



Pennant Walters Ltd

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# Trecelyn Wind Farm

Environmental Statement

Appendix 10C Water Quality Data



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**Report for**

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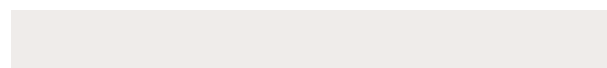
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This document has been produced by WSP UK Limited in full compliance with our management systems, which have been certified to ISO 9001, ISO 14001 and ISO 45001 by Lloyd's Register.

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**Table 1.1 Averages for select parameter recorded at various NRW surface water monitoring locations on the Afon Ebwy**

| Watercourse   | R Ebbw Fawr, Newbridge | Ebbw at McCarthy's GRG, Crumlin |
|---|------------------------|---------------------------------|
| <b>Station Number</b>                               | S40390                 |                                 |
| <b>NGR</b>  | ST2116596941           | ST2122098655                    |
| <b>Date range</b>                                   | 2013-2023              | 2013- 2015                      |
| <b>pH</b>   | 8.00                   | 7.90                            |
| <b>Average Dissolved Oxygen (% saturation)</b>      | 99.74                  | 98.52                           |
| <b>Average Total Oxidised Nitrogen (mg/l as N)</b>  | 0.77                   | 0.72                            |
| <b>Average Orthophosphate, reactive (mg/l as P)</b> | 0.03                   | 0.03                            |

**Table 1.2 Averages, minimum and maximum values for select parameters recorded at various NRW groundwater water monitoring locations (2013-2023)**

| Site number   | NGR           | pH   |      |      | Sulphate as SO <sub>4</sub> (mg/l) |       |       | Nitrate as N (mg/l) |      |      |
|---------------|---------------|------|------|------|------------------------------------|-------|-------|---------------------|------|------|
|               |               | Avr  | Min  | Max  | Avr                                | Min   | Max   | Avr                 | Min  | Max  |
| <b>S18127</b> | <b>ST2398</b> | 6.15 | 5.64 | 6.60 | 17.75                              | 10.00 | 23.60 | 1.19                | 0.20 | 3.54 |
| <b>S69537</b> | <b>ST2399</b> | 5.70 | 5.05 | 7.30 | 10.01                              | 10.00 | 10.10 | 1.25                | 0.74 | 3.73 |

**Table 1.3 Averages, minimum and maximum values for heavy metal concentrations recorded at various NRW groundwater monitoring locations (2013-2023)**

| Site number   | Lead (µg/l) |     |      | Copper (µg/l) |     |      | Cadmium (µg/l) |     |     | Nickel (µg/l) |     |      | Iron (µg/l) |      |       | Aluminium (µg/l) |      |      |
|---------------|-------------|-----|------|---------------|-----|------|----------------|-----|-----|---------------|-----|------|-------------|------|-------|------------------|------|------|
|               | Avr         | Min | Max  | Avr           | Min | Max  | Avr            | Min | Max | Avr           | Min | Max  | Avr         | Min  | Max   | Avr              | Min  | Max  |
| <b>S18127</b> | 2.5         | 2.0 | 5.5  | 438.0         | 7.0 | 1500 | 0.3            | 0.1 | 1.6 | 5.5           | 1.7 | 14.4 | 37.2        | 30.0 | 128.0 | 15.6             | 10.0 | 44.2 |
| <b>S69537</b> | 4.0         | 2.0 | 27.7 | 370.0         | 2.8 | 5070 | 0.2            | 0.1 | 1.4 | 5.5           | 3.0 | 34.2 | 41.1        | 30.0 | 107.0 | 33.7             | 10.0 | 48.0 |

