

**Mullagh WWTP**  
**EPA Site Visit**  
**ref. SV27355**

**Dosing arrangements**

- Ferric Sulphate dosed at 2 locations in the process. Point one is at inlet flume prior to Imhoff tank, and point 2 is prior to final settlement tank. 2 x 2.1 l pumps  
Inlet dose – 140/100 or 1.6 l/hr  
2<sup>nd</sup> dose – 80/35 or 0.3 l/hr  
Dosing trials have been carried out in the past in an effort to maximise phosphate removal, while keeping alkalinity across the process and pH on the final water acceptable. Records on site.

**Flow monitoring & volume of discharges from SWOs**

- SWOs not trended on SCADA. Large storm tank on site facilitates holding and returning all storm flows. IWSS program on site to include improvements to storm system including telemetry information/records.

**Critical plant and details**

- Records will be available on site

**MLSS monitoring/cone levels**

- MLSS/Cone levels are not recorded at this site due to the type of processes. Site records described above available.

**Complaints received by Uisce Éireann year to date**

- No complaints related to WWTP received by UÉ.

**Main pumping stations**

- Cluain Mullagh
- Glen Alainn
- Curragh Park

| Agglomeration           |                              | Sampling Method              | Emission Limit Values |            |      | COD  | SS   | Ammonia | Orthophosphate |       |
|-------------------------|------------------------------|------------------------------|-----------------------|------------|------|------|------|---------|----------------|-------|
|                         |                              |                              | Date                  | pH         | cBOD |      |      |         |                |       |
| Mullagh                 |                              |                              |                       |            | 5    | 125  | 25   | 0.3     | 0.1            |       |
| 31/12/2019              | ELV prior to 21/12/2019      |                              |                       |            | 25   |      |      | -       | -              |       |
| D0252-01                | Exceedence Limits Composite  |                              |                       |            | 100% | 100% | 150% |         |                |       |
| PE Design               | Exceedence Limits Grab       |                              |                       |            | 100% | 100% | 150% |         |                |       |
| 3000                    | Maximum ELV                  |                              |                       |            | 10   | 250  | 62.5 | 0.6     | 0.2            |       |
| Primary Discharge Point | Primary Discharge Monitoring |                              |                       | Daily      | 12   | 12   | 12   | 12      | 12             |       |
| E 270093                | N 284632                     |                              |                       |            |      |      |      |         |                |       |
| Monitoring Location     | Primary Discharge Monitoring | 24 hr composite              | 13/01/2021            | 8          | 9.2  | 40   | 6    | 4.5     | 0.12           |       |
| E 270084                | N 284634                     | Primary Discharge Monitoring | 24 hr composite       | 17/02/2021 | 7    | 15.1 | 77   | 27      | 0.182          | 0.277 |
|                         | Primary Discharge Monitoring | 24 hr composite              | 15/03/2021            | 7          | 6.9  | 22   | 12   | 2.8     | 0.025          |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 07/04/2021            | 7          | 9    | 41   | 27   | 5.4     | 0.079          |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 05/05/2021            | 7          | 21.2 | 80   | 26   | 15      | 0.53           |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 02/06/2021            | 4          | 2    | 26   | 6    | 0.93    | 0.045          |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 06/07/2021            | 7          | 8.8  | 50   | 26   | 0.61    | 0.67           |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 25/08/2021            | 6.06       | 7.3  | 43   | 36   | 0.88    | 0.689          |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 09/09/2021            | 4.8        | 5.6  | 42   | 22   | 2.27    | 0.805          |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 06/10/2021            | 7          | 8.6  | 25   | 23   | 0.917   | 1.174          |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 04/11/2021            | 6.7        | 15.8 | 66   | 34   | 1.406   | 1.323          |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 01/12/2021            | 6.8        | 13.2 | 44   | 23   | 1.456   | 1.18           |       |
|                         |                              |                              |                       |            |      |      |      |         |                |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 11/01/2022            | 7.3        | 14.7 | 31   | 20   | 5.281   | 0.348          |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 24/03/2022            | 6.7        | 14.7 | 44   | 22   | 4.54    | 0.875          |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 05/04/2022            | 6.6        | 7.3  | 87   | 14   | 9.26    | 0.629          |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 03/05/2022            | 6.5        | 14.6 | 72   | 19   | 5.84    | 1.213          |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 08/06/2022            | 6.3        | 24.4 | 137  | 28   | 9.33    | 0.728          |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 06/07/2022            | 6.4        | 14.4 | 83   | 33   | 5.35    | 0.485          |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 12/08/2022            | 6.2        | 10.5 | 54   | 19   | 9.91    | 0.297          |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 23/08/2022            | 5.8        | 7.5  | 46   | 15   | 5.33    | 0.382          |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 29/08/2022            | 6          | 6.1  | 48   | 17   | 6.37    | 0.454          |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 21/09/2022            | 6.7        | 10.1 | 46   | 9    | 2.58    | 1.467          |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 11/10/2022            | 7.1        | 26.1 | 99   | 20   | 13.5    | 1.098          |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 08/11/2022            | 6.9        | 3.2  | 27   | 10   | 0.43    | 0.259          |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 05/12/2022            | 6.9        | 15   | 52   | 18   | 2.41    | 0.564          |       |
|                         |                              |                              |                       |            |      |      |      |         |                |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 12/01/2023            | 7.3        | 5.3  | 29   | 6    | 0.3     | 0.859          |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 03/02/2023            | 6.5        | 10.8 | 34   | 16   | 3.43    | 0.22           |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 02/03/2023            | 6.9        | 10.2 | 48   | 17   | 6.25    | 0.21           |       |
|                         | Primary Discharge Monitoring | Grab                         | 19/05/2023            | 6.7        | 1.6  | 20   | 21   | 3.38    | 0.21           |       |
|                         | Primary Discharge Monitoring | Grab                         | 30/06/2023            | 6.7        | 3    | 43   | 16   | 7.89    | 0.48           |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 21/07/2023            | 7.2        | 1.2  | 111  | 20   | 4.91    | 0.32           |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 11/08/2023            | 7.6        | 5    | 35   | 24   | 0.28    | 0.27           |       |
|                         | Primary Discharge Monitoring | 24 hr composite              | 18/08/2023            | 7.1        | 3.9  | 39   | 20   | 0.59    | 0.58           |       |
|                         | Primary Discharge Monitoring | 25 hr composite              | 29/09/2023            | 8.3        | 1.1  | 30   | 16   | 0.27    | 0.19           |       |

| Agglomeration               | Monitoring Location               | Date       | pH  | Temperature (°C) | BOD mg/l | SS mg/l | Ammonia (as N) mg/l | Orthophosphate (as P) mg/l | Dissolved Oxygen%O2 |
|-----------------------------|-----------------------------------|------------|-----|------------------|----------|---------|---------------------|----------------------------|---------------------|
| Mullagh                     | <b>Number of samples Required</b> |            | 4   | 4                | 4        | 4       | 4                   | 4                          | 0                   |
| D0252-01                    |                                   |            |     |                  |          |         |                     |                            |                     |
| <b>Receiving Water Body</b> |                                   |            |     |                  |          |         |                     |                            |                     |
| Mullagh Lough               | Upstream                          | 17/02/2021 | 7.8 | 9.3              | 2.2      | 5       | 0.022               | 0.008                      | 129                 |
|                             | Downstream                        | 17/02/2021 | 7.7 | 9                | 1        | 5       | 0.066               | 0.029                      | 128.3               |
|                             | Upstream                          | 07/04/2021 | 7.8 | 9.6              | 2.7      | 12      | 0.031               | 0.008                      | 115.6               |
|                             | Downstream                        | 07/04/2021 | 7.9 | 9                | 1.3      | <5      | 0.028               | 0.025                      | 121.7               |
|                             | Upstream                          | 06/07/2021 | 8   | 14.7             | 5.2      | 669     | 0.04                | 0.087                      | 108                 |
|                             | Downstream                        | 06/07/2021 | 8   | 15.5             | 3.4      | 8       | 0.069               | 0.069                      | 106.8               |
|                             | Upstream                          | 07/10/2021 | 7.9 | 10.7             | 2.4      | 26      | <0.05               | <0.05                      | 110.7               |
|                             | Downstream                        | 07/10/2021 | 7.8 | 10.8             | 1        | <5      | <0.05               | 0.072                      | 114.4               |
|                             | Upstream                          | 11/01/2022 | 7.2 | 8                | 1.1      | <5      | <0.05               | <0.05                      | 111.3               |
|                             | Downstream                        | 11/01/2022 | 7.4 | 8.3              | 1.7      | 8       | <0.05               | <0.05                      | 106.8               |
|                             | Upstream                          | 05/04/2022 | 7.5 | 11               | 2.2      | <5      | <0.05               | <0.05                      | 122.3               |
|                             | Downstream                        | 05/04/2022 | 7.1 | 9.9              | 2.7      | 8       | <0.05               | <0.05                      | 111.8               |
|                             | Upstream                          | 12/08/2022 | 7.6 | 3.2              | 1.5      | <5      | <0.05               | <0.05                      | 72.46               |
|                             | Downstream                        | 12/08/2022 | 7.6 | 2.9              | 1.6      | <5      | <0.05               | <0.05                      | 72.62               |
|                             | Upstream                          | 05/12/2022 | 6.8 | 3.1              | 1.9      | 8       | 0.06                | NT                         | 73.01               |
|                             | Downstream                        | 05/12/2022 | 6.8 | 3.2              | 1.7      | 8       | 0.06                | NT                         | 72.46               |
|                             | Upstream                          | 30/06/2023 | 7.9 |                  | <1       | <4      | <0.02               | 0.02                       |                     |
|                             | Downstream                        | 30/06/2023 | 8   |                  | <1       | <4      | 0.07                | 0.06                       |                     |
|                             | Upstream                          | 29/09/2023 | 7.7 |                  | 1.2      | 12      | 0.1                 | 0.02                       | 90.6                |
|                             | Downstream                        | 29/09/2023 | 7.3 |                  | < 1.0    | < 4     | 0.04                | 0.04                       | 79.1                |