

Hafren Dyfrdwy: Final Water Resources Management Plan 2019 – Habitats Regulation Assessment

Stage 1 Screening Assessment

Final Report for Hafren Dyfrdwy

Customer:

Hafren Dyfrdwy

Customer reference:

ED62813

Confidentiality, copyright & reproduction:

This report is the Copyright of Hafren Dyfrdwy. It has been prepared by Ricardo Energy & Environment, a trading name of Ricardo-AEA Ltd, under contract to Hafren Dyfrdwy. The contents of this report may not be reproduced in whole or in part, nor passed to any organisation or person without the specific prior written permission of Hafren Dyfrdwy. Ricardo Energy & Environment accepts no liability whatsoever to any third party for any loss or damage arising from any interpretation or use of the information contained in this report, or reliance on any views expressed therein.

Customer Contact:

Dr. Mohsin Hafeez Ricardo Energy & Environment Bright Building, 1st Floor, Manchester Science Park, Pencroft Way, Manchester, United Kingdom. M15 6GZ

e: Mohsin.Hafeez@ricardo.com

Author:

Hayley Breen

Approved By:

Mohsin Hafeez

Date:

26 September 2019

Ricardo Energy & Environment reference: Ref: ED62813- Issue Number 3

Ricardo in Confidence

Table of Contents

1	Introduction		
	1.1	Background and purpose of report	
	1.2	Requirement for the Habitat Regulations Assessment	
	1.3	Consultation	
	1.4	Structure of this report	5
2	Meth	hodology	6
	2.1		
3	Hafren Dyfrdwy – Water Resource Planning		
	3.1		7
	3.2	Hafren Dyfrdwy Final WRMP 2019	7
4	HRA	A Screening of Feasible Options	
	4.1	Potential Likely Significant Effects of the Final WRMP19	
	4.2	Potential In-Combination Effects of the Final WRMP19	11
5	Con	clusions and Recommendations	

1 Introduction

1.1 Background and purpose of report

All water companies in Wales and England are required to produce a Water Resources Management Plan (WRMP) every five years. The Plan sets out how the company intends to maintain the balance between supply and demand for water over the next 25-year planning horizon in order to ensure security of supply in each of the water resource zones making up its supply area.

A water company must ensure its 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, commonly referred to as the Habitats Regulations¹. Under Regulations 63 and 105, a competent authority, before deciding to undertake, or give any consent, permission or other authorisation for a plan or project which is likely to have a significant effect on a European site (either alone or in-combination with other plans or projects) and is not directly connected with, or necessary for the management of the site, must be subject to an HRA to determine the implications of the plan or project in view of that site's conservation objectives. In relation to the Hafren Dyfrdwy Draft WRMP 2019 (dWRMP19) the HRA needs to consider whether there are any likely significant effects (LSE) on any European sites arising from construction or implementation activities and/or operation of any of the options considered in the final WRMP19.

European sites include Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) (also known as Natura 2000 Sites). UK Government policy also requires Ramsar sites to be assessed in the same way:

- 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 potential SPAs (pSPAs), candidate SACs (cSACs), associated 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 through this HRA report, these designations are collectively referred to as "European Sites", despite Ramsar designations being made at the international level rather than EU level.

This HRA also considered any European Marine Protected Areas (MPAs) within Wales' inshore waters (out to 12 nautical miles) to support sites in achieving conservation objectives and to guide effective management. No MPAs of European importance are associated with the study area.

The Strategic Environmental Assessment and Habitat Regulations Assessment - Guidance for Water

¹ The Conservation of Habitats and Species Regulations 2017

Resources Management Plans and Drought Plans², the Welsh Government Guidelines³, and the 2018 Water Resources Planning Guideline (interim updated)⁴, requires that all WRMPs requires a first stage (screening) Habitats Regulations Assessment (HRA) and an Appropriate Assessments if an option could affect any European sites. A WRMP should also demonstrate that any previous HRA of existing options remains current and covers any material changes in circumstance. Any HRA needs to be available for review and assessment by regulators.

Hafren Dyfrdwy has prepared a final WRMP 2019 (WRMP19) covering over the 25-year planning period from 2020 to 2045. This report provides the HRA, prepared to accompany the publication of the final WRMP19.

1.2 Requirement for the Habitat Regulations Assessment

The responsibility for undertaking the Habitats Regulations Assessment lies with Hafren Dyfrdwy as the Plan making authority.

HRA Guidance for the appraisal of plans⁵ summarises the Habitats Regulations. Regulation 63 states that the Plan making authority (in this case Hafren Dyfrdwy) shall adopt, or otherwise give effect to, the Plan only after having ascertained that it will not adversely affect the integrity of a European site, subject to Regulation 64 or 105 of the Habitats Regulations.

Regulation 64 of the Habitats Regulations states:

(1) If the competent authority is satisfied that, there being no alternative solutions, the plan or project must be carried out for imperative reasons of overriding public interest (which, subject to paragraph (2), may be of a social or economic nature), it may agree to the plan or project notwithstanding a negative assessment of the implications for the European site or the European offshore marine site (as the case may be).

(2) Where the site concerned hosts a priority natural habitat type or a priority species, the reasons referred to in paragraph (1) must be either—

(a)reasons relating to human health, public safety or beneficial consequences of primary importance to the environment; or

(b) any other reasons which the competent authority, having due regard to the opinion of the European Commission, considers to be imperative reasons of overriding public interest.

Regulation 105 of the Habitats Regulations states:

(1) Where a land use plan-

(a)is likely to have a significant effect on a European site or a European offshore marine site (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,

the plan-making authority for that plan must, before the plan is given effect, make an appropriate assessment of the implications for the site in view of that site's conservation objectives.

(2) The plan-making authority must for the purposes of the assessment consult the appropriate nature conservation body and have regard to any representations made by that body within such reasonable time as the authority specifies.

(3) The plan-making authority must also, if it considers it appropriate, take the opinion of the general public, and if it does so, it must take such steps for that purpose as it considers appropriate.

(4) In the light of the conclusions of the assessment, and subject to regulation 107, the plan-making authority must give effect to the land use plan only after having ascertained that it will not adversely affect the integrity of the European site or the European offshore marine site (as the case may be).

² UKW IR (2012) Strategic Environmental Assessment and Habitats Regulations Assessments - Guidance for Water Resources Management Plans and Drought Plans (WR/02/A).

³ The Welsh Government Guiding Principles for Developing Water Resources Management Plans (WRMP's) for 2020. April 2016

 ⁴ Defra, Welsh Government, Ofwat, Environment Agency, Natural Resources Wales (2018) Water Resources Planning Guideline: Interim update.
 ⁵ Tyldesley, D. & Chapman, C. (2018) The Habitats Regulations Assessment Handbook. DTA Publications. Version 4.

(5) A plan-making authority must provide such information as the appropriate authority may reasonably require for the purposes of the discharge by the appropriate authority of its obligations under this Chapter.

(6) This regulation does not apply in relation to a site which is-

(a)a European site by reason of regulation 8(1)(c), or

(b)a European offshore marine site by reason of regulation 18(c) of the Offshore Marine Conservation Regulations (site protected in accordance with Article 5(4) of the Habitats Directive).

Article 6 of the Habitats Directive (Council Directive 92/43/EEC on the conservation of natural habitats and of wild flora and fauna) states:

6(3). Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

6(4). If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Best practice guidance⁶ recommends that if there are no alternative solutions and if, in exceptional circumstances, it is proposed that a plan be adopted despite the fact that it may adversely affect the integrity of a European site, the HRA will need to address and explain the imperative reasons of Overriding Public Interest which the Plan making authority considers to be sufficient to outweigh the potentially adverse effects on the European site(s).

1.3 Consultation

Hafren Dyfrdwy has undertaken the first stage in the HRA process, Screening, on its draft WRMP 2019. The screening concluded that no options would result in a likely significant effect (LSE). Natural Resources Wales was consulted on the findings of this assessment on 19 October 2017. Screening Statement letter was issued to consultees on 9th November 2017 outlining the assessment undertaken and confirming the determination. The reasons for the determination are detailed in this Screening Statement which was made available to the public alongside the Hafren Dyfrdwy draft WRMP19. A copy of the report were also been sent to each consultation body.

1.4 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 Screening of Feasible Options
- Section 5: Conclusions and Recommendations

⁶ Tyldesley, D. & Chapman, C. (2018) The Habitats Regulations Assessment Handbook. DTA Publications. Version 4.

2 Methodology

The background to the methodology and approach to HRA is provided in Section 1.1. The approach to the identification of likely impacts is summarised in Section 2.1.

2.1 Potential Impacts of the Final WRMP19

To provide an indication of the likely significant effect on a European site(s), those options considered in the final WRMP19 that were within 10km of a European site or hydrologically / environmentally connected over a longer distance were identified. Consideration has also been given to the relative locations of components and designated sites within the same surface and groundwater catchments (where this information is available) to ensure that any connectivity over a longer distance that might affect water-dependent sites, qualifying features and designated mobile species has also been taken into account.

The assessment has considered both construction effects and operational effects of each option. In determining the likelihood of significant effects on European sites from the scheme, particular consideration has been given to the possible source-receptor pathways through which effects may be transmitted from activities associated with final WRMP19 components to features contributing to the integrity of the European sites (e.g. groundwater or surface water catchments, air, etc.).

The qualifying habitats and species of European sites are vulnerable to a wide range of impacts, including:

- physical loss or damage of habitat;
- disturbance from noise, light, human presence and activities;
- changes in hydrology (e.g. changes in water levels, river flow, flooding, drought);
- changes in water or air quality;
- biological disturbance (e.g. direct mortality, introduction of disease or non-native species).

Where applicable, the attributes of the European sites, which contribute to and define their integrity, have been considered with reference to Standard Data forms for SACs and SPAs and Information Sheets for Ramsar sites. An analysis of these information sources has enabled the identification of the site's qualifying features. This information, as well as Article 17 reporting, site conservation objectives, supplementary guidance, and Site Improvement Plans (SIPs) has been used to identify those features of each site that determine current conservation status, site integrity and the specific sensitivities of the site.

Although screening for LSEs has been determined on a proximity basis for many of the types of impacts, there are many uncertainties associated with using set distances as there are very few standards available as a guide to how far impacts will extend. Different types of impacts can occur over different distances, and therefore professional judgement was applied based on experience and the evidence available.

The purpose of the screening stage is to determine whether any part of the plan in question (in this case the final WRMP19) is likely to have a significant effect on any European designated site. 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 designated⁷). 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 an option.

⁷ Annexes are contained within the relevant EC Directive.

3 Hafren Dyfrdwy – Water Resource Planning

3.1 Hafren Dyfrdwy's Supply Area

Hafren Dyfrdwy's supply area covers part of the north-east of Wales including Wrexham, and a large proportion of Powys, as shown in **Figure 3.1**.

3.2 Hafren Dyfrdwy Final WRMP 2019

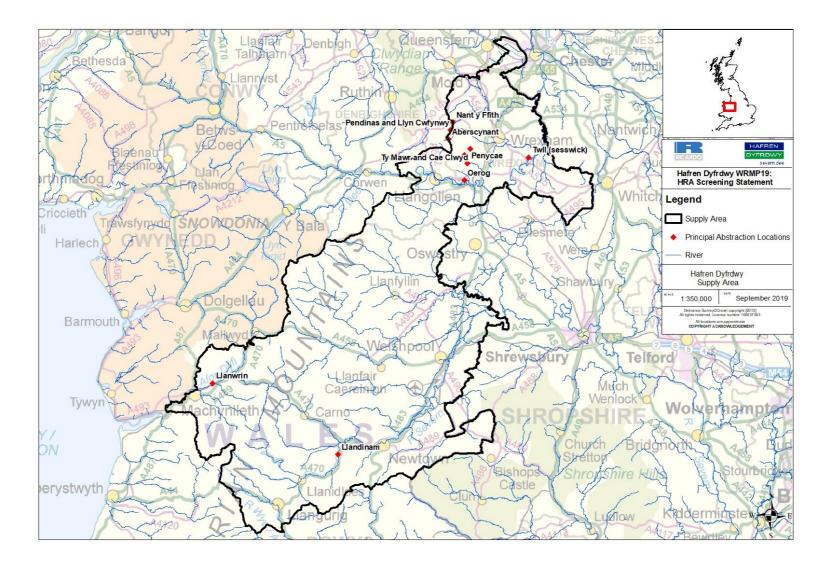
The final WRMP19 demonstrates how Hafren Dyfrdwy intends to meet the demand for water and protect the environment over the next 25 years planning period from 2020 to 2045. Over the 25 years which the plan covers, no supply deficit is forecast. The final WRMP 2019 therefore includes no new water supply options. However, although there is no supply deficit, Hafren Dyfrdwy has included demand management measures in its final WRMP19 to reflect customer expectations and government priorities.

These will include:

- An enhanced metering programme to help reduce per capita consumption that will see promotional campaigns to encourage the uptake of optional metering and the continuation of the change of occupier metering policy.
- Enhanced water efficiency services including bespoke home visits to provide behavioural advice and fit water saving devices, such as shower regulators and timers, for free, plus increased digital services enabling customers to better understand and track their water use. For non-household customers, water use audits and self-audit packs will be available on request.
- Leakage management and reduction delivered through the enhanced metering programme (it is easier to identify and fix leaks on properties with a meter), mains renewal and through innovation activities such as improved data analysis and new technologies.

The final WRMP19 also recognises the scope for water trading with other companies. New imports from other companies are not included in the final WRMP 2019 due to the forecast supply surplus and, although discussions with neighbouring companies regarding possible new exports have been ongoing during pre-consultation for the final WRMP 2019, no additional resources are proposed to provide any new bulk water transfers to other companies.

Figure 3.1 – Hafren Dyfrdwy's Supply Area



Ref: Ricardo/ED62813/Issue Number 3

4 HRA Screening of Feasible Options

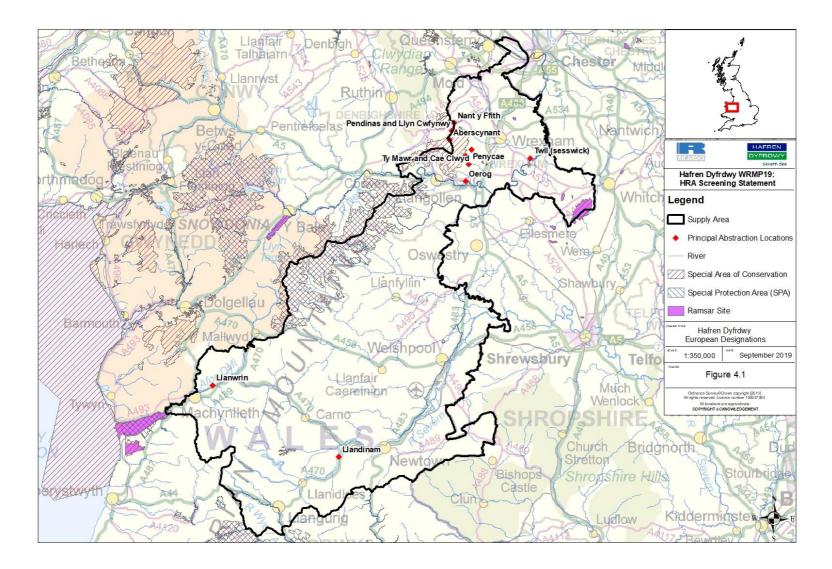
4.1 Potential Likely Significant Effects of the Final WRMP19

The Hafren Dyfrdwy supply area is associated with 15 European and Internationally designated sites as shown on **Figure 4.1**. There are 11 SACs, 3 SPAs and 1 Ramsar site. This HRA has screened all of the final WRMP19 schemes located within a 10km radius of any of the European sites in the study area.

However, as a supply surplus has been forecast in the final WRMP19, the options considered for inclusion in the final WRMP 2019 include 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 designated sites 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 designated site.

It can therefore be concluded that Hafren Dyfrdwy's final WRMP19 will have **no likely significant effects** on any European designated sites within or immediately adjacent to the supply area and therefore no Appropriate Assessment of the final WRMP19 is required.

Figure 4.1: European Designations in Hafren Dyfrdwy's Supply Area



Ref: Ricardo/ED62813/Issue Number 3

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)
DV1	Enhanced metering programme	 None – the metering programme is envisaged to help reduce per capita consumption and promotional campaigns to encourage the uptake of optional metering. No impacts on designated sites are anticipated, other than to acknowledge that decreased consumer demand will have a net positive effect in combination with existing abstraction and/or drought option sites that have the potential to impact European sites due to reduced pressure on water resources and reduced abstraction at source. 	No
DV2	Enhanced water efficiency services	 None – water efficiency services include bespoke home visits, increased customer communications and fitting of water saving devices. No impacts on designated sites are anticipated, other than to acknowledge that decreased consumer demand will have a net positive effect in combination with existing abstraction and/or drought option sites that have the potential to impact European sites due to reduced pressure on water resources and reduced abstraction at source. 	No
DV3	Leakage management	 None – it is envisaged that leak management and reduction will be delivered through enhanced metering, mains renewal and improved data analysis. No impacts on designated sites are anticipated, other than to acknowledge that decreased consumer demand will have a net positive effect in combination with existing abstraction and/or drought option sites that have the potential to impact European sites due to reduced pressure on water resources and reduced abstraction at source. 	No

Table 4.1: Screening of Demand Management Options for Impacts on European Sites

4.2 Potential In-Combination Effects of the Final WRMP19

HRA guidance⁸ 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 final WRMP19 concluded that no likely significant effects on any European sites are anticipated. It was also concluded that that decreased consumer demand will have a net positive effect in combination with existing abstraction and/or drought option sites that have the potential to impact European sites due to reduced pressure

⁸ Tyldesley, D. & Chapman, C. (2018) The Habitats Regulations Assessment Handbook. DTA Publications. Version 4.

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.

5 Conclusions and Recommendations

Hafren Dyfrdwy has undertaken a screening assessment of the potential for any likely significant effects on European sites arising from the schemes included in the final WRMP19. 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 final WRMP19 and to ensure its overall compliance with international and national environmental legislation.

The HRA screening concluded that the demand management options included in the final WRMP19 are **not** likely to have any significant effects on any European designated sites, either alone or incombination with other plans and projects.



Ricardo Energy & Environment

The Gemini Building Fermi Avenue Harwell Didcot Oxfordshire OX11 0QR United Kingdom

t: +44 (0)1235 753000 e: enquiry@ricardo.com

ee.ricardo.com