cases the planting of native species is preferred in order to enrich Nelson's natural ecosystems of plants and animals.</p> <p>Planting in the beds of rivers should be avoided in most cases because introducing plants into river beds has the potential to reduce the flood carrying capacity and natural functioning of the water body, by impeding water flow. However, plantings at river mouths can enhance whitebait spawning habitat, and plants naturally occur in, and enhance, wetlands.</p> <p>The following district wide policies are relevant to this rule: DO17.1.4 (planting in the beds of rivers and lakes) DO17.1.5 (planting in riparian margins) DO17.2.1 (activities and structures in the beds of rivers and lakes which affect network utility operations)</p>

Item	Permitted	Controlled	Discretionary/Non-complying
<p>FWr.4 Maintenance, replacement, upgrade and removal of structures in the beds of rivers and lakes and their margins (excluding dams)</p> <p>[note that this rule is a regional rule]</p>	<p>FWr.4.1</p> <p>a) Maintenance or replacement of any lawfully established structure (and associated deposition and armouring) on, under, over or in the bed of a river or lake, and</p> <p>b) removal, demolition, or decommissioning of a structure or any part of a structure on, under, over or in the bed, of a river or lake, and</p> <p>c) the upgrade of any network utility higher than 5m over or above the bed of a river or lake</p> <p>is permitted if:</p> <p>i) the general conditions in Rule FWr. 1.1 are met, and</p> <p>ii) the site is rehabilitated, and</p> <p>iii) any plantings are of native species, or exotic species suitable to the conditions, and</p> <p>iv) and rocks look similar to those naturally occurring in the area, and</p> <p>v) the work is undertaken in such a way that habitats are maintained in the beds and margins of rivers and lakes.</p>	<p>FWr.4.2</p> <p>The extension or upgrade of a utility service line or a utility structure on, under, in, or within 5m horizontally or vertically of the bed of a river or lake is controlled.</p> <p>Control is reserved over the following matters:</p> <p>i) damage to indigenous vegetation and habitats, and</p> <p>ii) discharge of contaminants, and</p> <p>iii) disturbance of riverbanks or river beds, and</p> <p>iv) timing of the works (to avoid fish spawning and migration periods), and</p> <p>v) the size of the structures required for extension work, and</p> <p>vi) maintenance of access, and</p> <p>vii) remedial measures.</p>	<p>FWr.4.3</p> <p>a) Maintenance, replacement, upgrade and removal of structures on, under, over or in the bed of a river or lake which is not specified as permitted or controlled, or</p> <p>b) which cannot meet the conditions for a permitted activity, is discretionary.</p>

Assessment Criteria	Explanation
<p>FWr.4.4</p> <ul style="list-style-type: none"> a) effects on water quality. b) effects on aquatic ecosystems. c) the degree to which the activity affects the existing classification and values of the waterbody (refer to Appendix 28.4 and Appendix 6). Where insufficient information is available, and for unspecified rivers, a site assessment will have to be supplied when an application is made for a discretionary activity. d) disturbance of the bed. e) the method and timing of works f) duration of consent. g) monitoring and reporting requirements. h) review of consent conditions and the timing and purpose of the review. i) any effects of the activity on network utilities. j) flood capacity. k) any effects on historic heritage including an archaeological site or a site where archaeological or cultural material is discovered. 	<p>FWr.4.5</p> <p>Structures located in and under the beds of rivers and lakes can cause adverse effects. These range from visual intrusion on natural character and amenity values, to permanent effects on ecology and biota by restricting fish passage upstream of the structure or affecting water flow and the natural functioning of a river.</p> <p>For these reasons, instream structures should generally not be a permitted activity so the Council has the opportunity to assess potential effects, and to require appropriate measures to be undertaken to avoid or reduce adverse effects. Where the effects are significant and cannot be adequately avoided or reduced, the structure should not be erected.</p> <p>The following district wide policies are relevant to this rule:</p> <p>DO17.1.3 (flood damage)</p> <p>DO17.1.6 (structures in and under the beds of rivers, lakes and wetlands)</p> <p>DO17.2.1 (activities and structures in the beds of rivers and lakes which affect network utility operations)</p> <p>Activities adjoining a Riparian Overlay are also regulated by the 'Riparian Overlay – activities on land identified with riparian values' rule in each zone.</p>

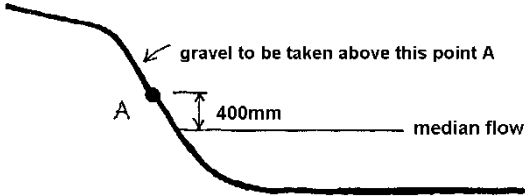
Item	Permitted	Controlled	Discretionary/Non-complying
FWr.5 Bridges, culverts and fords [note that this rule is a regional rule]	FWr.5.1 a) The placement or erection of a bridge over the bed of a river or lake is a permitted activity if: i) any abutments are stabilised and protected against erosion, and ii) the approaches to the bridge are constructed and maintained to minimise the discharge or runoff, and iii) the bridge and its associated design structures is designed to convey a 1:50 year flood event (and 0.4m freeboard) in the following rivers: Reservoir Creek, Saxton Creek, Orphanage Creek, Orchard Creek, Poormans Valley Stream, Arapiki Stream, Jenkins Creek, York Stream, Maitai River, The Brook Stream, Oldham Creek, Todds Valley Stream, Wakapuaka River and its named tributaries and Whangamo River and its named tributaries, and in any other rivers, the bridge and its associated design structures is designed to convey a 1:15 year flood event (with 0.4m freeboard). b) An existing culvert or ford which was lawfully established prior to the freshwater plan change being made operative is a permitted activity if the structure does not adversely affect: i) fish passage, or ii) water quality, or iii) flood capacity. c) Placement or erection of a new culvert is a permitted activity [in the rural zone] if: i) the catchment area above the culvert does not exceed 50ha in a forested catchment or 10ha in other rural catchments, and ii) the culvert is not associated with a residential development, and iii) the downstream floor of the culvert is set below the river bed level, and iv) the culvert is no greater than 20m in length and v) the general conditions in FWr.1.1 are met, and vi) detail of the site and culvert dimensions is forwarded to the Council within one month of construction, and vii) the culvert and its associated design structures is designed to convey a 1:50 year flood event (with 0.4m freeboard) in the following rivers: Reservoir Creek, Saxton Creek, Orphanage Creel, Orchard Creek, Poormans Valley Creek, Arapiki Stream, Jenkins Creek, York Stream, Maitai River, The Brook Stream, Oldham Creek, Todds Valley Stream, Wakapuaka River and its named tributaries and Whangamo River and its named tributaries, and in any other rivers, the bridge and its associated design structures is designed to convey a 1:15 year flood event (with 0.4m freeboard).	FWr.5.2 a) The placement or erection of a new culvert, and associated armouring, is controlled if: i) the general conditions in Rule FWr.1.1 (excluding controls on aggregate extraction) are met, and ii) the culvert is positioned so that the gradient and alignment are the same as the river, and iii) the downstream floor of the culvert is set below the river bed level, and iv) erosion immediately below the culvert is avoided by use of armouring materials such as rocks, and v) the culvert is maintained so it does not become blocked by debris, and vi) the culvert and its associated design structures is designed to convey a 1:50 year flood event (and 0.4m freeboard) in the following rivers: Reservoir Creek, Saxton Creek, Orphanage Creek, Orchard Creek, Poormans Valley Stream, Arapiki Stream, Jenkins Creek, York Stream, Maitai River, The Brook Stream, Oldham Creek, Todds Valley Stream, Wakapuaka River and its named tributaries and Whangamo River and its named tributaries, and in any other rivers, the culvert and its associated design structures is designed to convey a 1:15 year flood event (with 0.4m freeboard). b) Installation of a new ford is controlled if: i) the general conditions in Rule FWr.1.1 are met, and ii) the ford will raise the level of the bed by no more than 300mm, and iii) the ford does not impede fish passage. Control is reserved over the following matters: i) damage to indigenous vegetation and habitats, and ii) disturbance of river banks and river beds, and iii) adverse effects on fish passage, and iv) flood capacity. In this rule applications for controlled activities may be considered without notification and without the need to obtain written approval of affected persons, under section 94 of the Act.	FWr.5.3 Discretionary a) A bridge, culvert or ford which cannot meet the conditions for a permitted activity, and b) a culvert or ford which cannot meet the conditions for a controlled activity is a discretionary activity. In this rule applications for discretionary activities may be considered without notification and without the need to obtain written approval of affected persons, under section 94 of the Act.

Assessment Criteria	Explanation
<p>FWr.5.4</p> <ul style="list-style-type: none"> a) effects on water quality. b) effects on aquatic ecosystems. c) the degree to which the activity affects the existing classification and values of the waterbody (refer to Appendix 28.4 and Appendix 6). Where insufficient information is available, and for unspecified rivers, a site assessment will be required as part of the Assessment of Environmental Effects for discretionary activities. d) disturbance of the bed. e) the method and timing of works. f) duration of consent. g) monitoring and reporting requirements. h) review of consent conditions and the timing and purpose of the review. i) any effects of the activity on network utilities. j) flood capacity. k) payment of a monitoring charge to allow for an inspection of the structure. l) agreement that any required maintenance is carried out by the owner of the structure. m) commitment to remove the structure if it becomes obsolete or if the consent for it expires and is not renewed. n) legal access issues 	<p>FWr.5.5</p> <p>When structures such as bridges and culverts are well designed they can mitigate environmental effects on a river by avoiding vehicle and stock disturbance of the river bed, and providing shade. However, it is important that in the case of the Wakapuaka and Whangamoa rivers and their tributaries, that a 1 in 50 year flood can pass through them, and in the case of other rural streams and drains that structures are designed to allow a 1 in 15 year high flow to pass through them, and that a natural river bed remains.</p> <p>The advantage of bridges over culverts is that bridges, unlike culverts, do not have an artificial base which tends to change flow dynamics and impede fish passage. Generally, fords and culverts result in the discharge of sediment, change streambed gradients, are not conducive to fish passage, and require a higher level of maintenance than bridges.</p> <p>The following district wide policies are relevant to this rule: DO17.1.3 (flood damage) DO17.1.6 (structures in and under the beds of rivers, lakes and wetlands) DO17.2.1 (activities and structures in the beds of rivers and lakes which affect network utility operations)</p> <p>As outlined in the figure below, in relation to culvert installations “freeboard” refers to the distance between the top of earth embankment or road carriageway (at the lowest point where water will overtop the structure) and the water surface at the design flow (Q15 or Q50) measured immediately upstream of the embankment. For clarity, the water surface may in fact be above the top of the culvert (pipe soffit) at the design flow.</p> <p>Figure FWr.5.5</p>
	

Item	Permitted	Controlled	Discretionary/Non-complying
<p>FWr.6 Instream dams</p> <p>[note that this rule is a regional rule]</p>	<p>FWr.6.1 Not applicable.</p>	<p>FWr.6.2 Not applicable</p>	<p>FWr.6.3</p> <p>Discretionary</p> <p>a) An instream dam (of any height) on the Roding River or Maitai rivers, for the purpose of reticulated urban water supply, is a discretionary activity.</p> <p>b) An instream dam is discretionary if:</p> <p>i) it is 2m or less in height (measured from base to crest), and</p> <p>ii) it is not located on the Whangamoia, Wakapuaka or Teal Rivers</p> <p>Non-complying</p> <p>An instream dam is non-complying if:</p> <p>i) it exceeds 2m in height (measured from base to crest), or</p> <p>ii) it is located on the Whangamoia, Wakapuaka or Teal rivers, or</p> <p>iii) it is located on the Roding, or Maitai rivers and is not for the purpose of a reticulated urban water supply.</p>
<p>FWr.7 Removal of obsolete structures in the beds of rivers and lakes</p> <p>[note that this rule is a regional rule]</p>	<p>FWr.7.1 Removal of instream obsolete structures is permitted if the general conditions for bed disturbance in Rule FWr.1.1 are met.</p>	<p>FWr.7.2 The removal of instream structures is a controlled activity if it does not comply with the general conditions for bed disturbance in Rule FWr.1.1</p> <p>Control is reserved over the following matters:</p> <p>i) rehabilitation of the site, and</p> <p>ii) disturbance to riverbanks, and</p> <p>iii) the timing and duration of the activity, and</p> <p>iv) the method of undertaking the activity, and</p> <p>v) the avoidance, remedying, or mitigation of adverse effects</p>	<p>FWr.7.3 Not applicable.</p>

Assessment Criteria	Explanation
<p>FWR.6.4</p> <ul style="list-style-type: none"> a) safety considerations b) the size and scale of the structure c) effects on water quality and water flow regimes d) effects on aquatic ecosystems, including fish passage and residual flow. e) mitigation measures, such as riparian planting and refuge areas during low flow. f) the degree to which the activity affects the existing classification and values of the waterbody (refer to Appendix 28.4 and Appendix 6). Where insufficient information is available, and for unspecified rivers, an Assessment of Effects, containing sufficient information to allow an adequate evaluation of the effects of the activity, will have to be supplied when an application is made for a discretionary activity. g) disturbance of the bed. h) the method and timing of works. i) duration of consent. j) monitoring and reporting requirements. k) review of consent conditions and the timing and purpose of the review. l) any effects of the activity on network utilities. m) flood capacity. n) commitment to remove the structure if it becomes obsolete or the consent for it expires and is not renewed. 	<p>FWR.6.5</p> <p>A dam on the Roding River is listed as discretionary rather than as a non-complying activity to acknowledge that there is an existing designation on the land adjacent to the Roding River for water supply purposes in the Conservation Zone and water supply purposes and works in the Rural Zone.</p> <p>The reason for dams on some rivers being listed as a non-complying activity is that a more rigorous consent process is considered necessary for construction of dams where rivers have high ecological values.</p> <p>Dams less than two metres are generally less likely to have adverse effects than larger dams.</p> <p>The effects of dams depend on what fish are in a river, but generally out-of-bed dams are more acceptable than those in river beds.</p> <p>While dams and reservoirs have the potential to improve the efficient use of water (through water harvesting), as physical structures they also have the potential to: affect fish passage, disturb water quality (during construction), affect water chemistry (such as oxygen levels), trap sediment and starve the downstream reaches of sediment, and cause a safety hazard if not engineered to specific standards.</p>
<p>FWR.7.4</p> <ul style="list-style-type: none"> a) the nature of any fill or rock material used. b) the time of year the work is proposed c) recreational, stock, drinking water, and fisheries or instream values of the water body d) effects on water quality. e) effects on aquatic ecosystems. f) the degree to which the activity affects the existing classification and values of the waterbody (see Appendix 28.4 and Appendix 6). Where insufficient information is available, and for unspecified rivers, a site assessment will have to be supplied when an application is made for a discretionary activity. g) disturbance of the bed. h) the method and timing of works. i) notification of affected parties. j) any effects of the activity on network utilities 	<p>FWR.7.5</p> <p>Obsolete structures are any structures which are not required for their original use, or which have not been used as intended for a continuous period of two years or more, and for which no future use is anticipated. Liability for removal of the structure lies with the last known person, agency, or entity with legal responsibility for the maintenance or upkeep of the structure.</p> <p>The following district wide policies are relevant to this rule:</p> <p>DO17.1.8 (obsolete structures in the beds of rivers and lakes)</p> <p>DO17.2.1 (activities and structures in the beds of rivers and lakes which affect network utility operations)</p> <p>The following appendix is relevant to this rule:</p> <p>Appendix 28.8.i (Obsolete structures – rules)</p>

Item	Permitted	Controlled	Discretionary/Non-complying
FWr.8 Aggregate extraction [note that this rule is a regional rule]	FWr.8.1 Extraction of aggregate by Nelson City Council from the sites listed in Appendix 28.1 for the purposes of maintaining the flood carrying capacity of the listed rivers is permitted if: a) the general conditions in Rule FWr.1.1 are met, and b) the schedule of the next year's planned aggregate extraction out of Nelson rivers is not inconsistent with the schedule in Appendix 28.1, and c) the Consents Manager, Department of Conservation, Fish & Game Council and Iwi are advised of the amount and the area from which the aggregate is taken at least 5 working days prior to the work being carried out, and d) associated river bed disturbance is avoided where possible, and e) there is no increase in bed sediment downstream, and f) the activity does not exceed the quantities specified in Appendix 28.1.	FWr.8.2 not applicable	FWr.8.3 Restricted discretionary Extraction of aggregate from river beds is a restricted discretionary activity if: a) the general conditions in Rule FWr.1.1 are met, and b) the total volume of excavation or extraction does not exceed 20m ³ in any 12 month period, and c) no aggregate is taken from below a point 400mm above the median water level of the river (see diagram in FWr.8.5), and d) no machinery is operated within the wetted bed. Discretion is restricted to: i) the volume of aggregate that can be taken, and ii) the location at which extraction is to occur, and iii) the duration of the extraction, and iv) the timing of the extraction, and v) the method of extraction, and vi) the avoidance, remediation or mitigation of any adverse effects. In this rule applications for restricted discretionary activities need not be notified in terms of section 93(1) of the RMA. Discretionary Extraction of aggregate which cannot: i) meet the conditions for a permitted activity, or ii) meet the conditions a), b) and d) for a restricted discretionary activity is a discretionary activity. Non-complying Extraction of aggregate which does not meet condition c) for a restricted discretionary activity is a non-complying activity.

Assessment Criteria	Explanation
<p>FWr.8.4</p> <ul style="list-style-type: none"> a) disturbance of the bed. b) the location and volume of the extraction. c) effects on river morphology and dynamics (including erosion and deposition), aquatic ecosystems and habitat. d) the method and timing of the extraction. e) the cumulative volume that has been extracted from the river and cumulative effects. f) any effects of the activity on network utilities. g) potential effects on downstream flooding. 	<p>FWr.8.5</p> <p>Over-extraction can destabilise the river channel and banks, or affect the functioning of the river. The extraction process can also affect aquatic habitat if undertaken at the wrong time or in the wrong place, or in a way which damages the bed and margins.</p> <p>However, aggregate extraction is necessary on a regular basis to avoid the risk of flooding in the urban area. These areas in urban streams where extraction is regularly required have been scheduled and accorded permitted status provided the general conditions regarding timing and bed disturbance are strictly complied with.</p> <p>Note: clearance of gravel around structures is a permitted activity. Refer to rule FWr.4 and the definition of maintenance in Chapter 2 for more detail.</p> <p>The following diagram clarifies condition c) of the restricted discretionary category:</p>  <p>The following district wide policies are relevant to this rule:</p> <p>DO17.1.9 (extraction of aggregate from the beds of rivers)</p> <p>DO17.2.1 (activities and structures in the beds of rivers and lakes which affect network utility operations)</p>

Item	Permitted	Controlled	Discretionary/Non-complying
<p>FWR.9 Deposition of material in the beds and on the banks of rivers and lakes, and in wetlands</p> <p>[note that this rule is a regional rule]</p>	<p>FWR.9.1</p> <p>a) The placement or deposition of rock and associated geotextile fabric or other suitable material in, or directly above or below an out of stream structure, for the purpose of protecting that structure, is permitted if:</p> <ul style="list-style-type: none"> i) the general conditions in Rule FWR.1.1 are met, and ii) any rocks used look similar to those naturally occurring in the area, and iii) the rocks are clean and free of contaminants including sediment, and iv) whenever possible work is undertaken in such a way that habitats are maintained (in both the margin and river bed), and v) there is no increase in bed sediment downstream of any crossing or protection works, and iv) no more than 30 lineal metres per 100 metre stretch of waterway is rock lined. <p>b) The deposition of material in the beds and banks of rivers, lakes and wetlands for the purpose of habitat enhancement is permitted if:</p> <ul style="list-style-type: none"> i) the general conditions in Rule FWR.1.1 are met, and ii) any rocks used look similar to those naturally occurring in the area, and i) the rocks are clean and free of contaminants including sediment. <p>a) Deposition of forestry slash is a permitted activity if best practicable option is taken to avoid slash entering a river, and any slash deposited in the bed of a river does not:</p> <ul style="list-style-type: none"> - cause flooding or blockages of any downstream structure, or - adversely affect water quality, or - adversely affect aquatic habitats 	<p>FWR.9.2 not applicable</p>	<p>FWR.9.3</p> <p>Restricted discretionary</p> <p>The placement or deposition of rock and associated geotextile fabric or other suitable material for the purposes of erosion protection, flood control or river enhancement is restricted discretionary activity if:</p> <ul style="list-style-type: none"> i) the general conditions in rule FWR.1.1 are met, and ii) rocks look similar to those naturally occurring in the area, and iii) rocks are clean and free of contaminants including sediment, and iv) wherever possible work is undertaken in such a way that habitats are maintained (in both the margin and river bed), and v) associated river bed disturbance is avoided where possible, and vi) there is no increase in bed sediment downstream of any crossing or protection works, and vii) there is no reduction in the ability of the river to accommodate flood flows, or in a lake or wetland to store flood volumes. <p>Non-complying</p> <p>The placement or deposition of any other material is non-complying if:</p> <ul style="list-style-type: none"> i) it is not specified as a discretionary or prohibited activity, or ii) the activity is specified as discretionary and it contravenes a specified condition. <p>Prohibited</p> <p>The placement or deposition of any waste or toxic or radioactive material.</p>

Assessment Criteria	Explanation
<p>FWr.9.4</p> <p>a) effects on water quality.</p> <p>b) effects on aquatic ecosystems.</p> <p>c) the degree to which the activity affects the existing classification and values of the waterbody (refer to Appendix 28.4 and Appendix 6). Where insufficient information is available, and for unspecified rivers, a site assessment will have to be supplied when an application is made for a discretionary activity.</p> <p>d) visual effects</p> <p>e) any effects of the activity on network utilities.</p> <p>f) in the case of wetlands, whether it is naturally occurring or artificially created. If it was artificially created, the purpose for which it was created (eg stormwater management or wastewater treatment).</p>	<p>FWr.9.5</p> <p>Materials or substances deposited in the bed of a river change the biological or chemical condition of the river or stream bed or, more commonly, its physical condition. Adverse effects can include: visual and amenity effects, changes to the water channel, bank and bed de-stabilisation, loss of riparian margin or bank habitat, and cumulative effects in the receiving environment. However, rocks can also be placed in a way that enhances fish habitat by providing areas to rest and hide.</p> <p>Flooding and bank erosion are only an issue when assets are threatened. With only a few exceptions, buildings in rural Nelson have been set far enough back from the rivers not to be threatened within the life time of the buildings. By far the most effective method of mitigating bank erosion is to keep high value assets a sufficient distance back from the river bank.</p> <p>In contrast, structures and private property boundaries in Nelson's urban area have been built close to rivers. For this reason, it is necessary to provide for a higher level of erosion control.</p> <p>The following district wide policies are relevant to this rule:</p> <p>DO17.1.10 (deposition of material in the beds and on the banks of rivers and lakes)</p> <p>DO17.2.1(activities and structures in the beds of rivers and lakes which affect network utility operations)</p>

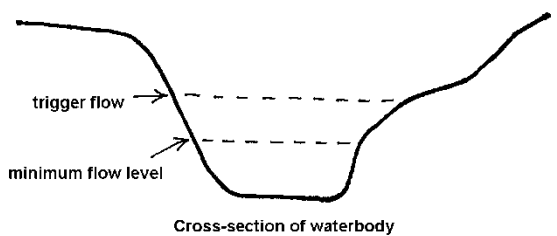
Item	Permitted	Controlled	Discretionary/Non-complying
FWr.10 Realignment and piping of beds of rivers and lakes, and wetlands [note that this rule is a regional rule]	FWr.10.1 The realignment or piping of the bed of a river which does not have a continuous base flow is permitted if: i) it is necessary to avoid flooding risk to downstream properties, and ii) there are no practicable alternative flood control methods available, and iii) it is not undertaken as part of any subdivision or land use consent approved after 9 October 2004, and iv) it is carried out when there is no water in the bed, and v) the flood capacity requirements in table 5-2, section 5 of the NCC Land Development Manual 2010, and vi) the channel is stabilised prior to allowing water back into a realigned channel, and vii) natural character is maintained where practicable.	FWr.10.2 Not applicable	FWr.10.3 Discretionary a) The realignment or piping of the bed of a river is discretionary if: i) the river does not have a continuous base flow and the activity does not comply with the conditions in FWr.10.1, or ii) the river has a continuous base flow. b) The realignment or piping of the bed of a lake, or a wetland, is discretionary if it does not comply with the conditions in FWr.10.1 and the general conditions in FWr.1.1 are met.

Assessment Criteria	Explanation
<p>FWr.10.4</p> <p>a) the scale, extent and design (curved rather than straight) of the realignment or piping.</p> <p>b) effects on the natural functioning of aquatic ecosystems</p> <p>c) effects on natural character</p> <p>d) effects on fish passage</p> <p>e) the degree to which the activity affects the existing classification and values of the waterbody (refer to Appendix 28.4 and Appendix 6). Where insufficient information is available, and for unspecified rivers, a site assessment will have to be supplied when an application is made for a discretionary activity.</p> <p>f) visual effects</p> <p>g) effects on water quality</p> <p>h) the potential to avoid, remedy or mitigate any effects through planting/landscaping and rehabilitation.</p> <p>i) the method and timing of works</p> <p>j) any effects of the activity on network utilities</p> <p>k) flood capacity and cumulative effects on downstream flow velocity and catchment hydrology</p> <p>l) in the case of wetlands, whether it is naturally occurring or artificially created. If it was artificially created, the purpose for which it was created (eg stormwater management or wastewater treatment).</p>	<p>FWr.10.5</p> <p>Realignment and piping of the beds of rivers and lakes, and wetlands, should be discouraged wherever possible as it has significant adverse effects on the natural and human use values of rivers, lakes, and wetlands, and can exacerbate flooding hazards.</p> <p>Retaining streams in their natural condition and place is the best option. Realigned streams may be a better option than piped streams. Careful management of the re-installation of the stream after subdivision and/or earthworks is necessary.</p> <p>In most cases it is more desirable to realign than to pipe a river, but in some situations piping may result in better outcomes. For example, in built up areas, piping of intermittently flowing streams, with few ecological values, is sometimes preferable in order to avoid damage to downstream properties.</p> <p>The following district wide policies are relevant to this rule:</p> <p>DO17.1.2 (protection of natural character)</p> <p>DO17.1.3 (flood damage)</p> <p>DO17.1.11 (realignment and piping)</p> <p>DO19.1.10 (new development)</p>

Item	Permitted	Controlled	Discretionary/Non-complying
FWr.11 Activities on the surface of water bodies [note that this rule is a regional rule]	FWr.11.1 a) Maintenance activities on the surface of sewer ponds, water reservoirs, and other ponds is permitted. b) Any activity on the surface of a water body which is not listed as controlled or discretionary is permitted.	FWr.11.2 Non-motorised commercial activities on the surface of a water body is controlled. Control is reserved over the following matters: a) number of craft or structures, and b) scale of activity, and c) time and location of activity, and d) effects on visual amenity, and e) effects on the ecology and habitat of species.	FWr.11.3 The use of motorised water craft on the surface of any river or lake on the landward side of the coastal marine area is discretionary.

Assessment Criteria	Explanation
FWr.11.4 a) the scale of the activity. b) any visual or noise effects. c) safety considerations. d) the effect of the proposal on non-commercial recreational activities.	FWr.11.5 While personal recreation activities such as kayaking have no adverse effects, commercial and motorised activities could adversely affect the amenity and natural values of surface waters.

Item	Permitted	Controlled	Discretionary/Non-complying
<p>FWr.12 Take, use, or diversion of surface water</p> <p>[note that this rule is a regional rule]</p>	<p>FWr.12.1</p> <p>a) The take, use, or diversion of surface water for reasonable domestic use is permitted if:</p> <p>i) the relevant conditions in Appendix 28.3 are met, and</p> <p>ii) the volume of the take does not exceed 1m³ per residential unit per day (plus 300 litres per bedroom for short term living accommodation) and there are no adverse effects on the water source, and</p> <p>iii) the rate of take does not exceed 0.5 litres per second, and</p> <p>iv) there is no take below any minimum flow specified in Appendix 28.2, and</p> <p>v) the Council's reticulated water supply is not available to the site.</p> <p>b) The take or use of surface water for stock drinking water is permitted if the rate of take does not exceed 0.5 litres per second.</p> <p>c) The take or use of surface water for fire fighting or the filling of fire ponds is permitted.</p>	<p>FWr.12.2 not applicable</p>	<p>FWr.12.3</p> <p>Restricted Discretionary Activity</p> <p>Any take, use or diversion of surface water that contravenes a permitted condition is a restricted discretionary activity if:</p> <p>i) the relevant conditions in Appendix 28.3 are met, and</p> <p>ii) the take or use does not exceed, individually or cumulatively, the allocation limits specified in Appendix 28.2, and</p> <p>iii) the diversion does not cause any river to drop below the minimum flow specified in Appendix 28.2, and</p> <p>iv) the distance between intake and return of the water does not exceed 500 metres, and</p> <p>v) the diversion of water is not from one waterbody to another.</p> <p>Discretion restricted to:</p> <p>i) the design and location of the intake structure, and</p> <p>ii) access to pipework for maintenance, and</p> <p>iii) the volume and rate of take</p> <p>iv) reliability of supply</p> <p>v) effects on water source and values (as identified in Appendix 28.4), and</p> <p>vi) effects on other lawfully established abstractions, and</p> <p>vii) the quality of the water returned to a river by a diversion.</p> <p>In this rule applications for restricted discretionary activities will be considered without notification, the written approval of affected persons will not be necessary, and notice of the application need not be served on any person, provided it can be shown that the building can be located in such a way as to ensure that access to the drain or pipe for maintenance or replacement purposes, can be achieved without causing adverse financial or physical effect on neighbouring properties or persons who are served by the same pipe or drain.</p> <p>Discretionary</p> <p>a) The take or use of surface water, for uses other than those listed as permitted, and</p> <p>b) any activity specified as restricted discretionary which contravenes the restricted discretionary conditions, is discretionary.</p> <p>Non-complying</p> <p>a) A take or use of surface water which exceeds the allocation limits specified in Appendix 28.2, and</p> <p>b) a take or use below any specified minimum flow regime, except for permitted uses, and</p> <p>c) a take, use, or diversion of water from wetlands or drainage of naturally occurring wetlands, is non-complying.</p> <p>Prohibited</p> <p>All takes downstream from the NCC urban water supply intakes in the Maitai River and in the downstream reach of the Roding River within the NCC boundary, which did not exist prior to 9 October 2004 are prohibited.</p>

Assessment Criteria	Explanation
<p>FW12.4</p> <p>a) the volume of the water take</p> <p>b) measures to minimise the rate of take, and the practicality of the take being uniformly distributed over 24 hours.</p> <p>c) the effect on river flows and the consequential effects on those values identified in Appendix 28.4 and Appendix 6 (riparian and coastal margin overlays).</p> <p>d) the effect of the take on other water users.</p> <p>e) the appropriateness of the water measuring device to be used</p> <p>f) Appendix 28.3</p> <p>g) alternative water sources</p> <p>h) physical resources relating to a previous water permit provided water is needed and is being used efficiently.</p> <p>i) the distance between the intake and the outlet of any diversion, and the intermediate flow of the water body.</p> <p>j) the effect of the term of the permit.</p> <p>k) the extent to which the change would adversely affect safeguarding the life-supporting capacity of fresh water and of any associated ecosystem.</p> <p>l) the extent to which it is feasible and dependable that any adverse effect on the life supporting capacity of fresh water and of any associated ecosystem resulting from the change would be avoided.</p>	<p>FWr.12.5</p> <p>As water is scarce and there are existing or potential competing demands for its use, it is necessary to impose a limit on permitted domestic abstractions in order to avoid over-abstraction. One cubic metre per household per day is considered a realistic and easily monitored limit to apply to each household. Failure to comply with the permitted activity conditions may result in the Council requiring the installation of meters and enforcement of the 1m³ allocation limit.</p> <p>Abstractions need to be balanced against the ecological bottom line and providing for other values. Efficient water use is particularly important in Nelson, where the small size of the rivers and streams means that a water take has the potential for a proportionally more significant effect on the overall river or stream values.</p> <p>Minimum flows, trigger flows and allocation limits have been set for specific rivers.</p> <p>Minimum flows, below which no further water should be taken, have been set in order to leave enough water in the rivers and streams to protect instream values.</p> <p>Trigger flows are set at 10% above minimum flow. When flow levels drop to this level, all non-essential water takes from that river will be suspended, except where an approved water conservation plan exists.</p>  <p>Note: This diagram is for illustrative purposes only. Trigger flow and minimum flow are defined in Chapter 2, and the specific levels for each water body are listed in Appendix 28.2.</p> <p>i) For all flows greater than trigger flow no restrictions will apply</p> <p>ii) For all flows less than the trigger flow and greater than the minimum flow restrictions will apply to both domestic takes and consented takes.</p> <p>iii) For all flows equal to or less than the minimum flows, all abstractions must cease except for fire fighting purposes.</p> <p>The following policies set out the process to be followed for water abstraction from surface water:</p> <p>DO18.1.1 and DO18.1.2 (flow regimes)</p> <p>DO18.3.1 (water permits)</p> <p>DO18.3.2 (monitoring water abstraction)</p> <p>DO18.3.3 (expiry and duration of water permits)</p> <p>DO18.3.5 – DO18.3.8 (allocation limits)</p> <p>DO18.3.9 (water restrictions)</p> <p>DO18.3.10 (permitted abstractions)</p> <p>DO18.3.12 (monitoring fee)</p> <p>DO18.4.1 (diversion of water)</p> <p>Note: Assessment criteria FW12.4 k) and l) have been inserted from Policy B7 - National Policy Statement for Freshwater Management 2014 (under section 55 RMA)</p>

Item	Permitted	Controlled	Discretionary/Non-complying
FWr.13 Temporary diversion of surface water [note that this rule is a regional rule]	FWr.13.1 Temporary diversion of water during works carried out in a stream is a permitted activity if: i) the quality of the diverted water returned to the water body is at least as high as the water when it was abstracted, and ii) the flow, and fish passage, is maintained at all times, and iii) the diversion does not continue for more than one month, and iv) the length of the diversion is no longer than 50m, and v) the diversion: - does not affect sediment levels or vegetation in the lower tidal reaches of water bodies during the main spawning period of inanga (15 March to 31 May), and - is not carried out between 1 April and 15 August in all water bodies upstream of the tidal reach (which extends for a length 5 times the width of the river mouth) for the protection of kokaro and kokopu species spawning habitat, and - is not carried out during the trout spawning period (1 May to 30 September) in the Maitai, Brook, Whangamoa, Lud, Teal rivers and Poorman Stream.	FWr.13.2 not applicable	FWr.13.3 Temporary diversion of water that contravenes a permitted condition is discretionary.

Assessment Criteria	Explanation
<p data-bbox="161 197 245 224">FWr.13.4</p> <ul style="list-style-type: none"> <li data-bbox="161 226 786 300">a) the effect on river flows and the consequential effects on those values identified in Appendix 28.4 and Appendix 6 (riparian and coastal margin overlays). <li data-bbox="161 302 786 353">b) the distance between the intake and the outlet of any diversion, and the intermediate flow of the water body. <li data-bbox="161 356 544 383">c) any effects of the diversion on water users. 	<p data-bbox="842 197 927 224">FWr.13.5</p> <p data-bbox="842 226 1444 300">Temporary diversions of water are a method to avoid sedimentation of downstream water during works that involve disturbance of the river bed.</p>

Item	Permitted	Controlled	Discretionary/Non-complying
<p>FWr.14 Take, use, or diversion of groundwater</p> <p>[note that this rule is a regional rule]</p>	<p>FWr.14.1</p> <p>The take, use, or diversion of groundwater for:</p> <ul style="list-style-type: none"> a) reasonable domestic use, or b) stock drinking water, or c) pump testing limited to a duration cumulatively no longer than 48 hours for any one bore, is permitted if: <ul style="list-style-type: none"> i) the relevant conditions of Ap28.3 are met, and ii) the volume of the water take does not exceed 1 m³ per residential unit per day (plus 300L per bedroom for visitor accommodation), and iii) the rate of the water take does not exceed 0.5 l/s, and iv) the bore or well is not located closer than 50m to any coastal marine area or any adjacent bore, and v) the bore or well is not located closer than 25m to any surface waterbody, and vi) the bore or well is not located closer than 50m of any effluent treatment pond, septic tank, sewage treatment or disposal area, or silage stack or pit, and vii) the Council's reticulated water supply is not available to the site. d) The take of groundwater for dewatering a site during construction or earthworks is permitted if: <ul style="list-style-type: none"> i) the take does not lower groundwater to more than 8 m below the ground level of the site, and ii) the take does not create a significant risk of subsidence. e) The take or use of groundwater for fire fighting is permitted. 	<p>FWr.14.2 not applicable</p>	<p>FWr.14.3</p> <ul style="list-style-type: none"> a) The take or use of underground water, for uses other than those listed as permitted, and b) Any activity specified as permitted which contravenes any of the permitted conditions is discretionary <p>Prohibited</p> <p>Any take from groundwater in the Maitai catchment which is downstream from the NCC urban water supply intake in the Maitai River, or within the reach of the Roding River that is within the NCC boundary, and which did not exist prior to 9 October 2004, is prohibited.</p>

Assessment Criteria	Explanation
<p>FWr.14.4</p> <ul style="list-style-type: none"> a) the volume of the water take. b) the likely depletion effect on nearby streams, springs and wetlands. c) the effect of the take on existing water users. d) measures to minimise the rate of take, and the feasibility of the take being uniformly distributed over 24 hours. e) the risk of contamination due to water takes, uses or diversion. f) the distance between the intake and the outlet of any diversion, and the intermediate flow of the water body. g) the appropriateness of the water measuring device to be used. h) Appendix 28.3 i) alternative water sources. 	<p>FWr.14.5</p> <p>The lack of information on groundwater resources means that it is important for the potential effects of groundwater abstractions to be carefully assessed. The link between groundwater and surface flows should be given particular consideration. Where the outcome of a proposed groundwater take is unknown or there is insufficient information to enable a reasonable assessment, the take should be avoided.</p> <p>Unless there is information to the contrary, groundwater takes adjacent to or near potentially affected rivers listed in Appendix 28.4 should be assumed to have a one to one effect on river flows, for the purposes of water allocation and implementing water restrictions.</p> <p>Failure to comply with the permitted activity conditions may result in the Council requiring the installation of meters and enforcement of the 1m³ allocation limit.</p> <p>The following policies set out the process to be followed for water abstraction from groundwater:</p> <ul style="list-style-type: none"> DO18.2.1 (managing underground abstractions) DO18.3.2 (monitoring water abstraction) DO18.3.3 (expiry and duration of water permits) DO18.3.5 – DO18.3.8 (allocation limits) DO18.3.9 (water restrictions) DO18.4.10 (permitted abstractions) DO18.4.12 (monitoring fee) DO18.4.1 (diversion of water)

Item	Permitted	Controlled	Discretionary/Non-complying
<p>FWr.15 Take or use of water from ponds, reservoirs or dams</p> <p>[note that this rule is a regional rule]</p>	<p>FWr.15.1 The take or use of water from an out-of-stream lawfully constructed pond, reservoir, or dam is permitted if the take or use from those sources does not reduce the flow in any natural water body.</p>	<p>FWr.15.2 Not applicable.</p>	<p>FWr.15.3 The take or use of water from an out-of-stream lawfully constructed pond, reservoir, or dam that contravenes the permitted condition is discretionary.</p>
<p>FWr.16 Transfer of water permits for any water take</p> <p>[note that this rule is a regional rule]</p>	<p>FWr.16.1 Not applicable.</p>	<p>FWr.16.2 Not applicable.</p>	<p>FWr.16.3 Restricted discretionary The transfer of water permits for any water take from one site to another site within the same catchment is a restricted discretionary activity.</p> <p>Discretion is restricted to:</p> <ul style="list-style-type: none"> i) the effects of the water take at the new site, and ii) efficiency of water use, and iii) reasonable need for water, and iv) water metering requirements, and v) the volume of water allocated. <p>In this rule, applications for restricted discretionary activities will be notified, the written approval of affected persons will be necessary, and notice of the application will be served on affected persons.</p> <p>Non-complying The transfer of water permits for any water take from one catchment to another is a non-complying activity.</p>

Assessment Criteria	Explanation
<p>FWr.15.4 Conditions for water intake structures in Appendix 28.3</p>	<p>FWr.15.5 Rainwater storage and use, or out of stream dams, is encouraged.</p> <p>The benefits of rain water usage are:</p> <ul style="list-style-type: none"> • reduced demand for mains water and corresponding reduction in usage, storage and treatment costs, and • reduced peak stormwater flows by roof water detention, thereby reducing the risks of property damage caused by flooding, and • reduced ground infiltration intensity to streets without stormwater and therefore reduced likelihood of sewer overflows, and • hydrologically neutral developments which maintain the natural water balance as much as possible.
<p>FWr.16.4</p> <ol style="list-style-type: none"> a) the rate and volume of the water take. b) the effect on river flows and the consequential effects on the existing classification and values identified in Appendix 28.4 and Appendix 6. c) the effect of the take on other water users. d) the appropriateness of the water measuring device to be used. e) Appendix 28.3. 	<p>FWr.16.5</p> <p>Monitoring of Nelson's water permits has highlighted that there may be a demand for the transfer of these types of water permits. Restricting discretion in the resource consent process (and therefore simplifying the process) for transfers may provide an incentive for self-management of water allocation and improved efficiency.</p> <p>Note that section 136(1) of the Act provides for a holder of a water permit for damming or diverting water to transfer the whole of the permit to any owner or occupier of the site in respect of which the permit is granted, but may not transfer the permit to any other person, or from site to site.</p> <p>The following district wide policy is relevant to this rule: DO18.3.4 (transfer of water permits).</p>

Item	Permitted	Controlled	Discretionary/Non-complying
FWr.17 Drilling of a bore or well [note that this rule is a regional rule]	FWr.17.1 Not applicable	FWr.17.2 The drilling or construction of any bore or well is controlled if: a) the bore or well is not located closer than 50m to any coastal marine area or any adjacent bore or well, and b) the bore or well is not located closer than 25m to any surface water body, and c) the bore or well is not located closer than 50m to any effluent treatment pond, septic tank, sewage treatment or disposal area, or silage stack or pit, and d) the head works of the bore or well incorporates a backflow prevention device to prevent contaminants entering the structure, and e) the drilling or construction of the bore complies with NZS 4411:2001 (Environmental Standard for Drilling of Soil and Rock), and f) the driller and/or supervising engineer or geologist forwards a drilling log to the Council which includes all the information required by the Standard NZS 4411: 2001 within one month of construction. Control is reserved over: i) method of drilling, and ii) casing material, and iii) method of backflow prevention. In this rule, applications for controlled activities will not be notified, the written approval of affected persons will not be necessary, and notice of the application need not be served on any persons.	FWr.17.3 Drilling of any bore or well which does not comply with any of the standards specified for the controlled activity is discretionary.

Assessment Criteria	Explanation
<p>FWr.17.4</p> <ul style="list-style-type: none"> a) the risk of contamination of groundwater. b) distance from the sea. c) distance from other bores. d) effects on other users. e) effects on ecosystems, including surface flows and wetlands 	<p>FWr.17.5</p> <p>The reason for making the drilling of a bore a controlled activity, with required separation distances, is to avoid water contamination and to avoid contaminated water being drawn from the bore in future.</p> <p>Bores should be a certain distance away from the sea to avoid saltwater intrusion. They should be a sufficient distance from other bores to avoid interference with that bore, and away from surface water bodies to avoid a reduction of water levels in adjacent surface waters.</p> <p>Sinking bores can create pathways for contaminants to migrate from the land surface into aquifers, or create a pathway for contaminants in shallower aquifers to be drawn down into deeper aquifers. Sinking a bore can also reduce the upward pressure gradient in confined aquifers, adversely affecting existing groundwater supplies. For these reasons, it is necessary for Council to monitor the effects of the activity.</p> <p>The New Zealand Environmental Standard for Drilling of Soil and Rock (NZS 4411:2001) sets out the minimum national environmental performance requirements for drilling of soil and rock, the design, construction, testing and maintenance of bores, the decommissioning of holes and bores, and record keeping. The Standard was developed in order to be referenced in contracts and in resource consents and plans developed pursuant to the Resource Management Act 1991. Copies of the Standard are available from the Council, on request.</p> <p>The following district wide policy is relevant to this rule: DO18.2.1 (managing underground abstractions).</p> <p>The following rule is relevant: FWr.19 (abandonment or decommissioning of a bore or well).</p>

Item	Permitted	Controlled	Discretionary/Non-complying
FWr.18 Investigative drill holes [note that this rule is a regional rule]	FWr.18.1 The construction of any exploratory drill hole for monitoring purposes or to obtain geotechnical information, is permitted, if: a) the activity is carried out in accordance with Environmental Standard for Drilling Soil and Rock (NZS 4411:2001) b) the drill hole is secured and backflow prevention measures are provided to ensure that no foreign material is allowed to enter the ground and in particular any aquifer, or the drill hole is backfilled with material of similar composition and properties to the surrounding land, and c) the driller and/or supervising engineer or geologist forwards a drilling log to the Council which includes all the information required by the Environmental Standard NZS 4411:2001 within one month of construction, and d) decommissioning and sealing of the drill hole is carried out within six months so that: i) the bore or well is backfilled and sealed at the surface, and ii) the bore or well is sealed to prevent vertical movement of groundwater and to confine the groundwater to the specific zone in which it originally occurred, and iii) decommissioning complies with NZS 4411:2001 (Environmental Standard for Drilling of Soil and Rock), and iv) materials used for backfill are of similar composition and properties to the surrounding land and no less than two metres of the drill hole near the surface is sealed with a cement grout.	FWr.18.2 Not applicable.	FWr.18.3 The construction of any exploratory drill hole for monitoring purposes or to obtain geotechnical information, that contravenes a permitted condition, is discretionary.

Assessment Criteria	Explanation
<p>FWr.18.4</p> <p>a) the risk of contamination of groundwater.</p>	<p>FWr.18.5</p> <p>Investigative drill holes, for purposes other than abstraction of groundwater, include activities such as testing levels of contamination, groundwater pressure gradients, and geotechnical investigations, are a permitted activity because they do not have the same potential to cause adverse effects as permanent bores, used for groundwater abstraction.</p> <p>The New Zealand Environmental Standard for Drilling of Soil and Rock (NZS 4411:2001) sets out the minimum national environmental performance requirements for drilling of soil and rock, the design, construction, testing and maintenance of bores, the decommissioning of holes and bores, and record keeping. The Standard was developed in order to be referenced in contracts and in resource consents and plans developed pursuant to the Resource Management Act 1991. Copies of the Standard are available from the Council, on request.</p> <p>The following district wide policy is relevant to this rule: DO19.2.1 (effects of land use activities on groundwater).</p>

Item	Permitted	Controlled	Discretionary/Non-complying
FWr.19 Abandonment or decommissioning of a bore or well [note that this rule is a regional rule]	FWr.19.1 Not applicable	FWr.19.2 Abandonment or decommissioning of a bore or well is controlled if: a) the bore or well is backfilled and sealed at the surface, and b) the bore or well is sealed to prevent vertical movement of groundwater and to confine the groundwater to the specific zone in which it originally occurred, and c) decommissioning complies with NZS 4411:2001 (Environmental Standard for Drilling of Soil and Rock). Control is reserved over: i) materials used for sealing, and ii) method of sealing, and iii) materials used for backfilling.	FWr.19.3 Abandonment or decommissioning of any bore or well which does not comply with any of the standards specified for the controlled activity is discretionary.

Assessment Criteria	Explanation
FWr.19.4 a) the risk of future contamination of groundwater. b) potential for leakage from the surface.	FWr.19.5 When a bore is abandoned or decommissioned it is important to avoid ongoing issues with contamination of groundwater. For this reason, it is necessary for Council to monitor the effects of the activity. The following district wide policy is relevant to this rule: DO18.2.1 (managing underground abstractions).

Item	Permitted	Controlled	Discretionary/Non-complying
<p>FWr.20</p> <p>Point source discharges to freshwater bodies (other than stormwater)</p> <p>[note that this rule is a regional rule]</p>	<p>FWr.20.1</p> <p>Any discharge to water is permitted if:</p> <p>a) after reasonable mixing it meets Appendix 28.7 and Class A water quality standards (see Appendices 28.5 to 28.7), or</p> <p>b) it is a discharge of dye or tracer material for investigative purposes, or</p> <p>c) it is a discharge of water from the testing or emptying of pipelines, tanks or bunds if no welding residues or other contaminants contained within the pipeline will be discharged to the receiving water body, or</p> <p>d) it is a discharge of overflow bore water to surface water bodies, if the rate of discharge is no more than five litres per second and the discharge has not been contaminated prior to discharge, or</p> <p>e) it is a discharge from a swimming pool (excluding swimming pool filter backwash water) which is free of chemicals, algae, leaves, dirt or other debris. (Any discharge with these contaminants must be discharged to the sewerage system) Swimming pool water is considered free of chemical contaminants when it has been left open to sunlight for 14 days, the level of chlorine does not register on any home testing kit, and no smell of chlorine remains.</p>	<p>FWr.20.2</p> <p>a) Any discharge which, after reasonable mixing, meets Class B water quality standards (see Appendices 28.5 to 28.7), and</p> <p>b) any discharge of wastewater or wash water into water bodies arising from the maintenance and repair of buildings and structures, is controlled if:</p> <p>i) the discharge does not, after reasonable mixing, cause:</p> <ul style="list-style-type: none"> - the production of conspicuous oil or grease, film, scum, or foam, or floatable or suspended material, or - any conspicuous change in colour or visual clarity, or - any objectionable odour, or - any significant adverse effects on aquatic life, and <p>ii) all practicable measures (eg oil separation, screening, filtering or settlement devices, or diversion to the sewerage system or a combination of these options), are taken at source to ensure that the contamination of stormwater is avoided.</p> <p>Control reserved over:</p> <p>i) the volume and level of contamination, and</p> <p>ii) the method of discharge and effects arising from the method chosen, and</p> <p>iii) the provision and adequacy of equipment for the collection, treatment and disposal of any discharge.</p>	<p>FWr.20.3</p> <p>Restricted discretionary</p> <p>Any discharge which, after reasonable mixing, meets Class C water quality standards (Appendices 28.5 to 28.7) is a restricted discretionary activity if it is not a discharge into Class A or B water bodies (see Appendix 28.4).</p> <p>Discretion restricted to:</p> <p>i) classification of the water body (see Appendix 28.4), and</p> <p>ii) a reasonable mixing zone.</p> <p>Discretionary</p> <p>Any discharge that contravenes the conditions for permitted or standards for controlled or restricted discretionary activities, is discretionary.</p> <p>Non-complying</p> <p>Any discharge not specified as permitted, controlled, discretionary or prohibited is non-complying</p> <p>Note: see rule FWr.21 for the rule on raw sewerage discharges from the public sewerage system.</p> <p>Prohibited</p> <p>Any discharge of:</p> <p>a) untreated sewage to a water body (other than as an emergency work pursuant to section 330 of the Act), and</p> <p>b) untreated stock effluent to a water body, and</p> <p>c) liquid wastes or hazardous substances directly into groundwater, and</p> <p>d) hazardous substances into surface water, and</p> <p>e) solid waste into surface water is prohibited.</p>

Assessment Criteria	Explanation
<p>FWr:20.4</p> <p>Assessment matters (for controlled, restricted discretionary and discretionary activities):</p> <ul style="list-style-type: none"> a) whether the discharge has a reasonable potential to result in a loss of sensitive or important habitat, substantially interfere with the existing or characteristic uses of the water body, result in damage to the ecosystem, or adversely affect public health. b) whether the discharge will create a barrier to the migration or movement of native species and trout to a degree that has the potential to cause damage to the ecosystem. c) the classification of the water body and the priority for its enhancement (see Appendix 28.4). d) the sensitivity of the receiving environment. e) in the case of wetlands, whether it is naturally occurring or artificially created. If it was artificially created, the purpose for which it was created (eg stormwater management or wastewater treatment). f) provision for review of consent conditions if the discharge has unforeseen effects on water quality g) whether the discharge will contribute to a waterbody continuing to have a Class D or E water quality standard. <p>Assessment criteria for non-complying activities</p> <ul style="list-style-type: none"> a) methods of prevention, control and treatment appropriate to the discharge b) siting, technological, and management options c) loss of sensitive or important habitat d) interference with the existing or characteristic uses of the water body e) any damage to the ecosystem, or adverse effects on public health f) whether the discharge existed prior to notification g) whether the volume of water in the effluent is providing a greater benefit to the existing or characteristic uses of the water body due to flow augmentation h) whether the exceedance is necessary to accommodate important economic or social development. 	<p>FWr:20.5</p> <p>The water quality of Nelson's rivers has been assessed and classified into five categories from Class A (excellent) to Class E (very degraded).</p> <p>Detail of the qualities and values of these classes is in Appendix 28.5. The 2002 classification of Nelson waterways is in Appendix 28.4. Where a water body is not listed in Appendix 28.4, its water quality classification should be determined by assessing a range of physical, chemical and biotic parameters as described in Cawthron Report No.774 (October 2002).</p> <p>In order to set clear management objectives for each water body it is necessary to establish the current water quality of Nelson's rivers and streams and then set minimum standards for maintaining that level of water quality. Classification standards provide a "baseline" below which water quality should not be degraded.</p> <p>Control of discharges is necessary to work towards Policy DO19.1.5, which is that no water bodies should be of a quality less than Class C and Policy 19.1.12, and meets the National Objective Framework of the National Policy Statement – Freshwater Management.</p> <p>Note: swimming pool water is considered free of chemicals when a pool has been left open to sunlight for 14 days, the level of chlorine does not register on any home testing kit, and no smell of chlorine remains.</p> <p>The following district wide policies are relevant to this rule: DO19.1.1 – DO19.1.5 (policies for classes A to E) DO19.1.11 (new and existing discharges to water)</p>

Item	Permitted	Controlled	Discretionary/Non-complying
<p>FWr.21 Discharges from the public sewerage system to freshwater bodies</p> <p>[note that this rule is a regional rule]</p>	<p>FWr.21.1 Not applicable.</p>	<p>FWr.21.2 Not applicable.</p>	<p>FWr.21.3</p> <p>Discretionary</p> <p>1) Any reasonably foreseeable discharge from the sewerage system to freshwater (via the stormwater system, discharged to land or directly to freshwater) as outlined in the NCC Wastewater Asset Management Plan is a discretionary activity if there are:</p> <ul style="list-style-type: none"> a) no more than 10 discharges in any 12 month period, and b) no more than five individual discharges in any single event, and c) the medical officer of health, the Divisional Manager Planning and Consents and the public are formally notified of the discharge, including its location, within four hours of the emergency response officer first being notified of the discharge. <p>2) The following information must be provided in the discharge application:</p> <ul style="list-style-type: none"> a) identification of the source of contamination, and b) the frequency of occurrence of discharges, and c) identification of the known and potential effects of the discharge, including: <ul style="list-style-type: none"> i) public health risks, and ii) aesthetic and odour adverse effects, and iii) receiving environment water quality degradation (both freshwater and coastal), and iv) adverse effects on freshwater and coastal ecology, and d) the proposed methods to avoid, remedy or mitigate the actual and potential effects, and e) the effective measures designed to prevent effluent discharging to surface water or onto land where it may enter surface water, from the network in the event of a system failure or overloading the system beyond its design capacity. Together with the contingency planning and system design to provide temporary storage, and back up systems for pumps and power supplies in the event of maintenance, system failure, or a natural event, and f) how the emergency response to blocked sewers will be managed, and g) an integrated catchment management plan and a wastewater network environmental management plan which must propose methods to reduce <u>risk</u>, and h) the prioritised programme for implementation of the methods, and i) the monitoring and reporting to be carried out. <p>In accordance with s330 of the RMA, the Divisional Manager Planning and Consents must also be notified of individual discharges within seven working days of each event.</p> <p>Non-complying</p> <p>Any discharge from the sewerage system to freshwater (via the stormwater system, discharge to land or directly to freshwater) which contravenes the conditions for a discretionary activity is non-complying.</p>

Assessment Criteria	Explanation
<p>FWr:21.4</p> <ul style="list-style-type: none"> a) risk to public health and the environment b) the sensitivity of the receiving environment c) effects on existing uses of any waterbody affected by the discharge d) practicable methods to decrease the potential for discharges 	<p>FWr:21.5</p> <p>Sewage discharges to freshwater can occur from a sewage system overflow from a stormwater system, a discharge to land, or directly to freshwater. This rule applies to <u>all</u> of these overflow discharges.</p> <p>Discharge of raw sewerage to waterbodies is unacceptable for public health, cultural and environmental reasons. However, overflows sometimes occur during heavy rain events due to inflow or infiltration of stormwater into the sewerage system, and when sewers block.</p> <p>In this rule wastewater network discharges are a discretionary activity in recognition of the fact that they do happen, that it is an expensive problem to avoid, to provide certainty of conditions and the ability to prioritise works.</p> <p>The following district wide objective and policy are relevant to this rule: Objective: DO19.1 (highest practicable water quality) Policy: DO19.1.5 (minimum quality)</p>

Item	Permitted	Controlled	Discretionary/Non-complying
<p>FWr.22</p> <p>Point source stormwater discharges to water</p> <p>[note that this rule is a regional rule]</p>	<p>FWr.22.1</p> <p>Point source stormwater discharges directly to a river are permitted if:</p> <p>a) the discharge is from the roof of a residential property, and</p> <p>b) the discharge does not</p> <p>i) contain any chemicals, paint, oil, grease, pesticides, fertiliser, tannins, detergent, grass clippings, rubbish, litter, or heavy metals that are, or are likely to be, toxic to the aquatic ecosystem, or</p> <p>ii) cause the production of conspicuous oil or grease films, scums or foams, or floatable material, or</p> <p>iii) cause a conspicuous change of colour or visual clarity, or</p> <p>iv) cause an emission of objectionable odour, or</p> <p>v) cause adverse effects on aquatic life, or</p> <p>vi) contain suspended solid concentrations in excess of 100g/litre, or</p> <p>vii) contain any hazardous substances, waste water or trade wastes.</p>	<p>FWr.22.2</p> <p>1) Nelson City Council's point source stormwater discharges to water are a controlled activity if a reticulated stormwater quality improvement plan is provided in the discharge application which outlines how best practicable options will be used to control discharges to Council's stormwater infrastructure.</p> <p>2) Point source stormwater discharges directly to a river which are not from the Council's stormwater infrastructure, and are not a permitted activity, are controlled if</p> <p>a) they do not:</p> <p>i) contain any chemicals, paint, oil, grease, pesticides, fertilizer, tannins, detergent, grass clippings, rubbish, litter, or heavy metals that are, or are likely to be, toxic to the aquatic ecosystem, or</p> <p>ii) cause the production of conspicuous oil or grease films, scums or foams, or floatable material, or</p> <p>iii) cause a conspicuous change of colour of visual clarity, or</p> <p>iv) cause an emission of objectionable odour, or</p> <p>v) cause adverse effects on aquatic life, or</p> <p>vi) contain suspended solid concentrations in excess of 100mg/litre, or</p> <p>vii) contain any hazardous substances, waste water or trade wastes, or</p> <p>b) the best practicable option (eg oil separation, screening, filtering or settlement devices, or diversion to the sewerage system or a combination of these options) is taken at source to ensure that contamination of stormwater is minimised.</p> <p>Compliance with the NCC Stormwater Bylaw 2006 will be deemed to be complying with condition b) of this rule, with the exception that the bylaw will be administered as a guide, and approval will be through the Consents process rather than through authorisation by the Manager Infrastructural Assets.</p> <p>Control reserved over:</p> <p>i) the volume and level of contamination, and</p> <p>ii) the method of discharge and effects arising from the method chosen, and</p> <p>iii) the provision and adequacy of equipment for the collection, treatment and disposal of any discharge.</p>	<p>FWr.22.3</p> <p>A point source stormwater discharge directly to a river that contravenes a permitted or controlled condition is discretionary.</p>

Assessment Criteria	Explanation
<p>FWr.22.4</p> <p>a) the degree to which any discharge of stormwater to a river does not comply with the NCC Stormwater Bylaw or section 9.3 in the NCC Land Development Manual 2010. A site assessment will have to be supplied when an application is made for a discretionary activity to discharge stormwater to a river. This assessment must include:</p> <p>i) detail of how and why the stormwater discharge contravenes the permitted or controlled conditions, and</p> <p>ii) a plan showing the site layout that identifies all actual and potential sources of stormwater pollution, and</p> <p>iii) identification of best practicable options to ensure that actual and potential contamination of stormwater is minimised at source.</p> <p>b) whether the best practicable option has been used. This means the best method for preventing or minimising the adverse effects on the environment having regard, among other things, to:</p> <p>i) the nature of the discharge and the sensitivity of the receiving environment to adverse effects (see Appendix 28.4), and</p> <p>ii) the financial implications, and the effects on the environment, of the option when compared with other options, and</p> <p>iii) the current state of technical knowledge and the likelihood that the option can be successfully applied.</p> <p>c) whether the discharge has a reasonable potential to result in a loss of sensitive or important habitats, substantially interfere with the existing or characteristic uses of the water body, result in damage to the ecosystem, or adversely affect public health.</p> <p>d) whether the discharge will create a barrier to the migration or movement of native species and trout to a degree that has the potential to cause damage to the ecosystem.</p> <p>e) the classification and sensitivity of the receiving water body and the priority for its enhancement (see Appendix 28.4)</p> <p>f) application of technical publications on stormwater treatment devices and low impact design.</p> <p>g) in the case of discharges from the Council's stormwater system, level of implementation of the Council's Reticulated Stormwater Quality Improvement Plan.</p> <p>h) provision for review of consent conditions if the discharge has unforeseen effects on water quality.</p>	<p>FWr.22.5</p> <p>Scope of this rule: This rule covers all point source stormwater discharges directly entering waterways.</p> <p>Stormwater discharges into the Council's stormwater pipes are not covered by this rule but are permitted in terms of FWr.25 (discharge to land) if they comply with the NCC Stormwater Bylaw 2006.</p> <p>Diffuse stormwater discharges are not covered by this rule. They are controlled through section 9.3 in the NCC Land Development Manual 2010 and through the Plan rule controlling discharges to land (FWr.25).</p> <p>Specific water quality standards have not been set for stormwater discharges in recognition of the complexity of diffuse and wide-ranging sources of stormwater contamination.</p> <p>The development of a reticulated stormwater quality improvement plan (RSQIP) is a condition of a Council consent for its own stormwater discharges. The RSQIP is a strategic plan which sets out the framework for the following programmes:</p> <p>i) the stormwater bylaw, which will control the quality of discharges to the Council's stormwater infrastructure. It also provides guidelines for 'best practicable option' for discharges to natural water</p> <p>ii) installation of interceptors (or equivalent low impact design methods) on Council's stormwater discharges from identified 'hot spots' on Council land, such as car parks, to comply with the stormwater bylaw</p> <p>iii) an education programme with the aim of preventing contaminants entering residential stormwater.</p> <p>The following district wide policies are relevant to this rule:</p> <p>DO19.1.8 (stormwater discharges)</p> <p>DO19.1.9 (improvements to stormwater discharges)</p> <p>DO19.1.10 (new development)</p> <p>In residential areas, stormwater drains frequently receive soapy water from washing cars, residues from cleaning paint brushes and oil split during oil changes. Process wastes or industrial chemicals may be illegally discharged into stormwater drains servicing industrial or trade premises. These waterbodies are often small streams where the impacts can be greater than if greater mixing capacity was available.</p>

Item	Permitted	Controlled	Discretionary/Non-complying
<p>FWr.23 Discharge of agrichemicals in and near waterbodies</p> <p>[note that this rule is a regional rule]</p>	<p>FWr.23.1 Discharge of agrichemical to air or land near water is permitted if:</p> <ul style="list-style-type: none"> a) it is not discharged directly into a water body, and b) it complies with the mandatory requirements of NZS8409:2004 Management of Agrichemicals, and c) it complies with the requirements of Rule AQR.56 and Appendix AQ7 in the Nelson Air Quality Plan. 	<p>FWr.23.2</p> <p>1) A direct discharge of an agrichemical into a water body for the purposes of pest plant or fish control is controlled if:</p> <ul style="list-style-type: none"> i) the discharge does not exceed the quantity, concentration or rate required for that purpose, and ii) the agrichemical, and any associated additive, is authorised for aquatic use in New Zealand, and is used in accordance with the authorisation, and iii) the discharge is carried out in accordance with any manufacturer's directions and is carried out by a person who is a registered chemical applicator, and iv) no lawful take of water will be adversely affected as a result of the discharge, and v) the discharger notifies every household taking water for domestic supply, and every holder of a water permit within 1km downstream of the proposed discharge, at least one week before commencing the discharge. <p>2) Control is reserved over the following matters:</p> <ul style="list-style-type: none"> i) location and area of discharge ii) timing of discharge iii) signage requirements iv) adverse effects on non-pest or non-target freshwater organisms. 	<p>FWr.23.3</p> <p>Any discharge of agrichemicals in and near waterbodies that contravenes a permitted condition or a controlled standard is discretionary.</p>

Assessment Criteria	Explanation
<p data-bbox="161 197 245 224">FWr.23.4</p> <p data-bbox="161 226 817 275">a) whether the discharge can be done effectively without risk to human health or the environment.</p> <p data-bbox="161 277 606 304">b) the experience and track record of the discharger.</p> <p data-bbox="161 306 724 333">c) compliance with NZS8409:1999 Management of Agrichemicals.</p>	<p data-bbox="842 197 927 224">FWr.23.5</p> <p data-bbox="842 226 1433 324">Agrichemicals can be toxic to aquatic animals and indigenous plants, and are a risk to humans and stock if they enter drinking water supplies. Agrichemicals also have the potential to degrade groundwater.</p> <p data-bbox="842 353 1310 380">The following district wide policy is relevant to this rule:</p> <p data-bbox="842 383 1382 409">DO19.1.7 (effect of land use activities on surface water bodies)</p> <p data-bbox="842 412 1326 439">The following district wide method is relevant to this rule:</p> <p data-bbox="842 441 1310 468">DO19.1.7.vi (advice on fertiliser and agrichemical use)</p> <p data-bbox="842 497 1425 546">Note: In all cases for the application of agrichemicals Rule AQr.56 in the Nelson Air Quality Plan must also be complied with.</p>

Item	Permitted	Controlled	Discretionary/Non-complying
FWr.24 Fertiliser discharges to land and air where it may enter water [note that this rule is a regional rule]	FWr.24.1 Discharge of fertiliser onto land is permitted if: <ul style="list-style-type: none"> a) the fertiliser is registered in New Zealand at the time of application under the Agricultural Compounds and Veterinary Medicines Act 1997, and b) all practicable steps are taken to ensure that fertilizer applied by ground-based methods does not enter any river or lake, or the bed of any river or lake, either directly or via overland runoff, and c) the application complies with the Code of Practice for Fertiliser Use (2002) 	FWr.24.2 Not applicable.	FWr.24.3 Restricted discretionary Any discharge of fertiliser onto land that contravenes a permitted condition is a restricted discretionary activity. Discretion restricted to: <ul style="list-style-type: none"> a) type and volume of fertiliser, and b) nature and sensitivity of receiving environment, and c) cumulative effects of fertiliser use.

Assessment Criteria	Explanation
<p>FWr:24.4</p> <p>a) type and volume of fertilizer.</p> <p>b) nature and sensitivity of receiving environment</p> <p>c) current levels of phosphate and nitrate in the receiving water body as recorded in the Council's water monitoring programme.</p>	<p>FWr:24.5</p> <p>Fertiliser entering waterways, either directly or through runoff, can increase growth of algae and decrease oxygen levels in water. At high levels, fertiliser can be toxic to all freshwater organisms.</p> <p>The following district wide policy is relevant to this rule: DO19.1.7 (effect of land use activities on surface water bodies)</p> <p>The following district wide method is relevant to this rule: DO19.1.7.vi (advice on fertiliser and agrichemical use)</p> <p>Note: In all cases for the application of agrichemicals (including fertiliser) Rule AQR:56 in the Nelson Air Quality Plan must also be complied with.</p>

Item	Permitted	Controlled	Discretionary/Non-complying
<p>FWr.25</p> <p>General discharges to land where it may enter water</p> <p>[note that this rule is a regional rule]</p>	<p>FWr.25.1</p> <p>a) Discharge of water from swimming pools, and</p> <p>b) discharge of swimming pool filter backwash water where discharge to the sewerage system is not practicable, and</p> <p>c) discharge of dead animals, offal and household organic waste to offal pits in the Rural Zone, and</p> <p>d) discharge of grey water or sediment-laden water to land is permitted if:</p> <p>i) the discharge does not result in surface ponding or runoff of any contaminant into a surface water body, and</p> <p>ii) there is no direct discharge of any contaminant into any surface water body, and</p> <p>iii) the discharge is not within 25m of a surface water body or within any Flood Overlay, and</p> <p>iv) the discharge is not within 50m of any bore, well, or spring used for water supply, and</p> <p>v) the discharge is not noxious, dangerous, offensive or objectionable to such an extent that it has or is likely to have a significant adverse effect on the environment, and</p> <p>vi) the water is contained on the site so that there are no adverse effects on adjoining properties.</p> <p>e) The discharge of water from a sediment treatment pond or impoundment area onto land where it may enter a surface water body is permitted if:</p> <p>i) there is no point source discharge of any contaminant into any water body, and</p> <p>ii) the water is not discharged onto adjoining properties</p> <p>f) Discharge of point source stormwater to land is permitted if:</p> <p>i) the discharge is not within 25m of a surface water body, and</p> <p>ii) the discharge is not within 50m of any bore, well or spring used for water supply, and</p> <p>iii) the discharge is not noxious, dangerous, offensive or objectionable to such an extent that it has, or is likely to have, an adverse effect on the environment, and</p> <p>iv) the water is not discharged onto adjoining properties.</p> <p>g) Discharges into the Council's stormwater infrastructure are permitted if they comply with:</p> <p>i) the conditions in the NCC Stormwater Bylaw 2006, and</p> <p>ii) section 9.3 of the NCC Land Development Manual 2010, and</p> <p>iii) all other stormwater management requirements in the Plan.</p>	<p>FWr.25.2</p> <p>Not applicable.</p>	<p>FWr.25.3</p> <p>Discretionary</p> <p>Any discharge that contravenes a permitted activity, and is not listed as a non-complying or prohibited activity, is discretionary.</p> <p>Non-complying</p> <p>Discharge of dead stock, offal and inorganic household waste within:</p> <p>i) any zone other than the Rural Zone, or</p> <p>ii) 25m of a river or lake in the Rural Zone is non-complying.</p> <p>Prohibited</p> <p>Discharge of untreated sewage is prohibited unless it is a discharge from the public sewerage system (see rule FWr.21)</p>

Assessment Criteria	Explanation
<p>FWr:25.4</p> <ul style="list-style-type: none"> a) location and area of discharge. b) risk of contamination of surface or groundwater. c) the degree to which any discharge of stormwater to Council stormwater infrastructure does not comply with the NCC Stormwater Bylaw or section 9.3 of the NCC Land Development Manual 2010. A site assessment will have to be supplied when an application is made for a discretionary activity to discharge stormwater into the Council's stormwater infrastructure. <p>This assessment must include:</p> <ul style="list-style-type: none"> i) detail of how and why the stormwater discharge contravenes the permitted conditions, and ii) a plan of the site layout that identifies all actual and potential sources of stormwater pollution, and iii) identification of best practicable options to ensure that actual and potential contamination of stormwater is minimised at source. 	<p>FWr:25.5</p> <p>This rule aims to minimise and, as far as possible, avoid the potential for contamination of surface water bodies and groundwater from leaching liquid contaminants. It is important to maintain existing water quality to provide for the existing and potential uses of that water.</p> <p>In other areas of New Zealand discharges to a stormwater pipe have been regarded as a discharge to land, and regulated under section 15(1)(b) of the RMA. Nelson City Council intends to primarily use bylaws under the Local Government Act to control the quality of discharges to stormwater infrastructure. However, it is necessary to include discharges to stormwater infrastructure in this rule, as a permitted activity, in order to clearly signal how the bylaw and the Nelson Resource Management Plan will work together to manage stormwater discharges and avoid duplication of process.</p> <p>The following district wide policy is relevant to this rule: DO19.1.7 (effect of land use activities on surface water bodies).</p>

Item	Permitted	Controlled	Discretionary/Non-complying
FWr.26 Stock fences [note that this rule is a regional rule]	FWr.26.1 The erection, maintenance, placement or replacement of any stock fence over or within the bed or margin of any river, lake or wetland is permitted if: a) the fence does not impede the legal right to any foot access for public use, or lawfully established vehicle access, along a water body, and b) the fence does not cause any flood waters to be diverted outside the river channel or banks, and c) associated river bed disturbance is avoided where possible, and d) the activity does not, after reasonable mixing, give rise to any of the following effects in the receiving waters: i) the production of any conspicuous oil or grease films, scums, foams or floatable or suspended materials, or ii) any conspicuous change of colour or visual clarity, or iii) any emission of objectionable odour, or iv) any adverse effects on aquatic life.	FWr.26.2 Not applicable.	FWr.26.3 Any stock fence that contravenes a permitted condition is discretionary. The application need not be notified, the written approval of affected parties will not be necessary and notice of applications need not be served on any person.

Assessment Criteria	Explanation
FWr.26.4 a) legal foot access. b) flood issues. c) disturbance of the river bed. d) effects on the values of the water body.	FWr.26.5 A stock fence across a river may be necessary to control stock movements. It is important that this fence does not contribute to flood damage during periods of high flow by trapping debris and logs. The following district wide policy is relevant to this rule: DO17.1.6 (structures in and under the beds of rivers and lakes)

Item	Permitted	Controlled	Discretionary/Non-complying
FWr.27 Stock access and crossings [note that this rule is a regional rule]	FWr.27.1 Stock entering or crossing part of the bed or bank of a river, and any associated discharge of suspended solids, is permitted if: i) the activity does not, after reasonable mixing (as defined in Ap28.7.ii), cause a reduction in visual clarity of more than 30%, measured above and below the site of the activity, and ii) any erosion occurring, that leads to a breach of condition i) of this rule, as a result of stock entering or crossing the beds or banks of a river or lake is remedied as soon as practicable, and iii) the amount of time stock spend crossing water bodies is minimised by providing crossing sites, and iv) any stock crossing used by cattle is used no more than four times per week, and v) the activity does not result in a worse water quality classification than that listed in Appendix 28.4.	FWr.27.2 Not applicable.	FWr.27.3 Discretionary a) any stock access or crossing which contravenes a permitted condition, and b) any stock access or crossing which is not specified as permitted, non-complying or prohibited is discretionary. Non-complying Stock access to a lake or wetland is non-complying. Prohibited The use of beds of rivers, lakes or wetlands for supplementary feeding, or stock standing areas, is prohibited.

Assessment Criteria	Explanation
<p>FWr.27.4</p> <p>a) effects on water quality</p> <p>b) effects on aquatic ecosystems</p> <p>c) the degree to which the activity affects the existing classification and values of the water body (see Appendix 28.4 and Appendix 6)</p>	<p>FWr.27.5</p> <p>Stock with unrestricted access to water bodies will ultimately contribute to water quality degradation.</p> <p>Research has found that:</p> <ul style="list-style-type: none"> - faecal bacteria reside in the stream sediment rather than the water column, and - disturbance of the sediment (by swimming, flooding, wading, recreational use and earthworks) can remobilise the sediment and recontaminate the water column, and - excluding stock from stream channels is likely to provide major water quality benefits, in addition to improved stock health. <p>Practical means of compliance with this rule include, but are not limited to:</p> <ul style="list-style-type: none"> a) the use of bridges and culverts b) fencing of riparian areas c) the use of gates in conjunction with fencing d) provision of troughs for livestock watering in adjacent fenced pasture areas e) construction of crossings to be as direct a route across the bed of a river as is practicable f) construction of hard entry and exit points at livestock crossings. <p>Where long term monitoring of a waterbody reveals a worse water quality classification than that listed in Appendix 28.4, Council will investigate the cause of the contamination and work with the landowners to remedy the problem.</p> <p>The following district wide policy is relevant to this rule: DO17.1.12 (stock access and crossings)</p>

Item	Permitted	Controlled	Discretionary/Non-complying
FWr.28 Discharge of stock effluent onto or into land [note that this rule is a regional rule]	FWr.28.1 Discharge of stock effluent onto or into land is permitted if: <ul style="list-style-type: none"> a) the best practicable option is adopted to prevent or minimise any adverse effect of the discharge or discharges on the environment, and b) the discharge does not: <ul style="list-style-type: none"> i) result in any contaminant entering surface water, and ii) occur within 50m of any bore, well, or spring used for water supply purposes, and iii) occur within 50m of a wetland, and iv) occur within 50m of a river or the coastal marine area, and v) occur within 50m of any dwelling on an adjoining property, and vii) exceed a nitrogen loading rate of 200kg of nitrogen per hectare per year by itself or in combination with any other applied fertiliser, and applications of effluent shall not exceed 100kg of nitrogen per hectare per year within any three month period. (Note: factory supply cows produce 6.5kg of nitrogen each year), and c) contingency measures are in place to avoid discharges to water in the event of a power or system failure, and d) any effluent storage facilities are lined so as to prevent any contamination of groundwater by seepage, and e) discharge of effluent is only onto land with a vegetative cover over 90 percent of the ground surface or immediately prior to sowing a crop, and f) the application of effluent is not at a rate which results in ponding on the land surface, and g) the Council is provided with the following information in order to monitor that the above conditions are being met: <ul style="list-style-type: none"> i) volume of effluent to be discharged on an annual basis from the number and type of stock, and ii) number of hectares and location over which the stock effluent is to be discharged, and iii) a back up plan if the pumps and irrigation system fail so that the discharge of effluent to any natural waterways is avoided as far as practicable. 	FWr.28.2 Not applicable.	FWr.28.3 Discretionary Discharges of farm effluent to land which do not meet the conditions for permitted activities are discretionary.

Assessment Criteria	Explanation
<p>FWr.28.4</p> <ul style="list-style-type: none"> a) location and area of disposal, including distance from any bore, well, or spring, and any rivers, lakes and wetlands. b) design, construction, location, operation and maintenance of effluent storage, treatment or disposal system. c) effluent quality and volume. d) risk of contamination of surface or groundwater. e) potential for health risk. f) potential for effects on aquatic ecosystems. 	<p>FWr.28.5</p> <p>Disposal of dairy waste onto land is encouraged, and promoted as a more sustainable option than discharge to water.</p> <p>The following district wide policy is relevant to this rule: DO19.1.7 (effect of land use activities on surface water bodies).</p>

Item	Permitted	Controlled	Discretionary/Non-complying
<p>FWr.29</p> <p>Establishment of, and discharges to, effluent disposal fields</p> <p>[note that this rule is a regional rule]</p>	<p>FWr.29.1</p> <p>1) Discharges to existing on-site effluent disposal fields, which were lawfully established prior to the freshwater plan change being made operative, are permitted providing that:</p> <p>i) the on-site wastewater management system is maintained in an efficient operating condition at all times in accordance with manufacturer's specifications, and</p> <p>ii) the discharge does not adversely affect surface water, coastal water, or groundwater quality, or adjacent properties.</p> <p>2) Discharges to new effluent disposal fields for single residential units on lot sizes 15ha or greater if:</p> <p>a) the effluent fields are located no closer than</p> <p>i) 20m from the bank of any permanently flowing watercourse, or from any lake, wetland, or coastal water, and</p> <p>ii) 20m from a boundary other than a road boundary, and</p> <p>iii) 10m from a road boundary, and</p> <p>iv) 50m from any bore or domestic water supply if an evapotranspiration system is being used or 300m from any bore or domestic water supply if any other type of system is being used, and</p> <p>b) the volume of effluent discharged is not more than a weekly averaged flow of 2000 litres per day, and</p> <p>c) there is no discharge run-off of effluent into surface water, and</p> <p>d) there is a minimum of 600mm vertical separation distance above groundwater, and</p> <p>e) there is no discharge of effluent from the disposal field to the ground surface, and</p> <p>f) the septic tank is regularly desludged so that the liquid volume (excluding sludge and scum) is maintained at not less than one-third the tank volume, and</p> <p>g) the discharge does not create an offensive or objectionable odour discernable beyond the property boundary, and</p> <p>h) the discharge meets the requirements of the Australian/New Zealand standard for On-site Domestic Wastewater Management (AS/NXS 1547:2000), and</p> <p>i) the discharge does not adversely affect the stability of the lot or any buildings.</p>	<p>FWr.29.2</p> <p>Discharges to new community effluent disposal fields associated with multi-lot subdivisions of 10 or more lots are controlled.</p> <p>Control is reserved over the following matters:</p> <p>i) the location of the effluent field</p> <p>ii) the volume and quality of the effluent</p> <p>iii) the method of discharge and the effects arising from the proposed method</p> <p>iv) the maintenance plan for both the infrastructure and the quality assurance of the discharge</p> <p>v) the potential effect of the effluent disposal field on water quality in any river, lake, wetland, or coastal water.</p>	<p>FWr.29.3</p> <p>Discretionary</p> <p>In the rural zone:</p> <p>a) Discharges to new on-site effluent disposal fields for single residential units on lot sizes smaller than 15ha are a discretionary activity.</p> <p>b) New on-site wastewater discharges associated with commercial or industrial activities, are a discretionary activity.</p> <p>The application may be considered without the need to:</p> <p>i) be notified, or</p> <p>ii) gain written approval of affected parties, or</p> <p>iii) serve notice of applications on any person.</p> <p>Any establishment or extension of, or discharge to, effluent disposal fields that does not meet the conditions for permitted activities is a discretionary activity.</p> <p>In all zones except the Rural Zone:</p> <p>Discharges to new on-site effluent disposal fields for residential, commercial or industrial activities of less than 10 lots are a discretionary activity.</p> <p>Non-complying</p> <p>Discharges to new individual effluent disposal fields associated with multi-lot subdivisions of 10 or more lots are non-complying.</p>

Assessment Criteria	Explanation
<p>FWr.29.4</p> <ul style="list-style-type: none"> a) the proximity of the discharge to any adjacent properties, surface water, groundwater or coastal water and any actual or potential adverse effects of the discharge on water quality. b) the proximity of the discharge to other discharges of domestic wastewater and the potential for cumulative effects. c) the potential for the discharge to initiate instability or make existing instability worse. d) the extent to which the proposed on-site wastewater management system complies with the Australian/New Zealand for On-site Domestic Wastewater Management (AS/NZS 1547:2000). e) the soil characteristics of the site and surrounding area, including hydraulic capacity and ability to treat contaminants present within the domestic wastewater. f) the capacity of the treatment unit and the level of treatment. g) the rate and method of discharge. h) the size of the land application area and alternative locations for the land application area. i) the necessity for monitoring the performance of the on-site wastewater management system. j) the management and maintenance of the on-site wastewater management system, including the ability to access the system for maintenance purposes. k) cumulative effects relating to the proximity and number of other effluent fields in the area. l) size constraints including geology, topography, slope, lot size and shape, climate, and existing structures. m) the need for a reserve field. n) the way in which stormwater is managed on site and the potential for stormwater to impair the performance of the on-site wastewater management system. o) any odour. 	<p>FWr.29.5</p> <p>The rule requires measures such as a buffer to contain and trap any possible contaminants from effluent disposal fields.</p> <p>Compliance with the NZ standards for on-site domestic wastewater management will help ensure compliance with the above standards. NZ standards for on-site domestic wastewater management do not recommend the use of rubbish grinders with septic tank treatment units, nor account for their use in the design of on-site wastewater disposal systems. Therefore, Council may require evidence that the design of the effluent treatment disposal system takes into account the effects of a rubbish grinder, where one is proposed to be installed in any new building.</p> <p>Multi-lot subdivisions of 10 or more lots should install and manage a community effluent treatment system to avoid cumulative effects of numerous systems. It is also necessary that lots smaller than the minimum lot size prove they can absorb the effluent on-site or connect to a reticulated effluent treatment system.</p> <p>The following district wide policy is relevant to this rule: DO19.1.7 (effect of land use activities on surface water bodies).</p>