

**National Water Resources Plan -
Framework Plan
Technical Appendices**

**Appendix G
Regulatory and
Licensing Constraints**

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Data Disclaimer:

This document uses best available data at time of writing. Some sources may have been updated in the interim period. As data relating to population forecasts and trends are based on information gathered before the Covid 19 Pandemic, monitoring and feedback will be used to capture any updates. The National Water Resources Plan will also align to relevant updates in applicable policy.

1.1 Introduction

The current abstraction licensing framework in Ireland as set out in Figure 1-1, predates most modern environmental legislation and places a greater emphasis on water as an economic instrument than on requirements for environmental protection.

At present, Irish Water can seek an Abstraction Order under the Water Supplies Act 1942, but this is associated with securing water rights and agreeing compensation with local landowners who may be impacted by the loss of water. The act does not consider any ecological needs. This legislation also only applies to surface water sources.

In practice, the constraints on Irish Water's abstractions are more commonly set through Planning Applications. The conditions in the planning applications may govern total volumes abstracted, compensation flow requirements or other aspects which affect the way a source is operated.

The ambiguous wording in the 1942 Act, focused on the requirement for a Water Abstraction Order on the basis of whether there were impacts or not on riparian owners downstream. Consequently, some Local Authorities, as historical water service providers, did not consider it necessary to apply for a water abstraction licence. As a result, only 14% of Water Treatment Plants (WTPs) in Ireland that are fed from surface water sources have an associated abstraction licence.

This historical regime for developing abstraction controls does not have any direct requirement to set ecologically sustainable flows, although currently locations, protected under the Habitats Directive, need to demonstrate "no adverse effect on site integrity" through the Appropriate Assessment process for any previous new abstraction proposals. This is an area recognised as not meeting the requirements of the Water Framework Directive (WFD) and is a key driver for the new abstraction legislation.

More significantly, in terms of water resources planning, this historical approach does not provide

- Mechanisms to alter the licensed quantities, if adverse impacts are detected or
- Flexibility in extreme weather conditions where there is a risk to the public water supply.

Proposals for a new system, compliant with the EU WFD, Habitats and Birds Directives have been developed by the Department of Housing, Planning and Local Government, and have recently been subject to public consultation.

The National Water Resources Plan seeks to ensure sufficient supplies are available to meet demand to a given Level of Service (LoS), while ensuring all environmental and regulatory obligations are met.



Water Supplies Act 1942

The abstraction of water from any lake, river, stream, well, or spring by a sanitary authority (Irish Water has the status of a sanitary authority) for a public water supply is governed by the Water Supplies Act which requires a sanitary authority wishing to abstract water for public supply to apply to the Minister (now An Bord Pleanála (ABP)) for a water abstraction order. When determining whether or not the sanitary authority can take a supply and the volume and abstraction rate for that supply, ABP must consider the potential impact of the abstraction on riparian owners, on the water body itself and on the navigability of navigable rivers or canals. ABP may refuse the granting of an abstraction order or alter the terms of the abstraction. The Water Supplies Act 1942 also allows the sanitary authority to protect the source of their abstraction from pollution or interference with the flow.



Local Government (Sanitary Services) Act 1964

Under section 4 of this Act, a sanitary authority and the Electricity Supply Board (ESB) may enter into an agreement whereby the sanitary authority may abstract and the ESB may permit the authority to abstract from a reservoir, upon such terms and subject to such conditions as may be specified in the agreement, water impounded by the ESB in the reservoir



Planning and Development Act 2000 and Regulations 2001 (as amended)

Irish Water is a prescribed body for the purpose of making Regional Planning Guidelines, county development plans, local area plans and planning schemes. Irish Water is also a prescribed body for development management and can be asked by the planning authorities and ABP to make observations on planning applications. In addition, Irish Water must comply with the statutory requirements of the Act and Regulations when planning the development of water services infrastructure.

Figure 1-1 Existing legislation relating to current water abstraction regime

1.2 Changes to the licensing regime

Effective and efficient management of the water in our rivers, lakes and groundwater bodies is important to meet the needs of our customers and key sectors of the Irish economy. It also needs to be undertaken in a way that protects and enhances the natural environment.

Irish Water is supportive of the concept of abstraction licensing, as part of this management process. The introduction of licensing will introduce many challenges but also brings the opportunity to provide a more robust and equitable system, that considers both public health issues in relation to failure of supplies and environmental impacts during extreme events.

The second cycle River Basin Management Plan (RBMP) outlines the principles for the new licensing system.

1.2.1 New licences

Licence applications will be assessed against environmental criteria to ensure compliance with WFD objectives, both for the specific abstraction and in combination with other activities. The Environmental Protection Agency (EPA) will determine the licences.

As outlined in Table 7.4 of the RBMP¹, it is envisaged that abstractions greater than 250m³/day may be reviewed to examine any potential risk to WFD objectives. Where necessary, programmes of measures will be implemented as part of the next RBMP cycle to address identified risks. New abstractions above 250m³/day, and those requiring an Environmental Impact Assessment or Appropriate Assessment, will be permitted, subject to compliance with WFD requirements. Table 1-1 gives details on the new licensing level of authorisation proposed for each abstraction size threshold.

Table 0-1 New licensing level of authorisation and abstraction size thresholds

Level of authorisation	Abstraction size threshold
General binding rules apply only	< 25m ³ /day
Registration and general binding rules apply	25–250m ³ /day
EPA to be notified of the proposed abstraction and the EPA will determine if the abstraction is considered a significant abstraction and hence a licence will be required.	251–2,000m ³ /day
Licence applies (registration also necessary)	> 2,000m ³ /day

It is anticipated that all Irish Water's 1,090 abstraction points will fall under the Act, with approximately 46% of existing abstraction, subject to licensing. Figure 1-2 below shows the breakdown of these sources.

¹ River Basin Management Plan for Ireland 2018 – 2021, Department of Housing, Planning and Local Government

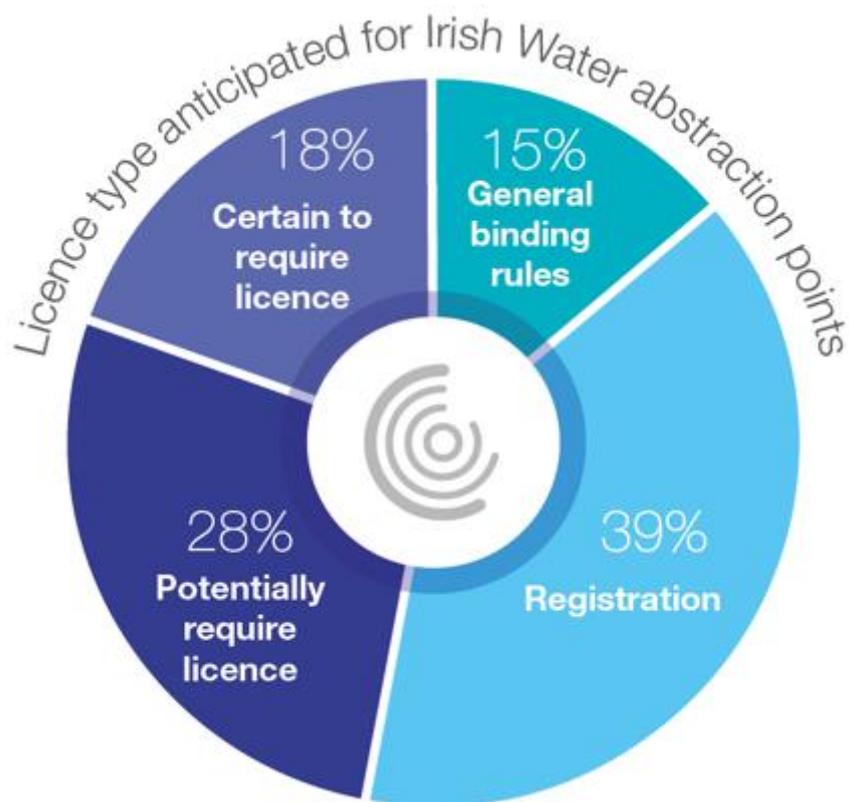


Figure 0-2 Percentage of sources by anticipated licence type

1.2.2 Assumptions on the introduction of the licensing regime

Changes to the operating framework can be a cause for considerable uncertainty in developing a Strategic Plan. Whilst the proposals for a licensing framework are being developed in parallel with this NWRP, a number of pragmatic assumptions have been made to provide a robust yet proportional plan.

In considering the impacts to existing abstractions, we have made the following assumptions:

- The existing Water Supplies Act 1942 and Local Government Act 1964 will be repealed;
- Existing abstractions can continue subject to registration requirements as outlined in the General Scheme of a Water Environmental (Abstractions) Bill published by the Government in December 2017;
- Limits on abstraction, such as stipulated compensation releases or flow thresholds below which abstraction is restricted, were previously set out in planning permission and conditions to preserve the ecological status of waterbodies. It is envisaged that such abstraction limits will be set within new abstraction licences; and
- The review of the suitability of these abstraction rates will come from EPA assessments of abstraction, as a waterbody pressure for the current and future RBMPs.

Further to consultation with the EPA, we have assumed that the default position for any new abstractions, developed after the licensing regime is in place, will be the issue of licences only for quantities within the limit, which is considered appropriate for the flow and ecological status of the watercourse.

At present, there are no Ireland specific standards. Within the UK, the standards for abstraction have been established by technical guidance from United Kingdom Technical Advisory Group (UKTAG), which comprises the Environment Agency, Natural Resources Wales, Scottish Environmental Protection Agency and Northern Ireland Environment Agency.

Whilst standards for the new abstraction regime are being developed, we have adopted these UKTAG standards, previously discussed in Appendix C, as an interim guideline. Because the starting positions of technical understanding and collated data were varied in each UK jurisdiction, these standards have been implemented in slightly different ways, largely down to variations in the legal framework and the historical roles of the regulating authorities.

The climate and hydrology of the UK and Ireland are clearly similar, and from discussions with the EPA, it is understood that a method similar to the UKTAG guidance will be implemented.

Therefore, the UKTAG standards have been adopted by Irish Water for source yield assessment purposes. Research work will continue to refine Ireland-specific standards over the coming years.

A summary map showing the degree of modification of natural flows permitted during periods of low flows is shown in Figure 1-3. This needs to be considered as a constraint to new resource development opportunities.

Where an abstraction is identified as potentially causing an impact to a waterbody's status, further studies will be undertaken in conjunction with the EPA and other stakeholders as appropriate. Following these investigations, if an abstraction is confirmed to be affecting a waterbody status, solutions will be delivered through the next cycle of RBMPs and future NWRPs, which could include ceasing certain abstractions.

Reductions in abstractions are likely to affect the Supply Demand Balance for an area, and the options to resolve that deficit would be developed in line with the methodologies included in this NWRP. Whilst we would seek to minimise the impact of our abstractions, replacement infrastructure does take time to deliver and is subject to planning constraints.

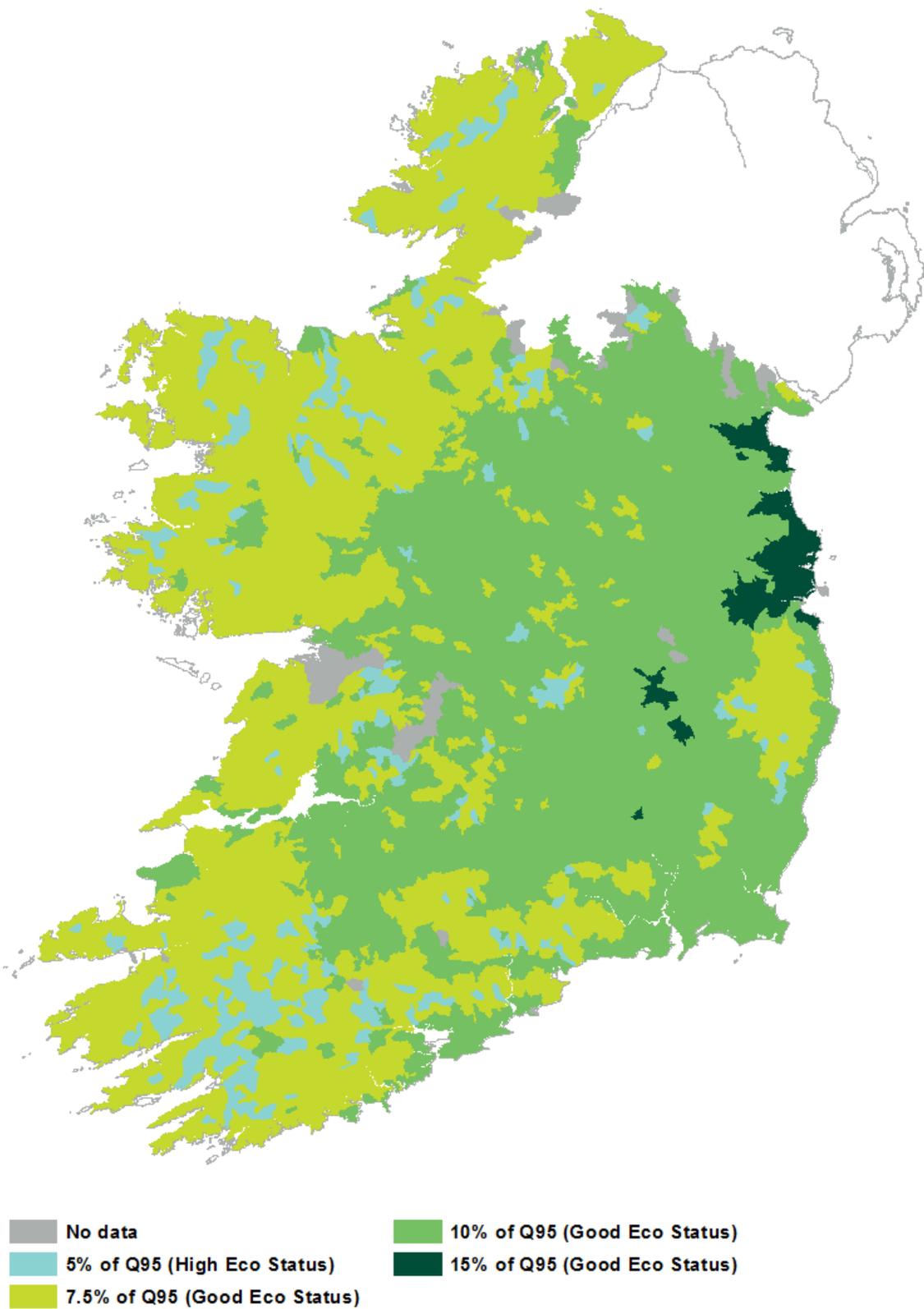


Figure 0-3 Map of WFD allowable flow alterations for Q95 flow

1.3 Broad impact of Water Framework Directive statements

The UKTAG standards for hydrological alteration permit a degree of modification from natural conditions, with the allowable percentage variation from natural conditions, decreasing at the lower ranges of the Flow Duration Curve.

The hydrological alteration test is a supporting element of the WFD status classification with the primary emphasis placed on the ecological and chemical status results. The links and interrelations between flows and ecological quality are complex and models cannot always represent all real-world systems accurately. This means that it is possible for an abstraction rate to breach the hydrological standard and not impact the ecological status, observed by measurement of invertebrate, macrophyte and fish populations. For this reason, the first actions in addressing an abstraction, identified as requiring further review, will be a scoping of site investigations to understand if the risk characterisation is accurate.

The RBMP status assessment is a periodic review of the impact of current activities and has recently been updated for the second cycle RBMP. In total, 254 waterbodies (rivers, lakes and groundwater) have been identified as requiring further review to fully understand the risk due to abstraction pressures. Figure 1-4 shows the distribution of the sites identified for further review.

The EPA status assessment is based on recent abstraction history and takes into account the mitigating effects of discharges back to the watercourse in terms of water quantity. This differs from the method we use when estimating our “allowable abstraction at new source”.

If a waterbody, from which we abstract, is determined to be of “Good” ecological status, this does not mean that we can increase our water use. One of the key WFD principles is “No Deterioration”, where waterbodies must not drop below its current ecological status band. As demands increase, we may not be able to increase an abstraction, if there is a likelihood this will cause a deterioration in status, even if the WTP has sufficient capacity.

This potential change to current supply, because of current impacts to waterbody ecological status, needs to be considered against the required demand for the next 25 years.

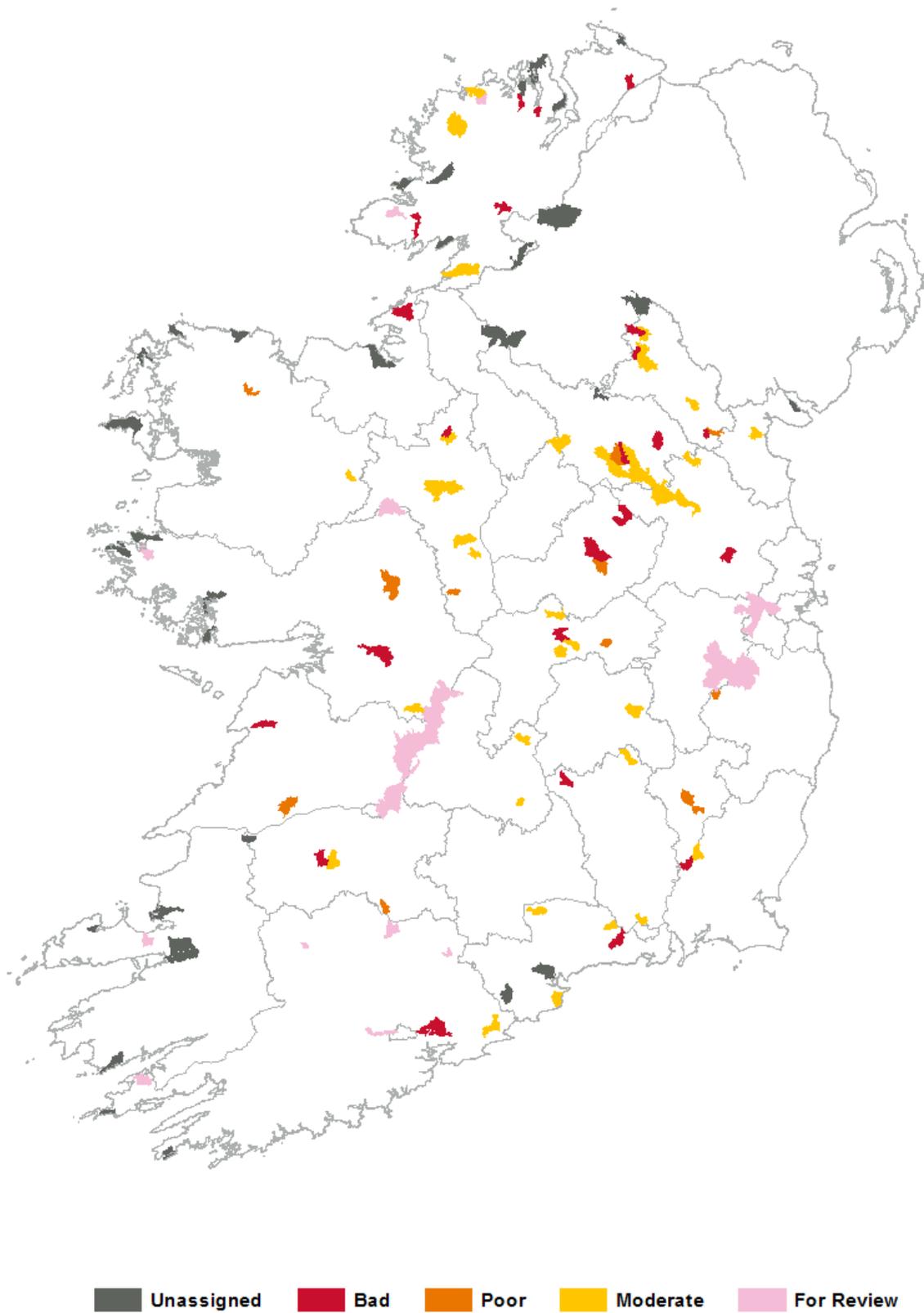


Figure 0-4 Map of Environmental Protection Agency identified sites for further review by ecological status