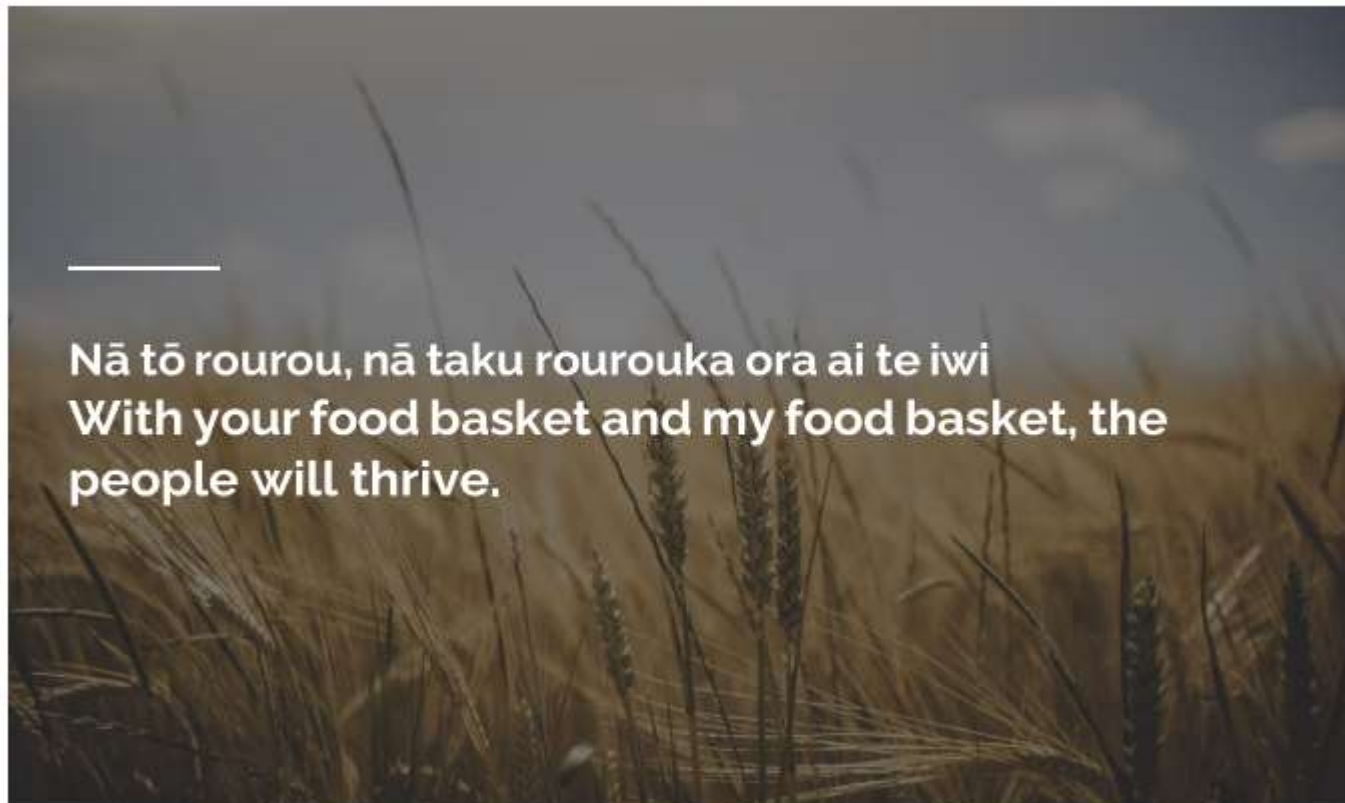




This document is the property of Horizons Regional Council, and the information it contains is correct up until the stated date and version number. Any alterations or modifications to this document by other parties or people are not authorised by Horizons, and Horizons takes no responsibility for any inaccuracies that may result from such changes.

Lesson 1 - Introduction



This document explains what the Catchment Context, Challenges and Values (CCCVs) are, how to interpret the information and how it should be used to identify relevant on-farm risks to freshwater and freshwater ecosystems, in order to develop a freshwater farm plan (FWFP).

You will gain an understanding of the following:

- 1 Horizons Surface Water Management Areas and Sub-areas
- 2 How to check the correct CCCV(s) has been selected for the farm operation
- 3 Where to find Tangata Whenua values
- 4 How to identify freshwater values and water quality issues for each Sub-area
- 5 Sub-area predominant land, landforms, and climate data
- 6 Where to find relevant regional and national policy and regulations significant for the property
- 7 How to use the CCCV to develop an action plan.



**You can access a CCCV and read it alongside this document. The link to CCCVs can be found on our web site: [Freshwater Farm Plans](https://www.horizons.govt.nz/managing-natural-resources/our-freshwater-future/freshwater-farm-plans). Or enter the following URL into your browser:
<https://www.horizons.govt.nz/managing-natural-resources/our-freshwater-future/freshwater-farm-plans>**

Lesson 2 - Surface Water Management Areas



- Horizons One Plan divides the region into Parent Catchments, Surface Water Management Areas (SWMA) and Sub-areas.
- The Parent Catchments have been amalgamated into seven Freshwater Management Units (FMU's) which has formed the basis for FWFP roll-out in the Horizons' region.
- A Parent Catchment example is Rangitikei, which has four Management Areas annotated; Upper Rangitikei is Rang_1 and Coastal Rangitikei is Rang_4

- Each management area has Sub-areas. So, for Coastal Rangitikei, the code for each Sub-area looks like this: Rang_4a, Rang_4b, Rang_4c, Rang_4d. They also have names; the name for Rang_4b is Tidal Rangitikei.
- Horizons CCCV's are set at the Sub-area level as there are freshwater values and water quality targets set at this level.
- Properties that cross CCCV boundaries will need more than one CCCV and need to address the concerns in each sub-area that the property is in.

Further information can be found in the following One Plan appendices:

Surface Water Management Areas and Sub-areas

SWM AREAS

Or enter the following URL into your browser:

<https://www.horizons.govt.nz/HRC/media/Media/One%20Plan/23-Part-5-RP-SCHED1-SWM-Areas.pdf>

Surface Water Management Values

SWM VALUES

Or enter the following URL into your browser:

<https://www.horizons.govt.nz/HRC/media/Media/One%20Plan/24-Part-5-RP-SCHED2-SWM-values-Part-2-1,-2-2,-2-3.pdf?ext=.pdf>

Surface Water Quality Targets

SW QUALITY

Or enter the following URL into your browser:

<https://www.horizons.govt.nz/HRC/media/Media/One%20Plan/27-Part-5-RP-SCHED5-SWM-targets.pdf?ext=.pdf>

Coastal Marine Area and Water Management (estuaries)

CMA

Or enter the following URL into your browser:

<https://www.horizons.govt.nz/HRC/media/Media/One%20Plan/31-Part-5-RCP-SCHED9-CMA.pdf>

Know how to check correct CCCV(s) have been chosen for the business


Catchment Context, Challenges and Values is at the Sub-area level of Horizons' Surface Water Management Areas. A tool has been developed to assist users to find the correct CCCV for the property.

When accessing this tool, the user zooms into their farm on the map or types in their address in the search bar. In the next screen click on 'View' to produce the CCCV report. This tool will then download a PDF that outlines the local freshwater information at the Sub-area level that should be considered in the farm plan.

883 Santoft Road, Santoft, Bulls, Manawatu-Whanganui, 4894

Sub-area: West_5

Parent Catchment	West Coast
Freshwater Management Unit	View
FMU Link	Rangitikei-Turakina
CCCV REPORT	View



This tool will also be helpful for certifiers when certifying the farm plan. The PDF will contain information related to soils, landform, water quality information and freshwater values for the Sub-zone the property is located in.

The tool is designed to assist farm plan developers, but certifiers must utilise this tool to make sure that the farm plan has used appropriate catchment actions and addressed CCCV.

Lesson 3 - Sub-areas



The CCCV provides the names of iwi and hapū that have whakapapa to the Sub-area. The CCCV also provides links to iwi and hapū information on cultural values that can be found in the One Plan (click on the below link or enter the URL into your browser):

<https://www.horizons.govt.nz/about-our-region-and-council/iwi-and-hapu/>

Please refer to the Tangata Whenua document for more detailed information that has been developed through ongoing engagement with iwi and hapū in our region.

Future iterations of CCCVs are intended to link directly to the Tangata Whenua document information

Freshwater values

The One Plan Schedule B Surface Water Management Values describe what values are important for each Sub-area.

Part 2.1: Surface Water* Management Values listed by Sub-area*

ADVICE NOTE: To help with interpretation of these tables please turn to Part 2.3 (the back of RP-SCHED2) and fold out the **VALUES KEY** and view together with the tables and figures in this schedule.

Legend:

Table Headings: **LSC:** Life-supporting Capacity; **AE:** Aesthetics; **CR:** Contact Recreation; **Mau:** Mauri; **IA:** Industrial Abstraction; **I:** Irrigation; **SW:** Stockwater; **EI:** Existing Infrastructure*; **CAP:** Capacity to Assimilate Pollution; **NS:** Natural State; **SOS-A:** Sites of Significance - Aquatic; **SOS-R:** Sites of Significance - Riparian; **IS:** Inanga Spawning; **AM:** Amenity; **WM:** Whitebait* migration; **SOS-C:** Sites of Significance - Cultural; **TF:** Trout Fishery; **TS:** Trout Spawning; **WS:** Water Supply; **DFS:** Domestic Food Supply; **FC/D:** Flood Control and Drainage.

Key for LSC Classes: **UHS:** Upland Hard Sedimentary, **UVA:** Upland Volcanic Acidic, **UVM:** Upland Volcanic Mixed, **ULI:** Upland Limestone, **HM:** Hill Mixed, **HSS:** Hill Soft Sedimentary, **LM:** Lowland Mixed, **LS:** Lowland Sand. The LSC Classes are listed as the geology of the catchment influences water quality and life-supporting capacity

Key for Fishery Classes: **I:** Outstanding, **II:** Regionally Significant, **III:** Other Trout Fishery

Water Management Area*	Sub-area*	Sub-area* Description ¹	Area-wide Values											Site/Reach-specific Values									
			LSC	AE	CR	Mau	IA ²	I ²	SW	EI	CAP ²	NS	SOS-A	SOS-R	IS	AM	WM	SOS-C	TF	TS	WS	DFS	FC/D
Upper Manawatu (Mana_1)	Upper Manawatu (Mana_1a)	Manawatu River from Weber Road at approx. NZMS 260 U23:751-027 to source	HM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					II	✓			✓
	Mangatewainui (Mana_1b)	Mangatewainui River from Manawatu River confluence at approx. NZMS 260 U23:829-086 to source	HM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						II	✓			✓
	Mangatoro (Mana_1c)	Mangatoro Stream from Manawatu River confluence at approx. NZMS 260 U23:810-027 to source	HSS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						II	✓			
Weber-Tamaki (Mana_2)	Weber-Tamaki (Mana_2a)	Manawatu River from Tamaki River confluence at approx. NZMS 260 U23:709-003 to Weber Road at approx. NZMS 260 U23:751-027	HM	✓	✓	✓	✓	✓	✓	✓	✓				✓				II				✓
	Mangatera (Mana_2b)	Mangatera Stream from Manawatu River confluence at approx. NZMS 260 U23:737-025 to source	HM	✓	✓	✓	✓	✓	✓	✓	✓									✓			✓

The freshwater values in the Sub-area CCCV will include such things as; what fish species and native birds are present and the presence of swim spots and/or water extraction points.

The ecosystem health of the freshwater in each Sub-area is indicated by periphyton growth (which is affected by nutrient levels, nitrogen and phosphorous) and the amount of suspended sediment in the water and settled on the bed. Periphyton and sediment both reduce fish and native bird survival if the levels are too high by affecting their habitat and food supply. Periphyton presence also reduces the available oxygen in the water.



Giant kokopu



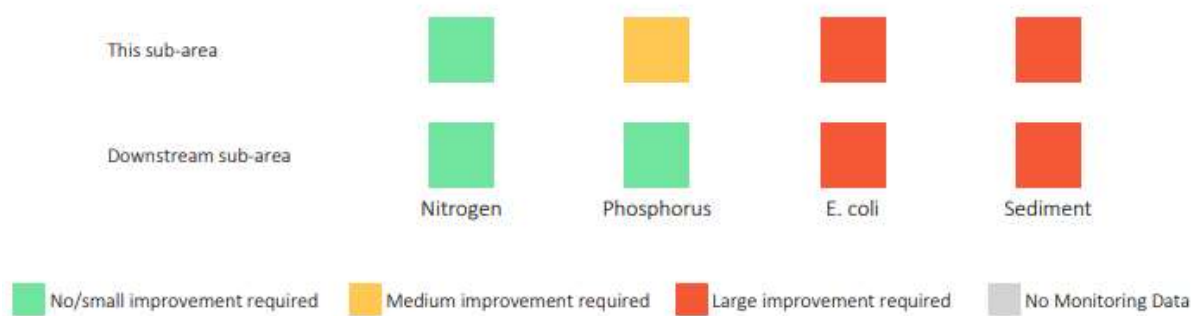
Koaro (Climbing glaxias)

Water quality

The water quality issues are identified in the CCCV using coloured squares representing how big the reduction in contaminant loss is required to meet the Sub-area water quality and downstream target. **Green** indicates no or small reductions are required; **orange** indicates a medium reduction required and **red** indicates a large reduction is required for each of the main contaminants: nitrogen, phosphorous, E. coli, and sediment. Where there is 'No Monitoring Data', for a contaminant in the sub-area, please refer to the Downstream sub-area information or refer to the property risk assessment and ensure the level of remediation action matches the level of risk.

WATER QUALITY

Based on Horizons One Plan, the relative improvement needed in water quality based on monitoring and modelling of the four contaminants for this sub-area and downstream sub-area is indicated by the diagram below.



Colour	Meaning	Extent of Mitigations required
Green	small gap between current state and what the levels should be	Good Management Practices (GMP) need to be implemented
Orange	moderate gap between current state and what the levels should be	effort over and above GMP, especially in priority high risk areas
Red	large gap between current state and what the levels should be	significant effort over and above GMP
Grey	No Monitoring Data	Refer to the Downstream sub-area and/or the property risk assessment

To protect the freshwater values such as native fish species and swimming, the water quality assessment will indicate which contaminant(s) need to be reduced or not increased, and by how much. The FWFP plan developer or certifier can combine this information with the size and location of environmental risks on-farm (there is a recommended risk assessment process in the Regional Information document), and with the current level of on-farm implementation of good management practice, provide guidance as to the level of implementation required.

Summary of the level of action required for a contaminant in a Sub-area

Water quality improvement required for Sub-area	Standard for FWFP actions to address water quality concerns	Level of on-farm change or effort	Brief explanation
Small or minimum improvement (green box)	Implement or maintain good management practice (GMP)	GMP is applied or continued	Small to medium reduction in contaminants lost from the farm, depending on the current extent of GMP on-farm.
Medium improvement (orange box)	Implement actions that go beyond GMP	Make effort beyond GMP on priority risk areas	Small to medium reduction in contaminants lost from the farm, depending on the current extent of implementation over GMP on-farm.
Large improvement (red box)	Significantly over and above GMP	Make significant effort over GMP and on a greater proportion of the farm	Small to significant reduction in contaminants lost from the farm, depending on the current extent of implementation over GMP on-farm. Extent of reduction on-farm is meaningful in relation to the water quality gaps.

Actions on-farm also need to recognise all relevant regional and national regulation.

Lesson 4 – CCCV Contents



Landforms and erosion

The CCCV will include a summary of the land, soil and landforms that predominate within a Sub-area. This is based on broad-scale mapping, so is not reliable enough to direct actions on a farm but provides a useful indication of what soils and landforms might typically be found in this part of our region.

Climate

The CCCV includes a map of rainfall bands for our region to indicate where this might be an issue in terms of overland flow and/or erosion risk.

Freshwater regulations

The CCCV includes a brief summary of Horizons and national freshwater regulations.

Developing an action plan

A FWFP action plan needs to indicate how the catchment issues of water quality are addressed to protect the freshwater values as described in the CCCV. The action plan also needs to consider relevant regulations and may include other freshwater mitigations that a landowner wishes to adopt beyond what is required by regulation or catchment issues.

The actions come under 3 headings in terms of priority:

1

Regulatory = what's required by regulation

2

Catchment = what's required to address catchment issues

3

Supplementary = what a farmer/grower wishes to do over and above what's required.



Riparian planting

For example, a catchment described in a CCCV might have native fish that are impacted by excess periphyton on the beds of the waterways and suspended and settled sediment. All Sub-areas in Horizons region also have contact recreation as a value, meaning E. coli needs to be managed.

The native fish will probably also be taonga to local iwi and will therefore require protecting to address cultural values as well.

If the CCCV indicates that E. coli and sediment losses require high reduction while nitrogen and phosphorous require no or small improvement, the FWFP actions would need to focus on reducing sediment from hill country erosion and reducing overland flow, in particular from hotspots such as stock yards, farm races, tracks and stock crossings.

Nitrogen and phosphorous should be managed using good management practices (GMP).



Any regulatory obligations will also need to be included, such as rules regarding; cultivation, water takes, stock exclusion and Intensive Winter Grazing management for example.

The plan could also list mitigations that have already been undertaken, either completed or on-going. This might include ongoing erosion control measures or fencing off a gully to reduce stock loss which will also reduce contaminant losses into the water body beyond regulatory requirements.



If you would like to provide feedback on this document, please email:

freshwaterfarmplans@horizons.govt.nz