

# OFFICE OF ENVIRONMENTAL SUSTAINABILITY

#### **ENVIRONMENTAL LICENSING PROGRAMME**

TO: Dr. Eimear Cotter, Director

FROM: Siobhán Egan, Inspector, Environmental Licensing Programme

DATE: 15 December 2020

Technical Amendment to Industrial Emissions Licence Register Number: W0165-02, held by Ballynagran Landfill Limited at Ballynagran

Residual Landfill, Ballynagran, Coolbeg and Kilcandra, County Wicklow

The Agency received a request on 2<sup>nd</sup> March 2020 and on 24<sup>th</sup> June 2020 from Ballynagran Landfill Limited, Licence Reg. No. W0165-02, to technically amend their licence which were received as separate Technical Amendment requests but will be dealt with together (Ref. No. CR07557).

#### The requests relate to:

RE:

- A. The acceptance of an additional 50,000 tonnes of waste for disposal and 15,000 tonnes of waste for recovery in 2020.
- B. The removal of part of the existing buffer area and amendment of the boundary of the installation.

#### This memo recommends that:

- A. The increase in tonnages of accepted waste **may not** be accommodated by a Technical Amendment, in accordance with Section 96(1) of Environmental Protection Agency Act 1992 as amended.
- B. The boundary change and removal of buffer area **may** be accommodated by a Technical Amendment, in accordance with Section 96(1)(c) of Environmental Protection Agency Act 1992 as amended.

# 1. Background

A waste licence (Register Number W0165-01) was first granted to Greenstar Recycling Holdings Limited on 5<sup>th</sup> September 2003. A revised licence (Licence Reg: W0165-02), for the purposes of meeting the requirements of the Landfill Directive, was issued on 23<sup>rd</sup> March 2010. The licence was subsequently amended as follows:

| Amendment   | Date                        | Detail   |       |            |     |           |
|-------------|-----------------------------|----------|-------|------------|-----|-----------|
| Technical   | 2 <sup>nd</sup> August 2011 | Amending | waste | acceptance | and | operating |
| Amendment A |                             | hours.   |       |            |     |           |

| Technical<br>Amendment B | 15 <sup>th</sup> January 2013  | Giving effect to the EC Environmental Objectives (Surface Water) Regulations 2009 1nd 2012 and the EC Environmental Objectives (Groundwater) Regulations 2010 and 2012. |
|--------------------------|--------------------------------|---|
| IED Amendment            | 20 <sup>th</sup> December 2013 | Giving effect to the requirements of the Industrial Emissions Directive (Directive 2010/75/EU)  |
| License Transfer         | 4 <sup>th</sup> March 2014     | Transferring the licence from Greenstar Holdings Limited to Ballynagran Landfill Limited.   |
| Technical<br>Amendment C | 15 <sup>th</sup> November 2016 | Allowing temporary increase, in the year 2016, of an additional 55,000 tonnes of accepted waste (40,000 tonnes for disposal, 15,000 tonnes for recovery).               |
| Technical<br>Amendment D | 19 <sup>th</sup> August 2019   | Removing an area of land from within the licensed boundary that was compulsorily purchased during the construction of the M11 and associated roads.                     |

The installation is a licensed landfill under Classes 11.5 and 11.1 of the First Schedule to the EPA Act, 1992, as amended. The licence is for operation and development of a landfill at Ballynagran, Coolbeg and Kilcandra, County Wicklow that accepts residual non-hazardous household, commercial and industrial waste. The installation is licenced to accept a total of 175,000 tonnes of waste per annum for disposal and 28,000 tonnes of waste per annum for recovery.

In June 2003, the installation was initially granted planning permission from Wicklow County Council for acceptance of 180,000 tonnes of non-hazardous waste per annum for disposal over its anticipated lifespan to December 2020. Following appeal (July 2003), the accepted quantity of non-hazardous waste was restricted to 150,000 tonnes of (PL27.1311212, Planning Ref No. 01/5285). In March 2020, Wicklow County Council granted an extension of planning (Ref. PRR 20/21, dated 10/03/2020) providing for an additional operational period of 5 years. The extension, under section 42 of the Planning and Development Act (as amended), expires on 28/06/2026 and does not provide for an increase in tonnage. In September 2003, the Agency licenced the installation to accept a total of 175,000 tonnes of waste per annum for disposal and 28,000 tonnes of waste per annum for recovery. While the initial licence application sought 180,000 tonnes for disposal, the disposal of 5,000 tonnes of industrial sludge was considered not appropriate for disposal at a residual landfill. In 2016 a temporary increase of 55,000 tonnes of accepted waste was provided for by the Agency (40,000 tonnes for disposal, 15,000 tonnes for recovery).

The licence requires that a buffer zone of 100 metres be maintained between the landfill footprint and the boundary of the installation, within which no waste is deposited.

# 2. Technical Amendment request

# A. Increase in tonnage of accepted waste

On the 2<sup>nd</sup> March 2020, the Agency received a request for a Technical Amendment of IE Licence Reg. No. W0165-02 under Section 96(1)(c) of the EPA Act, as amended, to allow for acceptance of additional tonnages in 2020. The licensee proposes amendments to Condition 1.4 and Schedule A of the licence.

# B. Amended boundary and buffer area

On the 24<sup>th</sup> June 2020, the Agency received a request for a Technical Amendment of IE Licence Reg. No. W0165-02, under Section 96(1)(c) of the EPA Act as amended, to remove part of the existing buffer area. The licensee proposes amendments to Condition 3.13 and amend drawings of the site boundary relating to Condition 1.2.

# 3. Consultation with the Office of Environmental Enforcement (OEE)

I have consulted with the OEE Inspector, Mr. Ciaran Cuddihy, in relation to this technical amendment requests. The OEE confirmed that the proposed increase in tonnage of accepted waste cannot be accommodated under the existing licence. The OEE confirmed that the proposed change in boundary and buffer area cannot be accommodated under the existing licence. The OEE has confirmed that there are no legal proceedings in train in respect of this licence.

#### 4. Assessment

# A. Increase in tonnages of accepted waste

For 2020, the licensee requests an increase in accepted waste for disposal (50,000 tonnes) and an increase in accepted waste for recovery (15,000 tonnes to be used as cover material). The proposed increase in accepted waste for 2020 are an increase on the annual intake of 29% for disposal and 54% for recovery.

Condition 1.4 of the current licence specifies that only those waste types listed in *Schedule A: Waste Acceptance*, of the licence may be recovered and disposed of at the installation subject to the maximum quantities and other constraints specified. *Schedule A* of the licence provides for a combined maximum tonnage of household, commercial and industrial waste for disposal of 175,000 tonnes annually (Table A.1) and a maximum of 28,000 tonnes annually of C&D waste for recovery (Table A.2). The total permitted landfill capacity is specified as 2,770,000 m³ (Table A.3). The 2019 and 2018 Annual Environmental Reports detail the actual intake of waste as 202,994 tonnes and 202,760 tonnes respectively including 28,000 tonnes for recovery each year. The proposed change to annual intake would require a change to Schedule A of the licence. It is noted that Schedule A of the licence also specifies the annual intake of accepted waste and also limits the overall capacity of the landfill in of the licence to 2,770,000 m³. The existing overall capacity limitation would not be breached by the proposed increase in quantity of accepted waste in 2020.

It is noted that there is no proposed change to the nature of the activity at the installation in so far as the types of waste accepted and there are no proposed changes to discharges. The licensee details that:

- The additional material can be accommodated by the installation using existing infrastructure, machinery on site and operating practices.
- The installation has existing void space (350,000 m<sup>3</sup>).
- No planning permission is required to support the proposed alteration.
- The proposed alteration would not adversely affect the environmental risk of the installation significantly.

- The proposed alteration would not cause an increase above the capacity limitations specified in the licence.
- The increase would not result in new emissions and would not require delployment of additional BAT.

While increasing the quantity of waste accepted is not routinely authorised by way of technical amendment, in 2016 the State had asked the Agency to take extraordinary measures to protect the limited available waste disposal capacity and additional intake of 55,000 tonnes was provided for on that basis at Ballynagran for that year. This is reflected in Technical Amendment C (15<sup>th</sup> November 2016) of the licence where it is stated that:

The Department expressed the view, all other options having been exhausted, that there is a serious risk in the immediate future of environmental pollution occurring as a result of outlets not be available to manage the anticipated residual municipal waste arising between now and end-of-year. The Department also expressed the view that a situation could not be allowed to unfold whereby waste remains uncollected given the public health and environmental risks associated with such a scenario. The Department asked the Agency as a matter of urgency to review all options open to the regulatory authorities to prevent or limit such pollution.

While the licensee cites projections made by the Regional Waste Management Office (RWMO) that identify a capacity deficit in 2020<sup>1</sup>, it is noted that the extraordinary circumstances detailed by the Department in 2016 (as above) have not been raised with the Agency.

In keeping with the Agency's *Guidance on Requests for Alterations to a Licensed Industrial or Waste Activity* (July 2019) it is considered that the proposal would not be allowable by way of Technical Amendment.

- It is considered that the proposed increase in the quantity of accepted waste is likely to result in increased emissions and consequent odour nuisance. The existing licence conditions provide for measures to be taken to ensure any increased rate of waste intake would not result in new or increased discharges or change the quality of existing discharges. It is nonetheless noted that complaints relating to odour and/or noise from members of the public in recent years include six (6) in 2020 and thirteen (13) in 2019. Emissions to water are limited to stormwater discharges.
- An EIA was previously carried out by the Agency (Inspector's Report for W0165-01 in 2003) and provided by the applicant in 2008 for the associated planning permission (Planning Ref No. 01/5285). In granting the extension to planning for the operational period of the installation (Ref. PRR 20/21, dated 10/03/2020) under section 42 of the Planning and Development Act as amended, Wicklow County Council did not carry out or require the applicant to carry out an EIA. The associated Planners Report (dated 20<sup>th</sup> February 2020) makes reference to the original grant of planning that restricts the acceptance of waste to 150,000 tonnes of non-hazardous waste annually. The licensee does not provide details of a planning exemption for the requested additional tonnage.

Additionally, it is noted that there may be public interest in a change that increases the total intake for one year of waste by 29% for disposal and 54% for recovery. A change by way of

<sup>&</sup>lt;sup>1</sup> RWMO Bulletin 'Waste Treatment Capacity Analysis Q4 2019 & Projections 2020-2022', February 2020

technical amendment would not provide for third party participation in the Agency's decision-making process. This can only be facilitated in this case by way of licence review.

It is recommended that the request for the technical amendment to provide for the proposed increase in quantity of waste accepted in 2020 should be refused on the basis that further consideration of environmental impacts is required as well as provision for third party participation in the decision-making process.

#### B. Amended boundary and reduction of buffer area

The installation originally licenced covered an area of approximately 128 hectares including the landfill footprint that occupies approximately 21 hectares. Previously, Technical Amendment D provided for a reduction in the area of the installation and the associated change of boundary as a result of an area of land compulsorily purchased during the construction of the M11 and associated roads.

The licensee proposes to remove a further area of land comprising 29.81 hectares that would result in a change to the site buffer area and to the site boundary. The area proposed to be removed from the licensed boundary is shaded in grey in Appendix 1.

The licensee states that these lands formed part of the buffer lands in the original licence granted to Greenstar in 2003 and that, following the receivership of Greenstar and the formation of Ballynagran Landfill Ltd, there has been no agreement in place between the owners of this land and Ballynagran landfill.

# Condition 3.13.1 currently states that:

A Buffer Zone, in which no waste shall be landfilled, shall be provided and maintained within the facility. The Buffer Zone shall be a minimum of 100m between the landfill footprint and the facility boundary.

The licensee proposes amendments to Condition 3.13 and amendments to drawings of the installation boundary as identified in Condition 1.2.

#### The licensee states that:

- Removal of the lands from within the installation boundary will not result in any increase in emissions or impact on adjoining lands.
- The landfill will continue to operate in accordance with its licence.
- The extent of the landfill footprint remains as per the original Environmental Impact Statement and subsequent planning permission and licence.
- The proposed change to the Buffer Zone will result in a minimum distance of 60m between placed waste and the installation boundary.
- There will be no impact on the lands arising from this change.

An Independent Closure Audit (ICA) was provided by the licensee (24<sup>th</sup> June 2020) identifies that:

- These lands have never been used for any landfill purpose. The lands have always been used by the landowner for agricultural purposes.
- No landfilling of waste or other construction work has ever taken place on these lands by either Greenstar or Ballynagran.
- The only access that the landfill had to the lands was for the purpose of environmental monitoring (noise, dust and PM<sub>10</sub>). Right of access for monitoring purposes has been

withdrawn by the landowner and alternative monitoring arrangements have had to be made.

It is noted that the licensee proposes new text for Condition 3.13.1 in the Request for Licence Alteration as:

A Buffer Zone, in which no waste shall be landfilled, shall be provided and maintained within the facility. The Buffer Zone shall be a minimum of 100m between the landfill footprint and the facility boundary **unless otherwise agreed by the Agency**.

An exit audit site visit was carried out by the Office of Environmental Enforcement (Mr. Ciaran Cuddihy) on 03/09/2020 (SV Ref No. SV20516). The area of the site proposed to be excluded from within the licensed boundary, the active landfilling area, and the working face was inspected. The report states that the Inspector did not note any reason why the proposed area could not be removed from within the licence boundary as per the licensees request.

#### The report details that:

The area to the west of the site that is requested to be removed from the licensed boundary was inspected.

The area proposed to be removed is set out in drawing number 1006-IG-18-19 of licensee return ref. LR052051. The land consists mainly of well established agricultural grassland bordered by woodland which formed part of the buffer lands incorporated into the licensed area. No evidence of licensable activity occurring in the proposed area was evident on the day of the inspection. The licensee stated that they have had no access to the lands in question for approximately 12 years which was confirmed by the landowner and prior to that the lands were only accessed for monitoring reasons. The location of dust and noise monitoring points which were originally located within the proposed area were previously relocated with the agreement of the EPA due to lack of access by the licensee.

No evidence was found to suggest that any licensed activity was being or had been carried out in the proposed area and the physical condition of the area was found to be satisfactory.

A stream marks the new proposed boundary of the installation and will continue to be monitored under the licence. It is considered that the revised boundary will not result in any new or additional emissions that could present a risk.

It is noted that the removal of lands as proposed would result in the width of the buffer area decreasing in this location to 60m, as a result the minimum Buffer Zone of a width of 100m, as required by Condition 3.13.1, would no longer be possible to enforce.

The associated grant of planning (Planning Ref. no. 01/5285) does not make specific reference to a buffer zone. The Environmental impact Statement (EIS) associated with this planning identifies the buffer area as part of the mitigation measures to avoid impacts from odour, dust, noise and litter. The EIS specifies that:

Lands to the west, north and northeast of the landfill will be kept as buffer zones and maintained as agricultural land

This function is consistent with the Agency's Best Available Techniques (BAT) guidance<sup>2</sup> that identifies buffer zones as a control technique to minimise litter, noise, etc. This guidance also details that the extent of that zone must be considered on a site-specific basis having regard to available guidance on relevant site issues, the nature and scale of the landfilling, and associated risks.

It is considered that the role of the buffer in this regard can be maintained with the reduction of the buffer width at this location. It is noted that there have been no changes to any recepters in the locality.

It is proposed that the buffer area is explicitly defined as the area between the installation boundary (as specified in Condition 1.2) and the landfill footprint as defined by Condition 5.1 which curtails activity to the identified cells within the landfill area only, requiring that:

Wastes shall not be deposited in any cell or part of the landfill without the prior agreement of the Agency.

On this basis it is recommended to amend the licence to exclude the identified area of land and reduce the buffer width from 100 metres to 60 metres at this location by;

 amending Condition 1.2 to specify a revised installation boundary removing the lands identified as follows:

For the purposes of this licence, the facility is this area of land outlined in red on Drawing No. 1006-IG-18-19 entitled "Revised Site Boundary 2020" of the technical amendment application received on 24th June 2020. Any reference in this licence to "facility" shall mean the area thus outlined in red.

• amending Condition 3.13.1 as follows:

A Buffer Zone, in which no waste shall be landfilled, shall be provided and maintained within the facility. The Buffer Zone shall be a minimum of 100m the area between the landfill footprint and the installation boundary.

#### Appropriate Assessment

and,

Appendix 2 lists the European Sites assessed, their associated qualifying interests and conservation objectives.

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the activity individually or in combination with other plans or projects is likely to have a significant effect on any European Site. In this context, particular attention was paid to the European Sites at Deputy's Pass Nature Reserve SAC (000717), The Murrough Wetlands SAC (002249), Magherabeg Dunes SAC (001766), Vale of Clara (Rathdrum Wood) SAC (000733), Buckroney-Brittas Dunes and Fen SAC (000729), Wicklow Reef SAC (002274), Wicklow Mountains SAC (002122), The

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<sup>&</sup>lt;sup>2</sup> Final Draft BAT Guidance Note on Best Available Techniques for the Waste Sector: Landfill Activities, December 2011.

Murrough SPA (004186), Wicklow Head SPA (004127), and Wicklow Mountains SPA (004040).

The activity is not directly connected with or necessary to the management of any European Site and the Agency considered, for the reasons set out below, that it can be excluded, on the basis of objective information, that the activity, individually or in combination with other plans or projects, will have a significant effect on any European Site and accordingly determined that an Appropriate Assessment of the activity was not required.

The buffer area will continue to fullfill its function (as detailed in section 4). There are no changes to sensitive receptors in the locality. There is no waste buried in the area to be removed. There are no emissions or changes to emissions resulting from this change. There are no significant effects on the qualifying interests of the European sites.

#### 5. Recommendation

### A. Increase in tonnages of accepted waste

This memo recommends that the requested change is not accommodated by a Technical Amendment of Licence W0165-02 (held by Ballynagran Landfill Limited).

# B. Amended boundary and reduction of buffer area

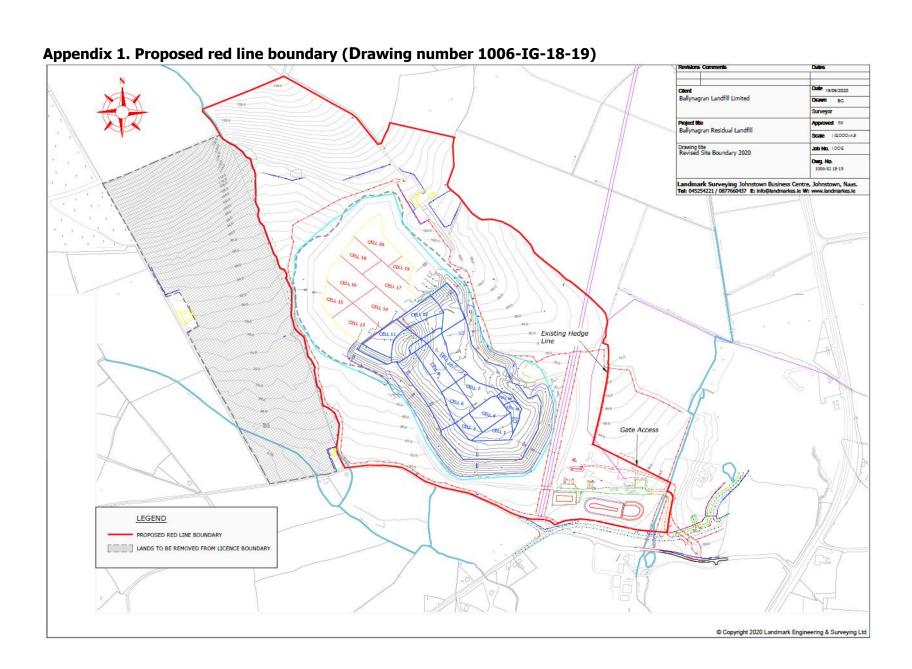
This memo recommends that the requested change be accommodated by a Technical Amendment of Licence W0165-02 (held by Ballynagran Landfill Limited), in accordance with Section 96(1)(c) of the EPA Act 1992 as amended.

I recommend that the licence amendment be approved as set out in the attached recommended Technical Amendment. The making of the amendment will not result in the relevant requirements of Section 83(5) of the EPA Act 1992 as amended, ceasing to be satisfied.

Signed,

Siobhán Egan

Inspector, Environmental Licensing Programme



# Appendix 2. List of European Sites assessed, their associated qualifying interests and conservation objectives.

|   | European Site<br>(site code)                     | Distance /<br>Direction | Qualifying Interests<br>(* denotes a priority habitat)  | Conservation Objectives  |
|---|--|-------------------------|---|--|
| 1 | Deputy's Pass<br>Nature Reserve SAC<br>(000717)  | 13 km wast              | Habitats<br>91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles  | As per NPWS (2020) Conservation objectives for Deputy's Pass Nature Reserve SAC [000717]. Generic Version 7.0. Department of Culture, Heritage and the Gaeltacht. (dated 07/04/2020).  http://www.npws.ie/sites/default/files/protected- sites/conservation_objectives/CO000717.pdf                            |
| 2 | IVVeriands SAC                                   | 5 km north<br>east      | Habitats 1210 Annual vegetation of drift lines 1220 Perennial vegetation of stony banks 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) 1410 Mediterranean salt meadows (Juncetalia maritimi) 7210 Calcareous fens with Cladium mariscus and species of the Caricion davallianae* 7230 Alkaline fens | As per NPWS (2020) Conservation objectives for The Murrough Wetlands SAC [002249]. Generic Version 7.0. Department of Culture, Heritage and the Gaeltacht. (dated 07/04/2020).  http://www.npws.ie/sites/default/files/protected-sites/conservation objectives/CO002249.pdf                                    |
| 3 | Magherabeg Dunes<br>SAC (001766)                 | 6km south east          | 1210 Annual vegetation of drift lines 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with Ammophila arenaria (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)*   | As per NPWS (2017) Conservation Objectives: Magherabeg Dunes SAC 001766. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs. (dated 27/03/2017).  http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO001766.pdf |
| 4 | Vale of Clara<br>(Rathdrum Wood)<br>SAC (000733) | 6 km west               |   | As per NPWS (2020) Conservation objectives for Vale of Clara (Rathdrum Wood) SAC [000733]. Generic Version 7.0. Department of Culture, Heritage and the Gaeltacht. (dated 07/04/2020).  http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000733.pdf                            |

| 5 | Buckroney-Brittas<br>Dunes and Fen SAC<br>(000729) | 8 km south<br>east  | Habitats 1210 Annual vegetation of drift lines 1220 Perennial vegetation of stony banks 1410 Mediterranean salt meadows (Juncetalia maritimi) 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with Ammophila arenaria (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)* 2150 Atlantic decalcified fixed dunes (Calluno-Ulicetea)* 2170 Dunes with Salix repens ssp. argentea (Salicion arenariae) 2190 Humid dune slacks 7230 Alkaline fens   | As per NPWS (2017) Conservation Objectives: Buckroney-Brittas Dunes and Fen SAC 000729. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs. (dated 27/03/2017).  http://www.npws.ie/sites/default/files/protected- sites/conservation_objectives/CO000729.pdf |
|---|--|---------------------|---|--|
| 6 | Wicklow Reef SAC<br>(002274)                       | 8 km east           | Habitats<br>1170 Reefs  | As per NPWS (2013) Conservation Objectives: Wicklow Reef SAC 002274. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. (dated 2/07/2013).  http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002274.pdf   |
| 7 | Wicklow Mountains<br>SAC (002122)                  | 11 km north<br>west | Habitats 3110 Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) 3160 Natural dystrophic lakes and ponds 4010 Northern Atlantic wet heaths with Erica tetralix 4030 European dry heaths 4060 Alpine and Boreal heaths 6130 Calaminarian grasslands of the Violetalia calaminariae 6230 Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)* 7130 Blanket bogs (* if active bog) 8110 Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) 8210 Calcareous rocky slopes with chasmophytic vegetation 8220 Siliceous rocky slopes with chasmophytic vegetation 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles Species 1355 Otter (Lutra lutra) | As per NPWS (2017) Conservation Objectives: Wicklow Mountains SAC 002122. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs. (dated 31/07/2017).  http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002122.pdf                |

| 8  | I                            | 5 km north<br>east  | Birds A052 Teal (Anas crecca) A046 Light-bellied Brent Goose (Branta bernicla hrota) A050 Wigeon (Anas penelope) A184 Herring Gull (Larus argentatus) A195 Little Tern (Sterna albifrons) A043 Greylag Goose (Anser anser) A179 Black-headed Gull (Chroicocephalus ridibundus) A001 Red-throated Diver (Gavia stellata) Habitats Wetlands | As per NPWS (2020) Conservation objectives for The Murrough SPA [004186]. Generic Version 7.0. Department of Culture, Heritage and the Gaeltacht. (dated 07/04/2020).  http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004186.pdf      |
|----|------------------------------|---------------------|---|---|
| 9  | Wicklow Head SPA<br>(004127) | 6 km east           | Birds<br>A188 Kittiwake <i>(Rissa tridactyla)</i>   | As per NPWS (2020) Conservation objectives for Wicklow Head SPA [004127]. Generic Version 7.0. Department of Culture, Heritage and the Gaeltacht. (dated 07/04/2020).  http://www.npws.ie/sites/default/files/protected-sites/conservation objectives/CO004127.pdf      |
| 10 |                              | 13 km north<br>west | Birds<br>A098 Merlin <i>(Falco columbarius)</i><br>A103 Peregrine <i>(Falco peregrinus)</i>   | As per NPWS (2020) Conservation objectives for Wicklow Mountains SPA [004040]. Generic Version 7.0. Department of Culture, Heritage and the Gaeltacht. (dated 07/04/2020).  http://www.npws.ie/sites/default/files/protected-sites/conservation objectives/CO004040.pdf |