Annual Environmental Report

2021

Mountbellew

D0219-01

CONTENTS

1 EXECUTIVE SUMMARY AND INTRODUCTION TO THE 2021 AER

This Annual Environmental Report has been prepared for D0219-01, Mountbellew, in Galway 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.

New WWTP in Assessment & Planning stages.

1.2 TREATMENT SUMMARY

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

- MOUNTBELLEW WWTP with a Plant Capacity PE of 700, the treatment type is 2 - Secondary treatment

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
TPEFF1200D0219SW001	MOUNTBELLEW WWTP	Treated	Non-Compliant	Ammonia-Total (as N) mg/l BOD, 5 days with Inhibition (Carbonaceous BOD) mg/l COD-Cr mg/l ortho-Phosphate (as P) - unspecified mg/l Suspended Solids mg/l

1.4 LICENCE SPECIFIC REPORTING

Assessment / Report
Priority Substances Assessment

2 TREATMENT PLANT PERFORMANCE AND IMPACT SUMMARY

2.1 MOUNTBELLEW WWTP - TREATED DISCHARGE

2.1.1 INFLUENT MONITORING SUMMARY - MOUNTBELLEW WWTP

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
BOD, 5 days with Inhibition (Carbonaceous BOD) mg/l	6	580	333
Suspended Solids mg/l	6	390	170
COD-Cr mg/l	6	1900	922
Hydraulic Capacity	N/A	1482	296

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 greater than the peak Treatment Plant Capacity. Further details on the plant capacity and efficiency can be found under the sectional ‘Operational Performance Summary’.

2.1.2 EFFLUENT MONITORING SUMMARY - TPEFF1200D0219SW001

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 exceedances with Condition 2 Interpretation included	Annual Mean	Overall Compliance (Pass/Fail)
COD-Cr mg/l	125	250	N/A	6	2	N/A	129	Fail
Suspended Solids mg/l	35	88	N/A	6	3	N/A	40	Fail
BOD, 5 days with Inhibition (Carbonaceous BOD) mg/l	25	50	N/A	6	5	2	44	Fail
pH units	9.00	9.00	N/A	6	N/A	N/A	7.85	Pass
Ammonia-Total (as N) mg/l	1.00	2.00	N/A	6	6	6	21	Fail
ortho-Phosphate (as P) - unspecified mg/l	0.800	0.960	N/A	6	6	6	3.60	Fail

Notes:
1 – This represents the Emission Limit Values after the Interpretation provided for under Condition 2 of the licence is applied
2 – For pH the WWDA specifies a range of pH 6 - 9

Cause of Exceedance(s):

Plant overloaded

Significance of Results:

The WWTP is non-compliant with the ELVs 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 TPEFF1200D0219SW001

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 Ecological Status
Upstream	166714, 246781	RS26C030100	No	No	No	No	Moderate
Downstream	167273, 247619	RS26C030200	No	No	No	No	Poor

The table below provides a summary of monitoring results for designated ambient monitoring points. The upstream and downstream annual mean values are shown (mg/l), and the difference between both monitoring stations is given as a percentage of the Environmental Quality Standard (EQS) where relevant.

Parameter Name	Upstream Monitoring Point Location	Upstream Monitoring Point Annual Mean	Downstream Monitoring Point Location	Downstream Monitoring Point Annual Mean	EQS	% of EQS
BOD - 5 days (Total) mg/l	RS26C030100	1.70	RS26C030200	1.42	1.50	-18.7
Ammonia-Total (as N) mg/l	RS26C030100	0.010	RS26C030200	0.134	0.065	190.5

Parameter Name	Upstream Monitoring Point Location	Upstream Monitoring Point Annual Mean	Downstream Monitoring Point Location	Downstream Monitoring Point Annual Mean	EQS	% of EQS
ortho-Phosphate (as P) - unspecified mg/l	RS26C030100	0.020	RS26C030200	0.046	0.035	72.9
Temperature °C	RS26C030100	6.00	RS26C030200	11	N/A	
Suspended Solids mg/l	RS26C030100	3.54	RS26C030200	3.54	N/A	
pH units	RS26C030100	8.00	RS26C030200	7.88	N/A	

Significance of Results:

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

The ambient monitoring results do not meet the required EQS at the upstream and the downstream monitoring locations. The EQS relates to the Oxygenation and Nutrient Conditions set out in the Surface Water Regulations 2009.

Based on ambient monitoring results a deterioration in Ammonia and ortho-Phosphate, concentrations downstream of the effluent discharge is noted.

A deterioration in water quality has been identified, however it is not known if it or is not caused by the WWTP.

Other causes of deterioration in water quality in the area are unknown.

The discharge from the wastewater treatment plant does have an observable negative impact on the Water Framework Directive status.

2.1.4 OPERATIONAL PERFORMANCE SUMMARY - MOUNTBELLEW WWTP

2.1.4.1 Treatment Efficiency Report - MOUNTBELLEW WWTP

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)
TN	N/A	N/A	N/A
cBOD	36048	4765	87
COD	99681	13926	86
SS	18322	4342	76
TP	N/A	N/A	N/A

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

2.1.4.2 Treatment Capacity Report Summary - MOUNTBELLEW WWTP

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.

MOUNTBELLEW WWTP	
Peak Hydraulic Capacity (m^3/day) - As Constructed	420
DWF to the Treatment Plant (m^3/day)	140
Current Hydraulic Loading - annual max (m^3/day)	1482
Average Hydraulic loading to the Treatment Plant (m^3/day)	296.15
Organic Capacity (PE) - As Constructed	700
Organic Capacity (PE) - Collected Load (peak week)[Note1]	1053
Organic Capacity (PE) - Remaining	0
Will the capacity be exceeded in the next three years? (Yes/No)	Yes

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 - MOUNTBELLEW WWTP

'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)
There is no Sludge and Other Input data for the Treatment Plant included in the AER.							

3 COMPLAINTS AND INCIDENTS

3.1 COMPLAINTS SUMMARY

A summary of complaints of an environmental nature related to the discharge(s) to water from the WWTP and network is included below.

Number of Complaints	Nature of Complaint	Number Open Complaints	Number Closed Complaints
There were no relevant environmental complaints in 2021.			

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 upgrade required to meet ELV	1	Yes	No

3.2.2 SUMMARY OF OVERALL INCIDENTS

Question	Answer
Number of Incidents in 2021	1
Number of Incidents reported to the EPA via EDEN in 2021	1
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 (chamber) where applicable	Irish Grid Ref. (outfall)	Included in Schedule of the WWDL	Significance of the overflow(High / Medium / Low)	Assessed against DoEHLG Criteria	No. of times activated in 2021 (No. of events)	Total volume discharged in 2021 (m3)	Monitoring Status
TBC	166912, 247383	No	Low	Meeting	Unknown	Unknown	Not Monitored
TBC	166919, 247392	No	Low	Not Meeting	Unknown	Unknown	Not Monitored
SW002	166909, 247385	Yes	Low	Not Meeting	Unknown	Unknown	Not Monitored

Any TBC SWO(s) were identified as part of the on-going National SWO programme and will be updated in subsequent AER(s) once the information is confirmed.

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

SWO Summary	
Have the EPA been advised of any additional SWOs / changes to Schedule C3 and A4 under Condition 1.7?	N/A

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 a 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
D0219-SIP:01	Improvement works including nutrient reduction to ensure compliance with the emission limit values as specified in Schedule A: Discharges and Discharge Monitoring.	C	31/12/2019	Yes	Not Started		Capital works not funded in RC3. Capital works funding post 2024 will be contingent on the project being included in the 2025-2029 investment period.
D0219-SIP:02	Improvement works to ensure compliance with Condition 1.7	C	31/12/2019	Yes	Not Started		Capital works not funded in RC3. Capital works funding post 2024 will be contingent on the project being included in the

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
							2025-2029 investment period.

A summary of the status of any other improvements identified by under Condition 5 assessments- is included below.

4.2.2 IMPROVEMENT PROGRAMME SUMMARY

Improvement Identifier	Improvement Description / or any Operational Improvements	Improvement Source	Expected Completion Date	Comments
No additional improvements planned at this time.				

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 Tables 4.2.1 and 4.2.2.

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 a list of the various reports required for this agglomeration and a brief summary of their recommendations.

Licence Specific Report	Required by licence	Year included in AER	Included in this AER
Priority Substances Assessment	Yes	2016	Yes

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
Has a Technical amendment/licence review application been submitted to the Agency by IW?	N/A
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: 25/04/2022

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 - Priority Substances Assessment

Confidential Report
Client: Galway County Council
Date: 19 October 2021

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Monitored Entity Name	Monitored Entity Code	Station Name	Station Code	Sample Code	Sample Date	Sampling Method	Laboratory	Env Parameter	Result	Measurement Unit	Accredited	Limit of Detection	Irish Water/EPA requirement
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	TMS	pH	7.7	pH Units	Yes In House	Not applicable	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	TMS	Chloride	165	mg/l	Yes In House	1	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	TMS	Conductivity (at 20 oC)	1388	µS/cm	Yes In House	100	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Total Hardness (as CaCO3)	453	mg/l	Yes Subcontracted	Not applicable	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	Elab	Cyanide	10	µg/l	Yes Subcontracted	5	5
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	TMS	Fluoride	430	µg/l	Yes In House	10	250
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	2,4-D	< 0.10	µg/l	Yes Subcontracted	0.05	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS Prague	2,6-Dichlorobenzamide	< 0.050	µg/l	Yes Subcontracted	0.05	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Trichlorobenzene (all isomers)	< 0.03	µg/l	Yes Subcontracted	0.03	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Atrazine	< 0.044	µg/l	Yes Subcontracted	0.02	1
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	alpha-HCH - Hexachlorocyclohexane	< 0.009	µg/l	Yes Subcontracted	0.003	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	beta-HCH - Hexachlorocyclohexane	< 0.009	µg/l	Yes Subcontracted	0.003	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Dichlobenil	< 9	ng/l	Yes Subcontracted	2	Not applicable

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Confidential Report
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Monitored Entity Name	Monitored Entity Code	Station Name	Station Code	Sample Code	Sample Date	Sampling Method	Laboratory	Env Parameter	Result	Measurement Unit	Accredited	Limit of Detection	Irish Water/EPA requirement
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Dieldrin	< 12	ng/l	Yes Subcontracted	4	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Diuron	< 0.10	µg/l	Yes Subcontracted	0.01	0.9
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	gamma-HCH - Hexachlorocyclohexane	< 0.0093	µg/l	Yes Subcontracted	0.0027	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Hexachlorocyclohexane (all isomers)	< 0.0273	µg/l	Yes Subcontracted	0.0087	0.02
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Glyphosate	1.12	µg/l	Yes Subcontracted	0.1	30
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	Synlab	Hexachlorobutadiene	< 0.2	µg/l	Yes Subcontracted	0.2	0.5
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Isodrin	< 0.013	µg/l	Yes Subcontracted	0.004	1
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Isoproturon	< 0.10	µg/l	Yes Subcontracted	0.01	0.5
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	MCPA	< 0.10	µg/l	Yes Subcontracted	0.05	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Mecoprop	< 0.08	µg/l	Yes Subcontracted	0.04	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Simazine	< 0.054	µg/l	Yes Subcontracted	0.02	2
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Linuron	< 0.10	µg/l	Yes Subcontracted	0.01	0.35
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Antimony (filtered)	< 1.3	µg/l	Yes Subcontracted	1.6	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Arsenic (filtered)	1.2	µg/l	Yes Subcontracted	0.24	12.5

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Confidential Report
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Monitored Entity Name	Monitored Entity Code	Station Name	Station Code	Sample Code	Sample Date	Sampling Method	Laboratory	Env Parameter	Result	Measurement Unit	Accredited	Limit of Detection	Irish Water/EPA requirement
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Barium (filtered)	19	µg/l	Yes Subcontracted	2	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Boron (filtered)	< 56	µg/l	Yes Subcontracted	56	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Cadmium (filtered)	0.06	µg/l	Yes Subcontracted	0.07	0.225
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Chromium (filtered)	0.32	µg/l	Yes Subcontracted	2	2.5
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Cobalt (filtered)	0.39	µg/l	Yes Subcontracted	0.08	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Copper (filtered)	84	µg/l	Yes Subcontracted	1.8	2.5
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Lead (filtered)	1.7	µg/l	Yes Subcontracted	0.3	1
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Mercury (filtered)	< 0.010	µg/l	Yes Subcontracted	0.01	0.5
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Molybdenum (filtered)	< 2.50	µg/l	Yes Subcontracted	2.7	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Nickel (filtered)	2.3	µg/l	Yes Subcontracted	1	17
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Selenium (filtered)	< 1.2	µg/l	Yes Subcontracted	0.6	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Tin (filtered)	< 1.5	µg/l	Yes Subcontracted	1.5	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Vanadium (filtered)	0.52	µg/l	Yes Subcontracted	0.08	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Zinc (Filtered)	52	µg/l	Yes Subcontracted	4	4

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Confidential Report
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Monitored Entity Name	Monitored Entity Code	Station Name	Station Code	Sample Code	Sample Date	Sampling Method	Laboratory	Env Parameter	Result	Measurement Unit	Accredited	Limit of Detection	Irish Water/EPA requirement
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Acenaphthene	< 0.010	µg/l	Yes Subcontracted	0.01	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Acenaphthylene	< 0.010	µg/l	Yes Subcontracted	0.01	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Anthracene	< 0.010	µg/l	Yes Subcontracted	0.01	0.05
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Benzo(a)anthracene	< 0.010	µg/l	Yes Subcontracted	0.01	0.01
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Benzo(g,h,i)perylene	< 0.010	µg/l	Yes Subcontracted	0.01	0.01
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Benzo(a)pyrene	< 0.010	µg/l	Yes Subcontracted	0.01	0.01
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Benzo(b)fluoranthene	< 0.010	µg/l	Yes Subcontracted	0.01	0.01
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Benzo(k)fluoranthene	< 0.010	µg/l	Yes Subcontracted	0.01	0.01
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Chrysene	< 0.010	µg/l	Yes Subcontracted	0.01	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Dibenz (a,h) anthracene	< 0.010	µg/l	Yes Subcontracted	0.01	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Fluoranthene	< 0.010	µg/l	Yes Subcontracted	0.01	0.6
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Fluorene	< 0.010	µg/l	Yes Subcontracted	0.01	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Indeno(1,2,3-c,d)pyrene	< 0.010	µg/l	Yes Subcontracted	0.01	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Naphthalene	0.018	µg/l	Yes Subcontracted	0.01	65

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Senior Laboratory Analyst

Approved by:
Imelda Shanahan
Dr Imelda Shanahan
Technical Manager

Confidential Report
Client: Galway County Council
Date: 19 October 2021

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Monitored Entity Name	Monitored Entity Code	Station Name	Station Code	Sample Code	Sample Date	Sampling Method	Laboratory	Env Parameter	Result	Measurement Unit	Accredited	Limit of Detection	Irish Water/EPA requirement
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Phenanthrene	< 0.010	µg/l	Yes Subcontracted	0.01	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Pyrene	< 0.010	µg/l	Yes Subcontracted	0.01	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Polyaromatic Hydrocarbons (PAH) -Sum	0.018	µg/l	Yes Subcontracted	0.01	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	1,2-Dichloroethane	< 1.00	µg/l	Yes Subcontracted	1.0	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Benzene	< 1.00	µg/l	Yes Subcontracted	1.0	5
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Carbon Tetrachloride	< 1.00	µg/l	Yes Subcontracted	1.0	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Chloroform - Trichloromethane	< 1.00	µg/l	Yes Subcontracted	1.0	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Dichloromethane	< 1.00	µg/l	Yes Subcontracted	1.0	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Ethyl benzene	< 1.00	µg/l	Yes Subcontracted	1.0	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	m&p xylene	< 1.00	µg/l	Yes Subcontracted	1.0	5
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	o-xylene	< 1.00	µg/l	Yes Subcontracted	1.0	5
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Trichloroethene - Trichloroethylene	< 1.00	µg/l	Yes Subcontracted	1.0	Not applicable
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Tetrachloroethene - Tetrachloroethylene	< 1.00	µg/l	Yes Subcontracted	1.0	Not applicable

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Monitored Entity Name	Monitored Entity Code	Station Name	Station Code	Sample Code	Sample Date	Sampling Method	Laboratory	Env Parameter	Result	Measurement Unit	Accredited	Limit of Detection	Irish Water/EPA requirement
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Toluene	< 1.00	µg/l	Yes Subcontracted	1.0	5
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Hexachlorobenzene	< 0.009	µg/l	Yes Subcontracted	0.002	0.5
Mountbellew	D0219	Mountbellew EFF SW001	TPEFF1200D0219SW001	28933-3	31/08/2021	Composite	ALS	Xylenes (Total)	< 2	µg/l	Yes Subcontracted	2.0	5

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