

Report on Compliance with the Drinking-water Standards for New Zealand 2005 (Revised 2018) and duties under Health Act 1956

For Period: 01/07/19 – 30/06/20

Drinking-Water Supplies:

Huntly (HUN002)

Ngaruawahia (NGA002)

North Western Dist, Waikato DC (NOR013)

Raglan (RAG001)

Southern Districts, Waikato DC (SOU009)

Te Akau (TEA009)

Te Kauwhata (TEK001)

Western District, Waikato DC (WES014)

Water Supplier:

Waikato District Council

Waikato Drinking Water Assessment Service
Public Health
Waikato District Health Board
Private Bag 3200
Hamilton 3240

Report Identifier

WaikatoDC_DWSNZCompliance_2020_10_01_v1

Purpose

The purpose of this report is to provide Waikato District Council (WDC) with the results from the assessments carried out on their supplies under the following compliance standard and statute:

- The Drinking-water Standards for New Zealand 2005 (Revised 2018) (DWSNZ)
- Part 2A of the Health Act 1956 (the Act).

The assessments are based on the information provided by WDC/Watercare Waikato during the 2019/2020 Annual Survey period.

Key areas for action have been outlined in the content of this report with a grey box.

Terminology

Non-Compliance: Areas where the drinking-water supply does not comply with the Drinking-water Standards for New Zealand 2005 (Revised 2018) (DWSNZ).

Recommendation: These are areas of the report where suggestions for improvement have been made.

Abbreviations

C.t value	Concentration of disinfectant and contact time
DWA	Drinking Water Assessor
DWSNZ	Drinking-water Standards for New Zealand 2005 (Revised 2018)
DWO	Drinking Water Online database
<i>E. coli</i>	<i>Escherichia coli</i>
ESR	Institute of Environmental Science & Research Ltd
FACE	Free available chlorine equivalent
MAV	Maximum acceptable value
MoH	Ministry of Health
MOoH	Medical Officer of Health
The Act	Health Act 1956, Part 2A, Drinking water
UV	Ultraviolet light treatment
WaDWAS	Waikato Drinking Water Assessment Service
WDC	Waikato District Council
WRC	Waikato Regional Council
WSP	Water Safety Plan

Executive Summary

An official assessment of the performance of Waikato District Council as a “water supplier”, against the Health Act 1956, Part 2A, Drinking water (the Act), and the Drinking-water Standards for New Zealand 2005 (Revised 2018)(DWSNZ) has been completed for the period 1st July 2019 – 30th June 2020. The assessment was undertaken by a Drinking Water Assessor from the Waikato Drinking Water Assessment Service. The tables below show a summary of compliance for Treatment Plants and Distribution Zones with the DWSNZ, with more detail stated within this report.

Overall it was pleasing to see that the high levels of compliance for the Waikato District Council (WDC) water supplies is being maintained, with full compliance found throughout the 2019/20 Annual Survey assessments. It should be noted that during the compliance period the WDC contracted Watercare Services Limited to manage and operate the drinking water supplies. The references throughout the report refer to both WDC and Watercare Waikato as they were both involved during the compliance period.

Treatment Plants

Treatment Plant name	Bacterial compliance	Protozoa compliance	Cyanotoxin compliance	Chemical compliance	Radiological compliance	Overall
Huntly water supply						
Huntly (TP00132)	√	√	√	√	N/A	√
Ngaruawahia water supply						
Ngaruawahia (TP00131)	√	√	√	√	N/A	√
Raglan water supply						
Raglan (TP00128)	√	√	√	√	N/A	√
Te Kauwhata water supply						
Whangamarino (TP00127)	√	√	√	√	N/A	√
Te Akau water supply						
Te Akau (TP02142)	Section 10 requirements met				√	√

Distribution Zones

Distribution Zone name	Bacterial compliance	Cyanotoxin compliance	Chemical compliance	Overall
Huntly water supply				
Huntly (HUN002HU)	√	√	√	√
Rotongaro (HUN002RO)	√	√	√	√
Ngaruawahia water supply				
Hopuhopu (NGA002HP)	√	√	√	√
Horotiu (NGA002HO)	√	√	√	√
Ngaruawahia (NGA002NG)	√	√	√	√
Taupiri (NGA002TA)	√	√	√	√
North Western Dist, Waikato DC water supply				

North Western Dist, Waikato DC (NOR013NO)	√	√	√	√
Raglan water supply				
Raglan (RAG001RA)	√	√	√	√
Southern Districts, Waikato DC water supply				
Southern Districts, Waikato DC (SOU009SO)	√	√	√	√
Te Kauwhata water supply				
Te Kauwhata/Rangiriri (TEK001TR)	√	√	√	√
Whangamarino Rural /Meremere (TEK001WH)	√	√	√	√
Western District, Waikato DC water supply				
Western District, Waikato DC (WES014WE)	√	√	√	√
Te Akau water supply				
Te Akau (TEA009TE)	√	N/A	√	√

Huntly (HUN002):

- Continuous monitoring results for FACE and turbidity (Huntly (TP00132)); showed bacterial compliance with section 4.2.2(a), DWSNZ.
- Continuous monitoring results for turbidity (Huntly (TP00132)); showed protozoa compliance with sections 5.4 and 5.8; DWSNZ was achieved.
- Monitoring results for *E. coli* showed bacterial compliance with criterion 6A, section 4.3.1, DWSNZ was achieved for the Huntly (HUN002HU) and Rotongaro (HUN002RO) Distribution Zones.
- The Huntly water supply Water Safety Plan is due for reassessment by June 2023. However, please see the information stated below in the grey box.

Ngaruawahia (NGA002):

- Continuous monitoring results for FACE and turbidity (Ngaruawahia (TP00131)); showed bacterial compliance with section 4.2.2(a), DWSNZ.
- Continuous monitoring results for turbidity (Ngaruawahia (TP00131)); showed protozoa compliance with sections 5.4 and 5.8; DWSNZ was achieved.
- Monitoring results for *E. coli* showed bacterial compliance with criterion 6A, section 4.3.1, DWSNZ was achieved for the Hopuhopu (NGA002HP), Horotiu (NGA002HO), Ngaruawahia (NGA002NG) and Taupiri (NGA002TA) Distribution Zones.
- The Ngaruawahia water supply Water Safety Plan is due for reassessment by June 2023. However, please see the information stated below in the grey box.

North Western Dist, Waikato DC (NOR013):

- Monitoring results for *E. coli* showed bacterial compliance with criterion 6A, section 4.3.1, DWSNZ was achieved for the North Western Dist, Waikato DC (NOR013NO) Distribution Zone.
- The North Western District and Western District Water Supply Water Safety Plan is due for reassessment by April 2023. However, please see the information stated below in the grey box.

Raglan (RAG001):

- Continuous monitoring results for FACE and turbidity (Raglan (TP00128)); showed bacterial compliance with section 4.2.2(a), DWSNZ.
- Continuous monitoring results for UV (Raglan (TP00128)); showed protozoa compliance with section 5.16; DWSNZ was achieved.
- Monitoring results for *E. coli* showed bacterial compliance with criterion 6A, section 4.3.1, DWSNZ was achieved for the Raglan (RAG001RA) Distribution Zone.

- The Raglan water supply Water Safety Plan was due for reassessment before April 2020. Watercare Waikato advised WaDWAS on the 28th of May 2020 that a revised WSP was being prepared but acknowledged that the current WSP had expired. A revised WSP was submitted by the WDC - Waters Contract Relationship Manager on the 26th of June 2020. WaDWAS acknowledged receipt of the WSP and advised that it would not be assessed within the customary 20 working days due to DWA capacity issues and the Ministry of Health annual drinking water survey. Subsequently the WSP assessment will now be undertaken by Waicomply, the Ministry of Health contracted company that is responsible for DWA activities for Watercare.

Southern Districts, Waikato DC (SOU009):

- Monitoring results for *E. coli* showed bacterial compliance with criterion 6A, section 4.3.1, DWSNZ was achieved for the Southern Districts, Waikato DC (SOU009SO) Distribution Zone.
- The Southern Districts, Waikato DC water supply Water Safety Plan is due for reassessment before April 2023. However, please see the information stated below in the grey box.

Te Akau (TEA009):

- Compliance with section 10.2, DWSNZ was achieved for the Te Akau (TEA009) water supply by demonstration of the bacterial and protozoan monitoring requirements of Section 10.4, DWSNZ.
- Radiological sampling for the source water of the Te Akau Treatment Plant (TP02142) was undertaken in August 2015, this is not required to be undertaken again until after April 2025.
- The Te Akau water supply Water Safety Plan is due for reassessment before April 2020. WDC/Watercare Waikato advised in May 2020 that a new WSP was ready but WaDWAS advised to submit a single WSP initially (Raglan) due to the fact that a WSP is not legally required for this supply.

Te Kauwhata (TEK001):

- Continuous monitoring results for FACE and turbidity (Whangamarino (TP00127)); showed bacterial compliance with section 4.2.2(a), DWSNZ.
- Continuous monitoring results for turbidity (Whangamarino (TP00127)); showed protozoa compliance with sections 5.4 and 5.8; DWSNZ was achieved.
- Monitoring results for *E. coli* showed bacterial compliance with criterion 6A, section 4.3.1, DWSNZ was achieved for the Te Kauwhata/Rangiriri (TEK001TR) and Whangamarino Rural /Meremere (TEK001WH) Distribution Zones.
- The Te Kauwhata water supply Water Safety Plan is due for reassessment before June 2023. However, please see the information stated below in the grey box.

Western District, Waikato DC (WES014):

- Monitoring results for *E. coli* showed bacterial compliance with criterion 6A, section 4.3.1, DWSNZ was achieved for the Western District, Waikato DC (WES014WE) Distribution Zone.
- The North Western District and Western District Water Supply Water Safety Plan is due for reassessment by April 2023. However, please see the information stated below in the grey box.

The Waikato Drinking Water Assessment Service would like give deserved recognition to the hard work of the water operators and administrators throughout the 2019/2020 year in working toward delivering a safe supply of drinking water to the community.

The Drinking Water Assessor (DWA) considers the following tasks as priority for the upcoming 2020/2021 compliance year:

- Continuing to provide the good quality incident reports for any transgressions and events.
- It should be noted that the Ministry of Health released the new WSP Framework in December 2018 which outlined requirements for 10 components to be expressly included in WSPs including areas such as commitment to drinking water quality management and verification of monitoring programmes. The MoH further released the Handbook for preparing a Water Safety Plan in May 2019 which contains additional details on the expectations for new WSPs. There are expectations that the new framework requirements are included into WSPs when they currently expire.
- WDC are encouraged to review the dosing levels of fluoride at the Huntly, Ngaruawahia and Whangamarino Water Treatment Plants, to ensure that the levels are adequate in protecting oral health of these Waikato DC communities.

Treatment Plants

Bacterial compliance is under section 4 of the DWSNZ

Protozoal compliance is under section 5 of the DWSNZ

Cyanotoxin compliance is under section 7 of the DWSNZ

Chemical compliance is under section 8 of the DWSNZ

Radiological compliance is under section 9 of the DWSNZ

The following compliance information is derived from the Drinking Water Online (DWO) database, Water Outlook data management system monthly reports submitted, and other associated correspondence from WDC/Watercare Waikato.

Treatment Plant: Bacterial compliance

Summary of treatment performance monitoring results under criterion 2A

Compliance has been assessed against the criterion 2A of section 4.2.2(a), DWSNZ for water leaving the Huntly, Ngaruawahia, Raglan and Whangamarino Treatment Plants. This is based around continuously monitored free available chlorine equivalence (FACE) and turbidity.

Treatment Plant name	Treatment Parameter	Requirements in DWSNZ	Summary of monitoring results	Compliance
Huntly water supply - Criterion 2A				
Huntly (TP00132)	FACE	Daily 98% of samples $\geq 0.2\text{mg/L}$ Daily 98% of samples have min C.t of 6.	Daily 98% of samples $\geq 0.2\text{mg/L}$ Daily 98% of samples have min C.t of 6.	Compliant
	Turbidity	Daily 95% samples $<1\text{NTU}$ No sample $>2\text{ NTU}$	Daily 95% samples $<1\text{NTU}$ No sample $>2\text{ NTU}$	Compliant
Ngaruawahia water supply - Criterion 2A				
Ngaruawahia (TP00131)	FACE	Daily 98% of samples $\geq 0.2\text{mg/L}$ Daily 98% of samples have min C.t of 6.	Daily 98% of samples $\geq 0.2\text{mg/L}$ Daily 98% of samples have min C.t of 6.	Compliant

	Turbidity	Daily 95% samples <1NTU No sample >2 NTU	Daily 95% samples <1NTU No sample >2 NTU	Compliant
Raglan water supply - Criterion 2A				
Raglan (TP00128)	FACE	Daily 98% of samples ≥ 0.2mg/L Daily 98% of samples have min C.t of 6.	Daily 98% of samples ≥ 0.2mg/L Daily 98% of samples have min C.t of 6.	Compliant
	Turbidity	Daily 95% samples <1NTU No sample >2 NTU	Daily 95% samples <1NTU No sample >2 NTU	Compliant
Te Kauwhata water supply - Criterion 2A				
Whangamarino (TP00127)	FACE	Daily 98% of samples ≥ 0.2mg/L Daily 98% of samples have min C.t of 6.	Daily 98% of samples ≥ 0.2mg/L Daily 98% of samples have min C.t of 6.	Compliant
	Turbidity	Daily 95% samples <1NTU No sample >2 NTU	Daily 95% samples <1NTU No sample >2 NTU	Compliant

Summary of compliance with sampling / analytical / remedial / operational requirements

Compliance with criterion 2A of section 4.2.2(a), DWSNZ **was met** for the following plants for the period 01/07/19 – 30/06/20 for the following reasons:

- Huntly (TP00132), Ngaruawahia (TP00131), Raglan (TP00128) and Whangamarino (TP00127), continuous FACE and turbidity requirements were able to be demonstrated for the entire compliance period. It is noted that the C.t values were provided for monitoring data from 1 January 2020 and this was considered acceptable to the DWA, prior to 1 January 2020 the 30 minute contact time was demonstrated.

Treatment Plant: Protozoa compliance

Treatment Plant name	Protozoa Log Credit requirement	Log credit determined through what process
Huntly water supply		
Huntly (TP00132)	4	Confirmed in April 2018 based on previous catchment risk assessment
Ngaruawahia water supply		
Ngaruawahia (TP00131)	4	Confirmed in April 2018 based on previous catchment risk assessment
Raglan water supply		
Raglan (TP00128)	3	Confirmed in April 2018 based on previous catchment risk assessment
Te Akau water supply		
Te Akau (TP02142)	2	Confirmed in March 2015 based on previous catchment risk assessment
Te Kauwhata water supply		
Whangamarino (TP00127)	4	Confirmed in April 2018 based on previous catchment risk assessment

Summary of compliance with risk categorisation process

Te Akau (TP02142) has been allocated 2-log protozoa removal based on a catchment risk assessment undertaken in March 2015, and subsequently operating under Section 10, DWSNZ. Note a revised Catchment Risk Assessment will also need to be submitted with the Te Akau Water Safety Plan.

Raglan (TP00128) has been allocated 3-log protozoa removal based on a catchment risk assessment undertaken in April 2018.

Huntly (TP00132), Ngaruawahia (TP00131) and Whangamarino (TP00127) have been allocated 4-log protozoa removal based on catchment risk assessments undertaken in April 2018.

It should be noted that the requirement for protozoa monitoring to be undertaken every five years in the Revised 2008 DWSNZ has been removed from the 2018 DWSNZ revision. The new provisions state the default requirement for protozoa in surface waters is 3-log inactivation or removal and that the Water Safety Plan (WSP) are now to include an assessment of the catchment. If the WSP indicates that 4-log credits may be required, *Cryptosporidium* monitoring is needed. Further that if the source water receives a higher level of treatment than required (eg. 4-log removal for a 3-log categorisation) then this only needs to be reviewed if the source water quality is assessed to have deteriorated.

Summary of treatment processes and associated log credits

Treatment Plant name	Treatment process ¹	Potential log credit available	Summary of turbidity results	Compliance with all other requirements of criterion ²	Log credit achieved
Huntly water supply					
Huntly (TP00132)	Coagulation, sedimentation & filtration	3	Compliant	Yes	3
	Enhanced Individual Filtration	1	Compliant	Yes	1
	Ultraviolet disinfection	3	Not submitted	No	0
Ngaruawahia water supply					
Ngaruawahia (TP00131)	Coagulation, sedimentation & filtration	3	Compliant	Yes	3
	Enhanced Individual Filtration	1	Compliant	Yes	1
Raglan water supply					
Raglan (TP00128)	Ultraviolet disinfection	3	Compliant	Yes	3
Te Kauwhata water supply					
Whangamarino (TP00127)	Coagulation, sedimentation & filtration	3	Compliant	Yes	3
	Enhanced Individual Filtration	1	Compliant	Yes	1
	Ultraviolet disinfection	3	Compliant	Yes	3

¹ Treatment Process meeting DWSNZ definition of available combination of treatment technology

² Further detail provided below under log credit assessment

Summary of log credit assessment

Information sourced from monthly reports submitted by WDC/Watercare Waikato, DWO data and associated correspondence from WDC/Watercare Waikato.

- Huntly (TP00132), protozoa compliance **was met** by demonstration of turbidity against sections 5.4 and 5.8, DWSNZ. However, UV disinfection compliance under section 5.16 was not able to be demonstrated for the period 1st July 2019 – 30th June 2020, as no UV disinfection monitoring data was submitted. WDC/Watercare Waikato acknowledge that UV is not used for compliance but to support the multi barrier approach.
- Ngaruawahia (TP00131), protozoa compliance **was met** by demonstration of turbidity against sections 5.4 and 5.8, DWSNZ.
- Raglan (TP00128), protozoa compliance **was met** by demonstration of UV disinfection against section 5.16, DWSNZ.
- Whangamarino (TP00127), protozoa compliance **was met** by demonstration of turbidity against sections 5.4 and 5.8, DWSNZ. UV disinfection compliance against section 5.16 was also able to be demonstrated throughout the compliance period.

Log credit total (total of all treatment processes) achieved:

Huntly (TP00132)	4
Ngaruawahia (TP00131)	4
Raglan (TP00128)	3
Whangamarino (TP00127)	7

Treatment Plant: Cyanotoxin compliance

Not applicable to WDC groundwater supplies. For WDC surface water supplies the following comments have been made.

Summary of management protocol compliance

Huntly (TP00132), Ngaruawahia (TP00131) and Whangamarino (TP00127): Management of cyanobacteria in WDC's surface water sourced Huntly (TP00132), Ngaruawahia (TP00131) and Whangamarino (TP00127) water treatment plants are stated in the WDC document 'Cyanobacteria Response Plan 25-7-17', this complies with section 7, DWSNZ.

Raglan (TP00128): Source waters supplying this treatment plant are not known to have previously experienced algal blooms. The DWA does not judge them to be at risk of bloom development therefore, no cyanobacteria management protocol is required for this treatment plant at this time. However, this may be reviewed in the future as these source waters could contain cyanotoxins due to runoff or seepage from ponded water or nearby wet soil that supports the growth of cyanobacteria as the source water supplying this plant is considered equivalent to source water.

WDC are encouraged to advise the DWA if:

- Raglan (TP00128) experiences algal blooms
- Cyanobacteria are found in the source water supplying the Raglan (TP00128) Treatment Plant
- WDC identify runoff or seepage from ponded water or nearby wet soil that supports the growth of cyanobacteria particularly near the source waters supplying the Raglan Treatment Plant.

Treatment Plant: Chemical compliance

Huntly (TP00132), Ngaruawahia (TP00131), Raglan (TP00128) and Whangamarino (TP00127): A Plumbosolvent water (warning / public notice) was provided to consumers at the specified frequency (six monthly) during the compliance period.

Priority 2 Determinands: Monitoring Results

Treatment Plant name	P2 Determinands	No. of samples required	No. of samples taken	Transgressions	Compliance
Huntly (TP00132)	Fluoride	52	52	0	Compliant
Ngaruawahia (TP00131)	Fluoride	52	52	0	Compliant
Whangamarino (TP00127)	Fluoride	52	52	0	Compliant

Priority 2 Determinands: Summary of compliance with general sampling/ remedial actions / analytical requirements

Huntly (TP00132), Ngaruawahia (TP00131), Whangamarino (TP00127): Fluoride monitoring was satisfactory regarding sampling sites; MoH recognised laboratory and the analytical results.

It is to be noted that WDC may need to review the level of fluoride being dosed, this to successfully protect oral health in the Waikato communities. This is due to approximately 98% of the samples found throughout the compliance period that were below the adequate level of 0.70 mg/L. The Ministry of Health recommends that the fluoride content in New Zealand drinking-water should be maintained in the range of 0.7 to 1.0mg/L for oral health reasons.

Treatment Plant: Radiological compliance

The radiological requirements are only applicable to groundwater.

Results Summary

Treatment Plant name	Number of Samples Taken	Exceedences of MAVs	One in ten year test completed?	Compliance
Te Akau (TP02142)	1 (from Te Akau Bore)	0	Yes analyses completed: 7/04/2015	Yes Due again in 2025

Radiological sampling was undertaken in April 2015 and will not be required again until 2025. Radiological monitoring is required for bore water supplies that are not considered equivalent to surface water.

Distribution Zones

Distribution Zone bacterial compliance is under section 4.3 of the DWSNZ

Cyanotoxin compliance is under section 7 of the DWSNZ

Chemical compliance is under section 8 of the DWSNZ

The following compliance information is derived from Drinking Water Online (DWO) database, and associated information supplied by WDC/Watercare Waikato.

Distribution Zone: Bacterial compliance

Summary of *E. coli* sampling results

Bacterial compliance has been assessed against criterion 6A of section 4.3.1, DWSNZ; which is based on *E. coli* sampling only. Section 4.3.4.1 also refers to total coliform monitoring which must be undertaken at the same frequency as *E. coli* monitoring and this has been met.

Distribution Zone name	Number of <i>E. Coli</i> (total coliform) samples required	Number of samples collected	Number of transgressions	Compliance
Huntly water supply				
Huntly (HUN002HU)	64	83	0	Compliant
Rotongaro (HUN002RO)	12	21	0	Compliant
Ngaruawahia water supply				
Hopuhopu (NGA002HP)	12	22	0	Compliant
Horotiu (NGA002HO)	12	21	0	Compliant
Ngaruawahia (NGA002NG)	64	83	0	Compliant
Taupiri (NGA002TA)	52	71	0	Compliant
North Western Dist, Waikato DC water supply				
North Western Dist, Waikato DC (NOR013NO)	12	27	0	Compliant
Raglan water supply				
Raglan (RAG001RA)	52	101	0	Compliant
Southern Districts, Waikato DC water supply				
Southern Districts, Waikato DC (SOU009SO)	64	82	0	Compliant
Te Kauwhata water supply				
Te Kauwhata /Rangiriri (TEK001TR)	52	71	0	Compliant
Whangamarino Rural/ Meremere (TEK001WH)	52	71	0	Compliant
Te Akau water supply				
Te Akau (TEA009TE)	4	20	0	Compliant
Western District, Waikato DC water supply				
Western District, Waikato DC (WES014WE)	12	21	0	Compliant

Compliance with criterion 6A of section 4.3.1, DWSNZ **was met** for the following Distribution Zones for the period 01/07/19 – 30/06/20 for the following reasons:

- Huntly (HUN002HU), Rotongaro (HUN002RO), Hopuhopu (NGA002HP), Ngaruawahia (NGA002NG), Horotiu (NGA002HO), Taupiri (NGA002TA), Raglan (RAG001RA), Southern Districts, Waikato DC (SOU009SO), North Western Dist, Waikato DC (NOR013NO), Te Kauwhata/Rangiriri (TEK001TR), Whangamarino Rural/Meremere (TEK001WH), Te Akau (TEA009TE) and Western District, Waikato DC (WES014WE) Distribution Zones complied with the monitoring requirements for the number of samples, the interval between samples and the days of the week that monitoring is required. Analysis of the samples is undertaken by Hamilton City Council Laboratory, which is a Ministry of Health approved laboratory for this analysis.

Distribution Zone: Cyanotoxin compliance

This section is not applicable as there are no P2 cyanotoxin determinands associated with any WDC supplies.

Distribution Zone: Chemical compliance

Not applicable where no P2 determinands are assigned to the distribution zone.

Supplies using Section 10 to demonstrate compliance

Section 10: compliance and monitoring information

Name of Supply	WSP approved & implemented	Appropriate treatment*	Monitoring	Remedial Actions	Overall compliance
Te Akau (TP02142)	Met	Met	Met	Met	Compliant

*Appropriate treatment includes bacterial, chemical and protozoa treatment.

Section 10: Summary of compliance

Compliance with section 10.2, DWSNZ **was met** for the following participating supply for the period 01/07/19 – 30/06/20 for the following reasons:

- Te Akau water supply has a WSP which was approved in April 2015. A WSP implementation assessment was undertaken in September 2016 and it was concluded that the WSP had been adequately implemented. Cartridge filtration and chlorination is used to treat the water. WDC submitted results of the weekly differential pressure recordings, as well as measurements of pH, FAC and turbidity of the treated water being uploaded into the Drinking Water Online database (DWO). The monitoring results were found to meet the requirements of section 10, DWSNZ, to show bacterial and protozoa compliance. There were 20 *E. coli* monitoring samples taken from the Distribution Zone, with no transgressions recorded. Furthermore, the required number of total coliform monitoring samples was also obtained, in accordance with the DWSNZ.

Summary of Audit Activities to Verify DWSNZ Monitoring Data

Much of the data verification activities were undertaken during the Ministry of Health annual drinking-water survey. The data for the WDC water supplies is collated into the DWO data reporting system used for demonstrating drinking-water compliance. Monthly summaries of continuous monitoring data are forwarded to the Waikato Drinking Water Assessment Service (WaDWAS). In addition, compliance information was summarised in DWO. Other activities included;

- Issue of the DWSNZ 2018/19 compliance report to Waikato DC on 4th September 2019;
- Joint Working Group drinking water meeting with all 10 councils, Waikato Regional Council and the Drinking Water team from WaDWAS on the 11th December 2019;
- Raglan communication failure response in May 2020 and review of investigation report;
- On 18th June 2020, staff from Watercare Waikato and WaDWAS met at the Ngaruawahia Water Treatment Plant to discuss compliance;
- On 26th June 2020, Waikato DC submitted the Raglan WSP for assessment;
- Health Act 1956 required information and evidence received by WaDWAS on 3rd July 2020.

Summary of DWSNZ Compliance

Treatment Plants

Treatment Plant name	Bacterial compliance	Protozoa compliance	Cyanotoxin compliance	Chemical compliance	Radiological compliance	Overall
Huntly water supply						
Huntly (TP00132)	Compliant	Compliant	Compliant	Compliant	N/A	Compliant
Ngaruawahia water supply						
Ngaruawahia (TP00131)	Compliant	Compliant	Compliant	Compliant	N/A	Compliant
Raglan water supply						
Raglan (TP00128)	Compliant	Compliant	Compliant	Compliant	N/A	Compliant
Te Kauwhata water supply						
Whangamarino (TP00127)	Compliant	Compliant	Compliant	Compliant	N/A	Compliant
Te Akau water supply						
Te Akau (TP02142)	Section 10 requirements compliant		N/A	Compliant	Compliant	Compliant

Full compliance with the DWSNZ **was achieved** for Huntly (TP00132), Ngaruawahia (TP00131), Raglan (TP00128), Whangamarino (TP00127) and Te Akau Treatment Plants for the period 01/07/19 – 30/06/20.

Distribution Zones

Distribution Zone name	Bacterial compliance	Cyanotoxin compliance	Chemical compliance	Overall
Huntly water supply				
Huntly (HUN002HU)	Compliant	N/A	Compliant	Compliant
Rotongaro (HUN002RO)	Compliant	N/A	Compliant	Compliant
Ngaruawahia water supply				
Hopuhopu (NGA002HP)	Compliant	N/A	Compliant	Compliant
Horotiu (NGA002HO)	Compliant	N/A	Compliant	Compliant
Ngaruawahia (NGA002NG)	Compliant	N/A	Compliant	Compliant
Taupiri (NGA002TA)	Compliant	N/A	Compliant	Compliant
North Western Dist, Waikato DC water supply				
North Western Dist, Waikato DC (NOR013NO)	Compliant	N/A	Compliant	Compliant
Raglan water supply				
Raglan (RAG001RA)	Compliant	N/A	Compliant	Compliant
Southern Districts, Waikato DC water supply				
Southern Districts, Waikato DC (SOU009SO)	Compliant	N/A	Compliant	Compliant
Te Kauwhata water supply				
Te Kauwhata/Rangiriri (TEK001TR)	Compliant	N/A	Compliant	Compliant
Whangamarino Rural /Meremere (TEK001WH)	Compliant	N/A	Compliant	Compliant
Te Akau water supply				
Te Akau (TEA009TE)	Compliant	N/A	Compliant	Compliant
Western District, Waikato DC water supply				
Western District, Waikato DC (WES014WE)	Compliant	N/A	Compliant	Compliant

Full compliance with the DWSNZ **was achieved** for Huntly (HUN002HU), Rotongaro (HUN002RO), Hopuhopu (NGA002HP), Horotiu (NGA002HO), Ngaruawahia (NGA002NG), Taupiri (NGA002TA), North Western Dist, Waikato DC (NOR013NO), Raglan (RAG001RA), Southern Districts, Waikato DC (SOU009SO), Te Kauwhata/Rangiriri (TEK001TR), Whangamarino Rural/Meremere (TEK001WH), Te Akau (TEA009TE) and Western District, Waikato DC (WES014WE) Distribution Zones for the period 01/07/19 – 30/06/20.

Assessment of Compliance with Duties of drinking-water suppliers under the Act

The duties of the water supplier under the Act **have been met** for all supplies.

Section 69S – Duty of suppliers in relation to the provision of drinking water	Met for all supplies.
---	-----------------------

This decision is based on the following:

This was assessed on the 5th of August 2020 by Mark Palmer (WaDWAS). Information supplied by Carole Nutt (WDC -Waters Contract Relationship Manager) on 2nd of July 2020 was that throughout the compliance period there were no interruptions or restrictions to water supplies greater than eight hours that were planned or for emergency works. It is considered that the duties under this section have been met.

Section 69U – Duty to take reasonable steps to contribute to protection of source of drinking water	Met for all supplies.
--	-----------------------

This decision is based on the following:

This was assessed on the 5th of August 2020 by Mark Palmer (WaDWAS) based on information supplied by Carole Nutt (WDC -Waters Contract Relationship Manager) on 2nd of July 2020. WDC have undertaken the following source protection activities:

- WDC participates in the Futureproof forum as well as water liaison groups involving, Hamilton City Council and Waipa District Council;
- Council submission to the Resource Management Systems Review –issues and options paper in February 2020, including protection of freshwater biodiversity and long term sustainability of water use;
- Intakes are regularly checked by treatment operators;
- WDC continues to be an active member of a quarterly sub-regional waters forum;
- WDC has catchment control measures as described in the 2014 Water Supply Bylaw;
- Agreements with emergency services to notify if any hazards (chemical etc.) are evident in catchments;
- WDC have committed funding for the next 5 years with Waikato RiverCare in Te Kauwhata;
- WDC work with developers to ensure that riparian planting and waterway protection is included in new subdivisions;
- Ongoing ecological enhancement programme district wide, fencing of waterways promotion, habitat restoration and conversation covenants are some of the additional areas that WDC are working on.

WDC is deemed to be in compliance with Section 69U of the Act by continuing to take reasonable steps to contribute to the protection of the sources of drinking water.

Section 69Y – Duty to monitor drinking water	Met for all supplies.
---	-----------------------

This decision is based on the following:

This was assessed on the 5th of August 2020 by Mark Palmer (WaDWAS) based on information that is held on file at WaDWAS and Drinking Water Online (DWO).

Section 69Z – Duty to prepare and implement Water Safety Plan Section 69ZB – Duration of plans Section 69ZC – Review and renewal of plans	Met for all supplies.
--	-----------------------

This decision is based on the following:

Water Supply	Water Safety Plan (WSP) Version	Date Approved	Water Safety Plan Status	Compliance with 69Z
Huntly	Huntly Water Supply Water Safety Plan (WSP), dated May 2018 – Final Version 2.	18/06/2018	Implemented ¹	Compliant
Ngaruawahia	Ngaruawahia Water Supply Water Safety Plan (WSP), dated March 2018 – Final Version 2.	23/06/2018	Implemented ²	Compliant
North Western Dist, Waikato DC	North Western District and Western District Water Supply Water Safety Plan (WSP), dated March 2018, version 1	28/04/2018	Implemented ³	Compliant
Raglan	Raglan Water Supply Water Safety Plan (WSP), dated April 2015, version 1.1	30/04/2015	Draft ⁴	Compliant
Southern Districts, Waikato DC	Southern Districts Drinking Water Supply Water Safety Plan (WSP), dated March 2018, version 1	28/04/2018	Implemented ⁵	Compliant
Te Akau	Te Akau Water Supply Water Safety Plan (WSP), dated April 2015, version 1.2	24/04/2015	Draft ⁶	Compliant
Te Kauwhata	Te Kauwhata Water Supply Water Safety Plan (WSP), dated February 2018, version 1	30/06/2018	Implemented ⁷	Compliant
Western District, Waikato DC	North Western District and Western District Water Supply Water Safety Plan (WSP), dated March 2018, version 1	28/04/2018	Implemented ³	Compliant

¹This decision is based on the following – Huntly Water Supply Water Safety Plan (WSP), dated May 2018 – Final Version 2, was approved on 18th June 2018, and is being subsequently implemented (implementation assessment undertaken 15th and 16th April 2019). The WSP must be reviewed every five years, and a revised WSP must be submitted to a DWA before June 2023 (sooner if any upgrades to the water supply occur/amendments to the WSP occur).

²This decision is based on the following – Ngaruawahia Water Supply Water Safety Plan (WSP), dated March 2018 – Final Version 2, was approved on 23rd June 2018, and is subsequently being implemented (implementation assessment undertaken 15th and 16th April 2019). The WSP must be reviewed every five years, and a revised WSP must be submitted to a DWA before June 2023 (sooner if any upgrades to the water supply occur/amendments to the WSP occur).

³This decision is based on the following – North Western District and Western District Water Supply Water Safety Plan (WSP), dated March 2018 - version 1, was approved on 28th April 2018 and is subsequently being implemented (implementation assessment undertaken 15th February 2019). It is to be noted, that as this supply provides water to less than 500 people, it is not a requirement of the Act to have an approved and implemented WSP.

⁴This decision is based on the following – Raglan Water Supply Water Safety Plan (WSP), dated April 2015, was approved on 30th April 2015, and was subsequently being implemented. The Raglan WSP expired in April 2020 and a revised WSP was received by WaDWAS on 26th June 2020. While WaDWAS acknowledged receipt of the WSP, WDC/Watercare Waikato were advised that the assessment would not be undertaken in the customary 20 working days due to DWA capacity and the Ministry of Health annual drinking water survey.

⁵This decision is based on the following – Southern Districts Drinking Water Supply Water Safety Plan (WSP), dated March 2018 - version 1, was approved on 28th April 2018 and is subsequently being implemented (implementation assessment undertaken 15th February 2019). The WSP must be reviewed every five years, and a revised WSP must be submitted to a DWA before April 2023 (sooner if any upgrades to the water supply occur/amendments to the WSP occur).

⁶This decision is based on the following – Te Akau Water Supply Water Safety Plan, dated April 2015, was approved on 24th April 2015, and was subsequently being implemented. The Ta Akau WSP expired in April 2020 and WDC/Watercare Waikato have advised a draft has been prepared. Watercare Waikato were asked not to submit the WSP due to DWA capacity issues and the DWA felt that the Raglan WSP needed to be submitted and assessed in the first instance.

⁷This decision is based on the following – Te Kauwhata Water Supply Water Safety Plan (WSP), dated February 2018 - version 1, was approved on 30th June 2018, and is subsequently being implemented (implementation assessment undertaken 15th and 16th April 2019). The WSP must be reviewed every five years, and a revised WSP must be submitted to a DWA before June 2023 (sooner if any upgrades to the water supply occur /amendments to the WSP occur).

Please note:

The supplier is reminded that a WSP should be treated as a living document and be regularly reviewed and updated to align it with Council asset management and long-term plans. Changes to the source, treatment, distribution, storage, or operation may indicate that a WSP review is required. The DWA expects to be kept informed of these changes. It is encouraging to note that information on Critical Control Points (CCPs) and process control summaries is now included in your WSPs as per the Ministry of Health's advice in August 2017. These important areas of the water supply and documentation will be checked when a WSP implementation assessment is undertaken by a DWA on your water supplies.

It should be noted that the Ministry of Health released the new WSP Framework in December 2018 which outlined requirements for 10 components to be expressly included in WSPs including areas such as commitment to drinking water quality management and verification of monitoring programmes. The MoH further released the Handbook for preparing a Water Safety Plan in May 2019 which contains additional details on the expectations for new WSPs. There are expectations that the new framework requirements are included into WSPs when they currently expire.

Section 69ZD – Duty to keep records and make them available

Met for all supplies.

This decision is based on the following:

This was assessed on the 5th of August 2020 by Mark Palmer (WaDWAS) based on information supplied by Carole Nutt (WDC -Waters Contract Relationship Manager) on 2nd of July 2020. Over the compliance period WaDWAS has received all information and compliance records/data and been made available when requested by the DWA. It is considered that the duties under this section have been met.

Section 69ZE – Duty to investigate complaints	Met for all supplies.
--	-----------------------

This decision is based on the following:

This was assessed on the 5th of August 2020 by Mark Palmer (WaDWAS) based on information supplied by Carole Nutt (WDC -Waters Contract Relationship Manager) on 2nd of July 2020 was that 76 complaints regarding taste, odour, colour, interrupted supply and water leaks were received over the compliance period. WDC had a system in place to manage complaints when they are received. It is considered that the duties under this section have been met.

Section 69ZF – Duty to take remedial actions if drinking-water standards are breached	Met for all supplies.
--	-----------------------

This decision is based on the following:

This was assessed on the 5th of August 2020 by Mark Palmer (WaDWAS) based on information that is held on file at WaDWAS and Drinking Water Online (DWO). Over the compliance period WaDWAS was satisfied that WDC/Watercare Waikato undertook appropriate remedial actions as required.

Conclusion

The results in this report relate only to the compliance of the above listed Treatment Plants and Distribution Zones.

Please be aware that under the Act, Huntly (HUN002), Ngaruawahia (NGA002) and Southern Districts, Waikato DC (SOU009) water supplies fall into the category of medium drinking-water supplies. Therefore the legal requirement to comply with the DWSNZ applied from 1 July 2013 and this has been met.

Please be aware that under the Act, Raglan (RAG001) and Te Kauwhata (TEK001) water supplies fall into the category of minor drinking-water supplies. Therefore the legal requirement to comply with the DWSNZ applied from 1 July 2014 and this has been met.

Please be aware that under the Act, North Western Dist, Waikato DC (NOR013) water supply falls into the category of a small drinking-water supply. Therefore the legal requirement to comply with the DWSNZ applied from 1 July 2015 and this has been met.

Please be aware that under the Act, Western District, Waikato DC (WES014) and Te Akau water supplies fall into the category of neighbourhood drinking water supplies. Therefore the legal requirement to comply with the DWSNZ applied from 1 July 2016 and this has been met.

Information in this report may be provided to the Ministry of Health at their request. With the exception of the Ministry of Health, this report shall not be reproduced without the approval of the Waikato Drinking Water Assessment Service and Waikato District Council.

Completed: 30 September 2020



Matt Molloy
Drinking Water Assessor
Waikato Drinking Water Assessment Service

Assessment Report Information

Report identifier	WaikatoDC_DWSNZCompliance_2020_10_01_v1
Drinking Water Assessment Unit (Inspection Body)	Waikato Drinking Water Assessment Service Public Health Waikato District Health Board Private Bag 3200 HAMILTON 3240
Drinking Water Assessor	Matt Molloy
Assessment Date	July and August 2020
Description of assessment work	<p>Assessment of Compliance with DWSNZ for:</p> <p>Huntly (HUN002) water supply including: Waikato River for Huntly (S00071) Source; Huntly (TP00132) Water Treatment Plant; Huntly (HUN002HU) and Rotongaro (HUN002RO) Distribution Zones.</p> <p>Ngaruawahia (NGA002) water supply including: Waikato River for Ngaruawahia (S00070) Source; Ngaruawahia (TP00131) Water Treatment Plant; Hopuhopu (NGA002HP), Horotiu (NGA002HO), Ngaruawahia (NGA002NG) and Taupiri (NGA002TA) Distribution Zones.</p> <p>North Western Dist, Waikato DC (NOR013) water supply including: North Western Dist, Waikato DC (NOR013NO) Distribution Zone.</p> <p>Raglan (RAG001) water supply including: Spring, Raglan (G00464) Source; Raglan (TP00128) Water Treatment Plant; Raglan (RAG001RA) Distribution Zone.</p> <p>Southern Districts, Waikato DC (SOU009) water supply including: Southern Districts, Waikato DC (SOU009SO) Distribution Zone.</p> <p>Te Akau (TEA009) water supply including: Te Akau Bore (G01282) Source; Te Akau (TP02142) Water Treatment Plant; Te Akau (TEA009TE) Distribution Zone.</p> <p>Te Kauwhata (TEK001) water supply including: Waikato River for Te Kauwhata (S00067) Source; Whangamarino (TP00127) Water Treatment Plant; Te Kauwhata/Rangiriri (TEK001TR) and Whangamarino Rural/Meremere (TEK001WH) Distribution Zones.</p> <p>Western District, Waikato DC (WES014) water supply including: Western District, Waikato DC (WES014WE) Distribution Zone.</p>
Equipment Used	Drinking Water Online database

Water Supply Owner / Person Responsible	Waikato District Council Carole Nutt Waters Contract Relationship Manager
Assessment method	Standard assessment as per DWA Function 1 Drinking Water Standards for New Zealand 2005 (Revised 2018)
Documents and Information	Drinking Water Standards for New Zealand 2005 (Revised 2018) Health Act 1956, Part 2A Summarised compliance information from Waikato District Council.
Site of Assessment	Office based assessment
Omissions from proposed assessment	Nil
Sub-contracted work	Nil
Document checked by:	Name: Mark Palmer Title: Drinking Water Assessor Date: 30/09/2020
Release of report authorised by:	Name: Matt Molloy Title: Drinking Water Assessor  Signature: Date: 01/10/2020

If you do not agree with the findings of this report a written appeal must be lodged with the Technical Manager, WaDWAS, Public Health, Private Bag 3200, Hamilton 3240, within two months of receipt of this report. The Technical Manager will arrange for a review to be undertaken using the Ministry of Health appeals procedure.