



HABITATS REGULATIONS ASSESSMENT

Draft Water Resources Management Plan 2024

Information to support an assessment under Regulation 63 of the *Conservation of Habitats and Species Regulations 2017*

Report for: Hafren Dyfrdwy

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Front cover image:
Llyn Clywedog (Clywedog Reservoir), near Llanidloes, Wales

CONTENTS

1. INTRODUCTION	1
1.1 BACKGROUND AND PURPOSE OF REPORT	1
1.2 CONSULTATION	2
1.3 STRUCTURE OF THIS REPORT	2
2. METHODOLOGY	3
2.1 CONTEXT AND STAGES OF THE HRA PROCESS	3
2.2 GUIDANCE	3
2.3 APPROACH TO HRA STAGE 1 SCREENING	4
2.3.1 Identifying European sites	5
2.3.2 Sources of information	5
2.3.3 Thresholds	6
2.4 REVIEW OF POTENTIAL IN-COMBINATION EFFECTS	8
3. HAFREN DYFRDWY – WATER RESOURCE PLANNING	10
3.1 HAFREN DYFRDWY'S SUPPLY AREA	10
3.2 HAFREN DYFRDWY'S DRAFT WRMP 2024	10
4. HRA SCREENING OF FEASIBLE OPTIONS	12
4.1 POTENTIAL LIKELY SIGNIFICANT EFFECTS OF THE FINAL WRMP19	12
4.2 POTENTIAL IN-COMBINATION EFFECTS OF THE FINAL WRMP24	13
5. CONCLUSIONS	14

1. INTRODUCTION

1.1 BACKGROUND AND PURPOSE OF REPORT

This document outlines the Habitats Regulations Assessment (HRA) screening carried out by Ricardo Energy & Environment (Ricardo) on behalf of Hafren Dyfrdwy in relation to its Draft Water Resources Management Plan 2024 (dWRMP24).

The Water Act 2003 requires that all water companies in England and Wales prepare and maintain Water Resources Management Plans (WRMPs). These plans set out how public water supply (PWS) will be maintained over a minimum of 25 years in a way that is economically, socially and environmentally sustainable. The WRMPs must be revised every five years.

Hafren Dyfrdwy is preparing its WRMP 2024 and has published a draft ('the draft WRMP24') for consultation. The draft WRMP24 sets out Hafren Dyfrdwy's preferred demand management options ('the preferred options') for meeting policy requirements such as 50% leakage reduction by 2050, and for ensuring security of public water supply.

A water company must ensure its final WRMP meets the requirements of the Habitats Regulations before implementation. The requirement for a Habitats Regulations Assessment (HRA) is established through Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora, hereby referred to as the 'Habitats Directive', in Articles 6(3) and 6(4). The Habitats Directive is transposed into national legislation by the Conservation of Habitats and Species Regulations 2017 (as amended)¹, commonly referred to as the Habitats Regulations.

Regulations 63 and 64 transposed the provisions of Articles 6(3) and 6(4) of Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the 'Habitats Directive') as they related to plans or projects in England and Wales.

Regulation 63 states that if a plan or project "(a) is likely to have a significant effect on a European site² or a European offshore marine site³ (either alone or in-combination with other plans or projects); and (b) is not directly connected with or necessary to the management of the site" then the competent authority must "...make an appropriate assessment of the implications for the site in view of that site's conservation objectives" before the giving consent or authorisation. The plan or project can only be given effect if it can be concluded (following an 'appropriate assessment') that it "...will not adversely affect the integrity" of a site unless the provisions of Regulation 64 are met.

¹ The 2017 Regulations have been amended by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 to reflect the UK's exit from the EU, although these largely carried forward the provisions and terminology of the 2017 Regulations and do not fundamentally alter their interpretation. This report therefore primarily refers to the 2017 Regulations and (where appropriate for clarity) the relevant provisions of the Habitats Directive.

² As noted, the 2019 amendment to the Habitats Regulations largely carried forward the provisions and terminology of the 2017 Regulations, and so the term 'European site' is currently retained and for all practical purposes the definition is essentially unchanged. European sites are therefore: any Special Area of Conservation (SAC) from the point at which the European Commission and the UK Government agreed the site as a 'Site of Community Importance' (SCI) (if this was before 31 Jan 2020); any classified Special Protection Area (SPA); and any candidate SAC (cSAC). However, the term is also commonly used when referring to potential SPAs (pSPAs), to which the provisions of Article 4(4) of Directive 2009/147/EC (the 'new wild birds directive') are applied; and to possible SACs (pSACs) and listed Ramsar Sites, to which the provisions of the Habitats Regulations are applied a matter of Government policy (NPPF para. 181; TAN5 para. 5.1.3) when considering development proposals that may affect them. "European site" is therefore used in this document in its broadest sense, as an umbrella term for all of the above designated sites. Note, it is likely that this term will be supplanted at some point in the future although an appropriate UK-wide alternative has not yet been agreed (e.g. the NPPF in England has adopted the term 'Habitats sites' to refer collectively to those sites defined by Regulation 8; the *Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019* does not offer a direct alternative to "European site" but uses the term 'National Site Network' in place of 'Natura 2000').

³ 'European offshore marine sites' are defined by Regulation 18 of The Conservation of Offshore Marine Habitats and Species Regulations 2017; these regulations cover waters (and hence sites) over 12 nautical miles from the coast.

This assessment process is known as HRA⁴. An HRA determines whether there will be any 'likely significant effects' (LSE) on any European site as a result of a plan's implementation (either on its own or 'in-combination' with other plans or projects)⁵ and, if so, whether there will be any 'adverse effects on site integrity'⁶.

1.2 CONSULTATION

Given the nature of the options being proposed for the preferred plan, consultation with Natural Resource Wales has not been undertaken prior to the draft WRMP24 submission. Should there be issues arising during the consultation, the relevant regulators will be engaged.

1.3 STRUCTURE OF THIS REPORT

The report is divided into the following sections:

Section 1: Introduction

Section 2: Methodology

Section 3: Hafren Dyfrdwy - Water Resource Planning

Section 4: HRA Stage1 Screening

Section 5: Conclusions

⁴ The term 'Appropriate Assessment' has been historically used to describe the process of assessment; however, the process is more typically referred to as 'Habitats Regulations Assessment' (HRA), with the term 'Appropriate Assessment' limited to a specific stage within the process.

⁵ Also referred to as the 'test of significance'.

⁶ Also referred to as the 'integrity test'.

2. METHODOLOGY

2.1 CONTEXT AND STAGES OF THE HRA PROCESS

The responsibility for undertaking the HRA lies with Hafren Dyfrdwy as the plan making authority.

An HRA determines whether there will be any 'likely significant effects' (LSE) on any European site as a result of a plan's implementation (either on its own or 'in-combination' with other plans or projects)⁷ and, if so, whether there will be any 'adverse effects on site integrity'⁸.

Guidance recognises four key steps in the HRA process as follows:

1. Stage 1 Screening – the identification of Likely Significant Effects (LSEs) of a plan or project on a European designated site either alone or in-combination. The test is a trigger for further assessment, and therefore the bar is set low i.e., is there a risk or possibility of an adverse effect. At this stage mitigation measures should not be taken into account, in accordance with the People over Wind (Court of Justice of the European Union (ECJ) Case C-323/17); this reinforces the idea of screening as a 'low bar' and makes 'appropriate assessments' more common.
2. Stage 2 Appropriate Assessment and the 'integrity test' – which involves closer examination of the project or plan and 'screened in' European designated sites to determine whether those sites will be subject to 'adverse effects on integrity'. The scope of such assessments is not set, and some may not be particularly detailed, especially where standard mitigation measures are available which are known to be effective. The level of assessment must be sufficient to ensure that there is no 'reasonable scientific doubt' that adverse effects on site integrity will not occur.
3. Stage 3 – Alternative Solutions – where adverse effects or uncertainty remain after the inclusion of mitigation in Stage 2, alternative ways where alternative solutions that meet the plan objectives are identified and consideration of their effects are given in comparison to those in the plan. A plan or project which has adverse effects on the integrity of a European site cannot be permitted if alternative solutions are available, except where the criteria for imperative reasons of overriding public interest are met (IROPI, see Stage 4).
4. Stage 4 Imperative Reasons of Overriding Public Interest – where there are no alternatives that have no or lesser effects on European sites, and the IROPI criteria are met, compensatory measures are developed and secured.

The stages as described above, are used to ensure compliance with the Habitats Regulations and so principally reflect the stepwise legislative tests applied to the final, submitted project or plan; **there is no statutory requirement for HRA (or its specific stages) to be completed for draft plans or similar developmental stages.**

2.2 GUIDANCE

The HRA has been undertaken in accordance with the key guidance document UKWIR (2021). *Environmental Assessment Guidance for Water Resources Management Plans and Drought Plans*. UK Water Industry Research Limited, London.

Other relevant guidance and case-practice has been considered as summarised below:

- Defra (2021). Policy paper: Changes to the Habitats Regulations 2017 [online] .
- UK Government (2019). Appropriate assessment: Guidance on the use of Habitats Regulations Assessment [online] .

⁷ Also referred to as the 'test of significance'.

⁸ Also referred to as the 'integrity test'.

- Tyldesley, D. & Chapman, C. (2021). The Habitats Regulations Assessment Handbook [online]. DTA Publications Limited .
- UK Government (2021). Water resources planning guideline [online] .
- Natural England (2020). Guidance on how to use Natural England's Conservation Advice Packages in Environmental Assessments. Natural England, Peterborough.
- European Commission (2018). Managing Natura 2000 sites - The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. European Union, 1-86.
- Defra (2012). The Habitats and Wild Birds Directives in England and its seas: Core guidance for developers, regulators & land/marine managers [online] .
- PINS Note 05/2018: Consideration of avoidance and reduction measures in Habitats Regulations Assessment: People over Wind, Peter Sweetman v Coillte Teoranta. [withdrawn].
- SNH (2019). SNH Guidance Note: The handling of mitigation in Habitats Regulations Appraisal – the People Over Wind CJEU judgement [online] .

2.3 APPROACH TO HRA STAGE 1 SCREENING

The objective of the HRA is to establish firstly whether any of the measures included in the draft WRMP24 are likely to have a significant effect on European sites (alone or in-combination with other supply schemes in the plan, or with other plans and projects).

For each of the preferred options in the draft WRMP24, the assessment has considered whether there are any LSEs arising from construction and/or operation of the option (either alone or in-combination) on one or more European sites, including Special Protection Areas (SPAs) and Special Areas of Conservation (SACs), as well as internationally-designated Ramsar sites:

- SPAs are classified under the European Council Directive 'on the conservation of wild birds' (2009/147/EC; 'Birds Directive') for the protection of **wild birds and their habitats** (including particularly rare and vulnerable species listed in Annex 1 of the Birds Directive, and migratory species).
- SACs are designated under the Habitats Directive (92/43/EEC) and target particular **habitats** (Annex 1) **and/or species** (Annex II) identified as being of European importance.
- The Government also expects, as a matter of policy, potential SPAs (pSPAs), possible/proposed SACs (pSACs), compensation habitat and Ramsar sites to be included within the assessment.
- Ramsar sites support **internationally important wetland habitats** and are listed under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention, 1971).

For ease of reference throughout the HRA process, these designations will be collectively referred to as “European sites”, despite Ramsar designations being made at the international level.

The HRA Stage 1 Screening process will identify whether each option (either alone or in-combination with other plans or projects) is likely to have significant effects on European designated sites. The purpose of the screening stage is to determine whether any part of the plan is likely to have a significant effect on any European site (including areas of compensation habitat, areas of functional land, and the ability for abstractions to occur for the management of designated wetland sites). This is judged in terms of the implications of the plan for a site's conservation objectives, which relate to its 'qualifying features' (i.e. those Annex I habitats, Annex II species, and Annex I bird populations for which it has been designated⁹, and Ramsar criterion). Significantly, HRA is based on a rigorous application of the precautionary principle. Where uncertainty or doubt remains, an impact should be assumed, triggering the requirement for Appropriate Assessment of that scheme or plan.

⁹ Annexes are contained within the relevant EC Directive.

The screening stage also has to conclude whether any in-combination effects would result from the various schemes within the plan itself, or from implementation of the plan in-combination with other plans and projects, and whether these would adversely affect the integrity of a European site.

2.3.1 Identifying European sites

The initial list of European sites for screening has been derived by adopting a distance-based threshold of 10km from each option component, plus exceptional, longer impact pathways. It is based on the premise that most significant effects on qualifying species and habitats will occur within a maximum 10km radius of the source of impact, except where there are exceptional pathways such as major downstream or coastal dispersion effects, or larger foraging and dispersal distances for mobile species (e.g., bats, migratory fish).

In addition, the HRA Stage 1 Screening has identified any habitat outside the designated site that also supports the qualifying species populations that use the European site in question. This off-site 'functionally linked land' (or sea) is particularly relevant to mobile qualifying species (e.g., birds, bats, invertebrates, fish, otters). The precautionary principle applies equally to functionally linked land, so where there is insufficient information to ascertain that there would be no LSE, an Appropriate Assessment will be required. However, this does not mean that every possible parcel of land within reach of the European site's qualifying populations must have been surveyed. The 'Boggis' case¹⁰ establishes that there must be at least credible evidence that there could be a functional link between the location of option effects and the European site.

2.3.2 Sources of information

Data on the European sites and their interest features has been collected from the Joint Nature Conservation Committee (JNCC), Natural Resources Wales and where relevant Natural England websites. These data include information on the attributes of the European sites that contribute to and define their integrity, current conservation status and the specific sensitivities of the site, notably the site boundaries and the boundaries of the component SSSIs; the conservation objectives; the condition, vulnerabilities and sensitivities of the sites and their interest features; the current pressures and threats for the sites; and the approximate locations of the interest features within each site (if reported); and designated or non-designated 'functional habitats' (if identified).

The following sources of published information were used:

- Site citations.
- Site Register Entries.
- Standard Data Form (SPA/SAC) or Information Sheet (Ramsar site).
- Conservation Objectives and Supplementary Advice on Conservation Objectives (for SPAs/SACs¹¹).
- Core Management Plans (Wales).
- Site Improvement Plans (SIPs).
- Regulation 33 information for European Marine Sites or Conservation Advice for Marine Protected Areas¹².
- Environment Agency Review of Consents information.
- SSSI Impact Risk Zones (in England), which apply equally to European sites.
- Site condition assessment has been integrated with SSSI assessments through Common Standards Monitoring (CSM) and marine condition assessments (for SAC marine features only).

¹⁰ Boggis and Another v Natural England: Court of Appeal, 20 Oct 2009

¹¹ The conservation objectives for Ramsar sites are taken to be the same as for the corresponding SACs / SPAs (where sites overlap); SSSI Favourable Condition Tables will be used for those features not covered by SAC/SPA designations.

¹² Natural England & the Countryside Council for Wales' advice given under Regulation 33(2)(a) of the Conservation (Natural Habitats, &c.) Regulations 1994, as amended.

- Definitions of Favourable Conservation Status (where available for species/habitat).
- Favourable Condition Tables are set out for every SSSI that underpins a European site and can often be applicable to the European site's qualifying features.
- Article 12 (SPA) and Article 17 (SAC) status reports.

2.3.3 Thresholds

The UKWIR guidance¹³ includes accepted 'zones of influence' for certain impacts, as repeated in **Table 2.1**, however the best and latest information should always be used to inform an assessment. Where possible, robust universal assumptions regarding the sensitivities of European site interest features will also be specified and applied at screening, for example:

- most breeding passerines will not be water-resource dependent.
- for groundwater sources and groundwater fed habitats, the EA consider that significant effects as a result of ground water abstractions are unlikely on European sites over 5km from the abstraction¹⁴.
- wide-ranging marine / marine dependent species associated with marine sites that are not directly connected to the hydrological zone of influence are not typically considered to be both sensitive and exposed to the effects of the options (except in certain relatively unique circumstances, such as some desalination schemes).

Sites over 10km from the options that are not hydrologically linked and which do not support wide-ranging mobile species are considered sufficiently remote such that any environmental changes will be effectively nil, and so there will be 'no effects' on sites beyond this distance (and so no possibility of 'in-combination' effects).

Table 2.1 Potential Impacts of Plan Options¹⁵ (Source: UKWIR, 2021)

Broad categories of potential impacts on European Sites, with examples	Examples of activities responsible for impacts (<i>example distance considerations in italics</i>)
Physical loss: <ul style="list-style-type: none"> • Removal • Smothering 	Development of infrastructure associated with option, e.g., new or temporary pipelines, transport infrastructure, temporary weirs. Indirect effects from a reduction in flows e.g., drying out of water-margin habitat. <i>Physical loss is likely to be significant where the boundary of the option extends within or is directly adjacent to the boundary of the European site, or within/adjacent to an offsite area of known foraging, roosting, breeding habitat (that supports species for which a European site is designated, or where natural processes link the option to the site, such as through hydrological connectivity downstream of an option, long shore drift along the coast, or the option impacts the linking habitat).</i>
Physical damage: <ul style="list-style-type: none"> • Sedimentation/silting • Prevention of natural processes • Habitat degradation • Erosion • Fragmentation • Severance/barrier effect 	Construction activity leading to permanent and/or temporary damage of available habitat, sedimentation/siltation, fragmentation, etc. <i>Physical damage is likely to be significant where the boundary of the option extends within or is directly adjacent to the boundary of the European site, or within/adjacent to an offsite area of</i>

¹³ UKWIR (2021). Environmental Assessment Guidance for Water Resources Management Plans and Drought Plans. UK Water Industry Research Limited, London.

¹⁴ National EA guidance: Habitats Directive Stage 2 Review: Water Resources Authorisations – Practical Advice for Agency Water Resources Staff

¹⁵ Note that the distances given in this table are illustrative only and should be defined for each Plan option on a case by case basis.

Broad categories of potential impacts on European Sites, with examples	Examples of activities responsible for impacts (<i>example distance considerations in italics</i>)
<ul style="list-style-type: none"> Edge effects 	<p><i>known foraging, roosting, breeding habitat that supports species for which a European site is designated, or where natural processes link the option to the site, such as through hydrological connectivity downstream of an option or sediment drift along the coast.</i></p>
<p>Non-physical disturbance:</p> <ul style="list-style-type: none"> Noise Visual presence Human presence Light pollution 	<p>Noise from temporary construction or temporary pumping activities. <i>Taking into consideration the noise level generated from general building activity (c. 122dB(A)) and considering the lowest noise level identified in appropriate guidance as likely to cause disturbance to estuarine bird species, it is concluded that noise impacts could be significant up to 1km from the boundary of the European site^{16,17}</i></p> <p>Noise from vehicular traffic during operation of an option. <i>Noise from construction traffic is only likely to be significant where the transport route to and from the option is within 3-5km of the boundary of the European site¹⁸.</i></p> <p>Plant and personnel involved in in operation of the option. <i>These effects (noise, visual/human presence) are only likely to be significant where the boundary of the option extends within or is adjacent to the boundary of the European site, or within/adjacent to an offsite area of known foraging, roosting, breeding habitat (that supports species for which a European Site is designated).</i></p> <p>Options that might include artificial lighting, e.g., for security around a temporary pumping station. <i>Effects from light pollution¹⁹ are more likely to be significant where the boundary of the option is within 500m of the boundary of the European site.</i></p>
<p>Water table/availability:</p> <ul style="list-style-type: none"> Drying Flooding/stormwater Changes to surface water levels and flows Changes in groundwater levels and flows Changes to coastal water movement 	<p>Changes to water levels and flows due to increased water abstraction, reduced storage or reduced flow releases from reservoirs to river systems. Potential for changes to habitat availability, for example reductions in wetted width of rivers leading to desiccation of macrophyte beds. <i>These effects are only likely to be significant where the boundary of the option extends within the same ground or surface water catchment as the European site. However, these effects are dependent on hydrological continuity between the option and the European site, and sometimes whether the option is up or down stream from the European site.</i></p>
<p>Toxic contamination:</p> <ul style="list-style-type: none"> Water pollution Soil contamination Air Pollution 	<p>Reduced dilution in downstream or receiving waterbodies due to changes in abstraction or reduced compensation flow releases to river systems. <i>These effects are only likely to be significant where the boundary of the option extends within the same ground or surface water</i></p>

¹⁶ Environment Agency (2013) Bird Disturbance from Flood and Coastal Risk Management Construction Activities. Overarching Interpretive Summary Report. Prepared by Cascade Consulting and Institute of Estuarine and Coastal Studies.

¹⁷ Cutts N, Hemingway K and Spencer J (2013) The Waterbird Disturbance Mitigation Toolkit Informing Estuarine Planning and Construction Projects. Produced by the Institute of Estuarine and Coastal Studies (IECS). Version 3.2.

¹⁸ British Standards Institute (BSI) (2009) BS5228 - Noise and Vibration Control on Construction and Open Sites. BSI, London.

¹⁹ Institute of Lighting Professionals (2020) Guidance Notes for the Reduction of Obtrusive Light GN01/20.

Broad categories of potential impacts on European Sites, with examples	Examples of activities responsible for impacts (<i>example distance considerations in italics</i>)
	<p><i>catchment as the European Site. However, these effects are dependent on hydrological continuity between the option and the European Site, and sometimes whether the option is up or down stream from the European site.</i></p> <p>Air emissions associated with plant and vehicular traffic during construction and operation of options.</p> <p><i>The effect of dust is only likely to be significant where site is within or in close proximity to the boundary of the European site^{20,21}. Without mitigation, dust and dirt from the construction site may be transported onto the public road network and then deposited/spread by vehicles on roads up to 500m from large sites, 200m from medium sites, and 50m from small sites as measured from the site exit.</i></p> <p><i>Effects of road traffic emissions from the transport route to be taken by the project traffic are only likely to be significant where the protected site falls within 200 metres of the edge of a road affected²².</i></p>
<p>Non-toxic contamination:</p> <ul style="list-style-type: none"> • Nutrient enrichment (e.g., of soils and water) • Algal blooms • Changes in salinity • Changes in thermal regime • Changes in turbidity • Changes in sedimentation/silting 	<p>Changes to water salinity, nutrient levels, turbidity, thermal regime due to increased water abstraction, discharges, storage, or reduced compensation flow releases to river systems.</p> <p><i>These effects are only likely to be significant where the boundary of the option extends within the same ground or surface water catchment as the European site. However, these effects are dependent on hydrological continuity between the option and the European site, and sometimes whether the option is up or down stream from the European site.</i></p>
<p>Biological disturbance:</p> <ul style="list-style-type: none"> • Direct mortality • Changes to habitat availability • Out-competition by non-native species • Selective extraction of species • Introduction of disease • Rapid population fluctuations • Natural succession 	<p>Killing or injury due to construction activity.</p> <p><i>Likely to be a risk where the boundary of the option extends within or is directly adjacent to the boundary of the European site, or within/adjacent to an offsite area of known foraging, roosting, breeding habitat (that supports species for which a European site is designated).</i></p> <p>Creation of new pathway for spread of non-native invasive species.</p> <p><i>This effect is only likely to be significant where the option is situated within the European site or an upstream tributary of the European Site, but also for inter-catchment water transfers.</i></p>

2.4 REVIEW OF POTENTIAL IN-COMBINATION EFFECTS

HRA requires that the effects of other projects, plans or programmes be considered for effects on European sites 'in-combination' with the WRMP. There is limited guidance on the precise scope of 'in-combination' assessments for strategies, particularly with respect to the levels within the planning hierarchy at which 'in-combination' effects should be considered, although guidance is provided by the ACWG.

Broadly, it is considered that WRMPs could have the following in-combination effects:

²⁰ Highways Agency (2003) Design Manual for Roads and Bridges (DMRB), Volume 11.

²¹ Institute of Air Quality Management (2014) Guidance on the assessment of dust from demolition and construction v1.1.

²² NE Internal Guidance – Approach to Advising Competent Authorities on Road Traffic Emissions and HRAs V1.4 Final - June 2018

- Within-plan effects, i.e. separate options within the WRMP affecting the same European site(s); these are addressed as part of the option assessment process outlined above.
- Between-plan abstraction effects, i.e. effects with other abstractions, in association with or driven by other plans (for example, other water company WRMPs);
- Other between-plan effects, i.e. 'in-combination' with non-abstraction activities promoted by other plans – for example, with flood risk management plans.
- Between-project effects, i.e. effects of a specific option with other specific projects and developments.

In undertaking the 'in-combination' assessment it is important to note the following:

- The WRMP development process explicitly accounts for land-use plans, growth forecasts and population projections when determining future treatment and water management requirements.
- The detailed examination of non-water company consents for 'in-combination' effects can only be undertaken by the Environment Agency (or Natural Resources Wales) through their permitting procedures.
- Likely water resource demands of known major projects are also taken into account during the development of the WRMPs, unless otherwise noted.

In accordance with the legislation, the following approach will be adopted for the in-combination assessment:

- STEP 1 – Does the Scheme have no discernible effect, whatsoever, on the European site? If not, then there's no need for in-combination assessment, as logic dictates it can't have in-combination effects.
- STEP 2 - Does the Scheme, alone, have an adverse effect on the European site? If so, then there's no need for in-combination assessment as consent cannot be given unless the HRA Stages 3 and 4 derogation tests are met, in which case all residual effects of the scheme acting alone will be compensated for.
- STEP 3 – Does this Scheme have a discernible effect, but one which is not 'significant' in the context of the Habitats Regulations (i.e. adverse effect on site integrity) alone? If so, then an in-combination assessment is required.
- STEP 4 – Identify the other Plans/Projects that also have discernible effects that (1) aren't an adverse effect alone but (2) might act in-combination with effects of your Project. It is normal practice to agree this list of potential in-combination Plans/Projects with the Competent Authority before doing the assessment.
- STEP 5 – Assess these other Plans/Projects in-combination with this Project.

3. HAFREN DYFRDWY – WATER RESOURCE PLANNING

3.1 HAFREN DYFRDWY'S SUPPLY AREA

Hafren Dyfrdwy's supply area covers part of the north-east and mid-Wales including Wrexham, and a large proportion of Powys, as shown in **Figure 3.1**. Hafren Dyfrdwy provides around 60 million litres of water per day, to a population of approximately 220,000. Hafren Dyfrdwy customers comprise approximately 97,000 households and 8,000 business customers.

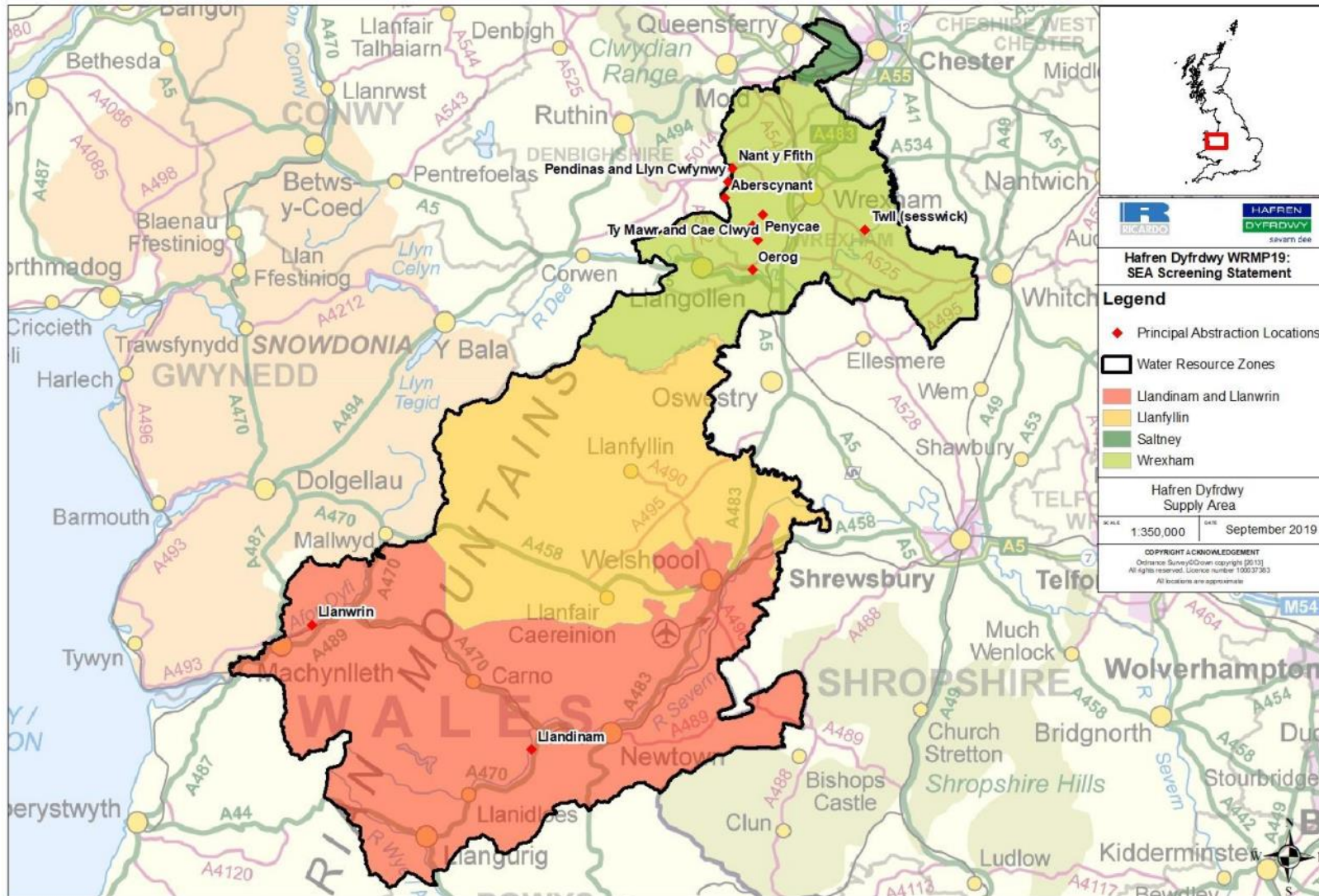
3.2 HAFREN DYFRDWY'S DRAFT WRMP 2024

The dWRMP24 demonstrates how Hafren Dyfrdwy intends to meet the demand for water and protect the environment over the planning period from 2025 to 2085. Over the 60 years which the plan covers, Hafren Dyfrdwy are not projecting a deficit in the supply-demand balance. The dWRMP24 will therefore include no new supply schemes. However, even without a supply-demand deficit, Hafren Dyfrdwy proposes to include demand management measures in the final planning scenario to reflect customer expectations and Government priorities.

These will include:

- Water Labelling, no building regs, low scenario
- Retrofitting indoor water efficiency devices
- Home water efficiency check with social housing
- Education team water efficiency messaging
- Enhanced/Innovation led household water efficiency
- Leakage Management

Figure 3.1 – Hafren Dyfrdwy's Supply Area



4. HRA SCREENING OF FEASIBLE OPTIONS

4.1 POTENTIAL LIKELY SIGNIFICANT EFFECTS OF THE FINAL WRMP19

The Hafren Dyfrdwy supply area is associated with 15 European sites. There are 11 SACs, three SPAs and one Ramsar site. This HRA has screened all of the draft WRMP24 schemes located within a 10km radius of any of the European sites in the study area, and any exceptional longer-distance pathways (e.g. considering downstream receptors, mobile species etc.).

As a supply surplus has been forecast in the draft WRMP24, the options considered for inclusion are demand management options only (see **Section 3.2**). The HRA screening matrix for this assessment is presented in **Table 4.1**. The demand management options are **not** likely to have a significant effect on any European site as they relate to measures which will not require construction and the operation of the demand management options will help to reduce (or prevent increases to) water abstraction (e.g. reducing water leakage and reducing water consumption through household water metering and promotion of water efficiency measures). Any works required in relation to these demand-side options (e.g. leak repairs, installing water meters) are largely implemented within urban areas and of a scale that would **not** lead to likely significant effects on any European site.

It can therefore be concluded that Hafren Dyfrdwy's draft WRMP24 will have **no likely significant effects** on any European sites within or immediately adjacent to the supply area and therefore no Stage 2 Appropriate Assessments of the WRMP24 is required.

Table 4.1: Screening of Demand Management Options for Likely Significant Effects (LSE) to European sites

Option Number	Option	Likely Significant Effect and Potential for Alteration of Measure to Avoid Effects?	Is the option likely to have a significant effect on European Site(s)
	Water labelling, no building regs, low scenario	None – the roll out of water efficiency labelling for appliances and more stringent building regulations are anticipated to reduce customer water consumption. Therefore no impacts to European sites are anticipated.	No
173&174	Retrofitting indoor water efficiency devices	None – this option involves offering free and subsidised water efficient products to customers and trying to introduce new products to reduce water consumption. Therefore no impacts to European sites are anticipated.	No
176	Home water efficiency check with social housing	None – home water efficiency checks include advising customers on reducing water consumption, repairing leaks and installing water efficiency devices. Therefore no impacts to European sites are anticipated.	No
178	Education team water efficiency messaging	None – this option is about providing education and advice to customers about how to use water more wisely, and therefore no impacts on European sites are anticipated.	No
New	Enhanced/ Innovation led household water efficiency	None – water efficiency services include bespoke home visits, increased customer communications and fitting of water saving devices. Therefore no impacts on European sites are anticipated.	No
	Leakage Management	None – it is envisaged that leakage management and reduction will be delivered through enhanced metering, mains renewal and improved data analysis. Given the likely urban nature of such schemes, no impacts to European sites are anticipated.	No

4.2 POTENTIAL IN-COMBINATION EFFECTS OF THE FINAL WRMP24

HRA guidance²³ indicates that, taking the effects which would not be likely significant alone, it is sensible to first consider whether in combination effects can be eliminated before embarking on more detailed work if either:

- (a) it is obvious that no other plans or projects are in any way relevant, or
- (b) no significant adverse effects could result, even if the effects of other plans and projects are added to those of the subject plan/project.

Assessment of the demand management options included in the draft WRMP24 concluded that no likely significant effects on any European sites are anticipated. It was also concluded that decreased consumer demand will have a net positive effect in combination with existing abstraction and/or drought measure sites that have the potential to impact European sites due to reduced pressure on water resources and reduced abstraction at source. As such, no in-combination effects of the demand management options are likely with any other plan, programme or project.

²³ Tyldesley, D. & Chapman, C. (2018) The Habitats Regulations Assessment Handbook. DTA Publications. Version 4.

5. CONCLUSIONS

Hafren Dyfrdwy has undertaken a screening assessment of the potential for likely significant effects on European sites arising from the schemes included in the draft WRMP24. The HRA has been undertaken in parallel with the Strategic Environmental Assessment (SEA) and Water Framework Directive (WFD) assessments to ensure an integrated approach to environmental assessment of the draft WRMP24 and to ensure its overall compliance with international and national environmental legislation.

The HRA screening concluded that the demand management options included in the draft WRMP24 are **not** likely to have any significant effects on any European sites, either alone or in-combination with other plans and projects.



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