

Rachael Clark

From: Eduard Mandru <EMandru@tonkintaylor.co.nz>
Sent: Thursday, 20 October 2022 7:27 am
To: BDeVilliers (Byron); Jenny Vince; WHung (William); Tim Coote; Rachael Clark; Sarah MacCormick
Subject: RE: Whenuapai P1 - clarifications on 1013050 v3
Attachments: Draft proposed monitoring locations.pdf

Hi Team,

Please find attached a preliminary monitoring plan for our GSMCP. As we discussed in our meeting, we have provided this information to provide guidance to the Planning team to draft suitable consent conditions. The quantum and nature of monitoring may change as we complete the GSMCP. However the general concept will be similar to what we have outlined. Additional monitoring may be recommended to that will be in addition to what is provided in this email.

Preliminary Alert and Alarm levels as follows:

Ground Settlement Monitoring Pins

GS01-GS09: Total settlement Alert 18 mm/Alarm 25 mm and differential settlement Alert 1V:750H, Alarm 1V500H

Culvert Settlement Monitoring Pins

CS01-CS04: Total settlement Alert 7 mm/Alarm 10 mm and differential settlement Alert 1V:750H, Alarm 1V500H

Building Settlement Monitoring Pins

BS01-BS03: Total settlement Alert 7 mm/Alarm 10 mm and differential settlement Alert 1V:750H, Alarm 1V500H

Retaining Wall Deformation Monitoring Pins

RW01-RW10: Inward lateral displacement of Alert 14 mm, Alarm 17mm

Groundwater monitoring

BH05A, BH05B, BH06, BH08, BH110, BH111, BH113, BH116 and BH117. Drawdown level Trigger Level 1 and 2 to be confirmed.

Pre and post-construction building condition survey for 18 Bringham Creek Road.

Happy to discuss if any further information is required at this stage. If there is any feedback on the monitoring approach, we strongly encourage this is provided in the coming days to avoid delays/rework. We are working to provide a GSMCP in the next 2 weeks.

Kind regards,

Eduard Mandru | Geotechnical Engineer

-----Original Appointment-----

From: BDeVilliers (Byron) <Byron.DeVilliers@water.co.nz>

Sent: Tuesday, 18 October 2022 2:59 pm

To: BDeVilliers (Byron); Eduard Mandru; Jenny Vince; WHung (William); Tim Coote

Subject: Whenuapai P1 - clarifications on 1013050 v3

When: Wednesday, 19 October 2022 10:30 am-10:45 am (UTC+12:00) Auckland, Wellington.

Where: Microsoft Teams Meeting

Hi All,

Meeting setup to clarify what needs to go into the consent application for Groundwater and Settlement Effects.
Please let me know if the time does not suit

Microsoft Teams meeting

Join on your computer, mobile app or room device

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EXISTING

- W — W — WATER NETWORKS
- SS — SS — WASTEWATER NETWORKS
- SW — SW — STORMWATER
- G — G — GAS
- E(OH) — E(OH) — OVERHEAD POWER CABLES
- T — T — TELECOMMUNICATION
- FO — FO — TELECOM FIBRE OPTIC
- — — — — PROPERTY BOUNDARY
- — — — — FENCE
- — — — — OVERLAND FLOW PATH
- 100-YEAR FLOOD PLAIN

PROPOSED

- WW — WASTEWATER GRAVITY
- SSMH — WASTEWATER MANHOLE

Settlement Contours:

- Approx 5mm settlement contour line
- Approx 10mm settlement contour line
- Approx 15mm settlement contour line
- Approx 20mm settlement contour line
- Approx 5mm settlement contour line if open trench method adopted

Note: settlement contours of greater than 5mm have not been displayed where there are no structures

Key Features and Infrastructure:

- EXISTING SSMH 2696093
- EXISTING WHENUAPAI VILLAGE PUMP STATION
- EXISTING SSMH 2695930
- SSMH-11 1540mmØ
- SSMH-10 1540mmØ
- SSMH-9 1540mmØ
- SSMH-8 1540mmØ
- SSMH-7 1540mmØ
- SSMH-6 1540mmØ
- SSMH-5 1540mmØ
- SSMH-4 1540mmØ
- SSMH-3 1540mmØ
- SSMH-2 1540mmØ
- SSMH-1 1540mmØ
- PROPOSED 375mmØ WASTEWATER GRAVITY MAIN (SSMH-4 TO EXISTING SSMH 2696093)
- PROPOSED 475mmØ WASTEWATER GRAVITY MAIN (SSMH-1 TO SSMH-4)
- PROPOSED INTERIM PUMP STATION
- 20 Brigham Creek Road to be occupied by WSL and used as laydown
- Pipe hammer construction method proposed between SSMH-3 and SSMH-4
- Trenchless construction proposed between SSMH-11 and Existing SSMH 2696093

DETAILED DESIGN NOT FOR CONSTRUCTION

				DESIGNED	PH	12-21	 Watercare	WHENUAPAI-REDHILLS WASTEWATER SERVICING BRIGHAM CREEK ROAD, WHENUAPAI INTERIM SLAUGHTERHOUSE PS - WASTEWATER GRAVITY MAIN - GENERAL LAYOUT	 	CAD FILE	R0017910.002	DATE	10-12-21
			DES. APPROVED	SW	12-21	ORIGINAL SCALE				A3 1:2000	CONTRACT No.	6484-6934	
3	12-21	ISSUED FOR DETAILED DESIGN	J.C.	DRAWN	JC	12-21				REF No.	12508391 3-AWD32		
2	8-21	RE-ISSUED FOR PRELIMINARY DESIGN	J.C.	DWG. APPROVED	DJ	12-21				DWG No.	R0017910.004	ISSUE	3
1	5-21	ISSUED FOR PRELIMINARY DESIGN	J.C.	WSL DESIGN MGMT.			COPYRIGHT - This drawing, the design concept, remain the exclusive property of Watercare Services Limited and may not be used without approval. Copyright reserved.						
				WSL PROJ. LEAD									
ISSUE	DATE	AMENDMENT	BY	APPD.	BY	DATE							