



Version No: 05 Issue Date: 01/08/2017 Portfolio: Discrete Water Quality	<b>Horizons Regional Council</b>	Section No: 15.7 Appendix No: 13 Page: 1 of 15
	<b>Hydrology Operations Manual</b>	

## Water Quality Monitoring Run Guide

# Upper Manawatu Run 1








## STATE OF ENVIRONMENT (Monthly Sampling)

## Site Information

Hilltop Site Name	Easting/Longitude		Northing/Lat	Comments
Ormondville STP at 2nd oxpond waste	NZMG:	2788618	6116113	
	NZTM:	1878627	5554426	
	WGS84:	176.269317	-40.114349	
Mangarangiora at u/s Ormondville STP	NZMG:	2788749	6115980	Gauged
	NZTM:	1878758	5554292	
	WGS84:	176.270903	-40.115510	
Mangarangiora at d/s Ormondville STP	NZMG:	2788650	6115861	
	NZTM:	1878660	5554173	
	WGS84:	176.269807	-40.116615	
Norsewood STP at oxpond waste	NZMG:	2784868	6119935	
	NZTM:	1874875	5558249	
	WGS84:	176.223724	-40.081196	
Mangarangiora Trib at US Norsewood STP	NZMG:	2784849	6119955	Gauged
	NZTM:	1874856	5558270	
	WGS84:	176.223497	-40.081015	
Mangarangiora trib at ds Norsewood STP	NZMG:	2784872	6119919	
	NZTM:	1874879	5558233	
	WGS84:	176.223779	-40.081335	
Mangatewainui at Hardys	NZMG:	2782357	6109152	Gauged
	NZTM:	1872363	5547458	
	WGS84:	176.19886	-40.179078	

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

## Equipment Required

<b>Sample Bottles</b>							
	7	7	7	7	7	7	1
<b>Sample numbers</b>	<b>Seven (7)</b>						
<b>Equipment</b>	<ul style="list-style-type: none"> <li>• Handheld multi-parameter instrument (calibrated)</li> <li>• Black disc, viewer, tape measure</li> <li>• Clarity Tube</li> <li>• Sampling pole</li> <li>• Chilly bins and ice-packs</li> <li>• Field sampling books</li> <li>• Sampling ID labels (created using Hilltop Sampler)</li> <li>• Use gloves and alcohol gel for wastewater and effluent samples</li> </ul>						
<b>Miscellaneous</b>	<ul style="list-style-type: none"> <li>• Mangarangiara at u/s Ormondville STP may be difficult to get to in high flow conditions. Alternative route is to access via farm (provided permission is allowed) to gain access of the LHB at the gauging location.</li> <li>• Ormondville STP discharges over the cliff between the upstream and downstream sample locations, however the discharge rate is so low that typically the discharge either does not make it or is not obvious.</li> <li>• Downstream Ormondville site has been move upstream of the bridge for safer all year round access.</li> </ul>						
<b>Additional Comments/ Instructions</b>	<ul style="list-style-type: none"> <li>• Gauge: Mangarangiara at u/s Ormondville STP</li> <li>• Gauge: Mangarangiara Trib at US Norsewood STP</li> <li>• Gauge: Mangatewainui at Hardys</li> <li>• Norsewood sample sites moved in July 2015</li> </ul>						

## SITE LOCATION MAP – Ormondville STP, upstream and downstream



### DIRECTIONS:

- Drive East out of Palmerston North to Dannevirke
- Go through Dannevirke township and follow main road until you see a turn off road for Ormondville on the right
- Follow Ormondville Road to Ormondville
- Follow the road through town (past the pub), it veers off to the right before going down a hill
- Before the descent you will see two farm gates on the left (in a small area). Park here and follow the right hand path till you find the ponds

### ACCESS:

#### STP

- Collect a sample from the small concrete outfall at the far edge of the pond (see photo) Do not use Handheld multi-parameter instrument

#### Upstream and downstream

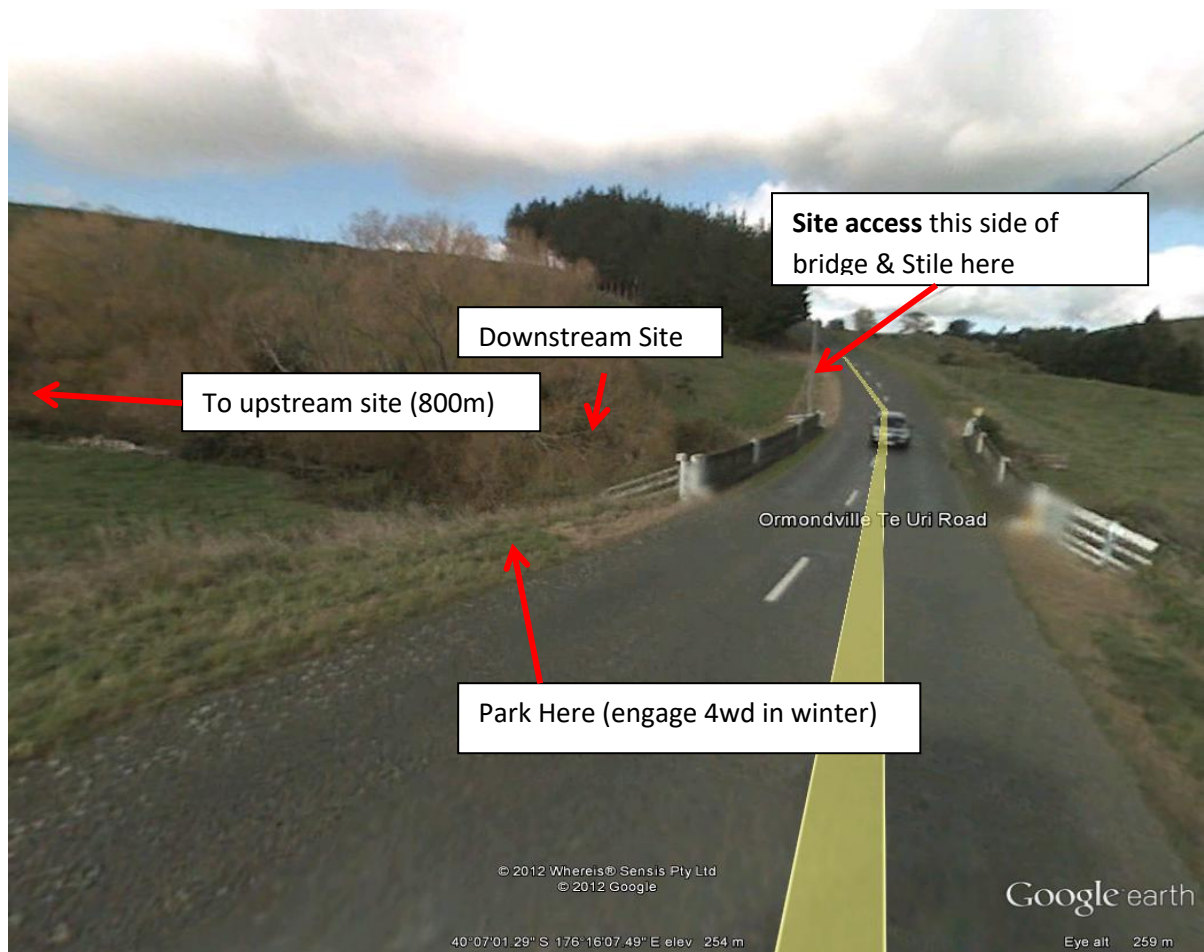
- Prepare Bottles for both sample sites
- For the upstream and downstream sites drive down the hill to the bottom

- Park before the bridge (you can use the paddock entrance way to get off of the road).
- You need to walk to both the upstream and downstream sites from here across the paddock you have parked beside (access via gate)
- Upstream site is about 800 meters up from the bridge this can be reached by walking up the stream/stream bed or alternatively via the farmland on the RHB (access is further up the road -)
- The downstream sample is taken approx. 100m above the bridge – cut across the paddock (to your 11'o'clock when facing the gate looking away from the road)













## SITE LOCATION MAP – Norsewood STP, upstream and downstream



### DIRECTIONS:

- Go back into Ormondville.
- Turn right into Norsewood-Ormondville road (over the train tracks) and follow this road.
- Follow along this road until you see the ponds on the right
- Enter paddock through gate on the left and drive to the ponds – Stick to the track and park up by the Tephra Bed.
- The sample sites are all approx. 170m downstream of the ponds. Access is via the paddock - leave any gates as you find them.
- **Footbridge immediately upstream of pump shed is NOT safe – DO NOT USE.**

### ACCESS:

#### STP

- Sample from the marked white pipe – this has a wing wall and discharges onto some gravels. The pipe is approx. 5 m downstream of the pump shed on the RHB. **Take an additional Digi-tube for Metals analysis (From August 2017 onwards)**

#### Upstream

- The upstream site is approx. 20m upstream of the footbridge by the pump shed.
- Sample in the channel opposite the marker.

#### Downstream

- This is approx. 30m downstream of the footbridge by the pump shed.
- A site marker is on the LHB.
- In higher flows safer access may be from the LHB by marker.



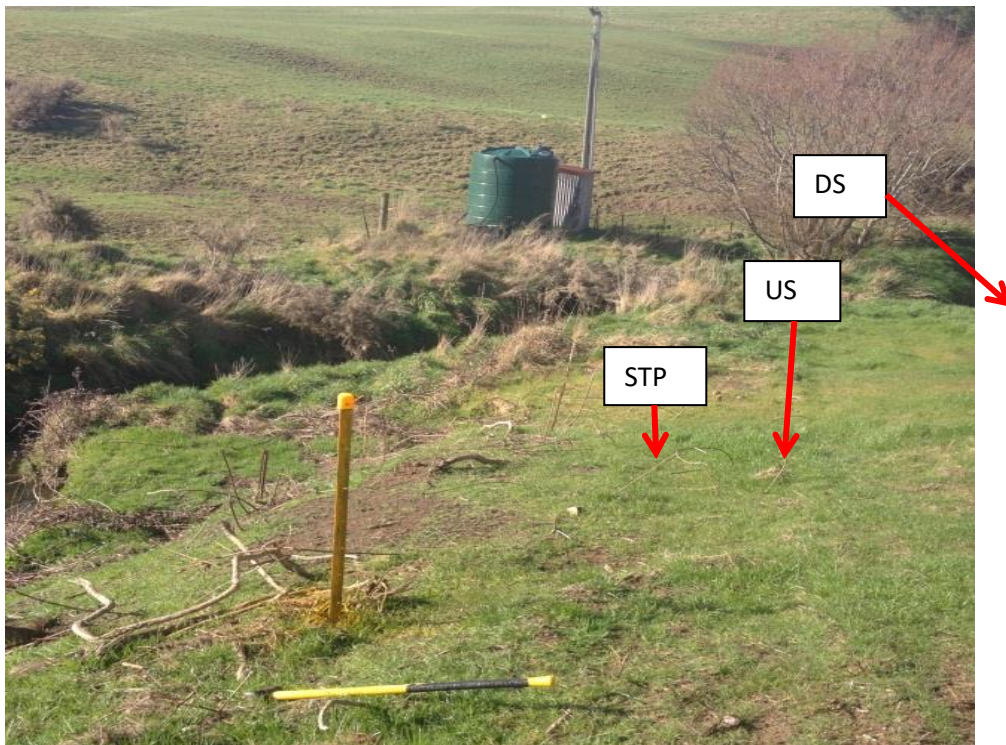
Site access , a new track was installed in June/July 2015 allowing all year access, takend from the direction of Ormondville  
**STP Sample Location**



View from Discharge point to access route from Ponds

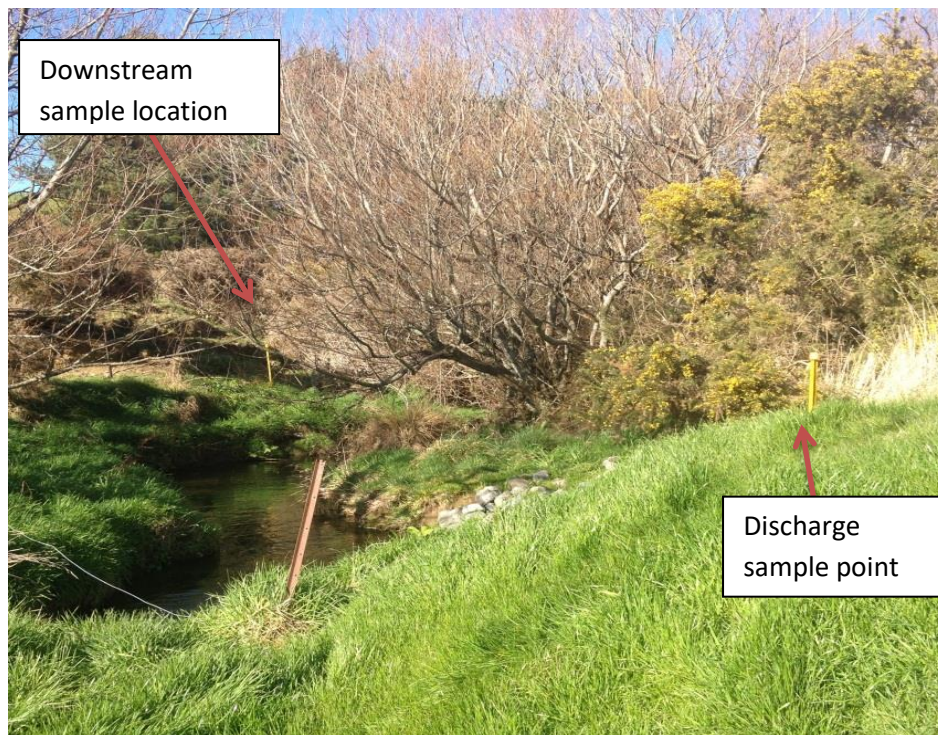


### Upstream Sample location



View from upstream discharge point downstream toward pump shed and footbridge

### Downstream Sample location



View from toward downstream sample point from footbridge – Note discharge point in mid left of image



## SITE LOCATION MAP – Mangatewainui at Hardys





**Call Contact before visiting:** [Contact details can be found here.](#)

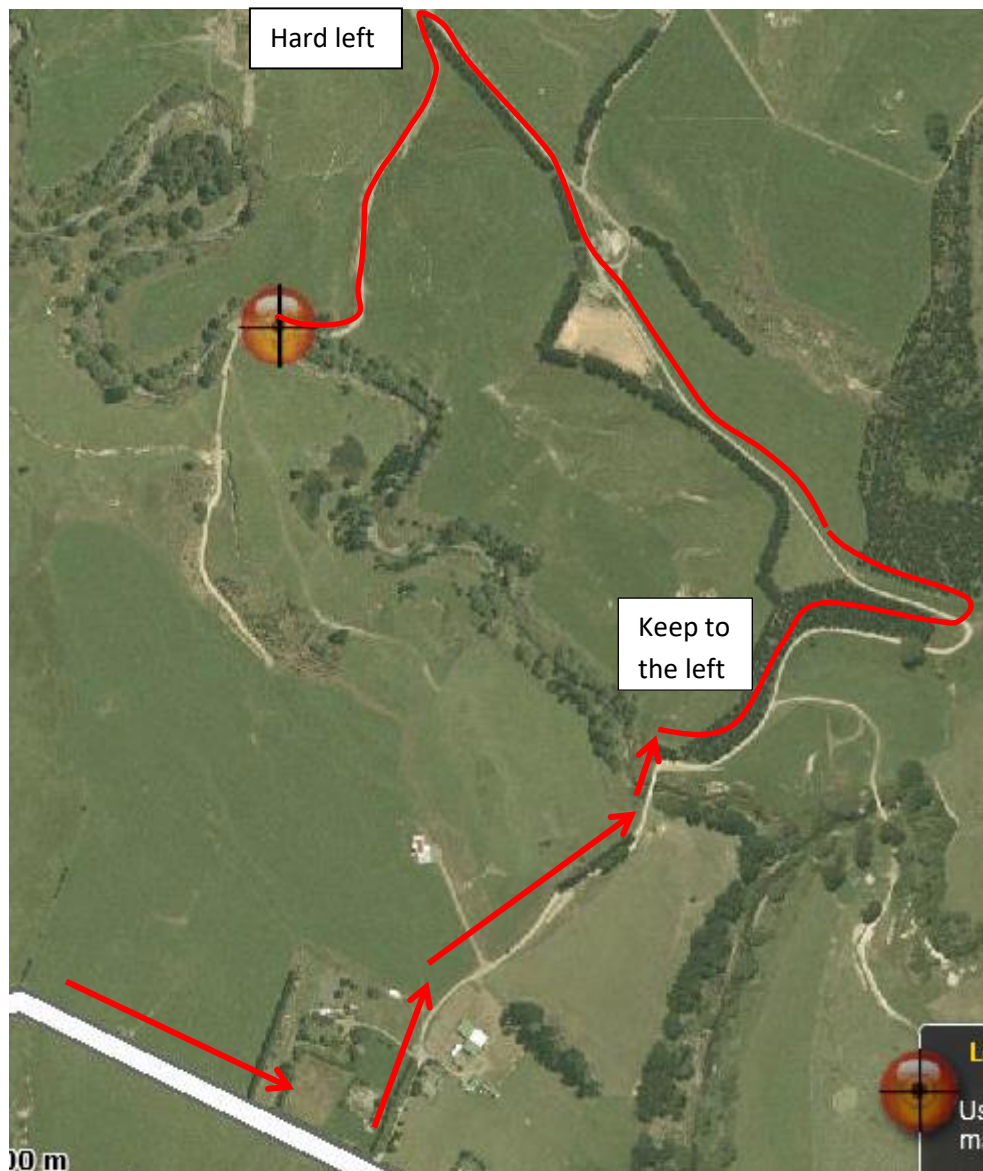
**DIRECTIONS: (if using Navman GPS:** select Maunga Road (Dannevirke) and house number 465ish, this will take you the right end of Maunga Road)

- Head back to Dannevirke on SH2
- Turn left onto Otanga Road (just before the Piripiri rail bridge)
- Turn right after 1.3km to stay on Otanga Road
- Turn left onto Maunga Road after 2.7km
- After approx. 4.2km the site access is on your left signed posted as Ben Nevis Station
- Wave to any Farmers and drive through the main area of buildings on the same track down hill and over a small river bridge
- After the bridge keep to the left hand of the track when it splits.
- Follow this track up and around the back of the tress – keep going past the first shed
- With the second shed in the near distance take a hard left onto the track leading down into the valley
- Follow this track down. The site is on the right where the track splits. **Beware** of getting stuck past this point
- The sample point is marked by a marked fence post in the gravels. Gauge where safe.

**ACCESS:**

- The site is on the right where the track splits. **Beware** of getting stuck past this point
- The sample point is marked by a marked fence post in the gravels. Gauge where safe









Site viewed from after the junction. Sample spot is the fence post near centre. It can be dodgy to drive down here.