Annual Environmental Report

2020

Tralee

D0040-01

CONTENTS

7.1 AMBIENT MONITORING SUMMARY

1 EXECUTIVE SUMMARY AND INTRODUCTION TO THE 2020 AER

This Annual Environmental Report has been prepared for D0040-01, Tralee, in Kerry in accordance with the requirements of the wastewater discharge licence for the agglomeration. Specified reports where relevant are included as an appendix to the AER.

1.1 ANNUAL STATEMENT OF MEASURES

A summary of any improvements undertaken is provided where applicable.

1.2 TREATMENT SUMMARY

The agglomeration is served by a wastewater treatment plant(s)

- Tralee WWTP - 2020 with a Plant Capacity PE of 50333, the treatment type is 3NP - Tertiary N&P removal

1.3 ELV OVERVIEW

The overall compliance of the final effluent with the Emission Limit Values (ELVs) is shown below. More detailed information on the below ELV's can be found in Section 2.

Discharge Point Reference	Treatment Plant	Discharge Type	Compliance Status	Parameters failing if relevant
TPEFF1300D0040SW001	Tralee WWTP - 2020	Treated	Non-Compliant	Ammonia-Total (as N) mg/l Total Nitrogen mg/l Total Phosphorus (as P) mg/l

1.4 LICENCE SPECIFIC REPORTING INCLUDED IN AER

Assessment / Report	Included in AER
There are no Licence Specific Reports included in the AER.	

2 TREATMENT PLANT PERFORMANCE AND IMPACT SUMMARY

2.1 TRALEE WWTP - 2020 - TREATED DISCHARGE

2.1.1 INFLUENT MONITORING SUMMARY - TRALEE WWTP - 2020

A summary of influent monitoring for the treatment plant is presented below. This monitoring is primarily undertaken in order to determine the overall efficiency of the plant in removing pollutants from the raw wastewater.

Parameters	Number of Samples	Annual Max	Annual Mean
Total Nitrogen mg/l	27	96.19	19.17
COD-Cr mg/l	27	1904	229.66
Total Phosphorus (as P) mg/l	27	25.8	2.11
Suspended Solids mg/l	27	1680	159.01
BOD, 5 days with Inhibition (Carbonaceo mg/l	27	474	83.83
Hydraulic Capacity	N/A	14117	10576

If other inputs in the form of sludge / leachate are added to the WWTP then these are included in Section 2.1.5 if applicable.

Significance of Results:

The annual mean hydraulic loading is less than the peak Treatment Plant Capacity. The annual maximum hydraulic loading is less than the peak Treatment Plant Capacity. Further details on the plant capacity and efficiency can be found under the sectional ‘Operational Performance Summary’. The design of the wastewater tretament plant allows for peak values and therefore the peak loads have not impacted on compliance with Emission Limit Values.

2.1.2 EFFLUENT MONITORING SUMMARY - TPEFF1300D0040SW001

Parameter	WWDL ELV (Schedule A)	ELV with Condition 2 Interpretation included Note 1	Interim % reduction from influent concentration	Number of sample results	Number of exceedances	Number of with Condition 2 Interpretation included	Annual Mean	Overall Compliance (Pass/Fail)
COD-Cr mg/l	125	250	N/A	27	N/A	N/A	36.17	Pass
Suspended Solids mg/l	35	87.5	N/A	27	N/A	N/A	10.6	Pass
BOD, 5 days with Inhibition (Carbonaceo mg/l	25	50	N/A	27	N/A	N/A	5.03	Pass
Total Oxidised Nitrogen (as N) mg/l	15	18	N/A	27	N/A	N/A	5.18	Pass
Total Nitrogen mg/l	15	18	N/A	26	4	N/A	7.93	Fail
pH pH units	9	9	N/A	27	N/A	N/A	7.49	Pass
Ammonia-Total (as N) mg/l	5	6	N/A	27	4	3	1.81	Fail
Total Phosphorus (as P) mg/l	2	2.4	N/A	27	4	4	0.66	Fail

Parameter	WWDL ELV (Schedule A)	ELV with Condition 2 Interpretation included Note 1	Interim % reduction from influent concentration	Number of sample results	Number of exceedances	Number of with Condition 2 Interpretation included	Annual Mean	Overall Compliance (Pass/Fail)
Enterococci (Intestinal) no./100mls	N/A	N/A	N/A	2	N/A	N/A	79.16	
Salinity PSU	N/A	N/A	N/A	3	N/A	N/A	3.59	
Alkalinity-total (as CaCO3) mg/l	N/A	N/A	N/A	8	N/A	N/A	174.84	
Visual Inspection Descriptive	N/A	N/A	N/A	27	N/A	N/A	N/A	
E. Coli no./100mls	N/A	N/A	N/A	2	N/A	N/A	29.16	
ortho-Phosphate (as P) - unspecified mg/l	N/A	N/A	N/A	27	N/A	N/A	0.53	
Faecal coliforms no./100mls	N/A	N/A	N/A	2	N/A	N/A	N/A	
Conductivity @20°C µS/cm	N/A	N/A	N/A	20	N/A	N/A	1398.88	

Notes:
1 – This represents the Emission Limit Values after the Interpretation provided for under Condition 2 of the licence is applied

Cause of Exceedance(s):

The WWTP exceeded the ELV limit for Ammonia

Significance of Results:

The WWTP is non compliant with the ELV's set in the Wastewater Discharge License. The impact on receiving waters is assessed further in Section 2.

2.1.3 AMBIENT MONITORING SUMMARY FOR THE TREATMENT PLANT DISCHARGE TPEFF1300D0040SW001

A summary of monitoring from ambient monitoring points associated with the wastewater discharge is provided in the sections below. For discharges to rivers upstream (U/S) and downstream (D/S) location data is provided. For other ambient points in lakes, coastal or transitional waters, monitoring data from the most appropriate monitoring station is selected.

The table below provides details of ambient monitoring locations and details of any designations as sensitive areas.

Ambient Monitoring Point from WWDL (or as agreed with EPA)	Irish Grid Reference	River Station Code	Bathing Water	Drinking Water	FWPM	Shellfish	WFD Status
Upstream	81255, 113045	TW13004117LT1001	No	No	No	Yes	Moderate
Downstream	79796, 113503	TW13004117LT1003	No	No	No	Yes	Moderate
Downstream	79826, 113892	TW13004117LT1002	No	No	No	Yes	Moderate

The results for ambient results and / or additional monitoring data sets are included in the **Appendix 7.1 - Ambient monitoring summary**

Significance of Results:

The WWTP discharge was not compliant with the ELV’s set in the wastewater discharge licence.

The ambient monitoring results meet the required EQS. The EQS relates to the Oxygenation and Nutrient Conditions set out in the Surface Water Regulations 2009.

The discharge from the wastewater treatment plant does not have an observable impact on the water quality.

The discharge from the wastewater treatment plant does not have an observable negative impact on the Water Framework Directive status.

2.1.4 OPERATIONAL PERFORMANCE SUMMARY - TRALEE WWTP - 2020

2.1.4.1 Treatment Efficiency Report - Tralee WWTP - 2020

Treatment efficiency is based on the removal of key pollutants from the influent wastewater by the treatment plant. In essence the calculation is based on the balance of load coming into the plant versus the load leaving the plant. The efficiency is presented as a percentage removal rate.

A summary presentation of the efficiency of the treatment process including information for all the parameters specified in the licence is included below:

Parameter	Influent mass loading (kg/year)	Effluent mass emission (kg/year)	Efficiency (% reduction of influent load)
cBOD	324408	17354	95
SS	615322	36559	94
COD	888713	124721	86
TP	8158	2267	72
TN	74181	27113	63

Note: The above data is based on sample results for the number of dates reported

2.1.4.2 Treatment Capacity Report Summary - Tralee WWTP - 2020

Treatment capacity is an assessment of the hydraulic (flow) and organic (the amount of pollutants) load a treatment plant is designed to treat versus the current loading of that plant.

Tralee WWTP - 2020	
Peak Hydraulic Capacity (m^3/day) - As Constructed	19050

Tralee WWTP - 2020	
DWF to the Treatment Plant (m³/day)	6350
Current Hydraulic Loading - annual max (m³/day)	14117
Average Hydraulic loading to the Treatment Plant (m³/day)	10576
Organic Capacity (PE) - As Constructed	50333
Organic Capacity (PE) - Collected Load (peak week)[Note1]	31852
Organic Capacity (PE) - Remaining	18481
Will the capacity be exceeded in the next three years? (Yes/No)	No

Nominal design capacities can be based on conservative design principles. In some cases assessment of existing plants has shown organic capacities significantly higher than the nominal design capacity. Accordingly plants that appear to be overloaded when comparing a collected peak load with the nominal design capacity can be fully compliant due to the safety factors in the original design.

2.1.5 SLUDGE / OTHER INPUTS - TRALEE WWTP - 2020

'Other inputs' to the waste water treatment plant are summarised in table below

Input type	Quantity	Unit	P.E.	% of load to WWTP	Included in Influent Monitoring (Y/N)?	Is there a leachate/sludge acceptance procedure for the WWTP?	Is there a dedicated leachate/sludge acceptance facility for the WWTP? (Y/N)
Domestic /Septic Tank Sludge	1922	Volume (m3)	0	0.05	Yes	Yes	No
Landfill Leachate (delivered by tanker)	31199	Volume (m3)	0	0.8	Yes	Yes	No

Input type	Quantity	Unit	P.E.	% of load to WWTP	Included in Influent Monitoring (Y/N)?	Is there a leachate/sludge acceptance procedure for the WWTP?	Is there a dedicated leachate/sludge acceptance facility for the WWTP? (Y/N)
Industrial / Commercial Sludge	2208	Volume (m3)	0	0.06	Yes	Yes	No

3 COMPLAINTS AND INCIDENTS

3.1 COMPLAINTS SUMMARY

A summary of complaints of an environmental nature is included below.

Number of Complaints	Nature of Complaint	Number Open Complaints	Number Closed Complaints
There were no relevant environmental complaints in 2020.			

3.2 REPORTED INCIDENTS SUMMARY

Environmental incidents that arise in an agglomeration are reported on an on-going basis in accordance with our waste water discharge licences. Where an incident occurs and it is reportable under the licence, it is reported to the Environmental Protection Agency through their Environmental Data Exchange Network, or in some instances by telephone. Some incidents which arise in the agglomeration are recorded by Irish Water but may not be reportable under our licence for example where the incident does not have an impact on environmental performance.

A summary of reported incidents is included below.

3.2.1 SUMMARY OF INCIDENTS

Incident Type	Cause	No. of incident occurrences	Recurring (Y/N)	Closed (Y/N)
Breach of ELV	WWTP not designed for P removal	1	Yes	No
Uncontrolled release	EO caused by ragging or blocking	1	No	Yes
Uncontrolled release	Blocked Sewer	1	No	Yes

Incident Type	Cause	No. of incident occurrences	Recurring (Y/N)	Closed (Y/N)
Uncontrolled release	Blocked Sewer	1	Yes	Yes
Uncontrolled release	Other	1	No	No

3.2.2 SUMMARY OF OVERALL INCIDENTS

Question	Answer
Number of Incidents in 2020	5
Number of Incidents reported to the EPA via EDEN in 2020	5
Explanation of any discrepancies between the two numbers above	N/A

4 INFRASTRUCTURAL ASSESSMENTS AND PROGRAMME OF IMPROVEMENTS

4.1 STORM WATER OVERFLOW IDENTIFICATION AND INSPECTION REPORT

A summary of the operation of the storm water overflows and their significance where known is included below:

4.1.1 SWO IDENTIFICATION

WWDL Name / Code for Storm Water Overflow	Irish Grid Ref.	Included in Schedule A4 of the WWDL	Significance of the overflow(High / Medium / Low)	Assessed against DoEHLG Criteria	No. of times activated in 2020 (No. of events)	Total volume discharged in 2020 (m3)	Monitoring Status
SW002	80323, 113892	Yes	Medium	Meeting	Unknown	Unknown	Not Monitored
SW003	84956, 115882	Yes	Medium	Not Meeting	Unknown	Unknown	Not Monitored
SW004	84259, 115115	Yes	Medium	Not Meeting	Unknown	Unknown	Not Monitored
SW005	84503, 115396	Yes	Medium	Meeting	Unknown	Unknown	Not Monitored
SW006	83932, 114685	Yes	Medium	Not Meeting	Unknown	Unknown	Not Monitored
SW007	84078, 113569	Yes	Medium	Not Meeting	Unknown	Unknown	Not Monitored

WWDL Name / Code for Storm Water Overflow	Irish Grid Ref.	Included in Schedule A4 of the WWDL	Significance of the overflow(High / Medium / Low)	Assessed against DoEHLG Criteria	No. of times activated in 2020 (No. of events)	Total volume discharged in 2020 (m3)	Monitoring Status
SW008	84109, 113554	Yes	Medium	Not Meeting	Unknown	Unknown	Not Monitored
SW009	82996, 113738	Yes	High	Not Meeting	Unknown	Unknown	Not Monitored
SW010	81559, 113113	Yes	Medium	Meeting	Unknown	Unknown	Not Monitored
SW011	81396, 113107	Yes	Medium	Meeting	Unknown	Unknown	Not Monitored
SW012	80323, 113892	Yes	Medium	Not Meeting	Unknown	Unknown	Not Monitored
TBC	83852, 115348	No	Medium	Meeting	Unknown	Unknown	Not Monitored
TBC	84128, 116068	No	Medium	Not Meeting	Unknown	Unknown	Not Monitored
TBC	84038, 114834	No	Medium	Meeting	Unknown	Unknown	Not Monitored
TBC	83885, 114619	No	Medium	Meeting	Unknown	Unknown	Not Monitored
TBC	84503, 115396	No	Medium	Meeting	Unknown	Unknown	Not Monitored

WWDL Name / Code for Storm Water Overflow	Irish Grid Ref.	Included in Schedule A4 of the WWDL	Significance of the overflow(High / Medium / Low)	Assessed against DoEHLG Criteria	No. of times activated in 2020 (No. of events)	Total volume discharged in 2020 (m3)	Monitoring Status
TBC	84503, 115396	No	Medium	Meeting	Unknown	Unknown	Not Monitored
TBC	84531, 114311	No	High	Not Meeting	Unknown	Unknown	Not Monitored
TBC	83659, 114387	No	High	Not Meeting	Unknown	Unknown	Not Monitored
TBC	83864, 114603	No	Medium	Not Meeting	Unknown	Unknown	Not Monitored
TBC	83456, 114419	No	High	Not Meeting	Unknown	Unknown	Not Monitored
TBC	83484, 114614	No	Medium	Not Meeting	Unknown	Unknown	Not Monitored
TBC	83420, 114445	No	Medium	Not Meeting	Unknown	Unknown	Not Monitored
TBC	83506, 115350	No	High	Not Meeting	Unknown	Unknown	Not Monitored
TBC	83343, 115342	No	Medium	Meeting	Unknown	Unknown	Not Monitored
TBC	83211, 115239	No	Unknown	Not yet Assessed	Unknown	Unknown	Not Monitored

WWDL Name / Code for Storm Water Overflow	Irish Grid Ref.	Included in Schedule A4 of the WWDL	Significance of the overflow(High / Medium / Low)	Assessed against DoEHLG Criteria	No. of times activated in 2020 (No. of events)	Total volume discharged in 2020 (m3)	Monitoring Status
TBC	83291, 114652	No	Medium	Not Meeting	Unknown	Unknown	Not Monitored
TBC	84734, 113229	No	Medium	Not Meeting	Unknown	Unknown	Not Monitored
TBC	84096, 113562	No	Medium	Meeting	Unknown	Unknown	Not Monitored
TBC	83432, 113590	No	Medium	Not Meeting	Unknown	Unknown	Not Monitored
TBC	83171, 113686	No	Medium	Meeting	Unknown	Unknown	Not Monitored
TBC	83301, 113613	No	Medium	Not Meeting	Unknown	Unknown	Not Monitored
TBC	83266, 113862	No	Medium	Meeting	Unknown	Unknown	Not Monitored
TBC	83748, 113699	No	Medium	Meeting	Unknown	Unknown	Not Monitored
TBC	84568, 113318	No	Medium	Not Meeting	Unknown	Unknown	Monitored
TBC	83617, 114221	No	Medium	Not Meeting	Unknown	Unknown	Not Monitored

WWDL Name / Code for Storm Water Overflow	Irish Grid Ref.	Included in Schedule A4 of the WWDL	Significance of the overflow(High / Medium / Low)	Assessed against DoEHLG Criteria	No. of times activated in 2020 (No. of events)	Total volume discharged in 2020 (m3)	Monitoring Status
TBC	83196, 114796	No	Medium	Meeting	Unknown	Unknown	Not Monitored
TBC	83421, 114338	No	High	Meeting	Unknown	Unknown	Not Monitored
TBC	82734, 113813	No	Medium	Meeting	Unknown	Unknown	Not Monitored
TBC	84231, 113505	No	Medium	Not Meeting	Unknown	Unknown	Not Monitored
TBC	82573, 115389	No	Medium	Meeting	Unknown	Unknown	Not Monitored

SWO Summary	
How much sewage was discharged via SWOs in the agglomeration in the year (m3)?	Unknown
Is each SWO identified as not meeting DoEHLG Guidance included in the Programme of Improvements?	No
The SWO Assessment included the requirements of relevant of WWDL schedules?	Yes
Have the EPA been advised of any additional SWOs / changes to Schedule C3 and A4 under Condition 1.7?	No

4.2 REPORT ON PROGRESS MADE AND PROPOSALS BEING DEVELOPED TO MEET THE IMPROVEMENT PROGRAMME REQUIREMENTS.

4.2.1 SPECIFIED IMPROVEMENT PROGRAMME SUMMARY

A wastewater discharge licence may require a number of reports on specific subject areas to be prepared for the agglomeration in question. These reports are submitted to the EPA as part of the Annual Environmental Report. This section provides list of the various reports required for this agglomeration and a brief summary of their recommendations.

Specified Improvement Programmes (under Schedule A and C of WWDL)	Description	Licence Schedule	Licence Completion Date	Date Expired? (N/NA/Y)	Status of Works	Timeframe for Completing the Work	Comments
D0040-SIP:01	Upgrade all stormwaters overflow to comply with criteria outlined in the DoECLG document "Procedures and criteria in relation to stormwater overflows" (1995)	C	31/12/2015	Yes	At Planning Stage		Drainage Area Plan Investigation Study to be completed. Completion date 2024+

A summary of the status of any improvements identified by under Condition 5.2 is included below.

4.2.2 IMPROVEMENT PROGRAMME SUMMARY

Improvement Identifier	Improvement Description / or any Operational Improvements	Improvement Source	Expected Completion Date	Comments
There are no Improvements Programme for this Agglomeration.				

4.2.3 SEWER INTEGRITY RISK ASSESSMENT

The utilisation of multiple capital maintenance programmes and the outputs of the workshops with the Local Authority Operations Staff held under the programme can be used to satisfy the requirements of Condition 5 regarding network integrity. Improvement works identified by way of these programmes and workshops will be included in the Improvements Summary Table.

5 LICENCE SPECIFIC REPORTS

A wastewater discharge licence may require a number of reports on specific subject areas to be prepared for the agglomeration in question. These reports are submitted to the EPA as part of the Annual Environmental Report. This section provides list of the various reports required for this agglomeration and a brief summary of their recommendations.

5.a Licence Specific Reports Summary Table

Licence Specific Report	Required by licence	Year included in AER	Included in this AER	Reference to relevant section of AER
Priority Substances Assessment	Yes	2014	No	

5.1 PRIORITY SUBSTANCES ASSESSMENT

The Priority Substances Assessment Report has been included in the AER 2014

6 CERTIFICATION AND SIGN OFF

6.1 SUMMARY OF AER CONTENTS

Parameter	Answer
Does the AER include an Executive Summary?	Yes
Does the AER include an assessment of the performance of the Waste Water Works (i.e. have the results of assessments been interpreted against WWDL requirements and or Environmental Quality Standards)?	Yes
Is there a need to advise the EPA for consideration of a Technical Amendment / Review of the licence?	No
List reason e.g. additional SWO identified	N/A
Is there a need to request/advise the EPA of any modification to the existing WWDL with respect to condition 4 changes to monitoring location, frequency etc	No
List reason e.g. changes to monitoring requirements	N/A
Have these processes commenced?	No
Are all outstanding reports and assessments from previous AERs included as an appendix to this AER	Yes

I certify that the information given in this Annual Environmental Report is truthful, accurate and complete:

Signed: Date: 20/05/2021

This AER has been produced by Irish Water's Environmental Information System (EIMS) and has been electronically signed off in that system for and on behalf of ,

Katherine Walshe

Acting Head of Environmental Regulation.

7 APPENDIX

Appendix
Appendix 7.1 - Ambient monitoring summary

Tralee WWDL Ambient Points

Ambient Monitoring Point from WWDL (or as agreed with EPA)	*Irish Grid Reference*	EPA Feature Coding Tool code	Receiving Waters Designation (Y/N)				WFD Status
			Bathing Water	Drinking Water	FWPM	Shellfish	
Near to Blennerville windmill		TW13004117LT1001	No	No	No	Yes	Moderate
Before outfall pipe (Fenit side)		TW13004117LT1002	No	No	No	Yes	Moderate
After outfall pipe (Tralee Side)		TW13004117LT1003	No	No	No	Yes	Moderate

Ambient Impact Assessment Table

Parameter Name	Upstream Monitoring Point Location	Upstream Monitoring Point Annual Mean	Downstream Monitoring Point 1 Location	Downstream Monitoring Point 1 Annual Mean	Downstream Monitoring Point 2 Location	Downstream Monitoring Point 2 Annual Mean	EQS (95%Ile)	%EQS
cBOD mg/l	TW13004117LT1001	2.109090909	TW13004117LT1002	1.51	TW13004117LT1003	1.82	1.5	-19.27%
Ortho-Phosphate (as P) mg/l								
Ammonia (as N) mg/l	TW13004117LT1001	0.33	TW13004117LT1002	0.223	TW13004117LT1003	0.2375	0.065	-142.31%

TRALEE WWTP D0040

Ambeint Monitoring Report Summary Data

		Designations												
Ambient monitoring point/Coastal Monitoring Code	Irish Grid Reference	Bathing Water	Drinking Water	FWPM	Shellfish	WFD Status								
TW13004117LT1001	E81255 N113045	No	No	No	Yes	High								
TW13004117LT1002	E79826 N113892	No	No	No	Yes	High								
TW13004117LT1003	E79796 N113503	No	No	No	Yes	High								

Ambient Monitoring Results Summary

Monitoring point	Date	Visual Inspection	pH	BOD (mg/l)	Total P (mg/l)	Total N (mg/	NH3-N (Saline)	TON (mg/l)	Faecal Coli (mpn/100ml)	E. coli (mpn/100ml)	Enterococci (mpn/100ml)	Temp (degree C)	D O % Sat	Salinity
TW13004117LT1001	26/02/2020	Clear	7.6	4.6	0.1	2.2	<0.035	1.48	17329	24196	12997	8.2	101.4	24.6
TW13004117LT1002	26/02/2020	Clear	7.9	1.2	0.08	0.9	<0.035	0.45	1291	1918	581	8.3	101.1	25
TW13004117LT1003	26/02/2020	Clear	7.9	4.6	0.06	2	<0.035	0.44	1607	1333	345	8.3	101.6	25.2
TW13004117LT1001	11/03/2020	Clear	7.8	2	0.17	1	0.048	0.33				9.28	100.29	23.31
TW13004117LT1002	11/03/2020	Clear	8.0	1	0.11	0.7	<0.035	0.26				10.27	101.79	25.62
TW13004117LT1003	11/03/2020	Clear	7.9	1	0.12	0.6	<0.035	0.23				9.51	100.81	27.06
TW13004117LT1001	07/05/2020	Clear	8.1	2.7	0.08	0.7	<0.035	0.03	556	650	31	16.07	132.21	
TW13004117LT1002	07/05/2020	Clear	8.1	2.5	0.05	0.6	<0.035	0.02	31	74	<10	16.97	137.15	
TW13004117LT1003	07/05/2020	Clear	8.1	2.2	0.07	0.6	<0.035	<0.02	110	73	10	16.31	135.4	
TW13004117LT1001	04/06/2020	Clear	8.2	2.8	0.09	1	<0.035	<0.02				17.23	92.54	42.39
TW13004117LT1002	04/06/2020	Clear	8.2	1.5	<0.04	<0.5	<0.035	<0.02				18.13	94.64	42.19
TW13004117LT1003	04/06/2020	Clear	8.2	2	<0.04	0.6	<0.035	<0.02				17.6	93.99	42.85
TW13004117LT1001	06/07/2020	Clear	8.1	1.5	0.1	0.7	0.035	<0.02	350	480	<10	16.3	96.2	
TW13004117LT1002	06/07/2020	Clear	8.1	1.6	0.11	0.7	0.035	0.02	272	84	<10	16.1	96.5	
TW13004117LT1003	06/07/2020	Clear	8.1	1.3	0.1	0.6	0.035	<0.02	31	135	<10	17.1	102.5	
TW13004117LT1001	23/08/2020	Clear	7.9	1.7	<0.04	0.9	0.081	0.3				15.5	68.9	22.3
TW13004117LT1002	23/08/2020	Clear	8	1.7	0.07	1.3	0.115	0.49				15.7	76.4	19.2
TW13004117LT1003	23/08/2020	Clear	8.1	1.5	<0.04	1	0.118	0.38				15.8	72.1	16.6
TW13004117LT1001	16/09/2020	Clear	8.1	1.8	<0.04	0.6	<0.035	0.05				17.8	100.80	
TW13004117LT1002	16/09/2020	Clear	8.1	1.3	<0.04	<0.5	<0.035	0.05				17.4	110	
TW13004117LT1003	16/09/2020	Clear	8.1	1.5	<0.04	<0.5	<0.035	0.05				17.3	108.1	
TW13004117LT1001	01/10/2020	Slightly Cloudy	8	2.1	0.23	0.8	0.066	0.16				11.8	100.90	28.4
TW13004117LT1002	01/10/2020	Slightly Cloudy	8.0	1.7	0.27	0.8	0.056	0.21				12.5	106.1	30.8
TW13004117LT1003	01/10/2020	Slightly Cloudy	8.1	1.7	<0.04	0.6	0.039	0.1				12.1	99.60	29.7
TW13004117LT1001	16/11/2020	Brown	7.9	3	0.32	1.3	<0.035	0.37	3076	1664	489	8.6	99.6	25.6
TW13004117LT1002	16/11/2020	Brown	7.9	1.6	0.22	0.9	<0.035	0.52	4611	4884	771	8.3	99.4	25.1
TW13004117LT1003	16/11/2020	Brown	8	1.4	0.3	0.7	<0.035	0.25	2014	836	572	8.1	98.9	24.8
TW13004117LT1001	14/12/2020	Clear	8	1	0.08	0.9	<0.035	0.25				7.8	89.08	25.8
TW13004117LT1002	14/12/2020	Clear	8	1	0.11	0.9	<0.035	0.21				7.7	99.73	26.7
TW13004117LT1003	14/12/2020	Clear	7.9	1	0.14	1.2	0.042	0.45				7.8	88.11	17.19

Bathing Water Results Summary (if revelant)

Monitoring point	Date	Parameter 1	Parameter 2	Parameter	Parameter 4								etc
		Results	Results	Results	Results								Results