An Roinn Tithíochta,
Rialtais Áitiúil agus Oidhreachta
Department of Housing,
Local Government and Heritage

Designation of Ireland's Heavily Modified Water Bodies arising out of the 2024 Water Action Plan (Consultation Document)

March 2025

Prepared by the Department of
Housing, Local Government and Heritage
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1 Introduction

The Water Action Plan 2024 (the Plan) published by the Department of Housing, Local Government and Heritage (DHLGH) sets out a roadmap to restore Ireland's water bodies to the equivalent of 'good status' or better and to protect water from any further deterioration.

In some instances, water bodies have been physically modified in the past to serve a beneficial specified use such as; a drinking water abstraction, a hydroelectric scheme, a flood protection scheme or a drainage scheme aimed at improving agricultural production. In the process of modifying a water body, the natural flow, form or function (hydromorphology) have been altered to the extent that it has impacted the natural aquatic ecology of the water body. In such cases, the water bodies may be designated as Heavily Modified Water Bodies (HMWBs), as provided for under the Water Framework Directive (WFD - 2000/60/EC). Instead of having an environmental objective of Good Ecological Status (GES), which applies to natural water bodies, an alternative environmental objective of Good Ecological Potential (GEP) applies to these water bodies. GEP is an alternative objective, which takes account of the changes in aquatic ecology caused by the physical modification. Designation of water bodies as HMWBs provides certainty regarding the environmental objectives to be applied to those water bodies for management and regulatory purposes.

A technical review on potential candidate HMWBs for Ireland was conducted by the Environmental Protection Agency (EPA) in 2022. The current consultation being carried out by DHLGH aims to build on that earlier phase by completing the final HMWB designation steps.

The 2024 Water Action Plan includes the following commitment; "The Minister for Housing, Local Government and Heritage will undertake a short public consultation before deciding whether to designate or de-designate water bodies as HMWBs. There were 466 water bodies, which the EPA has found to meet the criteria for designation. The Minister will take into account the recommendations of the EPA and the key concerns raised in the submissions to the consultation process." (see **Action 3.10** in the 2024 Water Action Plan).

This public consultation aims to seek your views on the designation of HMWBs for Ireland's third cycle river basin management plan (the 2024 Water Action Plan) under the WFD. It is issued by DHLGH.

The Department invites views and comments on the proposed designations of Heavily Modified Water Bodies.

The public consultation commences on 27 March 2025 and the closing date for receipt of submissions is 23 May 2025.

Please email your response to:

wau@housing.gov.ie

Postal responses should be sent to:

HMWB Consultation

Water Advisory Unit,

Department of Housing, Local Government and Heritage,

Custom House, Dublin 1, D01 W6X0

Any queries can be sent to the address above or telephone 01 888 2000.

Further copies of the consultation paper are available in electronic and hard- copy format on request to the section named above. The paper can also be accessed through the websites www.housing.gov.ie

Publication of Submissions

All submissions and comments submitted to the Department for this purpose are subject to release under the Freedom of Information (FOI) Act 2014 and the European Communities (Access to Information on the Environment) Regulations 2007- 2014. Submissions are also subject to Data Protection legislation.

Personal, confidential or commercially sensitive information should not be included in your submission and it will be presumed that all information contained in your submission is releasable under the Freedom of Information Act 2014.

A privacy statement has also been published which details how DHLGH will manage your personal data as part of this consultation process, in accordance with GDPR.

Purpose of this consultation document

The Minister for Housing, Local Government and Heritage is undertaking a short public consultation before deciding whether to designate or de-designate water bodies as HMWBs, following the application of the technical methodology and component tests outlined on page 8. The designation of HMWBs is provided for under the WFD (2000/60/EC). There were 466 water bodies which the EPA has found to meet the criteria for designation. The Minister will take into account the recommendations of the EPA and the key concerns raised in the submissions to the consultation process.

2 Background

Under the WFD, water bodies may be designated as HMWBs if their hydromorphology has been significantly altered to serve a beneficial specified use and it is recognised that they cannot achieve GES as a result.

The specified uses, and the criteria for designation, are set out in Article 4(3) of the WFD which states that a waterbody can be designated as a HMWB if:

> (a) the changes to the hydromorphological characteristics of that body which would be necessary for achieving Good Ecological Status would have significant adverse effects on:
>
> (i) the wider environment;
>
> (ii) navigation, including port facilities, or recreation;
>
> (iii) activities for the purposes of which water is stored, such as drinking-water supply, power generation or irrigation;
>
> (iv) water regulation, flood protection, land drainage, or
>
> (v) other equally important sustainable human development activities;
>
> (b) 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. Such designation and the reasons for it shall be specifically mentioned in the river basin management plans required under Article 13 and reviewed every six years.

An example of a hydromorphological alteration which serves a specified use might be a dam constructed on a river for the purpose of creating a drinking water reservoir which may require the associated water bodies to be designated as HMWBs in order to maintain the specified use. Water bodies designated as HMWBs have an alternative environmental objective of GEP rather than GES.

2.1 Current National Policies in Relation to Specified Uses

Water storage and regulation

Maintaining existing impoundments for water supply is an important component of the Government's policy to ensure security of water supplies. There are implications for the licensing of abstractions that serve some of these water supplies if water bodies with abstractions and associated impoundments are not designated as HMWBs. It may be difficult to license these abstractions where GES cannot be achieved. Any HMWBs that are licensed for abstractions will have a target of GEP instead of GES entered in the conditions of the licence as their WFD objective.

Flood Protection and Urban

The current policy in relation to flood protection is to implement the Floods Directive in full. This includes structural flood protection measures proposed for communities at significant flood risk, aimed at reducing the likelihood and/or degree of flooding, identified through the National Catchment Flood Risk Assessment and Management (CFRAM) Programme. There is a priority in flood risk management to protect existing urban infrastructure and properties while mandating the incorporation of sustainable water management solutions within the constraints of urban areas. This is fully compatible with the designation of HMWBs in urbanised catchments.

Navigation (including Ports)

The National Planning Framework (2018) outlines the need for the development of Blueways, which in turn involves the management, maintenance, development and restoration of specified inland navigable waterways, principally for recreational purposes led by Waterways Ireland. Our national ports are important in terms of economy, critical infrastructure and the development of offshore renewable energy. The maintenance and sustainable growth of this infrastructure is a Government priority.

Arterial drainage

The Arterial Drainage Act (1945) is the primary policy instrument governing arterial drainage and is implemented by the Office of Public Works. The original purpose of the schemes carried out under the Act was to drain lands to improve agricultural production. The Arterial Drainage Maintenance service has developed and adheres to a suite of protocols which minimise the potential environmental impact of operations. However, the future of arterial drainage policy now needs to be reviewed to enhance and update policy in this area. The national Land Use Review, mandated by the Government, will help to inform a review of future drainage needs and practices.

Action 3.11 of the Water Action Plan states:

"A review of arterial drainage requirements and the underpinning Arterial Drainage Act will be undertaken in order to inform future land use policy decisions arising out of the Land Use Review and to support the preparations for the implementation of the new Nature Restoration Law and the Heavily Modified Water Body review process."

The Minister for Housing, Local Government and Heritage is considering designating proposed drained water bodies as HMWBs for the third cycle river basin management plan while the review takes place, subject to meeting all other designation criteria. This will provide certainty regarding objectives during the cycle. Designations will then be reviewed again for the fourth cycle once land use policy and drainage policy are clarified.

2.2 Previous Public Consultation

In March 2022, the Environmental Protection Agency (EPA) launched a public consultation to seek views on the technical review and designation of potential candidate HMWBs to inform the development of the third river basin management plan (RBMP) covering 2022-2027.

This technical exercise resulted in 466 water bodies being proposed for designation as HMWBs. This number represents a significant increase on the 33 HMWBs

designated in the first and second cycles. The increase is due to updated recent European (CIS) guidance designed to provide better clarity for Member States on the designation process as well as to a greater understanding of the historical hydromorphological alterations on the additional water bodies proposed. The 466 candidate HMWBs included 433 rivers, 20 lakes and 13 estuarine and coastal waters. The EPA consultation exercise also outlined a draft approach for defining GEP for the proposed HWMBs.

3 Heavily Modified Water Body Designation Steps

EU guidance on the HMWB designation process (CIS Guidance document no. 4 - *Identification and Designation of Heavily Modified and Artificial Water Bodies*) outlines 11 steps that need to be considered as part of the HMWB designation process, these steps are summarised as follows:

- Characterisation tests (Steps 1-6)
- Designation tests (Steps 7-9 – see Figure 1)
- Setting Ecological Potential (Steps 10-11)

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 document and associated appendix present the outcome of that further assessment.

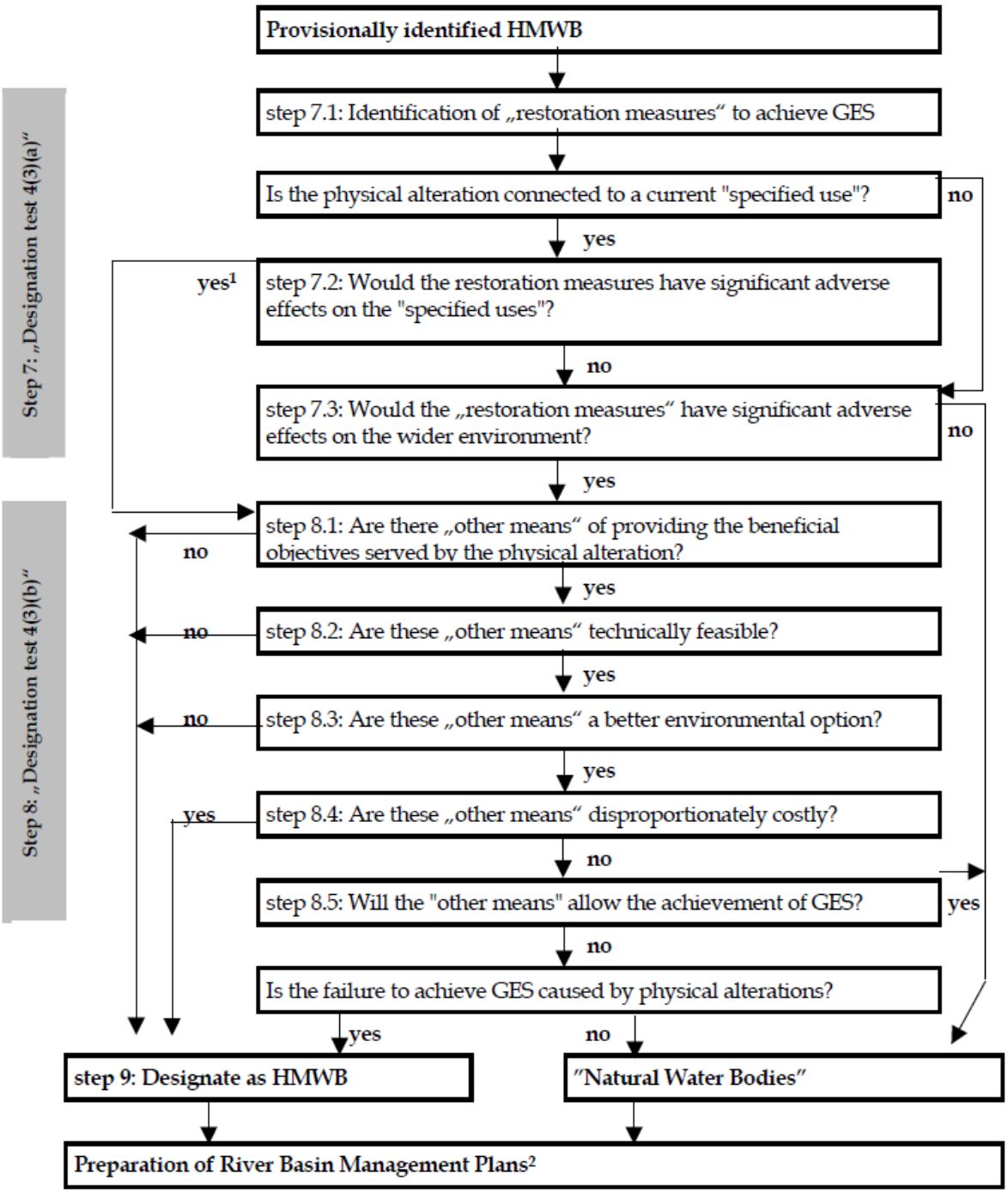

Figure 1: HMWB designation tests (Reference CIS Guidance No. 4)

[1] If the restoration measures would have significant adverse effects on the "specified uses" you could directly proceed to the "Designation test 4(3)(b)", step 8.1. But for a better justification for designation you may also want to apply step 7.3.

4 Designation Tests

The outcome of the characterisation work (steps 1-6) undertaken by the EPA is not repeated here and details can be accessed on the EPA website. The designation tests were applied by DHLGH to the 466 potential HWMBs that were proposed in the initial consultation in 2022. The breakdown of water categories and specified uses is presented in Table 1.

Table 1: Proposed HMWBs presented by water body type and specified use.

	Water Body Type			
Specified Use	**Lake**	**River**	**Estuarine & Coastal**	**Total**
Arterial drainage		297		297
Flood Protection		31		31
Flood protection; Arterial Drainage		25		25
Flood protection; Navigation		1		1
Flood protection; Urban		6		6
Flood protection; Urban; Arterial drainage		1		1
Navigation		28	10	38
Navigation; Arterial drainage		1		1
Urban		13	2	15
Urban; Arterial drainage		1		1
Urban; Navigation			1	1
Water storage & regulation	19	27		46
Water storage & regulation; Flood protection	1			1
Water storage & regulation; Urban		2		2
Total	**20**	**433**	**13**	**466**

4.1 Further Information to Support Designation Process

Building on the previous consultation with the specified use owners undertaken by the EPA, particular 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.

The detailed outcomes of the application of the designation tests for all 466 water bodies is outlined in Appendix 1 which can be found at https://www.gov.ie/en/consultations/

5 Recommendation

The technical examination of the data on the proposed HMWBs concludes with a recommendation that all 466 water bodies be designated as HMWBs for the third RBMP cycle (2022-2027). Based on the available data for all 466 water bodies it was determined that in each case:

- The restoration measures necessary to achieve GES would have an adverse effect on the wider environment and on the specified use.
- 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,
    - and not disproportionately costly.

It is important to note that the HMWB review process is an iterative process and will be reviewed with each cycle of the River Basin Management Plan. The current recommendation is to designate these water bodies as HMWBs. However, the list will be periodically reviewed as new data are generated and as our understanding of hydromorphology improves during future cycles of river basin management planning.

6 Good Ecological Potential (GEP)

A stated previously, HMWBs need to meet the environmental objective of GEP rather than GES. There are two suggested approaches to defining what GEP means for each HMWB; (1) the Reference-based Approach and (2) the Mitigation Measures (Prague) Approach. The Reference-based Approach relies on a member state having established hydromorphology-ecology links with enough precision to allow the prescription of measures to meet a defined ecological target. The Mitigation Measures (Prague) Approach relies more on prescribing the appropriate measures first and monitoring how the ecology responds. Ireland, and many of the other EU Member States, have not yet established the hydromorphology-ecology links with enough precision to allow us to use the Reference-based approach. Hence, the Mitigation Measures (Prague) Approach is being proposed for Ireland.

It is important to note that GEP is **not a less stringent objective**. Setting GEP as the objective for a HMWB takes into the account the fact that the water body is hydromorphologically modified in order to serve a beneficial use. The water body will still need to meet all of the other water quality standards that are not deemed to be affected by the hydromorphological modification as well as achieving the best possible standard for parameters that are affected by the modification. For example, a dammed river HMWB may be reaching the targets required for good status in invertebrates, and the nutrient levels may be below the relevant thresholds, but the fish community may be negatively affected by the dam and cannot achieve good status. In that scenario, the targets for GEP would remain the same as the targets for GES for invertebrates and nutrients, but an achievable target for fish as a result of the specified use would be set.

In summary, when setting an objective of GEP for a HMWB there remains the requirement to ensure that those elements which are not sensitive to hydromorphological impacts but sensitive to other pressures such as nutrient or organic enrichment are considered.

The EPA is the competent authority for defining and applying GEP as the environmental objective for each of the HMWBs (steps 10 and 11).

7 Good Ecological Status (GES)

A full sub-element breakdown of the 2016-2021 Ecological Status for each of the proposed HMWBs is outlined in Appendix 1; a summary of the overall ecological classification of the HWMBs is presented in Table 2.

Table 2: Proportion of proposed HMWBs in each ecological status class for the 2016-2021 period.

Ecological Status (2016-2021)	% of Proposed HMWBs
High	1%
Good	19%
Moderate	42%
Poor	38%
Bad	0%
Total	100%

One outcome of the previous consultation undertaken by the EPA was that a number of respondents raised concerns that a proportion of the proposed HWMBs were already at GES. The summary document produced by the EPA explained that:

"…the current biological tools used for ecological classification are more sensitive to organic and nutrient pollution than to hydromorphological/physical impacts. The relationship between hydromorphological changes and the biological elements can be difficult to quantify or measure at the waterbody scale as part of the national monitoring programme. This is recognised in the EU guidance and is reflected in the flexibility to incorporate the mitigation measures into the classification process in the absence of strong biological-hydromorphological linkages. Future reviews can incorporate new learnings from such linkages and if available, newly developed biological metrics sensitive to physical impacts."

A bespoke monitoring programme for these proposed HMWBs that incorporates the relevant sensitive biological elements (as our knowledge allows) and the most appropriate monitoring site location could be used to monitor the efficacy of the mitigation measures. The EPA is the competent authority that manages the National

Water Monitoring Programme and an outline of how they classify ecological status for the WFD can be found on the EPA website[1].

8 Summary and Conclusion

In 2022, the EPA produced a technical report that proposed 466 water bodies for designation as HMWBs. The proposed HMWBs were selected because they had undergone a significant alteration to their hydromorphology to provide a beneficial specified use and as a result it is not possible for them to reach GES as their environmental objective.

The specified uses considered were:

- Water storage and regulation (i.e. major impounding structures such as dams and reservoirs);
- Flood protection,
- The urban environment,
- Arterial drainage,
- Navigation.

One of the outcomes of the public consultation was that DHLGH should undertake the designation steps and consider if:

- Restoration measures necessary to achieve GES would have an adverse effect on the wider environment and on the specified use.
- 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,
    - and not disproportionately costly.

[1] https://www.epa.ie/publications/monitoring--assessment/freshwater--marine/06105-EPA-Assessing-Water-Quality-Fact-Sheet-Web-Proof-06.pdf

The relevant specified use owners provided further information on the candidate HMWBs within their remit; this additional information complemented further assessments by DHLGH. The DHLGH considered all information and applied HMWB designation Steps 7-9. It is now recommended that the original list of 466 water bodies should be designated as HMWBs for the third RBMP cycle (up to 2027).

These HMWBs will have GEP as their environmental objective. **GEP is not a less stringent objective**; it will be based on measures needed to enhance the hydromorphology, and hence the ecology, of these water bodies as much as is practicable whilst not affecting the beneficial use supplied by the HMWB.

This will be an iterative process and the designations will be reviewed again with each subsequent RBMP cycle.

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