Four Districts Woodland Habitat Group Submission

Contents

With reference to:

Chapter/ Section	**Section 2.7.2 Self-Sustaining Growth Towns / Self-Sustaining Town – Rathcoole**
Amendment ref.	**Amendment 2.13**
Page no.	73
Policy/Objective No.	New - 2.7.2 Self-Sustaining Growth Towns / Self-Sustaining Town And Amend Map 07 and 08
Consequential Amendment	Consequential Amendment arising from Material Amendment 2.13 View Consequential Amendments [PDF]

And the proposed New CS10 Objective 4, CS10 SLO1 and CS10 SLO2 to be added to read:

CS10 Objective 4: To facilitate the delivery of new residential development in coordinated manner, ensuring alignment with investment infrastructure and supporting amenities and services. Such measures shall be delivered through appropriate phasing in line with CS10 SLO1 and SLO2.

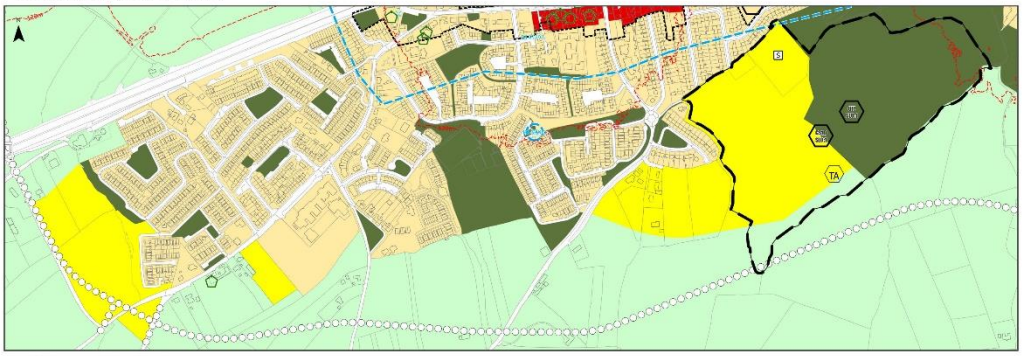
CS10 SLO1 to be inserted on the lands adjacent to Rathcoole Park: To ensure that the provision of a primary school, library hub, 2 full sized GAA pitches and 1 junior pitch and associated pavilion, access road and open space is provided in tandem with new residential development.

CS10 SLO2 to be inserted on lands to the west of Rathcoole: To ensure the delivery of the necessary upgrades to the existing road to the west of the site being delivered in tandem with development. Development shall also provide for an appropriately landscaped riparian corridor along the eastern boundary of the subject lands and associated landscaping throughout the site.

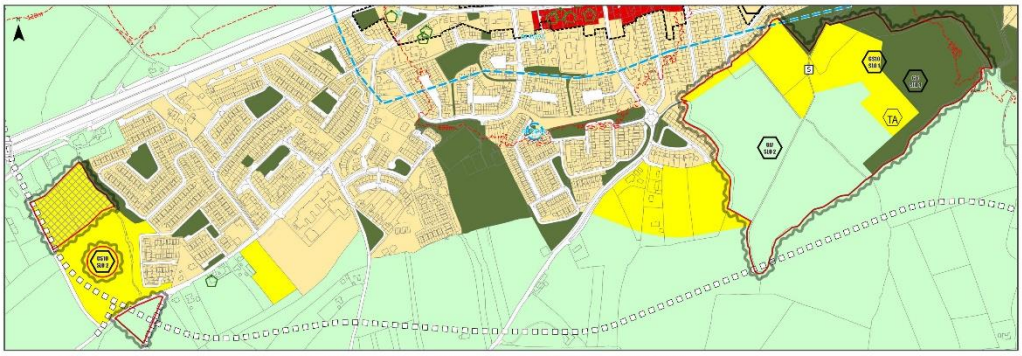
And to the proposed rezoning:

Amend Maps No. 7 and No. 8 revising the zoning as indicated in the maps below
From RES N New Residential to RU Rural,
from OS Open Space to RU Rural,
from OS Open Space to RES-N New Residential on lands adjacent to Rathcoole Park to the southeast of Rathcoole and removing the boundary of CS10 SLO1,
Adjusting the location of the school site and Traveller Accommodation map based objectives to reflect CS10 Objective 4, new CS10 SLO1 and CS10 SLO2.
Amend the zoning to the west of Rathcoole from Res-N to Strategic Residential Reserve Lands and from RES-N New Residential to RU Rural.

Proposed Amendment Ref: 2.13



Draft Plan as Published



Proposed Amendment: Various amendments to land use zoning and objectives (see text for details)

Figure1 below is presented to give an idea of how the proposed zoning sits over the rewilded area.

Figure 1 Rewilding area outlined with proposed zoning indicated.

1 Introduction

The Woodlands Group welcomes the opportunity to participate in the Public Consultation[1] on the Material Alterations to the Draft County Development Plan. In particular the Group welcomes the opportunity to comment on and query reports supporting the proposed material alteration, CS10 SLO1, the associated zoning and mapping and the objective itself.

We wonder at the proposal to remove the boundary of CS10 SLO1. Does it mean the objectives of CS10 SLO1, can be delivered on any of the lands adjacent to Rathcoole Park? What is the underlying reason for this proposal?

The supporting reports have not been the subject of a public consultation. The Group have questions and concerns regarding:

- Ecological Assessment Of lands at Rathcoole, Co. Dublin Final Report, 2021 Appendix 2b [2]
- Appendix 2A: Rathcoole Lands Land Use Concept and Zoning Proposals (the Concept)[3]

In addition, we are concerned at the lack of an ecological impact assessment, and therefore it cannot be said that the proposed objective, CS10 SLO1, and associated facilitative zoning and its configuration will not have an adverse impact on the rewilding area and the woodland therein. It is evident that green infrastructure connectivity will be impacted. Bats and birds will be impacted. There is also no field based hydrological assessment. This is of utmost concern given that according to Daly 2020 unpublished: *This Priority Annex I habitat is a **water dependent** habitat; therefore, any activity (within or adjacent to the site) that alters site hydrology could negatively impact the woodland*[4].

The Group are firmly of the belief that all the area undergoing rewilding, the majority of which is Woodland; and owned by SDCC lands, the GAA and Dept. of Education should be afforded full protection.

The group question the appropriateness of the proposed Rural zoning as a mechanism for conferring protection on the alluvial Woodland. The group are concerned at the configuration of the zoning overlaying the rewilded area and non-annex habitat woodland. We are asking that all the rewilding area is protected, accepting that some of the proposed zoning below does not provide full protection. We are proposing that the Res – N in the zoning map accompanying CS10 SLO1 and the proposed new Rural zoning is changed to, in order of preference:

- Nature/Biodiversity Conservation Zoning
- High Amenity Zoning
- Rural Zoning

It is our firm belief that the objectives of CS10 SLO1 can no longer be delivered in or on lands adjacent to Rathcoole Park, given the change in the proposed zoning compared to the Concept proposal for delivery, and the unquantified but high likelihood of multiple adverse ecological impacts, including on Rathcoole Woodlands. The largest rewilding area in South Dublin, the majority of which is Woodland, should be kept intact and protected.

[1] https://consult.sdublincoco.ie/en/consultation/proposed-material-amendments-draft-south-dublin-county-development-plan
[2] appendix-2b-rathcoole-lands-ecology-report.pdf (sdcc.ie)
[3] appendix-2b-rathcoole-lands-ecology-report.pdf (sdcc.ie)
[4] https://consult.sdublincoco.ie/en/submission/sd-c147-43

2 Rathcoole Woodlands and Rewilding

A review of 5 ecological reports shows that there are three main habitats[5] within the 24 ha area of CS10 SLO 1 as per the Draft County Development Plan 2022-2028; 14.8 ha of Woodland, 5.84 ha of Grassland, and 3 ha of Grassland/Woodland mosaic (Figure **2**).

The lands in question are owned by South Dublin County Council (SDCC, 10.85 ha approx.), the Gaelic Athletic Association (GAA, approx. 10.7 ha) and the Department of Education (Dept. Ed., approx. 1.8 ha). All the lands under the 3 owners, are at various stages of rewilding except 1 ha managed by SDCC as part of Rathcoole Park which is annex habitat lowland hay meadow. All are rewilding to Woodland and the majority is already Woodland and a mosaic of habitat types are present.

The 14.8 ha of Woodland comprises 12.8 ha of Priority Annex Alluvial Woodland 91EO with 10.4 ha in SDCC owned lands and 2.4 ha in the GAA lands; and 2 ha of Immature Woodland wholly in the GAA lands, all supported by survey plots with location verifiable by satellite image.

The 5.84 ha of Grassland comprised 1 ha of Lowland Hay Meadow Annex habitat within Rathcoole Park, 0.8 ha of Wet Grassland on the Water Wayleave in the GAA owned land, 1.8 ha owned by the Dept. Ed. and 2.24 ha also within the GAA land. The Wet Grassland on the Water Wayleave is flanked to the north by the Coolmine stream and to the south by an earth embankment that is colonised by trees. The 2.24 ha of grassland within the GAA land is encircled by Woodland at various stages of maturity. This will in time become annex woodland habitat if left to its own devices and some of the grassland, if managed, could become lowland hay meadow.

The 3 ha of Grassland/ (Woodland) Mosaic is almost all within the GAA lands and along with the alluvial and immature woodland, encircles the grassland within the GAA lands. This mosaic will in time become annex woodland habitat if left to its own devices

The location and extent of these broad habitat types are in broad agreement across the habitat maps. There is no definitive line between woodland and scrub- transitional woodland because they are simply different stages of woodland development with each grading into the other. The satellite imagery clearly shows the woodland and scrub- transitional woodland and the grassland /scrub-transitional woodland grading and the distinctive managed grassland components. It is more clearly evident and more advanced on the ground than the satellite imagery indicates.

Figure 2 An indication of the habitat locations across the sites.

[5] excluding streams and hedgerows.

3 Statements in Support of Habitat Preservation

The initial preservation focus of the Four Districts Woodland Habitat Group was on the Rathcoole Woodlands owned by South Dublin County Council. This focus has expanded to woodlands and rewilding habitats in adjacent lands continuous with the Rathcoole Woodlands in the SDCC lands. Our growth in knowledge with the growing evidence provided by many reports on the site prompted the expanded focus. These reports emphasis the rarity, significance and importance of the site, and the need to keep all the habitats intact and connected to maintain biodiversity, ecological functionality and benefits. The evidence is overwhelming in support of full preservation and conservation. It is no doubt a biodiversity gem. Here are some statements from those reports:

"*Overall the site is currently considered to be of County ecological importance for its mosaic of Annex I (priority) habitats, species-rich semi-natural habitats, heritage value hedgerows, wetland habitats and mosaic of wooded and nonwooded semi-natural habitats which are rare in County Dublin*."

Ecological Assessment Of lands at Rathcoole, Co. Dublin Final Report,2021 Appendix 2b

"*Taken as a whole, this site is of very high ecological and biodiversity value and it is imperative that it is protected and managed correctly into the future, as a key local biodiversity area, of great benefit to both local wildlife and to the local community."*

"This area should at all times be considered as a continuous area of natural habitat, with greatest value and integrity when all areas are intact, regardless of whether or not they correspond to Annex I habitat under the EU Habitats Directive. The loss of any areas of the habitat present will diminish and damage the adjacent areas of habitat."

A survey to assess the woodlands and associated semi-natural habitats at Rathcoole, Co. Dublin Rory Hodd, August 2021, unpublished[6]

"*Rathcoole Woodland was earmarked for further urban expansion of Dublin city, but it is no longer a green field site, as woodland and species rich grassland has been emerging there over the last two decades. It is a unique example of the processes of succession and natural regeneration in motion, with secondary species now being generated by both bird and mammal activity. As a natural asset owned by South Dublin County Council, its' real values may only be realised by conservation in co-operation with the local communities of Rathcoole and Saggart*.

'Don't it always seem to go that you don't know what you've got 'til it's gone' (Mitchell 1970[7])"

Rathcoole Woodland, Co. Dublin. Report of a visit by Woodlands of Ireland, August 2020, Joe Gowran, Woodlands of Ireland, Unpublished, 2020

[6] http://rathcoolewoodlands.org/wp-content/uploads/2021/12/Rory-Hodd-Report-on-Rathcoole-Habitats-Aug-2021.pdf

[7] Mitchell, J. 1970 Big Yellow Taxi from the Album Ladies of the Canyon, Reprise Records

4 Ecological Assessment Of lands at Rathcoole, Co. Dublin Final Report, 2021 Appendix 2b[8]

The Woodlands Group welcomed the release of the Ecological Report for the Master Plan - *Ecological Assessment Of lands at Rathcoole, Co. Dublin Final Report, 2021 Appendix 2b*. It is a good report spanning a lot of elements with very comprehensive surveying of hedgerows and woodland but it is limited to one season and one year.

We are pleased to see there is very good broad agreement between the habitat mappings and findings in this report with the Hodd Report 2021 (*A survey to assess the woodlands and associated semi-natural habitats at Rathcoole, Co. Dublin* (Rory Hodd, August 2021, unpublished). However, there are 3 important differences between Appendix 2b and the Hodd Report; concerning (1) classification of Woodland and (2) area of Woodland. These differences impacted how the Concept was informed and the rezoning devised:

1. the classification of 2.4 ha of immature woodland as non-annex habitat in Appendix 2b. No quadrat survey was done for Appendix 2b, but Hodd 2021 did do a quadrat survey confirming it as Alluvial Woodland.
2. Hodd 2021 classified 2 ha of Immature Woodland in the GAA lands but this was classified as grassland/scrub mosaic in Appendix 2b, and carried into Appendix 2a as a result.
3. Underestimation of Alluvial Woodland Area by 4.8 ha due to exclusion of dispersed scrub areas within the Woodland of 1.8 ha, and the 2.4 ha in item 1.

Fortunately, the motion that passed at the March 1st meeting of the Council on the Draft Plan, results in item 1 being proposed as Rural Zoning although the zoning proposed has no conservation remit. However, the immature woodland remains a mix of proposed Res N and retained Open Space, neither of which have a conservation remit.

Other items of concern:

1. Timing of some surveys which for the most part, could not be helped because of COVID, for example, as mentioned by the author in the report: Badger and large mammal surveys conducted out of season.
2. The scope did not allow for a year or seasonal surveying, it is very, much a snapshot in time. However, for a snapshot, it has revealed an area rich in biodiversity. The scope has limited the findings and therefore is likely missing some important ecological information. It would have benefited from a broader scope of surveying over a year including seasonal and more habitat survey plots particularly given the ecological significance of the site.

[8] appendix-2b-rathcoole-lands-ecology-report.pdf (sdcc.ie)

5 Appendix 2A: Rathcoole Lands Land Use Concept and Zoning Proposals

All decisions made by Council and elected members should be based on full and clear evidence where that evidence underpins proposals before Council such as the ones outlined above i.e., the material alterations. A raft of items was released with the Chief Executive's Report on December 7th, some of which were not subjected to a public consultation.

Among these items was Appendix *2A: Rathcoole Lands Land Use Concept and Zoning Proposals* – the Concept. The Concept is very light by way of text, explanation and expansion on thinking/progression, leaving it very open to interpretation. It is important that the Concept is robust and transparent in its use of supporting material, in its decision-making process and in how it arrives at the new zoning.

The Concept outlines the intended land use that is the subject of the Chief Executive's proposed New CS10 Objective 4, and new CS10 SLO1 outlined above. The Concept underpins the supporting land use zoning proposals that were presented in Appendix 1 of the Chief Executive's Report (Figure 3).

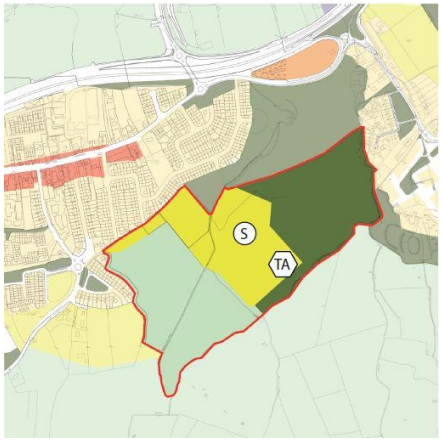


Figure 3 Extract from Appendix 1 of the Chief Executives report illustrating land use zoning proposals.

The proposed zoning was subsequently modified as the result of a motion passed in a Council Meeting on 1st March on the Draft County Development Plan. **The zoning proposed as part of the material alterations is only in part now supported by the Concept. However, to what extent it is supported, is unclear and indeed can the objectives of CS10 SLO1 be delivered given this change? How relevant is the Concept now that zoning has changed? What are the prospects of delivering the objectives of CS10 SLO1 given the change in the zoning compared to that proposed in the Concept?**

5.1 Site Location

The area of CS10 SLO1 was increased in Appendix 2A compared to the original 2019 Master Plan area by incorporating a significant area of Rathcoole Park, 4 ha (page 3 of Concept). No report was supplied showing evidence of an ecological survey in this area. There is no doubt that some of this area is Annex Lowland Hay Meadow given that it is subjected to the same management practices as the confirmed Annex Lowland Hay Meadow and is contiguous with it.

The delivery objective outlined in the Concept for this area does not require rezoning. And therefore, it is not the subject of the Material Alterations nor the Draft County Development Plan.

However, it would appear that the delineation of the area subject of CS10 SLO1 is reverted in the proposed material alteration to the original area and the 4 ha of Rathcoole Park is no longer part of CS10 SLO1. If that is the case, that is good news for the unconfirmed Annex Lowland Hay Meadow. However, there are concerns that the CS10 SLO1 area still contains confirmed Annex Lowland Hay Meadow.

Furthermore, there is the proposal in the material alterations to remove the boundary for CS10 SLO1 with no reason provided. The removal of the boundary was not part of the March Council Meeting motions on the Draft Plan. This leaves it very ambiguous as to where the objectives of CS10 SLO1 are to be delivered.

5.2 Constraints and Opportunities

On the Constraints and Opportunity diagram presented in the Concept, page 5, the Orchid rich grassland which is a non-annex habitat is separately indicated. However, the largest water wayleave within the Concept area, which lies under the Orchid rich grassland, is not indicated. The presence of a water wayleave is a constraint that precludes rezoning to Res – N and therefore Open Space is the only option.

The power lines that traverse the Woodland north to south are not indicated, and these too would be a constraint.

The constraints and opportunities map shows Annex and Non-annex habitat. How was it concluded that all of the additional area of 4 ha that was presumably not subject to an ecological survey is non-annex habitat given that half of the additional area is managed in line with the Annex lowland hay meadow immediately west of it?

The area delineated as Alluvial Annex Habitat does not correspond to a more recent survey undertake by Hodd 2021.

It would seem the constraints of the site far out way the opportunities as per page 4:

1. flood risk identification/assessment reports indicates that parts of the **site are at risk of fluvial flooding**
2. A number of underground **watermains** present on the site which have **associated wayleaves**; in particular to the eastern end of the site and to the southern boundary
3. There are several overhead **powerlines** with associated **safety zones of 6m and 10m** respectively, in the vicinity, some of which pass over the eastern end of the site.
4. There are a number of **ecologically sensitive habitats** on the lands that require careful consideration
5. 25m riparian buffer zone required
6. The eastern, western, and north-western boundaries of the site are formed by the rear gardens of existing estates, which offer **reduced permeability and no passive surveillance**.
7. **Waste Water capacity** may be limited by surrounding existing infrastructure
8. **Site connectivity** is constrained by way of their only being **one access route** through Mullaly lane which requires an upgrade.

(Note that this one access route can only happen with removal of alluvial woodland)

Compared to the opportunities which were few and light on specifics:

1. Easy access to village and services
2. Access to other estates

3. The existing natural environment can be integrated with development to create unique setting for education, housing and sports
4. Potential for a strong landscape connection from the site through Rathcoole Park.
5. Existing waterways offer potential for walkways and cycleways (subject to protecting environmental sensitivities) connecting through the site to the Greater Dublin Cycle Network via Saggart, City West and to the Slade Valley Trail and Kildare.
6. Potential connection to Saggart and existing sports facilities to southeast
7. Opportunity to tie in with GI policy in the Draft Development Plan including objective to development Rathcoole Woodlands as part of wider walking trail that links with Saggart.

With respect to the list of Opportunities listed above and on page 4 of the Concept:

1. How can the existing natural environment be integrated with development to create unique setting for education, housing and sports?
2. What is the potential for a strong landscape connection from the site through Rathcoole Park?
3. Where is the potential for a strong landscape connection from the site through Rathcoole Park?
4. What is the purpose of a strong landscape connection from the site through Rathcoole Park?
5. Where is the potential connection/s to Saggart and existing sports facilities to southeast?
6. What are the existing sports facilities to southeast referred to in point 6 above?
7. How far away are the existing sports facilities to southeast referred to in point 6 above?
8. What is the mode/s of transport envisaged to utilise the potential connection/s to Saggart and existing sports facilities to southeast?
9. What other opportunities are there to tie in with GI policy in the Draft Development Plan other than the objective to development Rathcoole Woodlands as part of wider walking trail that links with Saggart?

5.3 Draft Scheme Analysis

The map presented on page 6 is not the same area as outlined in the original Master Plan.

5.4 Existing Condition and Constraints Map

The map on page 9 shows four water wayleaves, streams and associated riparian corridor, alluvial woodland, immature woodland, hay meadow, orchid rich grassland, hedgerows and an overly enlarged Rathcoole Park including some areas of Park within Woodland according to the legend.

There is no text to say what this map means.

What does this map mean by existing conditions?
What does this map mean by existing constraints?
How were areas that are clearly not part of Rathcoole Park, indicated as Rathcoole Park?
Why were areas that are clearly not part of Rathcoole Park, indicated as Rathcoole Park?
What is the reason there is a mix of habitat classification i.e., some Fossitt's Classification and some Annex habitat classification (presumably based on Irish Vegetation Classification)?
Why are the remaining non-annex habitats not indicated as per Appendix 2B which presumably this map is based on?
The length of hedgerow indicated on the Map on page 9, is well short of the length indicated Appendix 2B, how come that is the case?

5.5 Landscape - Existing Conditions

There are 8 listed items under the Landscape Strategy on page 10, with no explanations and no accompanying text.

How does the Concept enhance the existing character of the Urban Fringe?
How is the Parkland setting of Rathcoole Park extended given that it will be reduced in size because of the Concept deliverables?
How is SuDS to be incorporated?
How is the woodland integrated with the development?
How is integration of woodland with the development, good for the woodland?

5.6 Emerging Land Use Concept/ Assessment criteria

The Emerging Land Use Concept is an initial investigation which provides a map on page 11 and lists the Assessment Criteria but does not supply the outcomes for those criteria. The assessment criteria are:

- Housing Delivery
- Contiguous & Sequential Development:
- consolidated utilities and built form
- Annex I Protection
- Other Biodiversity Protection
- Green Infrastructure & Connectivity
- Vehicular Access & Servicing
- Community & Social Infrastructure
- Positive to Objectives
- Neutral to Objectives
- Negative to Objectives

It is important that Councillors are informed in order to make robust and evidence-based decisions, and therefore the Council needs to provide the following:

- What is the description associated with each assessment criterion?
- How was each assessment criterion assessed?
- What was the outcome for each of the criterion?
- How does each criterion and its assessment outcome relate to the objectives?
- How does each criterion and its assessment outcome relate to the objectives?
- How were the collective outcomes used to inform the Concept and from there the zoning?

It is important that Appendix 2A is robust and transparent in its use of supporting material, in its decision-making process and in how it arrives at the new zoning. It is important to provide evidence, if it exists, where robustness and transparency are lacking.

5.7 Preferred Land Use Concept/ Annex 1 Protection

The Preferred Land Use Concept states on page 12 that **"*additional emphasis around protecting existing habitats, biodiversity and the Rathcoole woodlands by seeking to ensure that there is no net loss of woodland (overall) while maintaining a net gain in Alluvial Woodlawn as well as Hay Meadow*".**

And further states that:

"Zero loss of Annex 1 habitat when Alluvial, Immature and Hay Meadow considered as a whole"

How does no net loss in the manner described, effectively adding and subtracting area values, provide additional emphasis around protecting existing habitats, biodiversity and the Rathcoole woodlands?

In the reply provided by the Council[9] to a motion:

Having full regard to the ecological findings and CS10 SLO 1, potential alternative land uses and a rezoning proposal for the subject lands were investigated to protect the Alluvial Woodlands and the Lowland Hay Meadow as well as other features of ecological value. Specifically, the constraints and habitats within the study lands were investigated and mapped, so that ***areas sensitive to development could be identified and avoided*** *within the context of the SLO. These included the identified Annex I habitats (Alluvial Woodland and Lowland Hay Meadow), flood risk zones, overhead power lines, underground services and other landscape/ecological features including water courses, hedgerows, springs, and wet grassland etc.*

The preferred land use arrangement and re-zoning demonstrated that the local primary school, sports pitches, access arrangements and housing can be accommodated on the lands with:

no net loss to Annex I Alluvial Woodland;
no net loss to Annex I Lowland Hay Meadow;
no net loss to overall woodland; and
the protection and incorporation of hedgerows, water courses, wet grasslands, and springs.

The preferred land use concept retains 7.6ha of Alluvial Woodland (a reduction of 0.4ha along the north extent to ***facilitate access****). However, as a compensatory measure for this loss it is proposed to supplement the existing woodland by* ***providing for 1.8ha of new additional Alluvial Woodland****. Further protection to the alluvial woodlands is included in the CE Report as part of the CE Recommendation on CS10 SLO1 where an SLO relating to the woodlands is proposed, to read:*

To ensure the protection and augmentation of the identified Alluvial Rathcoole Woodlands within the zoning RU, and in recognising their value as green infrastructure and the potential linkages to Lugg Woods and Slade Valley and other amenity areas, provide for sensitive passive amenity uses which have regard to their Annex 1 status.'

It is noted that the compensatory measures identified above and in the Concept in terms of a net gain of new alluvial woodlands relate to existing 'gap' areas in the woodlands which is proposed to be protected under the RU zoning objective. This is not a satisfactory mitigation measure for the loss of woodlands to the east considering these 'gaps' are part of the wider Woodland habitat and are entirely unsuitable for any other use beyond continued re-wilding due to their location centrally within the woodland and adjacent to Annex 1 habitats.

The national conservation status (Figure 4), bad, of the 2 annex habitats, Alluvial Woodland and Hay Meadows are not referenced in the whole Concept document. The bad conservation status makes

[9] http://www.sdublincoco.ie/Meetings/ViewDocument/74197

these habitats extremely important as there can be no loss of habitat if the conservation status is to improve.

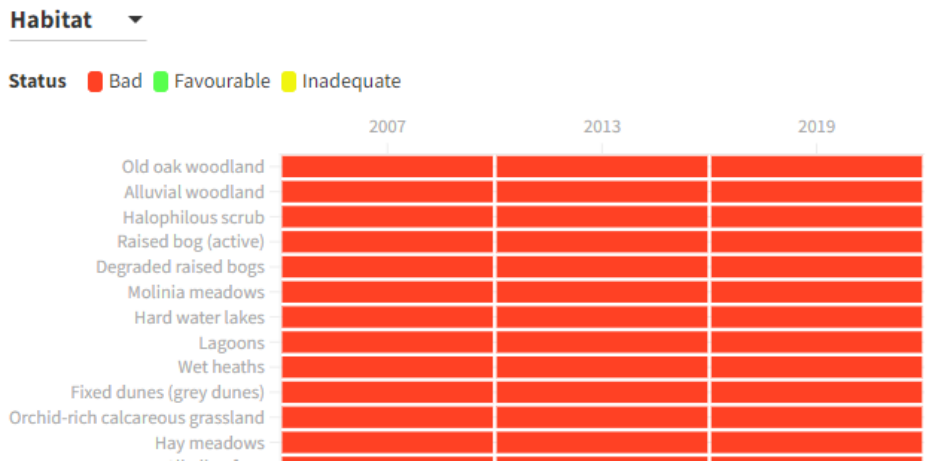


Figure 4 Illustration of a selection of habitat types and their reported conservation status[10].

6 Potential for Ecological Impact

There is no ecological impact assessment provided with the supporting reports for CS10 SLO1 and the proposed zoning. This is quite an oversight given the presence of all the protected annex habitats, the presence of bats, also afforded legal protection and the six bird species of conservation concern. An Ecological Impact Assessment to confirm protection of Annex Habitats and protected species is needed. However, there is plenty of material which points at potential for ecological impact.

Potential for significant impacts

"*While it is not expected that development would have any significant effects on designated sites such as SACs or SPAs, there is the potential for significant impacts on biodiversity within the site itself.*"

Lands at Rathcoole, Preliminary Ecological Appraisal Brady Shipman Martin 6506_2020-05-25_PEA01_04 12

"This area should at all times be considered as a continuous area of natural habitat, with greatest value and integrity when all areas are intact, regardless of whether or not they correspond to Annex I habitat under the EU Habitats Directive. The loss of any areas of the habitat present will diminish and damage the adjacent areas of habitat."

A survey to assess the woodlands and associated semi-natural habitats at Rathcoole, Co. Dublin Rory Hodd, August 2021, unpublished[11]

6.1 Potential Impact on Hydrology

According to Daly 2020 unpublished: *"This Priority Annex I habitat is a **water dependent** habitat; therefore, any activity (within or adjacent to the site) that alters site hydrology could negatively impact the woodland (e.g. species composition change). The presence of this Priority Annex I habitat has implications for any future developments within or adjacent to the Rathcoole woodland site (e.g. SDCC zoned RES-N lands)."*

This is a Wetland. "*Wetland habitats occur where the water table is at or near the land surface, or where the land is periodically covered by shallow water. They include a range of different habitat*

[10] https://www.thejournal.ie/endangered-species-part-1-5520770-Aug2021/

[11] http://rathcoolewoodlands.org/wp-content/uploads/2021/12/Rory-Hodd-Report-on-Rathcoole-Habitats-Aug-2021.pdf

types including marshes, fens, reedbeds, bogs and wet woodlands. These areas tend to have high biodiversity value, as well as serving other functions relating to the protection of water quality and protection from flooding. While many protected areas include wetlands, most occur outside protected sites. Works involving the drainage or reclamation of a wetland generally require planning permission and may be subject to Environmental Impact Assessment". [12] See Appendix 1 which describes the impact of drainage or infill on wetlands. Development has the same affects.

This is underlined and emphasised with more detail in: **Hydrological Assessment; Rathcoole, Co. Dublin, Envirologic, 2022, unpublished[13]:**

"There is a high likelihood that any development works within, and in the immediate vicinity of, the woodland will disrupt the local hydrological and hydrogeological regime, thereby having a detrimental impact on the conditions currently supporting woodland habitat.

The woodland will be extremely sensitive to construction activities such as trafficking of heavy machinery, temporary drainage works, piling and construction dewatering. Though temporary in nature groundwater conditions do not always recover to the pre-works regime.

Permanent subsurface structures such as foundations can sever groundwater flow paths and cause groundwater mounding (increase in upgradient groundwater levels). The potential impacts from these should be assessed on a case-by-case basis.

Clearly, permanent drainage works are done with the intention of lowering groundwater levels in the long-term and this activity is perhaps the biggest threat to woodland conditions. The impact of drainage on the woodland will not only depend on proximity but position with respect to groundwater flow direction and orientation. Particular emphasis is placed in this regard on the upgradient area to the south where any drainage will intercept flows from the relatively long groundwater flow paths. Aside from removing groundwater that currently has a flushing effect, this intercepted groundwater would be transferred to surface waters which can have a knock-on effect of increasing flood risk to downstream receptors.

6.2 Potential Impact on Bats

Most of the following material is based on the findings *in Ecological Assessment Of lands at Rathcoole, Co. Dublin Final Report,2021 Appendix 2b*[14].

Bats are heavily and strongly protected by national and European conservation legislation.

There are eleven species of bat in Ireland. Nine species are resident bats and eight of these occur on the East Coast. Bat surveys were carried out over 2 nights; 16th July 2020 and 24th of August 2020 according to the report. Five of the eight possible species of bat were recorded in one evening, the 16th July 2020 over the lands of Rathcoole subject to CS10 SLO1. These were:

- Common pipistrelle (*Pipistrellus pipistrellus*),
- Soprano pipistrelle (*Pipistrellus pygmaeus*),
- Leisler's bat (*Nyctalus leisleri*),
- Brown long-eared bat (*Plecotus auritus*),
- an unidentified *Myotis* species, and
- an unidentified pipistrelle species (*Pipistrellus sp.*).

[12] https://www.corkcoco.ie/sites/default/files/2017-04/biodiversity%20and%20planning%20process.pdf
[13] Hydrology report
[14] appendix-2b-rathcoole-lands-ecology-report.pdf (sdcc.ie)

Bats were recorded over the whole area (see Figure 5). This is a rich site for bats.

Appendix 2b lists the possible pressures on bats and five will be applicable to the outcome of the proposed objective and supporting rezoning (Res- N):

- urbanized areas (e.g. light pollution);
- removal of hedges, scrub, forestry;
- other pollution and human impacts (e.g. renovation of dwellings with roosts);
- infillings of ditches, dykes, ponds, pools and marshes;
- communication routes: roads;

There is no doubt that the proposed objective, and the amended zoning will adversely impact the bat species that live, breed and feed in this area. This is only one of the many adverse ecological impacts that could arise from the outcome of the proposed objective and supporting rezoning (Res-N).

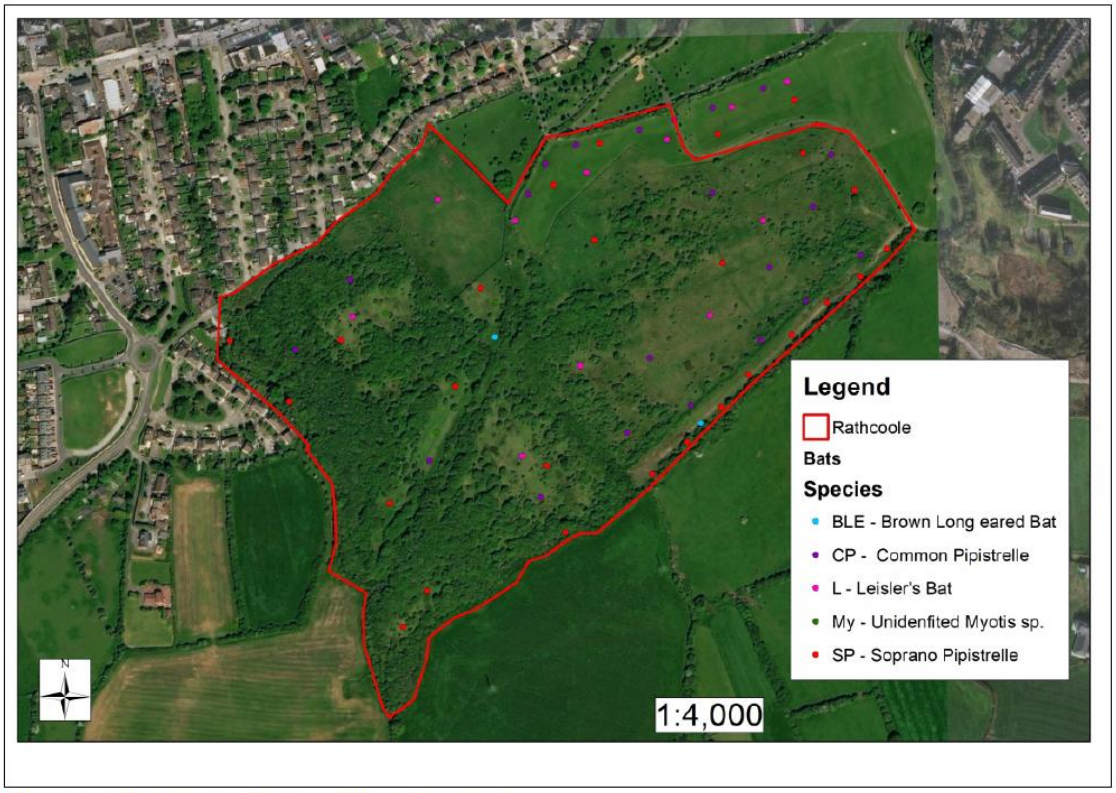


Figure 3.2.11. Bat activity recorded at Rathcoole.

Figure 5 Extract from Appendix 2b illustrating bat activity over the lands at Rathcoole.

6.3 Potential Impact on Birds

The following information is from: **Survey Site, Rathcoole, Co. Dublin Wintering Bird Report 03 May 2021, JBA Consulting Unpublished**[15]**.** Four bird surveys were conducted between December 2020 and March 2021. JBA Ecologists conducted roving and stationary surveys across a range of habitats. They considered the site "*typically dominated by immature woodland and dry grassland with transitional scrubland bordering these habitats, which was comprised of tree saplings, Bramble Rubus fructicosus agg. and Gorse Ulex europaeus. The immature woodland also contained a stream*

[15] http://rathcoolewoodlands.org/wp-content/uploads/2021/12/Rathcoole-Wintering-Bird-Report.pdf

and a series of drainage ditches, as well as a groundwater spring towards the south-western corner of the site. These varied habitats resulted in a clear geospatial relationship between specific habitats and bird species observed." They provided an image of the dry grasslands in the GAA lands and of the Alluvial Woodlands in the SDCC owned lands.

They observed two bird species with European legal protections:

• Wood Pigeon – Birds Directive Annex II & III species
• Black-headed Gull – Qualifying Indicator species of Dublin Bay SPA sites

And six species of birds of conservation concern in Ireland (BoCCI):

- House Sparrow - BoCCI: Amber List - Breeding*
- Meadow Pipit - BoCCI: Amber List - Breeding*
- Starling - BoCCI: Amber List - Breeding*
- Redwing - BoCCI: Red List - Wintering
- Black-headed Gull - BoCCI: Amber List - Breeding* & Wintering
- Herring Gull - BoCCI: Amber List - Breeding* & Wintering

  *Only potential breeding status within the site

They found "*specific habitat utilisation by individual species is clearly evident with Meadow Pipit and Redwing utilising the natural grasslands and bordering scrub; while House Sparrow; Starling; Black-headed Gull and Herring Gull are associated with managed grasslands and adjacent urban areas"* see Figure 6.

Figure 3-3: Birds of conservation concern & BD Annex / QI species recorded during the surveys

Figure 6 Extract from Rathcoole, Co. Dublin Wintering Bird Report showing where bird species of conservation concern were recorded.

Wintering Redwing populations are on the red list. The report states: "*It should also be noted that the Redwing likely utilise the majority of the immature woodland and adjacent dry grassland (excluding sections directly adjacent to urbanised areas) within the site, as well as the agricultural grasslands to the south-east and south-west of the site"*

The report goes on to say: "*The development of this site will give rise to potential adverse impacts on Redwing, from both the construction and operational phases; given that Redwing will be subject to temporary physical, noise and visual disturbance during the construction phase; and habitat loss during the operational phase, as Redwing generally display aversive behaviour towards urbanised areas. The magnitude and extent of these adverse impacts will be dependent on the nature and scale of the development within the site, as well as its accompanying mitigation measures*."

The mitigation measures suggested are:
"prioritised retention of existing immature woodland and natural grassland over additional amenity grassland space. The natural grassland areas provide insect-based foraging grounds for Redwings during the winter, while the immature woodland provides refuge and foraging opportunities during harsh winter weather……. provision of this retained immature woodland area will mean that wintering Redwing will not have to navigate through aversive urban areas to reach a harsh winter weather refuge."

The report clearly shows that:

1. There are 6 species of conservation concern, 5 on the amber list, and 1 on the red list
2. These 6 species were observed throughout the site (see observations) therefore all habitats are necessary for maintaining bird diversity and their survival
3. Some bird species have specific habitat requirements such as the Redwing (red list) which needs woodland and natural grassland away from urban areas, Wood pigeon naturally need woodland, meadow pipit need natural grasslands[16] (GAA lands or similar)
4. Habitat loss is inevitable for the red listed Redwing should objective CS10 SLO1 be realised

6.4 General Evidential Impacts

- Reduction in woodland area
- Loss of Annex habitat Lowland Hay Meadow
- Disconnection of Green Infrastructure i.e., Rathcoole Woodlands from Rathcoole Park by grey infrastructure (roads and buildings)
- Habitat fragmentation
- Diminishing the Woodlands habitat and amenity value
- Halting of continued rewilding and woodland development to annex habitat
- Contributing to the spatial disfunction of L7 – Citywest-Saggart Link

  "a difficult spatial situation as several green spaces (stepping stones) have been separated from each other by residential and industrial development.
  These spaces include Rathcoole Park, Citywest Golf Club and smaller pockets of green space at Citywest Business Campus and the Brookfield residential area. "

[16] The meadow pipit is a ground nesting bird. http://www.naturesweb.ie/Autumn2012Page3.pdf

7 Green Infrastructure & Connectivity

7.1 Rathcoole Woodlands, GI value and Stepping Stones

We are disappointed that the Chief Executive considers that Rathcoole Woodlands is not of suitable size to be considered a core area in the Green Infrastructure Network:

Given the size of the woodlands, it is considered that they are more properly identified as a stepping stone and should be included in that list. It should be noted that the inclusion of the woodlands as a stepping stone rather than as a core area does not in any way diminish their habitat or amenity value and that the objectives associated with both apply.

Rathcoole Woodlands contains a **substantial Alluvial Native Woodland** at 12.8 ha (Hodd, 2021 unpublished) given that the National Survey of Native Woodlands found[17]: *'The majority of surveyed woodlands were small or very small in extent, with 50% of sites being 6 ha or less…, over two thirds (67.8%) of sites were 10 ha or less and only 3.3% of sites surveyed were 50 ha or more, with just ten sites over 100 ha…This reflects the highly fragmented nature of the Irish woodland resource..'*

Priority habitats are deemed to be in **danger of disappearance**, in view of the proportion of their natural range within the EU. Habitat 91E0 is a national resource. There is no other record of this habitat in the County of Dublin.

We note that the Corkagh Park is identified as a Core Area, which has no direct continuous land or water connectivity with any of the stepping stones identified in Corridor 5: Camac River Corridor given that both the land and water is intercepted for example by the M7 with no biodiversity land bridges and all water culverted.

The enactment of the new proposed CS10 SLO1:

Ensure the provision of a primary school, library hub, 2 full sized GAA pitches and 1 junior pitch and associated pavilion, access road and open space is provided in tandem with new residential development.

will result in:

- the reduction in existing woodland area
- the disconnection of Rathcoole Woodlands from Rathcoole Park by grey infrastructure (roads and buildings)

Additional grey infrastructure (roads and buildings) development will be facilitated by rezoning land along its eastern perimeter to Res_N. This will result in dividing the rewilding area and enveloping woodland on 3 sides with grey infrastructure. The reduction in Woodland area and in connectivity will diminish the Woodlands habitat and amenity value. Therefore, the Woodlands prospects as a core area of Green Infrastructure Network will also be considerably reduced. In the light of reduced connectivity and area as a result of the new proposed CS10 SLO1, it is reasonable and unfortunate to propose Rathcoole Woodlands as a stepping stone but it is not the desired outcome.

We note that for L7 – Citywest-Saggart Link (see Appendix 4 Green Infrastructure Local Objectives and Case Studies of the Draft County Development Plan 2022-2027) is stated as presenting:

"a difficult spatial situation as several green spaces (stepping stones) have been separated from each other by residential and industrial development.

[17] http://www.botanicalenvironmental.com/wp-content/uploads/2011/03/Volume-I.pdf

These spaces include Rathcoole Park, Citywest Golf Club and smaller pockets of green space at Citywest Business Campus and the Brookfield residential area.

It is a pity that the spatial situation could be further exacerbated by the possible separation of Rathcoole Woodlands from Rathcoole Park as a result of implementation of the new CS10 SLO1 and the associated proposed zoning. And the splitting of the rewilded area into 2 components, East and West of the proposed Res – N zoning.

8 Zoning

South Dublin County Council propose the following material alterations; revising zoning, to Map 8 of the Draft Plan:

- from RES N New Residential to RU Rural,
- from OS Open Space to RU Rural,
- from OS Open Space to RES-N New Residential on lands adjacent to Rathcoole Park

What it means is:

- Rezone the Alluvial Woodland within the SDCC owned land from predominantly Res N zoning to Rural but with Res N zoning retained on 0.25 ha along the northern boundary to allow for access to the CS10 SLO1 area
- Rezone the Alluvial Woodland within the GAA owned land from Open Space to Rural zoning, about 2.4 ha
- Retain the Res N zoning on 1.8 ha of rewilding grassland owned by Dept. Ed.
- Rezone the 1 ha of Lowland Hay Meadow Annex habitat within Rathcoole Park from 1 ha Open Space to Res N zoning
- Rezone some of the grassland/ mosaic and non-annex woodland habitat from Open Space to Res N, which is mostly owned by the GAA

Land zoning is concerned with what is allowed and what may be considered as a suitable land use under that zoning i.e., permitted, open for consideration and not permitted. Protection of habitats, biodiversity, and nature are not listed and are not a consideration or a focus, but may be a by-product of the zoning. Rural and Open Space zoning both permit for many forms of development and are open to consideration of many forms of development.

While rural zoning is less likely to enable large scale damage to the rewilding area including Woodlands, it is not a conservation measure, nor is it a guarantee of protection. High Amenity is a better type of zoning, and a new zoning specifically for habitat, biodiversity and nature protection would be better still, e.g., Nature/Biodiversity Conservation Zoning. This would clearly indicate a commitment to halting the loss of biodiversity on the Island.

Appendix II

Extract from Guidance for Planning Authorities on Drainage and Reclamation of Wetlands consultation draft September 2011 [18]

6.4 **Environmental effects of drainage and reclamation of wetlands**

To determine whether drainage or reclamation, including infilling, of a wetland might have significant effects on the environment, one must first identify the sites, habitats or species that have potential to be impacted by that drainage/reclamation. The sites, habitats and species that can be impacted by wetland drainage/reclamation will typically, but not exclusively, be or contain wetland habitat and species. As stated above, Appendix 4[19] lists the wetland habitats that fall within the definition used in this guidance, Appendix 5 lists the relevant Habitats Directive Annex I habitats, while Appendix 6 lists the relevant Habitats Directive Annex II species.

The key consideration is hydrological connectivity and the following impacts must be examined:

- The potential impacts within the footprint of the proposed development (e.g. of the drain or area of in-fill);
- The potential impacts in the immediate vicinity of the proposed development;
- The potential impacts up-gradient or upstream from the proposed development; and
- The potential impacts downstream of the proposed development.

It should also be noted that the last two impacts could occur at a significant distance from the proposed drain or area to be reclaimed. A key point is that the negative impacts of drains and reclamation may often extend very far beyond and cover a much greater area than the footprint of the development.

Once the habitats and species that have potential to be impacted by the proposed wetland drainage/reclamation have been identified, their importance and sensitivity of each must be assessed. A first step is the examination of how water influences the habitat or species in question.

As is clear from Section 6.1 above, the term wetland covers a wide spectrum of habitats, with significant variation among wetlands in soils and/or biological communities. The dependence on inundation or saturation with water is the linking factor across wetlands, however, how that water influences soils and/or biological communities differs among habitats and even sites.

Broadly, the influence of water on wetlands can be divided into aspects of water quantity and water quality: 1. Water quantity - water quantity influences soils and/or communities of a wetland through: a. flows, b. volumes, 21 c. timing, d. duration, e. frequency, of inundation or saturation.

2. *Water quality* – or the physico-chemical characteristics of the water, can be divided into many parameters, however, frequently the most important are: a. PH levels, b. mineral composition (particularly calcium and magnesium), c. nutrients (phosphorus, nitrogen and potassium), d. metals (particularly iron and aluminium), and e. salinity. All of which may have key characteristics in terms of spatial and/or temporal variability.

The potential for the proposed drainage/reclamation to impact upon the key aspects of water quantity and quality that influence the identified wetland habitats and species must be assessed. A general point is that for many wetlands, especially those that are typically small in area, it only takes a short length of drain or a small area of infill to completely destroy the habitat.

[18] https://www.housing.gov.ie/sites/default/files/migrated-files/en/Publications/DevelopmentandHousing/Planning/FileDownLoad%2C27900%2Cen.pdf

[19] Calcareous springs, Non-calcareous springs, Wet willow-alder-ash woodland

Examples are provided below of how drainage and reclamation can impact upon wetland habitats. These examples illustrate the complexity of the impacts.

Assessment of impacts will always be site-specific and the location of the proposed development in relation to sensitive wetland habitats and species is key.

6.5 **Examples of impact of drainage and reclamation on wetlands habitats**

6.5.1: *Non-hydrological impacts*

Drainage and reclamation, as with other developments, will have impacts within the footprint of the development. Examples include destruction of individuals or populations of rare plants and destruction of resting or feeding places of protected fauna. These impacts are direct, rather than hydrological and are not detailed in the following examples.

6.5.2 *Impacts in the immediate vicinity of the proposed development*

Impact on seepages and springs is an example of impacts in the immediate vicinity of the proposed drain. Seepages and springs are frequently very small wetlands (<5m ^{2}) and can easily be destroyed through drainage and reclamation. Even a small drain can effectively divert all of the groundwater flow from the habitat, resulting in its loss. A number of Habitats Directive annexed habitats and species (e.g. Petrifying springs with tufa formation (Cratoneurion) (habitat 7220), *Saxifraga hirculus* (species 1528), Vertigo geyeri (species 1013)) are associated with spring/seepage wetlands. Petrifying springs are a priority habitat type, potentially with many important sites yet to be discovered. Draining springs and seepages could also impact downstream water quality, depending on the relative contribution of the spring.

6.5.3 *Potential impacts up-gradient or upstream from the proposed development*

An example of potential impacts up-gradient or upstream from the proposed drain or reclamation is the impacts resulting from the excavation of a swallow hole. Swallow holes are frequently associated with the Habitats Directive, Annex I priority habitat turloughs. Turloughs are characterised by zones or mosaics of wetland vegetation, the species composition of each zone being largely determined by the annual duration of flooding. These wetlands flood with groundwater via springs and frequently empty via these same connections (known as estavelles) or swallow holes. Drainage or excavation of a swallow hole may be limited to an area of as little as 1 m2 , but can impact all of the associated wetland by reducing the duration of flooding across the vegetation zones.

Another example of such potential impacts is the negative effects of increasing the crosssectional area and lowering the base of an existing drain towards the upper margin of a turlough. The purpose of such a proposal may be to “take the top off” or limit the extent and depth of flooding in the turlough, for example, to prevent flooding of a local road. By reducing the extent and depth of flooding, the proposed drainage would not only prevent flooding of the upper turlough margins, thereby eliminating the associated wetland vegetation, but also reduce the duration of flooding in all zones below the drain. The proposed drain would change the turlough’s hydrology by re-directing flood water away from the wetland via a surface water drain, rather than allowing it to exit the wetland naturally via swallow holes to the groundwater. Consequently, changes to this marginal drain would result in significant impacts across the wetland as a whole. By diverting some of the groundwater flow through a surface water stream/drain, the proposal would also result increased flows in that surface water stream/drain and a consequent increased risk of flooding downstream. An alternative solution with a significantly smaller impact would be to raise the level of the local road.

Another case of impacts up-gradient or upstream from the proposed drain/reclamation is that arising from the extension of drains at the margins of bogs for the purposes of turf cutting. In such cases the extension can open a connection to a vein of permeable sub-soil underlying the bog and by tapping into this gravel layer, an outlet for the drainage water can be created, allowing greater volumes of water to be drained from the bog.. Even a small extension of drain can have a substantial impact in such cases e.g. causing subsidence to spread rapidly into the bog. The impacts can extend for hundreds of metres up-gradient of the drain. Subsidence leads to an increase in the slope of the bog surface, and stops active peat growth. The slope of a raised bog’s surface

is the critical factor determining the distribution of the Habitats Directive priority Annex I habitat active raised bogs, 7110.

6.5.4 Potential impacts downstream of the proposed development

Draining/reclaiming a wetland frequently impacts downstream wetlands through changing the latter's hydrology and water quality. Wetlands are areas that retain large quantities of water. Drainage and reclamation reduces a wetlands capacity to retain water and speeds up the runoff of water to downstream habitats, typically increasing the velocity and erosive power of that water, and changing seasonal patterns by increasing flood flows and decreasing flows during dry periods. Drainage also leads to decomposition of organic material in wetlands and the loss to downstream wetlands of dissolved and particulate organic carbon and nitrogen, amongst others. Water quality is also impaired through erosion of the drained wetland and along the beds and banks of the drain, resulting in increased suspended solids loads to downstream wetlands

The potential impacts of drainage on the freshwater pearl mussel provide a good example. The freshwater pearl mussel is a rare and extremely sensitive invertebrate found in base-poor, oligo-trophic rivers. The species has suffered significant declines, with the main causes including pollution by fine sediments and nutrients. In the catchments of the 27 candidate SAC populations, agricultural drainage of wet grassland and peatland wetlands, leading to soil erosion and sedimentation of the mussels and their habitats, has been identified as a significant cause of decline. Cause and effect is notoriously difficult to quantify for such downstream impacts, however, in one particular example, drainage of a plot of wet grassland (approximately 4 ha) was believed to be responsible for a kill of one third of adult mussels extending for a distance of 1.5 km downstream of the site. An example of the downstream impacts of wetland reclamation can be provided by the infilling of a river floodplain. By reducing the floodplain storage capacity, the development diverts flood waters elsewhere. This can lead to increased flooding downstream of the area of in-fill, but also upstream, through 'backing-up' of the flood flows.

https://www.housing.gov.ie/sites/default/files/publications/files/rbmp_report_english_web_version_final_0.pdf

The 2011 Planning and Development (Amendment) Regulations (S.I. 454) provided for the exempted development threshold for drainage of wetlands to be reduced from 20 ha. to 0.1 ha.. It also provided for the threshold for mandatory EIA for such drainage to be reduced to 2 ha.