

# Monthly Report 8

**Months Ending: 31<sup>st</sup> December 2023 and 31<sup>st</sup> January 2024**

**Tarawera Sewerage Scheme  
Construction – Stage 1**



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## 1. EXECUTIVE SUMMARY

The required outcome of the implementation of the Tarawera Scheme is the safe collection and conveyance of wastewater from properties within the Area of Benefit to the Rotorua Wastewater Treatment Plant, via a connection into the existing Rotorua sewerage network. The Tarawera Scheme will comprise of LPGP units installed on each property within the Area of Benefit, connected to low pressure mains, and a trunk main to the agreed connection point of the existing network at the junction of Okareka Loop Road and Tarawera Road. The scope of this contract covers Stage 1 of the construction works, being the construction of the reticulation network, trunk main and pump stations. The LPGP units and connection of properties to the network will be delivered under a separate Stage 2 contract.

The work to be carried out under Stage 1 comprises the supply, construction, installation and commissioning, including civil, mechanical and electrical aspects, of:

- The low-pressure gravity street mains and property laterals including installation of and connection to each Boundary Assembly, and all associated works, including any required valves, flush points, scour points, chambers, culvert crossings, bridge crossings, road crossings, and all associated pipelines and fittings.
- The trunk main connecting the Area of Benefit to the Rotorua wastewater network and all associated works, including any required valves, flush points, scour points, chambers, culvert crossings, bridge crossings, road crossings, and all associated pipelines and fittings.
- The three new pump stations and all associated works (two transfer stations and one booster station), including but not limited to earthworks, wet well, valve chamber, flow meter chamber, pipework, valves, odour filter (if required), concrete works, crash barrier, fencing and electrical works.
- Installation of mains feed cables from Unison-supplied point of connection to each pump station electrical cabinet, testing and livening of such.

## 2. HEALTH & SAFETY

### 2.1. General Comments

- Very busy sites with a lot of teams working in the final push prior to Christmas – working long hours on site in hot conditions.
- Regular breaks and hydration needed to assist with fatigue management.
- Additional crews brought in to help out with the work load prior to Christmas to ensure that excavations were closed up and all TTM could be removed over the Christmas shutdown period
- Heavy TTM presence with additional traffic management to assist with the high number of visitors at the Blue Lake and pedestrians on the walking track as well as the multiple events that are occurring
- Ongoing commitment to deliver our Leadership Safety Actions which require our leadership staff to have safety related conversations with our staff throughout the month. Some examples of last months items are:
  - Fatigue
  - Heat Stress and Hydration
  - Working near pedestrians
- Protest action occurring regarding the works past Lake Rotokakahi started in Late January
  - Additional measures being put in place to protect workers on site
  - Police Involvement following incident on site where worker has been threatened
  - Incidents with vehicles intentionally ignoring traffic management in place, driving into oncoming traffic and running over traffic management equipment

### 2.2. Incident & Near Miss Summary

Please see outlined below our incident and near miss summary report for the previous month:

Incident Type	Description	Action Required
Incident	Chorus cable damaged when drilling to install lateral line. Cable deviated from the marks and from the alignment that it had been potholed on when it crossed under a concrete driveway	Chorus completed repair House owners not affected.
Improvement	Automatic sprinkler system setup at the Tarawera compound to control the dust when it is not attended	No action
Improvement	Site Shut down checklist completed prior to leaving for Christmas break to ensure all necessary controls where in place	No action
Safety Improvement	Additional Shade protection set up in compound to give employees a space to assemble valves etc. out of the sun/heat and away from traffic	No Action
Safety Improvement	Sun umbrellas purchased to provide additional sun protection where there is not enough space in our work area to set up gazebo	No actions
Safety Improvement	Tool created for tapping in EF saddles where the tapping spindle doesn't work so that the EF does not need to be cut out and replaced reducing the time that workers need to spend in a trench and the exposure to deep excavations	No Actions
Incidents	Numerous Incidents in regards to the pipe going past the green lake (Rotokakahi) and the subsequent protest. <ul style="list-style-type: none"> <li>● MOP deliberately ignoring traffic control</li> <li>● TTM Equipment deliberately being driven over numerous times</li> <li>● Worker on site threatened</li> <li>● Hostile work environment</li> <li>● Intimidation of workers</li> </ul>	Reported to RLC and NZ Police. Works in the "No Go" zone identified by RLC ceased until a resolution is agreed between FH and RLC.

### 3. ENVIRONMENTAL

#### 3.1. General Comments

- Mixed weather throughout both December and January – Heavy periods of rainfall caused works to be postponed due to the material becoming saturated and excavations not safe to work in.
- Additional controls put in place when working close to the stream down from Buried Village
- Gained acceptance from RLC for pipeline to be on the Buried Village side of the road from the Landing to avoid passing the base of the Pa Site.

Please refer to **Appendix F** for the previous month’s weather summary.

### 3.2. Interaction with Regional Council

- No involvement with Regional Council to date.

## 4. QUALITY

### 4.1. General Comments

- Ongoing monitoring and modifying of our quality systems to ensure we can maintain a streamline operation as far as final construction delivery and documentation hand over..
- Close review of our subcontractors delivery of their final quality items. Site checks being carried out to ensure they’re completing all the necessary items

### 4.1. Compliment/Complaints/Progress

- Refer to **Appendix D** for supporting information relating to complaint/compliments and a dashboard of our installation delivery.

### 4.2. Recent Non-conformances

- When installing a boundary assembly, a gouge was found in the pipe wall of the mains which was outside of tolerance – this section was cut out and replaced.

	Previous	This Period	Total to Date
Quality Issues (NCR)	2	1	3

## 5. PROGRAMME AND PROGRESS

### 5.1. General Comments

- Cliff Rd Pump Sation currently works underway – wetwell, valve chamber and emergency storage tank have been delivered
- Working drawings for both the Stoney Point and Buried Village pumpstations currently going through final review and production starting as per programme
- Drilling crews re-deployed to the Blue Lake to complete the drilling in front of the Holiday Park and reserves prior to the events in January and the influx of visitors

### 5.2. Achievements

- Refer to the contract Dashboard for programme progress - **Appendix D**

## 6. DELAYS

- Significant amount of rock encountered between the FH Compound and the Monument at Te Mu Rd – the pipe has been able to be installed without establishing the mud-motor but at a much slower productivity and with greater wear and damage on the equipment.
- Section of pressure main and trunk main skipped from the Kairi Point to 12 Spencer Rd – this section to be completed as part of a Rock Saw and Open trenching method as discussed due to the rock being encountered and the environment not being suitable for Rock Drilling.

- Initial establishment, service location and preliminary works at Cliff Rd delayed due to neighbouring resident blocking access to the site
- Protest action at Lake Rotokakahi – second drilling crew disestablished until an agreement has been made for our workers safety. Drilling crews having to remove all equipment from site each day which is reducing the daily productivity. Additional testing having to be completed to check that pipe work has not been sabotaged

## 7. DESIGN ISSUES

- Working drawings for both the Fire Station and Transfer Station pumping stations currently underway

## 8. STAKEHOLDER ENGAGEMENT

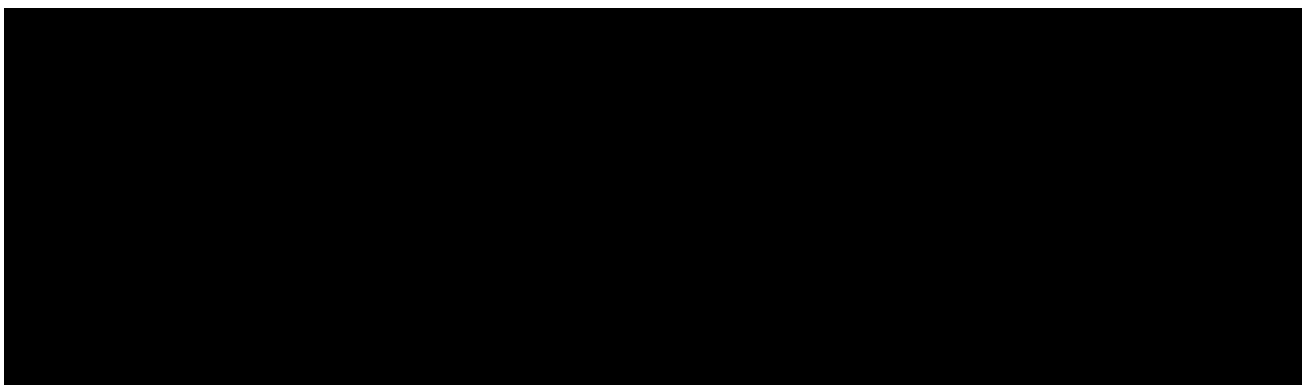
### 8.1. General Comments

- Interactions continuing with residents as works occur outside of their property should access be affected.
- Road Closure installed on Cliff Rd – resident access maintained
- Very high number of wide loads coming through the site over the summer months. The narrow road environment is creating challenges with being able to get these loads through with us having to in some cases completely shut down the site and remove all our equipment for them to fit through.
- Protest action occurring at Lake Rotokakahi

### 8.2. Cultural Engagement/Accidental Discoveries

- No interaction with cultural team over the previous month
- Accidental discovery process in place
  - Works stopped and process followed for a possible discovery which was investigated and identified as bovine
- FH Site inductions continuing to provide information around the accidental discovery protocols and what to look for

## 9. FINANCIALS:



Please find attached with this report the progress claim for the period ending 31<sup>st</sup> January '23 – Appendix B

## 10. CONTRACT CORRESPONDENCE

Please refer to NTE/NTC attached with this report - Appendix C.

## 11. PROCUREMENT & SUBCONTRACTS

### 11.1. Procurement Status

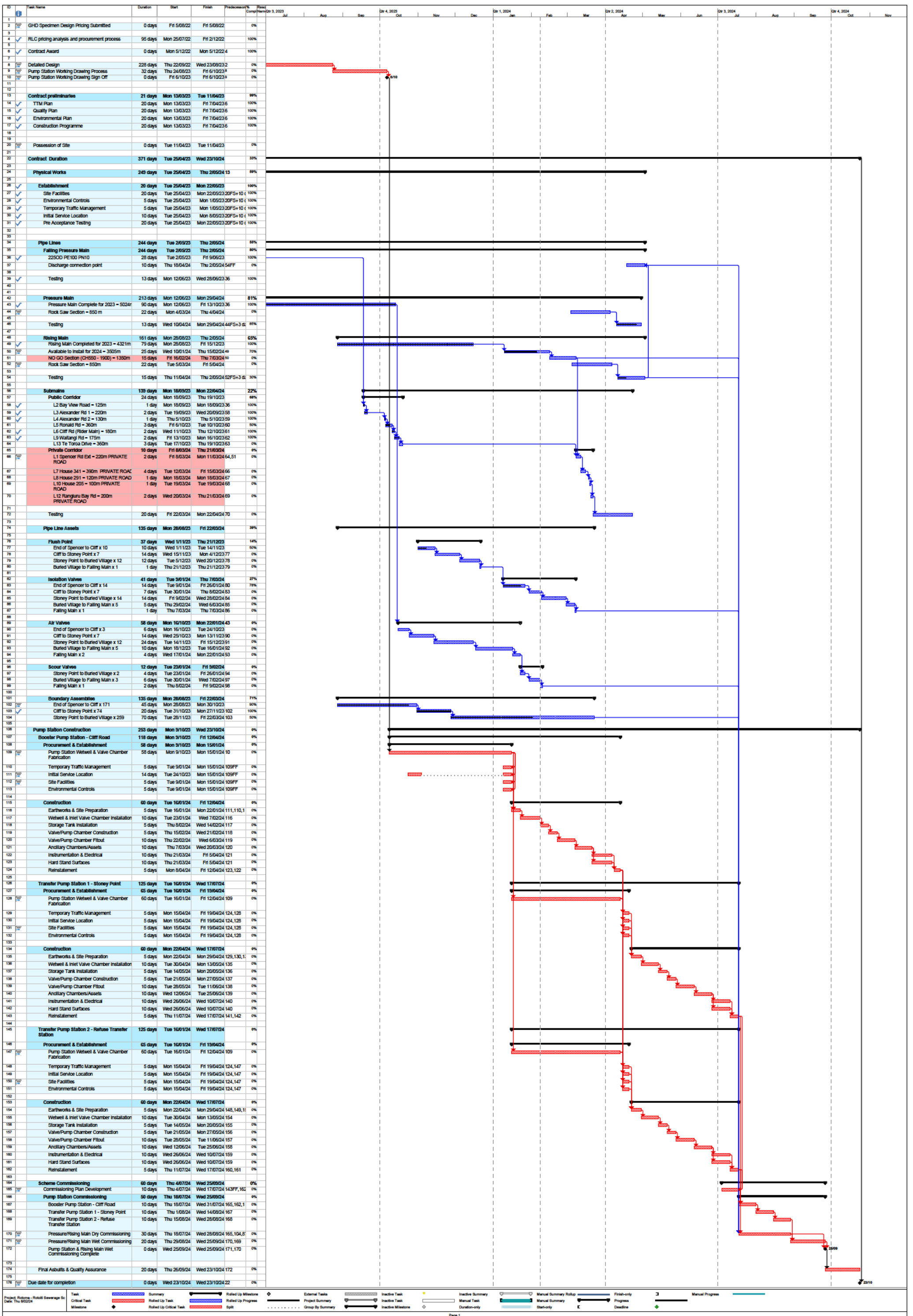
The table below shows the current key procurement and sub-contract status.

Supplier	Scope	Status
Hynds	Pipe and fitting supplies	Finalised
Traffic Management NZ	Delivery of traffic management requirements	Finalised
Universal Underground	Directional drilling of pressure pipe	Finalised
Land Help	Onsite survey requirements	In Review
Mortons Contracting	Butt Welding	Finalised
Robinson Contracting	Boundary Assembly Install	Finalised
Rose Line Ltd	Boundary Assembly Install	Finalised

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## Appendix A: Programme





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## Appendix B: Progress Claim & Supporting Information

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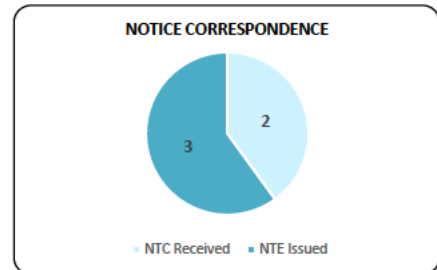
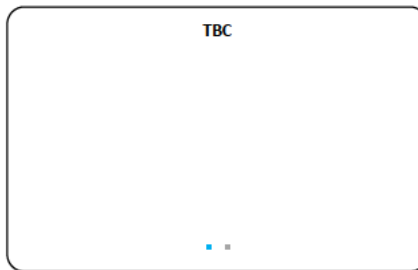
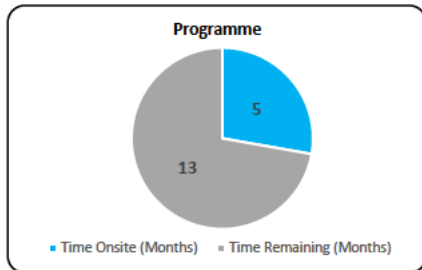
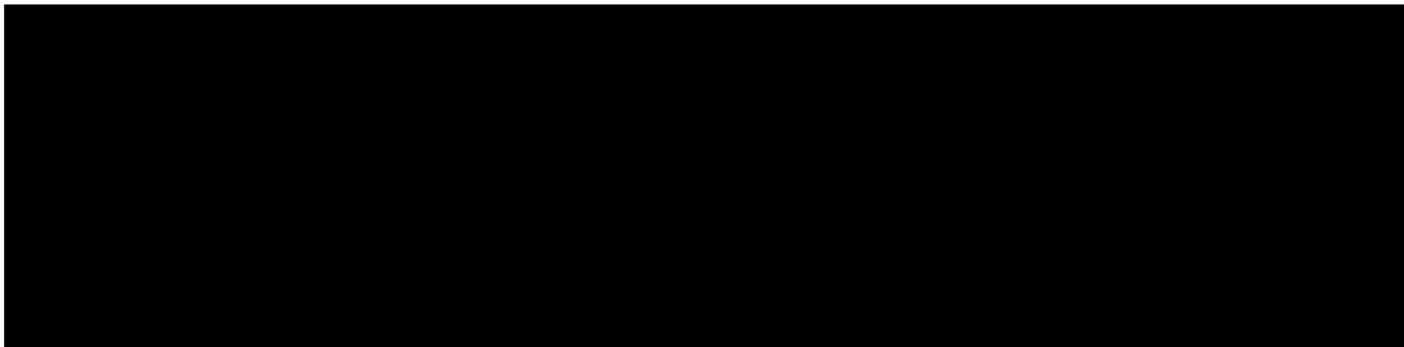
## Appendix C: Correspondence Register

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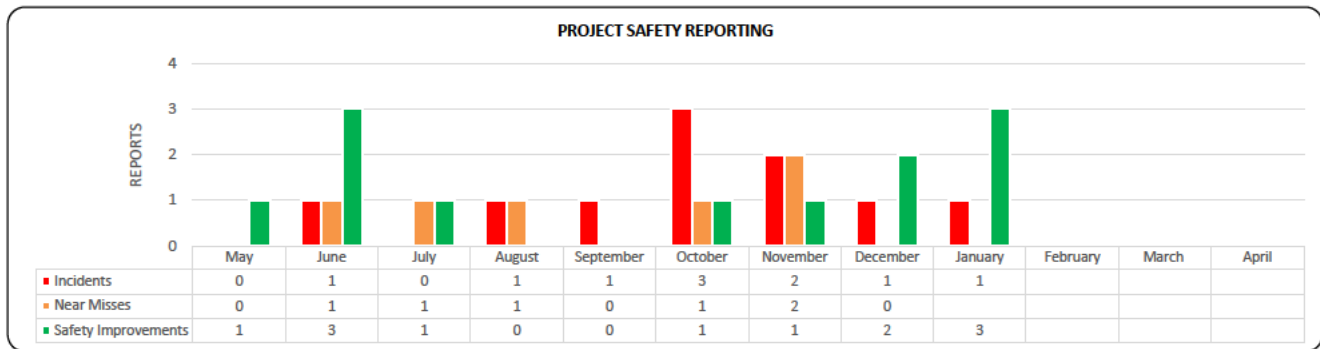
## Appendix D: Project Dashboard

# TARAWERA SEWERAGE SCHEME: STAGE 1

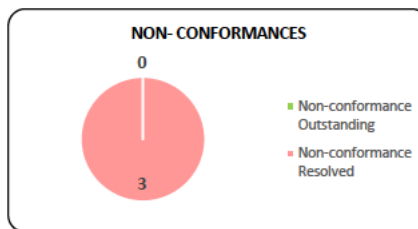
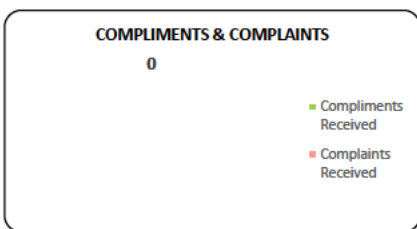
Monthly Project Dashboard: For period ending 31st January 2024



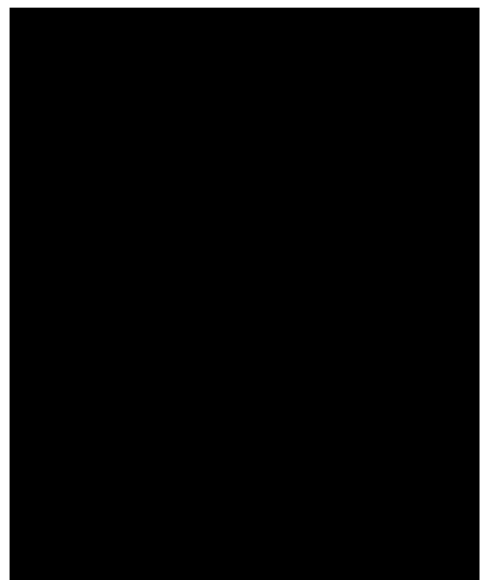
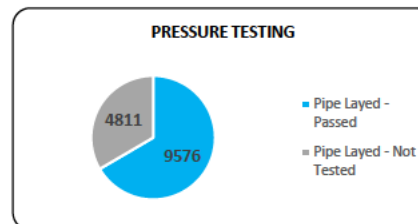
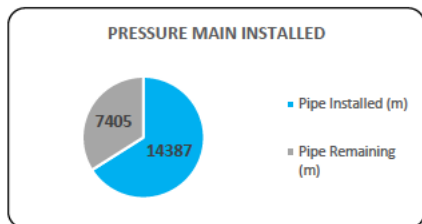
## Project Safety Reporting



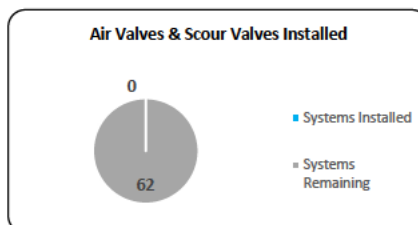
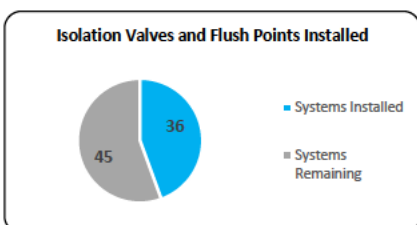
## Quality Management



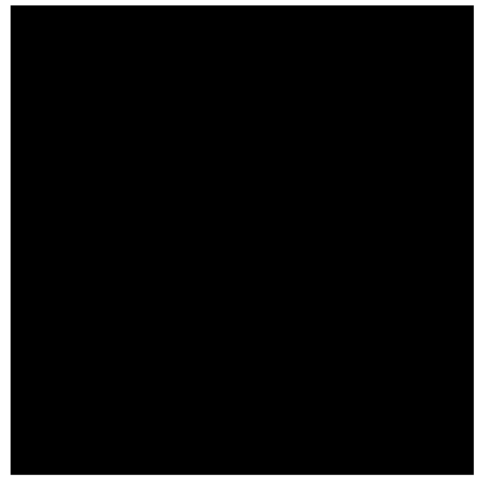
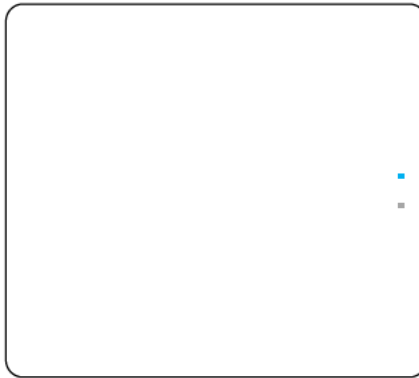
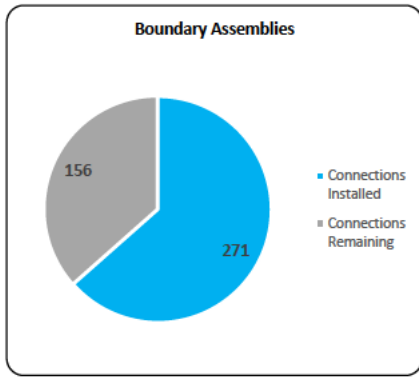
## Pressure Main Summary



## Asset Installations



Boundary Assemblies



Appendix E: Site Photos



Valve Assembly



Wet Well Excavation in Progress





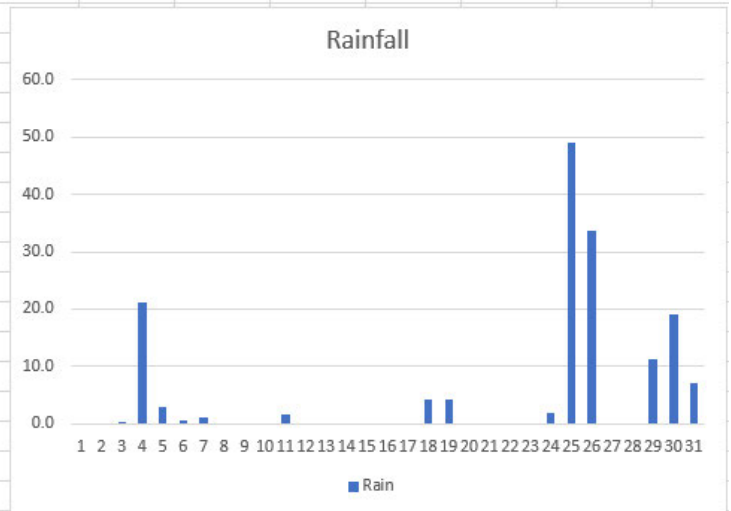
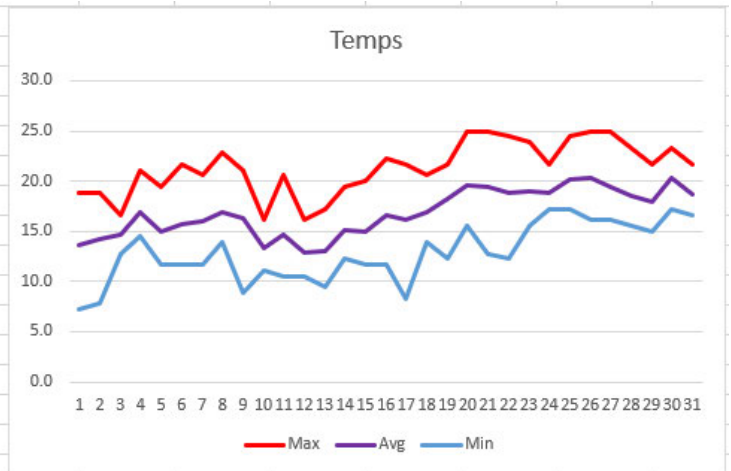
Unknown Chorus discovered whilst removing earth bund for pumpstation



Valves being bolted together

## Appendix F: Site Weather Records

Dec	Date	Temperature (°C)			Rain Total
		Max	Avg	Min	
Fri	1	18.9	13.7	7.2	0.0
Sat	2	18.9	14.3	7.8	0.0
Sun	3	16.7	14.7	12.8	0.3
Mon	4	21.1	16.9	14.4	21.1
Tue	5	19.4	14.9	11.7	2.8
Wed	6	21.7	15.7	11.7	0.5
Thu	7	20.6	15.9	11.7	1.0
Fri	8	22.8	16.9	13.9	0.0
Sat	9	21.1	16.3	8.9	0.0
Sun	10	16.1	13.4	11.1	0.0
Mon	11	20.6	14.7	10.6	1.5
Tue	12	16.1	12.9	10.6	0.0
Wed	13	17.2	13.0	9.4	0.0
Thu	14	19.4	15.2	12.2	0.0
Fri	15	20.0	14.9	11.7	0.0
Sat	16	22.2	16.6	11.7	0.0
Sun	17	21.7	16.2	8.3	0.0
Mon	18	20.6	16.9	13.9	4.1
Tue	19	21.7	18.2	12.2	4.1
Wed	20	25.0	19.6	15.6	0.0
Thu	21	25.0	19.4	12.8	0.0
Fri	22	24.4	18.9	12.2	0.0
Sat	23	23.9	18.9	15.6	0.0
Sun	24	21.7	18.8	17.2	1.8
Mon	25	24.4	20.2	17.2	49.0
Tue	26	25.0	20.3	16.1	33.8
Wed	27	25.0	19.4	16.1	0.0
Thu	28	23.3	18.5	15.6	0.0
Fri	29	21.7	17.9	15.0	11.2
Sat	30	23.3	20.3	17.2	19.1
Sun	31	21.7	18.7	16.7	7.1



	Jan	Temperature (°C)			Rain
	Date	Max	Avg	Min	Total
Fri	1	19.4	16.4	13.3	40.9
Sat	2	20.0	15.3	7.8	0.0
Sun	3	21.7	16.4	10.6	0.0
Mon	4	23.3	17.9	12.2	0.0
Tue	5	20.0	16.9	13.9	0.0
Wed	6	21.7	17.1	11.7	1.5
Thu	7	25.0	17.4	8.9	0.0
Fri	8	25.0	20.2	15.6	0.0
Sat	9	25.6	20.8	16.7	0.0
Sun	10	26.7	21.0	16.7	0.0
Mon	11	25.6	20.8	17.8	0.0
Tue	12	26.7	20.9	16.7	0.0
Wed	13	26.7	21.5	17.2	0.0
Thu	14	25.0	19.4	12.8	0.0
Fri	15	20.6	18.7	17.2	0.0
Sat	16	22.2	18.0	15.0	11.4
Sun	17	23.9	18.5	12.8	0.0
Mon	18	25.0	20.8	17.8	0.3
Tue	19	24.4	20.2	15.0	0.0
Wed	20	25.0	20.8	18.3	4.1
Thu	21	27.2	21.6	17.8	0.5
Fri	22	25.6	21.2	15.6	0.0
Sat	23	23.3	19.4	16.7	3.0
Sun	24	20.6	15.9	10.6	4.8
Mon	25	19.4	15.1	8.9	0.0
Tue	26	23.3	15.7	5.0	0.0
Wed	27	17.8	15.9	12.8	0.0
Thu	28	17.8	15.8	12.8	1.8
Fri	29	22.2	17.7	11.7	41.9
Sat	30	25.0	19.9	14.4	0.0
Sun	31	26.7	20.6	15.6	0.0

