

<b>Version No:</b> 06 <b>Issue Date:</b> 21/10/2024 <b>Portfolio:</b> Discrete Water Quality	<b>Horizons Regional Council</b>	<b>Section No:</b> 15.7 <b>Appendix No:</b> 21 <b>Page:</b> 1 of 9
	<b>Hydrology Operations Manual</b>	

Version 3.2.23/01/2020

## Water Quality Monitoring Run Guide

# Middle Whanganui

### STATE OF ENVIRONMENT (Monthly Sampling)

# Job Hazard & Task Analysis










## Hazard Identification – tick all that apply, write additional hazards identified:

The yellow highlighted hazards are known hazards at the time of compiling this document. This **does not negate** the need to assess for and potentially eliminate or isolate any hazards at *each* sample location at *every* visit

Hazard	Yes	Hazard	Yes	Hazard	Yes
Confined space	<input type="checkbox"/>	Suspended loads	<input type="checkbox"/>	Noise – plant and equipment	<input type="checkbox"/>
Difficult entry/exit	<input type="checkbox"/>	Falling objects	<input type="checkbox"/>	Communication – means of	<input checked="" type="checkbox"/>
Oxygen deficiency/excess	<input type="checkbox"/>	Working near cranes and crane runways	<input type="checkbox"/>	Remote area	<input checked="" type="checkbox"/>
Poisonous fumes/gas	<input type="checkbox"/>	Live rails-gantry cranes	<input type="checkbox"/>	Temperature extremes	<input type="checkbox"/>
Explosive gas	<input type="checkbox"/>	Trip hazards	<input checked="" type="checkbox"/>	Reduced visibility	<input type="checkbox"/>
Flammable materials	<input type="checkbox"/>	Slippery surfaces	<input checked="" type="checkbox"/>	Unauthorized persons	<input type="checkbox"/>
Combustible materials	<input type="checkbox"/>	Manual handling	<input checked="" type="checkbox"/>	High pressure water	<input type="checkbox"/>
Hazardous substances	<input type="checkbox"/>	Sharp materials	<input type="checkbox"/>	Vacuum	<input type="checkbox"/>
Drowning	<input checked="" type="checkbox"/>	Line of fire	<input type="checkbox"/>	Air emissions – dust, fumes	<input type="checkbox"/>
Engulfment	<input type="checkbox"/>	Pressurized fluids	<input type="checkbox"/>	General waste	<input type="checkbox"/>
UV Radiation	<input type="checkbox"/>	Pressurized air/gas	<input type="checkbox"/>	Hazardous waste	<input type="checkbox"/>
Electrical – low /high voltage	<input type="checkbox"/>	Traffic / vehicle movements	<input checked="" type="checkbox"/>	Hydrocarbon / chemical spill	<input type="checkbox"/>
Multiple electrical feeds	<input type="checkbox"/>	Machinery – mobile plant	<input type="checkbox"/>	Soil disturbance/erosion	<input checked="" type="checkbox"/>
Working at height	<input type="checkbox"/>	Moving parts	<input type="checkbox"/>	Habitat disruption	<input type="checkbox"/>
Ladders	<input checked="" type="checkbox"/>	Chemical reaction (Pyrophoric iron)	<input type="checkbox"/>	Lighting	<input type="checkbox"/>
Elevated work platforms	<input type="checkbox"/>	Transport of hazardous substances	<input type="checkbox"/>	Weather extremes	<input checked="" type="checkbox"/>
Potential for difficult rescue	<input type="checkbox"/>	Stock/Farm Animals	<input checked="" type="checkbox"/>		

## Required PPE– tick all that apply, write additional PPE required:

The yellow highlighted PPE are known required PPE at the time of compiling this document. This **does not negate** the need to assess for the appropriate required PPE measures at each sample location per visit.

SAMPLING GLOVES	EAR PROTECTION	HARD HAT	SAFETY GLASSES / GOGGLES	WORK BOOTS	PROTECTIVE GLOVES	PERSONAL FLOATATION DEVICE (PFD)
						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HI VIZ	SAFETY HARNESS					
						
<input type="checkbox"/>	<input type="checkbox"/>					

Known Hazard	Significant		Can it be Eliminated		Can it be Minimised		Method of control
	Yes	No	Yes	No	Yes	No	
							ENTER KNOWN HAZARDS AND CONTROLS HERE THESE SHOULD BE 'KNOWN' ISSUES WITH THE RUN/SITES WITH APPROPRIATE METHODS STATED
Trip Hazards	✓			✓	✓		Prior to sampling staff must check area is clear of any items that pose a risk. If there is any these should only be moved if safe to do so. Sampling only to commence if the sampler is satisfied that any slip, trip or fall hazards are isolated.
Slippery Surfaces	✓			✓	✓		Pond edges can be slippery at any time. Sampling from the pond edge must always be done from stable level ground using a sample pole. PFD's must be worn by staff. Vehicles must be driven a sensible distance from any pond edges. [HMP18]
Drowning	✓			✓		✓	The STP ponds can be deep, full of sediments, and have operating equipment on/within them. Sampling of the pond must always be done from stable level ground using a sample pole. PFD's must be worn by staff. Vehicles must be driven a sensible distance from any pond edges. [HMP18]
Machinery – mobile plant	✓			✓		✓	Sample site is within an operating waste water treatment plant, plant and machinery may be on-site during sampling. Staff to wear appropriate PPE, obey on site signage and instruction, and give way to all operational traffic.
Traffic Vehicle movements	✓			✓		✓	Sample site is within an operating waste water treatment plant with council and contractor vehicles liable to be present at any time. Staff to obey on site signage and instruction. HRC Vehicle to be parked in a safe and appropriate location. [HMP 16] [HMP 20]
Noise – plant and equipment	✓			✓	✓		Plant operation can create high levels of noise. Ear protection to be carried in HRC vehicle at all times. Ear protection to be worn when machinery is running [HMP 4]
Hazardous Waste – treated Effluent	✓			✓	✓		Sampling activities require the collection of a sample of treated effluent. Staff must wear sampling gloves, eye protection and have access to anti-bacterial hand-gel to sample. Hepatitis B vaccinations are offered by HRC [HMP 30] [HMP 35]
General Waste		✓		✓	✓		General waste can be stored on site depending on operating activity. Sample staff have no need to interact with any

Known Hazard	Significant		Can it be Eliminated		Can it be Minimised		Method of control
	Yes	No	Yes	No	Yes	No	
							waste. All waste created by HRC staff to be taken with them.
UV Radiation	✓			✓	✓		Horizons provide sunscreen and hats.
Manual Handling	✓			✓	✓		There should be no need for sample staff to move any equipment etc. in order to carry out sampling activities. Sampling activities require the collection of a sample of treated effluent. Staff must wear sampling gloves, eye protection and have access to anti-bacterial hand-gel to sample. Hepatitis B vaccinations are offered by HRC. [HMP 30] [HMP 35]
Electrical – low /high voltage	✓			✓	✓		Sampling activity does not require any interaction with live circuitry or equipment. Staff should check sample area is clear of any hazards (i.e. loose cables, live equipment etc.) before sampling. If access/safety is considered compromised sampling is aborted. [HMP 23]
Stock/Farm Animals	✓			✓	✓		Although generally docile farm animals can still be hazardous. The risk should be isolated by finding alternative access routes to the sample location or contacting the owner for assistance. [HMP26]
Weather Extremes	✓			✓	✓		During the duration of a sampling run varying types and degrees of weather may be experienced. All sampling staff are to have access within their HRC vehicle of additional and appropriate clothing.
Temperature Extremes - Hypothermia: following emersion	✓			✓		✓	Staff must have access to suitable PPE and spare clothing within their vehicle. [HMP18] [HMP18]
Traffic Vehicle movements	✓			✓		✓	Sample site requires parking beside a main road. The vehicle must be parked as far off of the road surface as safe and practicable to do so. Use of hazards lights must be considered. Hi-vis clothing must be worn. [HMP 16] [HMP 20]

## Site Information

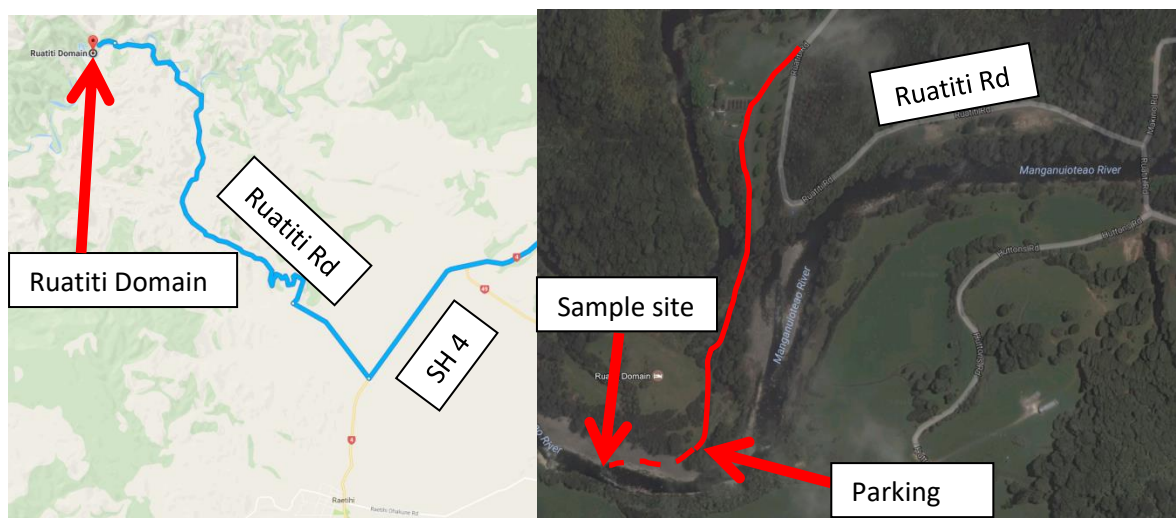
Hilltop Site Name	Easting/Longitude		Northing/Lat	Comments
Manganui O Te Ao at Ruatiti Domain	NZMG:	2699596	6207803	Public Access
	NZTM:	1789533	5646119	
	WGS84:	175.198444	-39.313585	
Whanganui at Pipiriki	NZMG:	2685936	6189602	Public Access
	NZTM:			
	WGS84:			

**[Contact details can be found here.](#)**

## Equipment Required

Sample Bottles	Three (03) sample bottle sets - refer to <a href="http://tqm.horizons.govt.nz/Hydrology/SOPs/cd_om_15.4_Appendix_4_EL_S%20Bottle%20Guide.xlsx">http://tqm.horizons.govt.nz/Hydrology/SOPs/cd_om 15.4 Appendix 4 EL S%20Bottle%20Guide.xlsx</a>
Sample numbers	<b>Two (02)</b>
Equipment	<ul style="list-style-type: none"> <li>• Handheld multi-parameter instrument (calibrated) – including iPad/screen</li> <li>• Black disc, viewer, tape measure</li> <li>• Clarity Tube</li> <li>• Sampling pole</li> <li>• Chilly bins and ice-packs</li> <li>• Bags for isolating effluent samples</li> <li>• Disinfectant equipment for sampling equipment</li> <li>• Field sampling books</li> <li>• Sampling ID labels (created using Hilltop Sampler)</li> <li>• Use gloves for wastewater and effluent samples</li> <li>• Alcohol gel</li> </ul>

## SITE LOCATION MAP – Manganui o te Ao at Ruatiti Domain



### POSSIBLE SITE HAZARDS (this does not negate undertaking a hazard review prior to sampling on the day)

Drowning – River	Traffic / vehicle movements – Crossing road, backing out onto road.	Wasps – known to be Active in area	
Trip hazards – uneven ground	UV Radiation		
Slippery surfaces – mud/silt, wet grass	Communications – No Cell or radio signal		

### REQUIRED PPE (in accordance with above hazards – this does not negate undertaking a hazard review prior to sampling on the day and/or using additional PPE if deemed necessary):

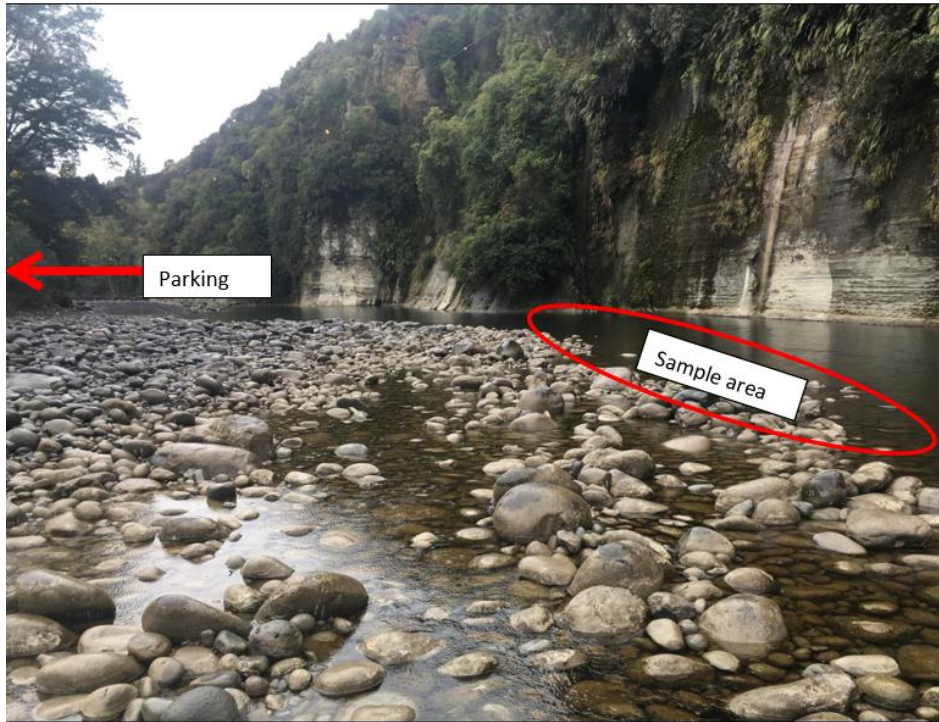
WORK BOOTS/WADERS	HI VIZ	PFD	WASPS	NO COVERAGE			

### DIRECTIONS:

- Drive to Ohakune, from Ohakune head toward the Tohunga Junction on SH 49a.
- Turn left onto SH4.
- Turn right onto Ruatiti Rd.
- Follow Ruatiti Rd and Ruatiti Domain signs to Ruatiti Domain.
- Wasp can be an issue in summer/autumn.
- No cell/radio coverage.

### ACCESS:

- Drive through Ruatiti Domain (through gates) to the end and park under the trees.
- Walk to the river and just downstream from the river bend, sample off the beach.





## SITE LOCATION MAP – Whanganui at Pipiriki



### POSSIBLE SITE HAZARDS (this does not negate undertaking a hazard review prior to sampling on the day)

Drowning – River	Traffic / vehicle movements – Crossing road, backing out onto road.	Wasps – known to be Active in area	
Trip hazards – uneven ground	UV Radiation		
Slippery surfaces – mud/silt, wet grass	Communications – No Cell or radio signal		

### REQUIRED PPE (in accordance with above hazards – this does not negate undertaking a hazard review prior to sampling on the day and/or using additional PPE if deemed necessary):

WORK BOOTS/WADERS	HI VIZ	PFD	WASPS	NO COVERAGE	BOAT RAMP	manga	

### DIRECTIONS:

- From Ruatiti Domain head back out to the main Rd.
- Head South to Raetihi.



- Turn right onto Pipiriki Raetihi Rd. Follow to Pipiriki.
- Telemetry room is in a small room at the back of the public toilets.
- Follow the road around and then down to the jetty (not boat ramp).
- Depending on conditions you should be able to drive onto the Jetty.
- Conditions on the road to the jetty change, park up top if necessary.

#### **ACCESS:**

- The sample site is at the upstream side of the jetty to keep away from the boats.

#### **ADDITIONAL NOTES:**

- No cell coverage.
- Water can be deep and fast, consider PFD.
- Wasps can be an issue in summer/autumn.
- Take care of pedestrians walking from the boat ramp.
- It is quite a walk from the top car park to the sample site. Driving is advisable.
- The bottom track down to the jetty can vary greatly after high flow events. Evaluate if driving down is possible/sensible each time.

