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Response to public consultation on the **Designation of Ireland's Heavily Modified Water Bodies arising out of the 2024 Water Action Plan**

A. INTRODUCTION AND OVERARCHING SWAN VIEW

SWAN welcomes the opportunity to respond to the consultation on the *'Designation of Ireland's Heavily Modified Water Bodies (HMWB) arising out of the 2024 Water Action Plan'*. We welcome the lead taken by the Department of Housing, Local Government and Heritage (DHLGH), taking on board feedback on the 2022 consultation from SWAN and others, that it was more appropriate for DHLGH to carry out the second stage of the designation i.e. the "designation tests".

However, we have grave concerns regarding the very large numbers of water bodies proposed for designation, in light of the lack of analysis and supporting rationale for this. For this reason and others set out in this response, **it is our view that this designation process should NOT take place**. There is currently not enough information or supporting evidence to justify the designation of 466 water bodies as HMWB and the designation process as set out would appear to contravene Article 4.3 of the Water Framework Directive (WFD). We recommend that the correct analysis be conducted and presented in an appropriate format for meaningful public engagement as part of the 4th planning cycle, rather than rushing it now.

It is important to note, when considering the results of the previous consultation run in 2022 by the Environment Protection Agency (EPA), and form a basis for the process presented here, that that process was incomplete. This is acknowledged by the current consultation document when it states that the aim of the current process is *"...completing the final HMWB designation steps."* It also notes that *"One of the key outcomes of the previous public consultation was a recommendation that the designation tests (steps 7-9), should be undertaken by the Department of Housing, Local Government and Heritage (DHLGH)."* This was because the EPA as a scientific agency do not have the necessary expertise and are therefore not the appropriate body to conduct the 'designation tests' which involve, if done correctly, socio-economic, as well and environmental assessment. We believe that the EPA's recommendation is based

on incomplete information, and it is therefore not appropriate to use the 2022 work (beyond the characterisation tests, Steps 1-6) as the basis for designation decisions.

B. CONSULTATION / ENGAGEMENT PROCESS

The EU Common Implementation Strategy (CIS) Guidance document[1] clarifies that since the designation of HMWB "*will be undertaken as part of the RBM planning process... [it] is therefore subject to the requirements for the provision of public information and consultation as defined by Article 14*".

The CIS Guidance states that:

> *"Information provided by the assessment methods* ***must be sufficient to ensure that the process of decision-making*** *associated with the Article 4(3) designation tests* ***is transparent allowing for the active participation of the public*** *in the planning process* ***based on the provision of necessary appropriate information***." [SWAN emphasis]

It is clear that the material forming this consultation does not meet these criteria and that it is not suitable for supporting / facilitating any meaningful public response or engagement. This is because, it comprises, on the one hand, a brief and insubstantial consultation document that provides very little information, in particular, on the basis for the designations (see below), while on the other hand, an extremely granular and inaccessible excel spreadsheet, of which the HMWB sheet contains more than 10,000 cells.[2] No directions are provided on how to navigate the complexity of the given data or to explain its significance and there is almost no explanatory narrative to assist in understanding it. With a subject as technical as physical modifications and hydromorphology, a greater explanation is warranted for a meaningful and informed response from the public.

It is of relevance to note here that to provide the more detailed SWAN responses below, an ability to navigate the excel spreadsheet, using the 'sort', 'hide cells' functions etc. was required. For members of the public who aren't familiar with excel, this would have been very challenging.

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[1] Common Implementation Strategy for the Water Framework Directive (2000/60/EC) Guidance Document No.4. (2003). Identification and Designation of Heavily Modified and Artificial Water Bodies. CIS Working Group 2.2 - HMWB, European Commission (CIRCABC). https://europa.eu.int

[2] Note that by default the spreadsheet opens on the ecological status sheet, the relevance of which is not immediately apparent. To provide a further barrier, the link for the appendix in the consultation document leads to the generic gov.ie consultation page where you must determine a suitable search term to enter into the search bar, then, if/when you successfully find the relevant page, scroll down to find the link to *'Appendix 1 HMWB Candidates'*.

C. DESIGNATION PROCESS

1. Lack of supporting evidence for designation

It is not acceptable that the consultation material does not answer the fundamental question of what the basis is for the proposed designation of 466 water bodies as heavily modified. On this question, which is the subject of this consultation, the main consultation document is almost silent, saying only that,

> *"Building on the previous consultation…specified use owners were requested by DHLGH to provide further information on the proposed HMWBs that relate to the specified uses within their remit.* ***This additional information complemented further assessments by DHLGH and was used to inform the designation steps.****"* [SWAN's emphasis]

However, it provides no information on what those *'further assessments by DHLGH'* are. There is no explanatory narrative of what the assessments involved, nor even a setting out of the broad principles applied.

Furthermore, the document states that in the case of each of 466 waterbodies, it was determined that,

> *"There is no alternative means to supply the benefits of the specified use that, based on current knowledge, would be a:*
>
> - *significantly better environmental option,*
> - *technically feasible,*
> - *not disproportionately costly."*

However, it provides no supporting evidence on the basis for this determination. Specifically, what analysis was done, what alternative means were considered and why they were dismissed. It is not appropriate to make such a strong claim while providing no rationale for it.

The consultation document then refers readers to "*Appendix 1*" for the detailed outcomes of the designation tests. However, despite the highly populated nature of the spreadsheet, it also fails to present evidence. While the steps of the 'designation tests' are mostly reflected in columns in the excel table, there is no accompanying explanation, nor detail provided on the analyses performed in each step to arrive at decisions. Also, key steps are omitted (See below). We now focus in particular on:

- Step 7: Designation test 4(3)(a): Identify restoration measures necessary to achieve GES. Do these measures have significant adverse effects on the wider environment or the "specified uses "?
- Step 8.1: Are there "other means" of providing the beneficial objectives served by the physical alteration?"

2. Step 7: "Designation test 4(3)(a)": Identify restoration measures necessary to achieve GES[3]. Do these measures have significant adverse effects on the wider environment or the "specified uses "?[4]

The WFD CIS guidance is clear that the first step in the designation decision process (the 'decision-tests') is that,

> *'the "restoration measures" for achieving GES are to be identified'*

and that,

> "*The first sub-step 7.1 of the designation test 4(3)(a) is to identify the hydromorphological changes which could lead to the achievement of GES."*[5]

The designation process as set out in the consultation documentation is clearly not in line with the guidance, since this first step is not included and appears to have not been carried out. Nor is it in line with Article 4.3 of the WFD which implicitly requires that restoration measures be identified, in order that it can be demonstrated that they would have *"significant adverse effects"* on the specified uses. (Art.4.3 (a))

While the spreadsheet reproduces the question from the guidance document in relation to this step ("*Step 7.1: Identification of "restoration measures" to achieve GES. Is the physical alteration connected to a current specified use?")* at column O, it then completely ignores the identification of restoration measures and instead only responds "Yes", and notes the physical alteration is connected to a current specified use and proceeds to the next step accordingly. This is to completely ignore the first step set out in the CIS decision tree, which is reproduced in Fig. 1 of the consultation document.

For the 436 water bodies, proposed to be newly designated as HMWB, no restoration measures or possible restoration measures are identified. There is no information provided on what restoration practices were explored. Additionally, only the adverse impacts of restoration measures are considered, without weighing in any potential benefits of restoration measures.

From the spreadsheet, it appears that rudimentary and generalised assumptions were made / inferred about what restoration measures would be needed. For example, for arterially drained waterbodies, there appears to be an assumption made that there

[3] GES – Good Ecological Status

[4] From the CIS Guidance Document no. 4 – HMWB. circabc.europa.eu (See footnote 1)

[5] The guidance document makes it clear that 'restoration measures' refer to what is identified in the text of Art. 4.3.(a) of the directive as "the changes to the hydromorphological characteristics of that body which would be necessary for achieving good ecological status"

would be an impact of restoration measures for arterially drained waterbodies because, for example, there are *"significant area of lands improved for agricultural production and level of flood protection provided to rural and urban areas"*. However, the guidance document, in explaining the requirement of the WFD states that,

> "*The hydromorphological changes for achieving GES (hereafter called* ***restoration measures) may range from measures aimed at reducing the environmental impact of the physical alteration*** *(e.g. increased compensation flows or fish passages)* ***to measures resulting in the complete removal of the physical alteration.*** *Measures can be directly related to the physical alteration (e.g. changing the physical alteration) or enhance the general ecological conditions (e.g. creation of habitats).* [SWAN's emphasis]

It is therefore clear that a spectrum of restoration measures could, and should, be considered, including measures that could reduce the environmental impact, while not necessarily completely removing the physical modification. It further recommends that

> *"It should also be assessed whether an overall package of proposed restoration measures could lead to GES (Examples in the toolbox[6]).*"

What the CIS guidance is describing here is a suite of measures within an integrated catchment management approach. While this is more challenging and would require a multidisciplinary approach, it is not acceptable that DHLGH is proposing a blanket designation of arterially drained rivers rather than implementing Step 7.1. This could be perceived as taking an easier option that avoids the need for the more challenging assessment of an overall package of integrated restoration measures that could reduce the environmental impact and lead to GES in at least some of the variety of arterially drained rivers.

Given the catchment-level assessment required to do this exercise correctly, we propose that this should be considered as part of the development of the (4th cycle) Catchment Management Plans and that meaningful public participation in the designation should place as part of this.

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[6] The *'Toolbox on Identification and Restoration of Artificial and Heavily Modified Water Bodies'* contains examples of actual case studies where restoration measures were identified that could lead to GES. One such relevant case study is that on the Stream Hagmolen-Hegebeeck in the Netherlands – a lowland stream that has been heavily modified through drainage for agricultural use. Restoration measures were systematically assessed for their effect on stream morphology, hydrology and ecology as part of Step 7 of the designation tests. (Toolbox on Identification and Designation of Artificial and Heavily Modified Water Bodies (2003). CIS Working Group 2.2 - HMWB, European Commission (CIRCABC). https://circabc.europa.eu)

3. Step 8: "Designation test 4(3)(b)": Can the beneficial objectives served by the modifications of the HMWB be achieved by other means, which are a significantly better environmental option, technically feasible and not disproportionately costly?

It is unclear in Step 8.1 of the excel sheet what *'alternative means of providing beneficial objectives'* of modifications were explored. For the majority of the 466 water bodies (404), it is not known if alternatives were assessed at all, what these were and who carried out this assessment; it simply says, *"No known alternative means"*, with no explanation. For 56 of the remaining 59 water bodies, it says that "*alternatives have been assessed*" by either the Uisce Éireann or the OPW, but no further detail on the assessment is given. Clearly, however they have not been assessed for all three criteria provided for in Article 4(3)(b) i.e. technical feasibility; disproportionate cost; significantly better environmental option, since these columns are marked *'n/a'*.

This is contrary to directive, and the CIS guidance which states that,

> *"Water bodies for which "other means" can be found that fulfil these three criteria and can achieve the beneficial objectives of the modified characteristics of the water body may not be designated as HMWB."*

It is unacceptable to see then that waterbodies are being designated HMWB without this environmental and socio-economic analysis being conducted. This appears to be in violation of Article 4(3)(b) of the WFD, which requires that analysis of waterbodies demonstrate that "*the beneficial objectives served by the artificial or modified characteristics of the water body cannot, for reasons of technical feasibility or disproportionate costs, reasonably be achieved by other means, which are a significantly better environmental option.*"

4. Designation process/ tests: Grouping of Designations

SWAN is concerned that while the 'characterisation tests' were done on a waterbody-by-waterbody basis, the 'designation tests' were not. Following the initial screening (Step 3 – 5) using various hydro-morphological tools and datasets (MQI-Ireland, Cube etc.), it appears that water bodies have been grouped by '*specified use*', based mostly on views from '*specified use owners*'. There is no data to show that this is complemented by any further site-specific assessments.

While each waterbody is listed in the appendix, it is apparent that a grouped approach has been taken. E.g. for 'Arterial Drainage', the text in answer to the question at S*tep 7.3: Would the "restoration measures" have significant adverse effects on the wider*

environment?" is dominated by two answers[7], clearly copied-and-pasted, despite the variety of rivers this encompasses.

It would appear that some water body-specific assessment may have been done in relation to a minority of specified uses. For example, for some water bodies for which the specified use is 'Water storage & Regulation', it is reported that alternative means for providing the beneficial use *"have been assessed by UÉ"*. In this case, it is important that further water body–specific detail of this assessment be presented. The CIS guidance document does allow MSs *"to apply the test to groups of water bodies…"* but this is on the condition that,

> *"If water bodies are grouped,* ***there must be no differences in the characteristics of the water bodies*** *or the specified uses which could affect the outcome of the designation tests"* [SWAN emphasis]

And,

> *"Justification for grouping water bodies should be provided."*

These conditions do not appear to have been met, since a variety of river types/typologies are subject to arterial drainage and would therefore have differences in characteristics. Secondly, no justification for the grouping is provided.

In Scotland and the UK, detailed site -specific assessments are conducted by a team of hydro-morphologists, as part of the HMWB designation process, prior to stakeholder engagement[8]. This has led to the generation of actionable restoration/improvement measures to improve flow levels and fish passage in their River Basin Management Plan[9].

The HMWB designation process in Ireland could also benefit from this approach. Site-specific assessments would provide more detail on each water body and 'the wider environment' they are part of, allowing for more informed decisions on restoration measures and assessment of alternatives.]

5. Arterial Drainage

SWAN would like to draw attention to the case of Arterial Drainage, which is the highest reported type of physical modification, with 299 water bodies primarily

[7] *"Yes - provides level of flood protection to properties, infrastructure, transport infrastructure, urban centres and a significant area of lands improved for agriculture"* or *"Yes - significant area of lands improved for agricultural production and level of flood protection provided to rural and urban areas"* A third, *"Yes. Potential flooding of areas that were previously protected"* also appears three times.

[8] Water for Life and Livelihoods, Annex I: Designating artificial and heavily Modified Water Bodies https://assets.publishing.service.gov.uk/media/5a750d0fe5274a59fa717027/geso0910bstj-e-e.pdf; www.wfduk.org/tag_guidance/article_4/heavily_modified_wb

[9] The River Basin Management Plan for Scotland 2021 – 2027

modified for this purpose, in the current list. The various short and long-term adverse impacts of arterial drainage are well-recorded by research[10,11].

To ascertain whether "*the beneficial objectives served by*" arterial drainage can be achieved "*by other means, which are a significantly better environmental option*," the consultation documentation posits that according to the '*specified use owner*' - Office of Public Works (OPW), restoration measures cannot be enacted without compromising specified uses. This assertion by the OPW lacks empirical backing and fails to adopt a holistic policy and catchment management perspective. Furthermore, as set out in 2 above, possible restoration measures are not identified or assessed.

6. Integration with other Policies

The National Hydromorphology Programme (NHP) established as part of the Water Action Plan (WAP) last year, supported by a Hydromorphology Expert Group is intended to facilitate the implementation of the WFD objectives relating to the control of pressures on hydromorphology. The WAP (2024) also signposts the development of a new consolidated regulatory regime to address the impacts of physical modifications in water bodies. It is only logical that the HMWB designation process is integrated with NHP to prevent the risk of permanent designation due to potential complexities in manoeuvring new legal codes arising out of the NHP and the consolidated regulatory regime. Additionally, designation cannot be viewed independently from other broader land-use and climate policy. For instance, climate targets would require a cessation of all peatland drainage. Continuing arterial drainage, as supported by this proposed designation, contradicts land use strategies aimed at both climate mitigation and adaptation, showcasing a clear instance of policy inconsistency.

D. TIMING, DESIGNATION PART OF RIVER BASIN MANAGEMENT PLANNING PROCESS

The guidance document highlights the fact that *"The HMWB … designation process is only one aspect of the RBMP and must be fully integrated with the key components of the* Plan, and that it is "*important to co-ordinate the designation process with the other requirements of the RBM planning process.*"

[10] King J.J., Hanna G. And Wightman G.D. (2008) Ecological Impact Assessment (EcIA) of The Effects of Statutory Arterial Drainage Maintenance Activities on Three Lamprey species (*Lampetra planeri Bloch, Lampetra fluviatilis L.,* and *Petromyzon marinus L.*).Series of Ecological Assessments on Arterial Drainage Maintenance No 9 Environment Section, Office of Public Works, Headford, Co. Galway.

[11] Bhattarai, K.P. and O'Connor, K.M., 2004. The effects over time of an arterial drainage scheme on the rainfall-runoff transformation in the Brosna catchment. Physics and Chemistry of the Earth, Parts A/B/C, 29(11-12), pp.787-794.

The current consultation is not in line with this. Given that this did not happen as part of the 2027 cycle, it is not appropriate to conduct a rushed designation now, mid-cycle, based on inadequate assessment and a flawed public consultation. We strongly recommend that the designation decision process is halted, and more detailed analysis conducted and integrated with the next RBMP planning cycle.

E. SWAN RECOMMENDATIONS

- OVERARCHING RECOMMENDATION: It is SWAN's view that the proposed designation should NOT take place until appropriate analyses are conducted and supporting evidence presented, with effective public engagement. The basis for the proposed designation of 466 water bodies as heavily modified must be explained.
- A significantly improved designation decision process, based on appropriate analysis for each step, must be developed with proposed designations presented clearly, justified and integrated into the consultation on next River Basin Management / Water Action Plan. This will instil more confidence in the designation process.
- Restoration measures which could lead to the achievement of GES must be identified and assessed. This should include overall packages of restoration measures for each water body. This is the first step in the designation decision process and can't be passed over.
- This process should take into account not only the impacts of restoration measures but also their wider environmental, social (incl. recreational and heritage), and economic benefits.
- Alternative means of achieving the beneficial objectives of modifications must be assessed, and the detail of this assessment must be set out. This must include assessment of technical feasibility; Disproportionate Cost Analyses (DCAs) and assessment of whether they are a better environmental option.
- Water bodies should only be grouped for designation where there are no differences in their characteristics and the justification for grouping is provided.
- An effective public engagement process must be implemented which includes:
    - Provision of clear and accessible consultation material
    - Integration with consultation on the 4th RBMP
    - Active involvement through the Catchment Community Fora
- In relation to arterial drainage and flood management, modelling or other supporting analyses must be presented to demonstrate the flood management

benefits of the arterial drainage schemes versus a significantly better environmental option.

- A thorough environmental and socio-economic policy analysis should be conducted by the DHLGH. This analysis must:
    - Thoroughly explore all better environmental options available, including incentives to landowners to rehabilitate high-carbon soils or enhance synergies with programs such as the CAP.
    - Implement an integrated catchment management framework that addresses both climate mitigation and adaptation strategies, alongside habitat restoration efforts.
- Until such comprehensive evaluations are undertaken, we maintain that no waterbodies should be conferred a designation of heavily modified status, ensuring that protection and restoration of aquatic environments are aligned with both legislative requirements and ecological sustainability principles.

F. CONCLUSIONS

According to the WAP (2024), physical modifications (including dams, weirs, channelization, and land drainage) are a significant pressure. They currently impact 448 water bodies that are "At Risk" of failing their WFD objectives. This consultation document seeks to designate 466 water bodies as HMWBs. This makes up almost 10% of our water bodies. While the WFD permits the separate designation of HMWBs and AWBs, designating a heavily modified water body comes with strict criteria and should be considered only as a last resort after thorough evaluation of potential improvement options. Applying this exemption results in lower environmental target standards[12], namely good ecological potential instead of good ecological status. **It is SWAN's firm view that the designation should NOT take place until appropriate analyses are conducted and supporting evidence presented with full public engagement.**

[12] Reese, M., Bedtke, N., Gawel, E., Klauer, B., Köck, W., & Möckel, S. (2019). Water Framework Directive - Ways out of the implementation crisis. *Water and Waste*, *21* (3), 47–55.